An embedded mixed method evaluation of the effectiveness of Mental Health First Aid in UK workplaces.

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A thesis submitted in partial fulfilment of the requirements of London South Bank University for the degree of Doctor of Philosophy

August 2023

Dedication

Specially dedicated to my late Dad.

Acknowledgements

I want to acknowledge the support from the staff of the Department of Psychology at LSBU. Being part of such a supportive and encouraging department made all the difference in the development and entire research process, which would have been incomprehensible if not for their wealth of knowledge and resources.

My heartfelt appreciation is also extended to all the organisations that participated in the study. To have remained a part of this study despite the challenges faced during the pandemic is highly commendable. Also, other partner organisations were involved in the research process in general.

My next thanks go to the entire EMPOWER study group; you all have been very supportive from the start and showed remarkable resilience when challenges posed by the pandemic arose and affected the study's progress.

Thank you to Wura, my beautiful and ever-loving wife. Thank you for being there for me throughout my project. Your thoughtfulness and support were invaluable during times of stress. Your encouragement and motivation helped me persevere, especially during the difficult period when I lost my father in the project's second year. I would also like to thank our daughter, Anaiah-Grace, for bringing hope and inspiration to my life. Completing my PhD would have been even more challenging without the two of you. Thank you both for everything.

To my family (Atanda and Kelani), I would like to say thank you for being there every step of the way. Your constant support and uplifting words have been a source of strength for me throughout my journey. Mum, you are my hero, and I cherish you more than anything else in this world. Your comforting words during the loss of my dad and granddad will always remain etched in my memory. Dad, thank you for your unwavering support and checking up on me until your untimely demise. This thesis is dedicated to your memory.

I would also like to thank all my fellow PhD students in the School of Applied Science that was part of the journey from the first day till the last (Jannette, Katharine, Charles, Donna and Stella, to name a few). You guys have helped so much along the way with your reassurance, feedback, and friendship.

I want to express my gratitude to Dr Eleni Vangeli and Prof. Paula Reavey. Eleni, I appreciate your thorough feedback on all my draft chapters and for encouraging me to get involved in teaching. Paula, thank you for your insightful feedback and for considering me for opportunities to collaborate on teaching and research.

Finally, I would like to express my deepest gratitude and appreciation to Prof. Patrick Callaghan. He generously offered me the chance to participate in this project and offered me a fee waiver and stipends that greatly aided my journey. Your nurturing mentorship has had a profound impact on my career and will undoubtedly continue to do so for years to come. It is with great confidence that I declare him to be the best supervisor I have ever had.

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List of abbreviations

- MHFA – Mental Health First Aid
- MoA – Mechanisms of Action
- BCW – Behavioural Change Wheel.
- TDF - Theoretical Domains Framework
- TIDIER- Template for Intervention Description and Replication.
- PRISMA - Preferred Reporting Items for Systematic Reviews and Meta-Analyses.
- MHL – Mental Health Literacy.
- MMAT – Mixed Methods Appraisal Tool.
- RCT – Randomised Controlled Trial
- HBM – Health Belief Model.
- TPB – Theory of Planned Behaviour.
- HPT – Health Psychology Theorists.
- HSR - Health services researchers.
- BCTs – Behavioural Change Techniques.
- C-RCTs - Clustered Randomised Control Trial
- AHSQ - Actual Help-Seeking Questionnaire.
- GHSQ - General Help-Seeking Questionnaire
- WEMHWBS - Warwick-Edinburgh Mental Health and Well-being Scale.
- SF-12 – Self-efficacy scale.
- SE-SMHC - Self-Efficacy for Seeking Mental Health Care Scale.
- SWBS - Social Well-being Scale.
- RTA - Reflexive thematic analysis.

Associated outputs and conference proceedings.

Atanda, O., Callaghan, P., Carter, T., Durcan, G., O'Shea, N., Brown, S. D., Reavey, P., Vangeli, E., White, S., & Wood, K. V. (2020). Evaluation of Mental Health First Aid from the Perspective of Workplace End UseRs-EMPOWER: protocol of cluster randomised trial phase. Trials, 21(1), 715. https://10.1186/s13063-020-04636-0

Atanda, O., Callaghan, P., Vangeli, E., Reavey, P., Carter, T., Brown, S. D., Durcan, G., O'shea, N., White, S., & Wood, K. (2020). Evaluating Mental Health First Aid: an Evidence Synthesis Review of Published Empirical Studies., 1-11. https://10.21203/rs.3.rs-124268/v1 *(preprint-awaiting review)*

Conference proceedings

- Atanda O, Reavey P., Vangeli E., Callaghan P. Evaluation of Mental Health First Aid within a workplace context. In. Trinity Health and Education International Research Conference 2023 (THEconf2023): 'Back to normal or forward to better? New horizons in healthcare' – Trinity College Dublin
- Atanda O, Reavey P., Vangeli E., Callaghan P. Evaluation of Mental Health First Aid within a workplace context. In. London South Bank University's annual Post-graduate Research Summer School Conference (2019, 2021, 2022, 2023).
- Atanda O, Reavey P., Vangeli E., Callaghan P. Evaluation of Mental Health First Aid within a workplace context. In. School of Applied Sciences, London South Bank University's annual Doctoral Student conference (2019, 2022,2023)
- Atanda O, Reavey P., Vangeli E., Callaghan P. Workplace end-users' experiences of mental health first aid – a qualitative reflexive thematic analysis. In. Qualitative Research in Mental Health 2023 (QRMH9): Building bridges in times of uncertainty: The role of qualitative research in mental health and well-being. – Budapest

Abstract

Background: Evidence suggests that Mental Health First Aid (MHFA) benefits organisations and employees. However, there has been no systematic investigation of the impact of MHFA on direct recipients and the organisations that adopt MHFA.

Aims of thesis: The thesis aims to [1] evaluate the effectiveness of MHFA on help-seeking behaviour amongst employees and direct recipients, [2] explore participants' experience and the impact of MHFA on workplace culture and relationships, [3] understand the active ingredients and mechanisms of action in MHFA that improves help-seeking behaviour for mental health difficulties.

Methods

Design: An embedded mixed methods design comprising a two-arm clustered Randomised Controlled Trial (RCT) comparing MHFA and usual practice, a qualitative evaluation, and theoretical mapping of MHFA onto the Behavioural Change Wheel (BCW).

Sample: The participants were mental health first-aiders and other employees who have received MHFA directly or indirectly, working in randomly allocated UK clusters.

Measures: Standard measures of participants' help-seeking behaviour, help-seeking intentions, mental health and well-being, self-efficacy levels, and use of health and social services were used to assess the impact of MHFA.

Procedure: Employees within these organisations were assessed via online completion of measures at baseline and 6 months post-intervention. A purposive selection of participants was interviewed. In addition, a consensus approach was taken to retrospectively map the MHFA intervention to the associated elements of the BCW.

Results & Discussions: The study found that MHFA does not encourage formal help-seeking behaviour and identifies contributing factors to a preference for informal help-seeking avenues outside the workplace through qualitative interviews. Also, the thesis identified key components of health behaviour change, such as problem-solving, action planning, and social support as active ingredients in MHFA. However, there were inconsistencies in the practical

application of the MHFA interventions. The study suggests that more research is needed to determine the effectiveness of MHFA interventions on direct recipients and to explore the factors that contribute to mental health help-seeking. Utilising the COM-B model and TDF in future studies can help identify the changes required to facilitate actual help-seeking behaviour in a bid to improve MHFA intervention.

Declaration

I Opeyemi Atanda hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

Chapter 1 - Introduction and Overview

1.1 Significance of the study

Mental health in the public sphere is still a worldwide issue. Various studies have shown that 14% of the global disease load is attributed to mental, neurological, and substance use disorders. According to a study conducted by (Edwards et al., 2016), around 25% of individuals in the UK may experience mental health issues each year. Additionally, Public Health England's 2021 report reveals that common mental health difficulties affect 16.9% of people aged 16 and above in England. The promotion of health literacy has become increasingly important in driving positive health outcomes (Kutcher et al., 2016).

The concept of Mental health Literacy (MHL) has emerged from the concept of HL; originally coined by Jorm & Colleagues (1997). The concept includes recognising specific disorders, knowledge on how to seek mental health information, understanding of the various causes and risk factors for mental health disorders. Other components include knowledge about self-treatment & professional help available and efforts to change attitudes that promote recognition and appropriate help-seeking. The recognition of causes and risk factors associated with mental health difficulties have been reported as one of the many barriers to help-seeking (Gulliver et al., 2010).

Mental health literacy is not simply the idea of developing knowledge but translating it into action to contribute to one’s positive mental health is the core components of the concept. Exploring each of the component of mental health literacy in relation to its impact on promoting positive mental health outcome.

Developing mental health literacy is a crucial step towards promoting positive mental health outcomes. One of the core components of mental health literacy is recognizing mental health difficulties (Jorm, 2012). Mental health difficulties can manifest in various ways, including anxiety, depression, and substance abuse. By identifying the signs and symptoms of mental health issues, individuals can seek appropriate support and treatment to improve their mental health.

Research has shown that early intervention for mental health difficulties can lead to better outcomes (Wang et al., 2005). Therefore, it is crucial to be aware of the signs and symptoms of mental health issues and seek appropriate support as soon as possible.

Another important component of mental health literacy is understanding the causes of mental health difficulties (Jorm, 2012). This knowledge can help individuals take steps to prevent mental health difficulties from occurring or worsening, such as managing stress levels or seeking early intervention. Furthermore, social support has been identified as been essential for promoting positive mental health outcomes (Jung et al., 2017). Therefore, individuals should be encouraged to seek support from their friends, family, or support groups when facing mental health difficulties.

Like the health literacy concept, the goal of increasing literacy is to promote early help-seeking for any difficulty (Baker, 2006). Mental health literacy construct has been expanded to include help-seeking efficacy (Kutcher et al., 2016). It is important for individuals to make informed decisions about their behaviour based on the information available to them (Jung et al. (2017). This can be achieved by improving mental health literacy (MHL), addressing beliefs and attitudes, and providing accurate information about mental health issues and available resources. By doing so, we may be able to positively influence the attitudes and willingness of young people to seek help for mental health concerns (Ratnayake & Hyde, 2019). It seems that there is still some uncertainty around the impact of MHL on help-seeking, but it has been shown that recognizing and understanding mental health symptoms which are part of MHL can improve people's intentions to seek help (Amarasuriya et al., 2015; Mason et al., 2015). However, it's clear that people still struggle with reaching out for help when they need it.

1.2 Mental Health First Aid – Overview

Mental Health First Aid (MHFA) is a programme designed to improve public knowledge of mental health issues. It was created by Jorm et al. (1997) in response to the need for mental health literacy. The programme covers a range of topics, including preventing mental disorders, recognizing developing conditions, learning effective self-help strategies for mild-to-moderate problems, and developing first aid skills to assist others (Jorm, 2012). Like the physical first aid course (Eisenburger &

Safar, 1999), an action plan was developed to offer initial assistance to a person with a mental health problem or a mental health crisis. Details of the action plan in this literacy intervention is shown in fig.1.1.

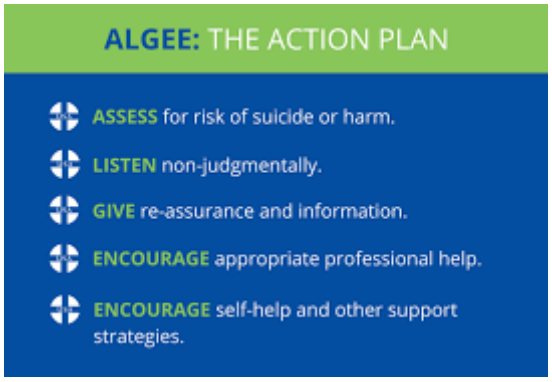

Figure 1. 1: MHFA Action Plan (Call, 2017)

By examining the development of the different components of MHFA, we can gain insight into the thought process behind the intervention and its intended outcomes (Astbury & Leeuw, 2010). Jorm (2012) outlined the needs of the wider community to achieve better mental health literacy. This need includes the recognition of mental disorders to facilitate early help-seeking, knowledge of professional help and effective treatment available, knowledge of effective self-help strategies, knowledge, and skills to give some support to others, and knowledge of how to prevent mental disorders. All these explain what underpins the MHFA action plan; providing adequate knowledge on dealing with mental health difficulties would invariably prompt some action to seek professional help (Jorm, 2012).

MHFA has been recognized as proposing a quick and early intervention in mental health management. Mental Health First Aid (MHFA) has become increasingly popular over the years. In fact, there are now licensed providers across 24 countries with over 5 million mental health first aiders. This training has been around since it was introduced in England 15 years ago and has since trained over 550,000 individuals on the 3 current versions of the training, including Adult MHFA, Armed Forces MHFA, and Youth MHFA (“Mental Health First Aid (MHFA) England Impact Report 2022”, 2022). It has been the focus of government funding, with Public Health England announcing their intention to allocate £15 million towards the training of up to one million people in MHFA skills (Department of Health and Social care &

England, 2017). MHFA has been implemented to engage with UK employers concerning mental health awareness (Harvey et al., 2014). The cost of poor mental health to employers is estimated to be £45bn which consists of absence costs (£7bn), presenteeism, working while unwell cost (£27bn – £29bn) and staff turnover (£9bn) (Deloitte, 2020).

Studies have shown that MHFA training can lead to a decrease in stigmatizing attitudes (Jorm et al., 2010) and an improvement in trainees' mental health and well-being (Kitchener & Jorm, 2004). Organizations in the UK, such as Brett-Jones (2010), Heer et al. (2010), and MacDonald et al. (2008), have assessed the effectiveness of MHFA training through post-training questionnaires. Results showed that 68-89% of mental health first aiders utilized their skills when assisting someone experiencing mental health difficulties. The most common types of aid offered were listening (Heer, 2010; Macdonald et al., 2008) and providing reassurance and information (Macdonald et al., 2008).

The majority of workplace MHFA studies have focused on one work setting and occupation. Studies on high school teachers (Jorm et al., 2010); nursing and medical students (Burns et al., 2017); pharmacy students (Svensson et al., 2015); the fire service (Moffitt et al., 2014); criminal justice system (Arazan & Weich, 2023) and Australian government employees (Kitchener & Jorm, 2010). Also, an NIHR funded study, the Wellbeing in Secondary Education (WISE) Study (Kidger et al., 2021) evaluated the effectiveness of MHFA in secondary schools in Bristol, Cardiff, and surrounding areas. In the WISE study, MHFA training covered two aspects: impact on teacher wellbeing, including effects on depression, sickness absence and underperformance at work and impact on student mental health and wellbeing. Although, changes in trainee outcomes were not reported in their main study (Kidger et al., 2021) , findings from their pilot study showed increased confidence, knowledge and helping behaviour amongst trainees who have received MHFA training compared to control group; the constructs were assessed using self-reported measures that included a mixture of vignettes and statements used in previous studies (Jorm et al., 2010; Kitchener & Jorm, 2004) . The increased in confidence, knowledge and helping behaviour was consistent with previous studies (Kidger et al., 2016).

Evidence is less consistent and convincing in demonstrating that MHFA interventions result in improved access to professional services for those identified or diagnosed with mental health problems (Jorm et al., 2007). Despite the increased number of evaluation studies carried out within the workplace context, little has been done investigating the impact of MHFA on workplace recipients (Kitchener & Jorm, 2008; Wong et al., 2015). The MHFA intervention follows the ALGEE action plan, but this principle lacks clear theoretical or conceptual foundations. The primary goal of MHFA is to enhance mental health literacy, assist individuals in mental health crises, and improve their help-seeking behaviour. This can include seeking professional, voluntary, or self-treatment. However, it is unclear which components of the intervention contribute to improving help-seeking behaviour among recipients.

1.3 Help-seeking behaviour

Seeking professional help for mental health issues remains a challenge for public health as it is crucial for prevention, early detection, and treatment of mental health problems (Gulliver et al., 2012). It is an essential step towards improving the quality of life of individuals, and policymakers, campaigns, and programmes should focus on ensuring the public's wellbeing and access to mental health services (Salaheddin & Mason, 2016).

One aspect of illness behaviour explores how individuals respond to changes in their health by taking actions to resolve health-related difficulties in the present. Illness behaviour is defined as "how symptoms are perceived, evaluated, and acted upon by a person who recognizes some pain, discomfort, or other signs of organic malfunction" (Mechanic, 1986, p.52).

According to a World Health Organization study on adolescent help-seeking (Barker, 2007), help-seeking is any action taken by an individual who recognizes the need for personal, psychological, or affective assistance intending to get support. Although there is no agreed definition of the term help-seeking (Gulliver et al., 2012), Rickwood and colleagues (2012, p.30) described it as "an adaptive coping process that is an attempt to obtain external assistance to deal with a mental health concern". The definition has three main components: the "behavioural process," the assistance," which focuses on the characteristics of the help, commonly classified

into formal and informal assistance, and "concern," referring to the mental health difficulty for which an individual is seeking help.

Previous literature reports several factors that predict help-seeking behaviour for mental health concerns. Some of these factors include socio-demographic factors such as age (Mackenzie et al., 2019), gender (Doll et al., 2021), and being in a relationship (Micel et al., 2018), as well as previous positive experiences of help-seeking and various functional impairments (Doll et al., 2021). On the other hand, different types of stigmas (perceived stigma, structural stigma, self-stigma, personal stigma, and anticipated stigma) are commonly identified as barriers to mental health help-seeking (Clement et al., 2015).

While about 17% of the adult population in England is reported to have mental health difficulties, only 30% of them seek professional help (Brown et al., 2022). Early intervention is critical to prevent the progression of mental health difficulties into a chronic state, considering that the onset of mental health difficulties begins at the age of 24 (Kessler et al., 2005). Help-seeking interventions have been developed to mitigate the development of chronic mental health difficulties. However, changes in help-seeking attitudes are the only reported outcomes associated with introducing such interventions to increase help-seeking behaviours in adults with mental health difficulties (Gulliver et al., 2012). However, another review reported changes in help-seeking behaviours, but this was only amongst individuals with mental health difficulties (Xu et al., 2018). The current gap in the literature is related to the effectiveness of interventions in promoting mental health help-seeking behaviour among the public across different contexts.

1.4 Study objectives and research questions

Aims

[1] To evaluate the effectiveness of MHFA on help-seeking behaviours, the primary outcome, and other psychosocial outcomes on workplace employees in UK organisations.

[2] To explore contextual experiences of MHFA in the workplace.

Research questions

1. Does MHFA, the intervention condition, promote help-seeking behaviour and improve other outcomes amongst recipients compared with a consultation on MHFA in the workplace, the control condition?
2. How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?
3. What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?
4. What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?
5. What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?

1.5 The Researcher

My interest in mental health and well-being has been long-standing, with a particular focus on developing tailored interventions to promote help-seeking behaviours across various settings. With a background in nursing, I have worked as a mental health nurse for three years, providing support to individuals struggling with mental health difficulties. While I initially applied to undertake my PhD in examining the influence of violence and aggression in mental health settings, an opportunity to participate in a research project evaluating the effectiveness of mental health first aid (MHFA) from the perspectives of end-users presented itself. Two members of my supervisory team (Prof Patrick Callaghan and Prof. Paula Reavey) were awarded a research grant by MHFA England. Given my interest in mental health research, was appointed as a doctoral research assistant to take ownership of the project for my PhD. As an advocate for mental health support for all, I firmly believe that everyone should have access to such resources. Nonetheless, ensuring that interventions tailored to promote better help-seeking behaviours for mental health difficulties are effective and theory-focused.

1.6 Thesis outline.

The current thesis makes an important contribution to the gaps in knowledge by investigating the impact of MHFA on end-users in a workplace context, understanding the experiences of MHFA implementation and the active ingredients and mechanism of actions through which MHFA achieves its proposed outcomes. The thesis adopted an embedded mixed-method approach including one main study and two embedded studies developed with the aim of answering the proposed research questions.

The primary study is Study 1, which is a clustered randomized controlled trial. Its goal was to randomly allocate clusters into two groups - an intervention group and a control group - to determine the effectiveness of MHFA in encouraging help-seeking behaviour in the intervention group compared to the control group.

Study 2 is an embedded qualitative component of this thesis aimed at exploring the experiences of MHFA in the work setting through the lens of end-users and exploring the impact of MHFA on organizational culture and work relationships.

Study 3 is an embedded theoretical evaluation of MHFA aimed at understanding the active ingredients and mechanisms of actions in the intervention using the components of the Behavioural Change Wheel (BCW).

The thesis is organised into eight chapters including this introductory chapter, **chapter 2** included an evidence synthesis of all empirical studies that have examined the effectiveness of MHFA across all settings, the aim of the chapter was to identify the gaps in the current literature related to evaluation of MHFA. Further to the evidence synthesis conducted in chapter 2, a theoretical review of MHFA was conducted, most specifically reviewing the theoretical issues in help-seeking intervention literature. **Chapter 4** presents a methodological overview of the entire thesis, particularly the choice of design, rationale for design and the philosophical underpinnings of the thesis. **Chapters 5, 6 and 7** presents the results of each of the studies conducted as part of the thesis beginning with the Clustered Randomized controlled trial in chapter 5, the qualitative exploration of experiences and the impact of MHFA in chapter 6 and the retrospective mapping of MHFA to the BCW in chapter 7. The thesis finishes off in **chapter 8** with a discussion which summarizes the entire

thesis, situating it within the current literature and giving details about the implications of the study and suggestions for future research.

The next chapter will be exploring all empirical evidence surrounding MHFA intervention, examining the impact, reach and its societal implications.

Chapter 2 - Evidence Synthesis.

2.1 Introduction

The chapter provides a synthesis of evidence from published literature; this includes empirical studies on MHFA to understand the impact of MHFA so far, and its broader societal implications. The review addressed the following questions: a) what are the mechanisms of success and failure of MHFA based on current literature? and b) what is the impact of MHFA intervention and its current reach?

The Mental Health First Aid (MHFA) program has been gaining immense popularity in the UK and across the globe, with numerous organizations adopting the training program. In the UK alone, more than 500,000 individuals have undergone MHFA training, including employees of major companies like Deloitte, PwC, and Royal Mail. The impact of MHFA has been significant, leading to increased awareness and understanding of mental health issues among participants. Those who have completed the training have reported feeling more confident in supporting colleagues who may be struggling with mental health problems, resulting in improved mental health outcomes and lessening the stigma around mental illness in the workplace.

An integrated evidence synthesis[1] was adopted to provide a synthesis of evidence from a range of data sources reported on Mental Health First Aid to explain how, why, when and in what circumstances MHFA works. It aims was to provide new insight into the intervention's impact and explore gaps in the knowledge base.

2.2 Methods

Search strategy

A preliminary search using CINAHL for "mental health first aid" yielded 211 articles. The search was broadened by utilizing four primary electronic databases, namely CINAHL, MEDLINE, PSYCHINFO, and PSYCHARTICLES. Additionally, searches were conducted on Clinicaltrials.gov, the MHFA England website, and the MHFA Australia and MHFA USA Websites. All articles published from January 1, 1998, to December 31, 2019, that met the inclusion criteria as outlined below were included. The search terms and restrictions are specified in Figure 2.1. To ensure that no

[1] A paper based on this review is currently under review.

studies were overlooked, the final list of included studies was cross-checked against the summary of all studies listed in the databases for MHFA England, MHFA Australia, and MHFA USA. This initial search was performed in January 2020 and was updated in January 2023 to capture newly published studies.

The following search terms were identified:

"Mental health first aid" or "mental health literacy intervention" and qualitative study and evaluation and systematic review or meta-analysis The search was restricted to both title and abstract.

Figure 2. 1: Search terms & restrictions

Eligibility criteria

From an initial review of the literature, the following criteria were agreed.

Inclusion criteria

1. Empirical studies assessing the impact of MHFA and (or) MHFA Training.
2. Reviews of empirical studies (Narrative or meta-analytic).
3. Qualitative, quantitative studies and descriptive studies of MHFA.
4. Empirical studies using other versions of MHFA (Youth MHFA, MHFA-Armed Forces, Teen MHFA as a mental health literacy intervention).

Exclusion criteria

1. Empirical studies that have used MHFA combined with other interventions.
2. Literature not available in the English language.
3. Studies covered in the systematic reviews and meta-analyses.
4. All pilot or feasibility studies of MHFA.
5. All studies that have evaluated MHFA as part of a range of mental health literacy interventions (i.e., all other interventions that have used MHFA as a foundation against the standard courses of Adult MHFA 12hr, YMHFA 8hr)

Quality Assessment.

All quantitative, qualitative, and mixed-method studies were quality-assessed using a modified tool appropriate for mixed-studies review (Mixed Methods Appraisal Tool; MMAT) (Hong et al., 2018). The systematic reviews were quality checked against the PRISMA checklist; the Delphi studies were quality-assessed based on the quality criteria proposed by Diamond et al. (2014). The MMAT assesses non-experimental quantitative studies using items that echo the sampling's relevance, the validation of the measures, and the control of variables. In contrast, the experimental studies are assessed according to the relevance of randomisation, blinding and complete outcome data. The qualitative studies are evaluated for their approach, description of context, and justification for sampling and the detailed data collection and analysis process. The mixed-method studies are assessed for the rationale for choosing a mixed-method design, the relevance of data collection methods of each aspect of the studies and integrating the data and results (Pluye et al., 2009). Details of the MMAT tool are shown in table 2.1.

Table 2. 1 Mixed Method Appraisal Tool (MMAT), version 2018

Category of study designs	**Methodological quality criteria**
Screening questions (for all types)	S1. Are there clear research questions?
	S2. Do the collected data allow addressing the research questions?
	Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?
	1.2. Are the qualitative data collection methods adequate to address the research question?
	1.3. Are the findings adequately derived from the data?
	1.4. Is the interpretation of results sufficiently substantiated by data?
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?
	2.2. Are the groups comparable at baseline?
	2.3. Are there complete outcome data?
	2.4. Are outcome assessors blinded to the intervention provided?
	2.5 Did the participants adhere to the assigned intervention?

3. Quantitative non-randomized	3.1. Are the participant's representative of the target population?
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?
	3.3. Are there complete outcome data?
	3.4. Are the confounders accounted for in the design and analysis?
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?
	4.2. Is the sample representative of the target population?
	4.3. Are the measurements appropriate?
	4.4. Is the risk of nonresponse bias low?
	4.5. Is the statistical analysis appropriate to answer the research question?
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed-method design to address the research question?
	5.2. Are the various components of the study effectively integrated to answer the research question?
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?

Data Synthesis

Due to the variety of study designs in several studies included in this literature review, the data was summarized descriptively. The evidence synthesis is organized by methodological category, extracting outcomes, and connecting them to the contexts and effects of using MHFA. Although the initial search and synthesis were done in 2020, more recent studies have been incorporated into the corresponding sections.

2.3 Systematic reviews and Meta-analyses

Three meta-analyses (Hadlaczky et al., 2014; Liang et al., 2021; Maslowski et al., 2019), a combined systematic review & meta-analysis (Morgan et al., 2018), two systematic reviews (Forthal et al., 2022; Sánchez et al., 2021) and a scoping evidence review (Bell et al., 2018) were included in the review.

A study conducted by Hadlaczky et al. (2014) analysed 15 studies on MHFA training that lasted for 9 or 12 hours using a meta-analysis. The participants in the studies were usually self-nominated. The results showed that MHFA training improved the mental health knowledge of trainees and reduced their negative attitudes towards mental health problems. The combined mean effect size was 0.56 (95% CI= 0.38 – 0.74; $p < 0.001$) for identifying mental health issues and knowledge about effective treatment. The study also reported a moderate decrease in negative attitudes pre and post measures with an effect size of 0.28 (95% CI= 0.22 – 0.35; $p < 0.001$). The training was found to be effective in increasing trainees' "help-providing" behaviour, with a small effect size of 0.25 (95% CI = 0.12 – 0.38; $p < 0.001$). However, it should be noted that this was based on the opportunities trainees had to provide help, rather than actual help provided.

In 2018, Morgan and colleagues conducted a study where they identified a total of 18 studies. These included 4 cluster-RCTs, 10 RCTs, and 4 controlled trials. Out of these, 6 were already included in a previous meta-analysis conducted by Hadlaczky and colleagues in 2014. Specifically, these were 4 controlled trials and 2 RCTs. The other 12 studies were excluded from the analysis because they were single group pre/post studies conducted in various locations such as Australia (n=8), North America (n=5), Europe/UK (n=4), and Hong Kong (n=1).

In line with Hadlaczky et al. (2014), Morgan & colleagues (2018) reported an improvement in trainees' knowledge of mental health problems, the study interpreted their effect sizes based on Cohen's estimates (Cohen, 1992) and reported a large effect size at post-intervention (d = 0.72 (95% CI = 0.59, 0.86; p < 0.001), which was smaller (moderate based on Cohen's guidelines) at 6-month follow-up (d = 0.54 (95% CI = 0.43,0.64; p < 0.001) and 12 month follow-up (d = 0.31(95% CI = 0.09,0.53; p < 0.006). Small effects were reported for stigmatizing attitudes across all post intervention periods. Additionally, the perceived confidence levels of mental health first aiders were reported to significantly improve post-intervention (0.58 (95% CI = 0.29, 0.87; p < 0.001) & 0.46 (95% CI = 0.31, 0.62; p < 0.001) at 6-months follow-up. The effect sizes for trainees' intentions to provide MHFA post-intervention were moderate post-intervention 0.75 (95% CI = 0.60, 0.91; p < 0.001), 0.55 (95% CI = -0.08, 1.18; p .085) at 6-months and 0.26 (95% CI = -0.12, 0.64; p .182) at 12 months follow-up. There was no statistically significant improvement post-intervention in the amount of help provided following MHFA training, but small improvements of 0.23 (95% CI = 0.08, 0.38: p .002) at 6-months post-intervention. In addition, no statistically significant improvement was reported in trainees' and recipients' mental health accessed via trainees of the intervention compared to baseline.

Maslowski et al's (2019) meta-analysis reported similar outcomes to Morgan with additional outcomes on trainees' distress levels and 'recipient outcomes. Effect sizes were reported using Hedges' g (Freeman et al., 1986), which was reported based on its precise estimate when sample sizes are small. The effect size for trainees' knowledge was moderate (0.53, 95% CI = 0.39, 0.66; p < 0.001). The attitudinal changes of trainees were small, 0.18. The review also reported a moderate effect size 0.50 (95% CI = 0.34, 0.67; p < 0.001 for the combined self-reported behavioural and confidence outcomes of the MHFA trainees.

Recipients in the studies Maslowskis' reviewed were not direct recipients. Two studies (Jorm et al., 2010; Lipson et al., 2014) included in Maslowski's meta-analysis observed outcomes in a general population where MHFA was introduced. Lipson & colleagues (2014) surveyed residents of a university hall of residence, while current students of teachers trained on MHFA in a school year were surveyed by Jorm & colleagues (2010). Based on the review, Maslowskis report there were no reported effects on

recipient's outcome which was observed based on changes in the psychological distress of the recipients.

An evidence synthesis review carried out by Bell & colleagues (2018) investigated the application of MHFA in workplace settings. The review included 22 studies which investigated employees' awareness of mental health, evidence of improved management of mental health in the workplace because of the introduction of MHFA training; and evidence that the content of the MHFA training had been considered for workplace settings. They included the following study designs; 13 single studies particularly examining the impact of MHFA training on a specific outcome in the form of either a randomized controlled trial, cohort study or case studies, 3 systematic reviews, 3 single study protocols and 3 Delphi studies. In line with the previously reported systematic review & meta-analyses, the Bell et al review reported consistent evidence that MHFA raises employees' knowledge of mental illnesses. MHFA trainees were more aware of where to find information and professional support and had shown increased confidence to help individuals experiencing a mental health crisis. The review also highlighted the lack of evidence from the published studies about the impact of the introduction of MHFA in workplaces on the support provided by MHFAs and the sustainability of the support. In addition, Bell et al reported limited evidence on the adaptability of MHFA to different workplaces.

A recent meta-analysis (Liang et al., 2021) investigated the effect of MHFA on college students. Only studies that enrolled students receiving the MHFA programme were including in the meta-analysis. The outcomes examined (knowledge & belief, stigmatising attitudes, and confidence and intentions to help) were like those reported in previous meta-analysis. MHFA interventions were reported to only increase student's knowledge about mental health difficulties (SMD: 0.49, 95% CI: [0.28–0.70]) and confidence to support (SMD: 0.71, 95% CI: 0.24–1.19). The report of increased knowledge and confidence were consistent with previous meta-analysis across other setting, however, changes in stigmatising attitudes and intentions to help were significantly different which could be due to the limited number of studies investigating the effects of MHFA on this population. Two recent systematic reviews (Forthal et al., 2021; Sanchez et al., 2021) have analysed a selection of studies that evaluated the impact of MHFA trainees' helping behaviours on corresponding recipients. Forthal et al. (2021) focused on these behaviours, while Sanchez and colleagues examined

outcomes associated with the youth version of MHFA when implemented in a school setting. It is important to note that despite reports of trainees using their skills, only nine studies were able to assess the effectiveness of MHFA on help-behaviour. Unfortunately, the review found that there were no significant effects on the helpfulness of trainees' actions on recipient mental health (Forthal et al., 2021). Similarly, with Y-MHFA review (Sanchez et al., 2021) improvements in mental health knowledge and skills were reported for educators and college students which also lead to increase in their confidence to support peers. However, results reported were only assessed on a short-term basis with most studies included in the review lacking a comparator group. This highlights the need for further research and development in this area.

In sum the reviews included reported on an improvement of moderate or large on trainees' knowledge of mental health, confidence to help someone struggling with a mental health crisis, trainees' attitudes to mental illness and trainees' psychological distress because of the MHFA training. The effect sizes on the so-called recipients were relatively small with the reviews reporting recipient related outcomes around changes in their psychological distress which were all indirectly observed via trainees. However, none of the reviews found studies that gathered data from actual recipients of MHFA.

Table 2. 2: PRISMA CHECKLIST FOR SYSTEMATIC REVIEWS & META-ANALYSIS

Section/topic	#	Checklist item	Reported on page					
						Studies after initial search		
			Hadlaczky et al. (2014)	Morgan et al. (2018)	Maslowski et al. (2019)	Liang et al. (2021)	Forthal et al. (2021)	Sanchez et al. (2021)
TITLE								
Title	1	Identify the report as a systematic review, meta-analysis, or both.	Page 467	1	245	1	1	1
ABSTRACT								
Structured summary	2	Provide a structured overview including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	467	1-2	245	1	1	1

INTRODUCTION								
Rationale	3	Describe the cause for the review in the context of what is already known.	468	2-3	245-246	2	2	3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	468 However, comparisons were not explicit enough.	3	247	2	2	3
METHODS								
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information, including registration number.	NA	3	Not present	Not present	Not present	Not present

Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	469	3	247-248	2	2	4
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	468	3-4	247	2	2	4
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	469	3	247	2	2	4

Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	469	3	248	2	2	4
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	470 These were not clearly stated.	4	248	2	3	4
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	470	4,6,7	249	2-3	3	5

Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	470	10	255	2	4	5
Summary measures	13	State the principal summary measures (e.g., risk ratio, the difference in means).		6		2-3	NA	6
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	470	6	249	3	3-4	4
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	470	10	255	3	4	
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	NA	14	253	3	NA	NA

RESULTS								
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	This was not present; it was explained in written form but diagram	5	250	4	3	6-8
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	470	7	249	4	3	6
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	Not available	10	255	5	3	Not present

Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	470	8,9	251-252	4	3	6
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	471	10,11,12,13	249-256	4	3-4	6
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).		10	255	5	4	Not present
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	471 (Post Hoc Analysis)	14	253	5	NA	NA

DISCUSSION								
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	472	16	257	5	5	9
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	472	10	258	5	6	9
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	472	16	259	8	6	9

FUNDING								
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data) role of funders for the systematic review.	NA	1	NA	NA	6	10

2.4 Quantitative Non-Randomized & Randomized studies

During the initial search period, twenty-five cohort studies that followed either a pre & post-study or time-series design (pre, post, and follow-up design) were included. After additional searching, seven more studies were included, all studies are detailed in table 2.3.

The sample sizes ranged from n = 29 (Borrill, 2010) to 606,941 (El-Amin et al., 2018). The remaining included studies comprised quantitative non-randomized controlled trials, quantitative non-randomized cross-sectional studies, quantitative non-randomized descriptive studies, and randomised control trials (table 2.4 provides more information about the RCTs studies). The tables are presented with the quality criteria presented in table 2.1.

Table 2. 3: Quantitative Non-randomized studies

TITLE (AUTHORS)	DESIGN	OUTCOMES	3.1	3.2	3.3	3.4	3.5	Total
Evaluation of culturally and linguistically diverse teen Mental Health First Aid (Slewa-Younan et al., 2019).	Quantitative Non-randomised Study - Cohort Study	• Mental health literacy. • Stigmatising attitude. • MHFA behaviours. • Adolescents' help-seeking status Youth mental health knowledge.	*	*		*	*	****
Impact of Mental Health First Aid on Confidence Related to Mental Health Literacy: A National Study with a Focus on Race-Ethnicity (Crisanti et al., 2016).	Quantitative Non-randomised Study - Cross-sectional Study	Confidence levels in applying skills matched against age, gender and race-ethnicity	*		*	*	*	****
Enhancing mental health literacy in rural America:	Quantitative Non-randomised Study	• Growth of MHFA in rural areas. • Post-training impact of MHFA.	*	*		*		***

Growth of Mental Health First Aid programme in rural communities in the United States from 2008–2016 (El-Amin et al., 2018).	- Cross-sectional Study	• MHFA related knowledge. Skills attributed to the training.						
Improving mental health capacity in rural communities: Mental health first aid delivery in drought-affected rural New South Wales (NSW) (Sartore et al., 2008).	Quantitative Non-randomised Study - Cohort Study	• Recognitions of mental health disorders. • Concordance of beliefs • Social Distance measures Experience & confidence levels	*	*	*	*	*	*****

Mental health first aid training among pharmacy and other university students and its impact on stigma toward mental illness (McCormack et al., 2018).	Quantitative non-randomized studies- Quantitative descriptive studies	• Attitudes to Mental Illness. Stigmatising behaviour.		*	*	*	*	****
Exploring Youth Mental Health First Aider Training Outcomes by Workforce Affiliation: A Survey of Project AWARE Participants. (Haggerty et al., 2018).	Quantitative Non-randomised Study - Cohort Study	• Mental health literacy (MHL) • Perceived mental health stigma (MHS) Confidence in helping behaviour.	*	*	*	*	*	*****
Evaluation of Mental Health First Aid USA Using the Mental Health Beliefs and Literacy Scale. (Banh et al., 2019)	Quantitative Non-randomised Study - Cohort Study	Mental health belief & literacy	*	*		*	*	****

Mental health first aid training for the Chinese community in Melbourne, Australia: effects on knowledge about and attitudes toward mental illness people. (Lam et al., 2010).	Quantitative Non-randomised Study - Cohort Study	• Mental health literacy. Stigmatising attitudes	*	*	*	*	*	*****
Farm Advisors' reflections on Mental Health First Aid training. (Hossain et al., 2009)	Quantitative Non-randomised Study - Cohort Study	• Mental health knowledge Demographic influence on mental health knowledge (Sex, age & work experience)	*	*	*	*	*	*****
Mental Health First Aid Training: Initial Evaluation by Private Sector Participants. (Borrill, 2010)	Quantitative Non-randomised Study - Cohort Study	• Confidence level. Mental health knowledge	*	*	*		*	****

Evaluation of Youth Mental Health First Aid USA: A Programme to Assist Young People in Psychological Distress (Aakre et al., 2016).	Quantitative Non-randomised Study - Cohort Study	• Identification of appropriate assistance behaviours. • Likelihood of providing help MHFA knowledge	*	*			*	***
Do Mental Health First Aid™ courses enhance knowledge? (Morrissey et al., 2017)	Quantitative Non-randomised Study - Cohort Study	Mental health knowledge	*	*	*		*	****
An Evaluation of Youth Mental Health First Aid Training in School Settings (Gryglewicz et al., 2018)	Quantitative Non-randomised Study - Cohort Study	• Mental health literacy. • Attitudes toward mental illness and treatment. • Confidence in addressing mental health issues. Intentions to engage in help-seeking behaviours	*	*	*		*	****

Evaluation of Mental Health First Aid training with members of the Vietnamese community in Melbourne, Australia (Minas et al., 2009).	Quantitative Non-randomised Study - Cohort Study	• Mental health knowledge & skills • Attitudes Previous personal & professional contacts of recipients.	*	*	*	*	*	*****
Effectiveness of Youth Mental Health First Aid USA for Social Work Students (Rose et al., 2019)	Quantitative Non-randomised Study - Non-Randomized Controlled Trial	• Attitudes and beliefs about performing ALGEE actions. • Subjective norms on social pressures to engage or not engage in ALGEE. • Self-efficacy measuring the confidence to perform targeted ALGEE actions. Mental health knowledge	*	*	*	*	*	*****

Evaluating the Effectiveness of Mental Health First Aid Programme for Chinese People in Hong Kong (Wong et al., 2017)	Quantitative Non-randomised Study - Non-Randomized Controlled Trial	• Mental health literacy Stigmatisation towards mental illness.	*	*	*	*	*	*****
Improving the capacity of community-based workers in Australia to provide initial assistance to Iraqi refugees with mental health problems: an uncontrolled evaluation of a Mental Health Literacy Course (Uribe Guajardo et al., 2018).	Quantitative Non-randomised Study - Cohort Study	• Recognition and knowledge of mental health problems • Attitudes • Personal stigma • Intention to help, Confidence helping, helping behaviours	*	*	*	*	*	*****

Mental Health First Aid training evaluation (Heer et al., 2010).	Quantitative Non-randomised Study - Cohort Study	• Reasons for attending training. • Use of MHFA post-training. • Knowledge & Skills (Help rendered) Attitudes	*		*	*	*	****
An Evaluation of the Impact of MHFA Training in Kingston Upon Hull (MacDonald et al., 2008).	Quantitative Non-randomised Study - Cohort Study	• Confidence levels • Skills compared to the ALGEE Mental health of trainees	*	*	*	*	*	*****

Mental Health First Aid USA in a Rural Community: Perceived Impact on Knowledge, Attitudes, and Behaviour (Mendenhall et al., 2013).	Quantitative Non-randomised Study - Cohort Study	• Knowledge & Skills (self-reported)	*				*	**
Evaluation of the Mental Health First Aid programme in undergraduate nursing students (Loureiro & de Freitas, 2020)	Quantitative Non-randomised Study - Cohort Study	Mental Health Literacy	*	*	*	*	*	*****
Culturally-Appropriate Orientation Increases the Effectiveness of Mental Health First Aid Training for Bhutanese Refugees: Results from a Multi-state Programme	Quantitative Non-randomised Study - Cohort Study	• Mental Health Literacy • Confidence • Stigma	*	*	*	*	*	*****

Evaluation (Gurung et al., 2020).								
Evaluation of mental health training for community pharmacy staff members and consumers (Shams & Hattingh, 2020).	Quantitative Non-randomised Study - Cohort Study	• Trainees Knowledge • Understanding of roles within the community. • Impact of training on practices post-training	*	*	*	*	*	*****
Evaluation of participant reluctance, confidence, and self-reported behaviours since being trained in a pharmacy Mental Health First Aid initiative (Witry et al., 2020).	Quantitative Non-randomised study – Retrospective Cohort study	• Confidence • Use of MHFA behaviours	*	*	*	*	*	*****

Effectiveness of Mental Health First Aid for Chinese-Speaking International Students in Melbourne (Zhuang et al., 2020).	Quantitative Non-randomised Study - Non-Randomized Controlled Trial	• Mental health literacy • Stigmatizing attitudes	*	*	*	*	*	*****

New included studies after initial search.								
Youth Mental Health First Aid: Examining the Influence of Pre-Existing Attitudes and Knowledge on Training Effectiveness (Elligson et al., 2021).	Quantitative Non-randomised study – Retrospective Cohort study	• Knowledge of youth MH issues, • Confidence in identifying and responding to youth MH needs. • Stigma about youth mental health, and intentions to intervene.	*	*	*	*	*	*****
Mental health first aid by Australian tertiary staff: Application rates, modes, content, and outcomes (Carpini et al., 2021).	Quantitative Non-randomised study – Retrospective Cohort study	• MHFA application rates and types of issues encountered. • Mode of MHFA provision. • Application of MHFA action plan. • Perceived outcomes of MHFA	*	*	*	*	*	*****
Effects of the Mental Health First Aid for the suicidal person course on beliefs about suicide, stigmatising attitudes, confidence to help,	Quantitative Non-randomised Study - Cohort Study	• Suicide literacy • Confidence in and quality of intended and actual helping behaviours.	*	*	*	*	*	*****

and intended and actual helping actions: an evaluation (Bond et al., 2021a).								
Mental Health First Aid Training for Health Care Workers in the Primary Health Care Center in Surabaya (Ariana et al., 2021).	Quantitative Non-randomised Study - Cohort Study	• Attitudes towards people with mental health disorders. • Knowledge about mental health.	*	*	*	*	*	*****
Evaluation of the Conversations About Gambling Mental Health First Aid course: effects on knowledge, stigmatising attitudes, confidence and helping behaviour (Bond et al., 2022).	Quantitative Non-randomised Study - Cohort Study	• Participants' knowledge • Confidence. • Stigmatising attitudes, intended helping behaviour and actual helping behaviour.	*	*	*	*	*	*****

An Assessment of the Utility of the Youth Mental Health First Aid Training: Effectiveness, Satisfaction, and Universality (Childs et al., 2020).	Quantitative Non-randomised Study - Cohort Study	• Effectiveness of YMHFA (i.e. knowledge, confidence, preparedness, and intentions to intervene) • Satisfaction with the training program, and universality of effectiveness across occupational groups.	*	*	*	*	*	*****
Youth Mental Health First Aid: Juvenile Justice Staff Training to Assist Youth with Mental Health Concerns (Anderson et al., 2020).	Quantitative Non-randomised study – Retrospective Cohort study	• MHFA Skills usage (at work or personal lives) • Changes in interaction with youth as a result of training.	*	*	*		*	****
Mental Health First Aid Training: A Study of Community Members' Pre and Post-training Responses to a 17-Item Questionnaire (Al-Habeeb et al., 2020).	Quantitative Non-randomised Study - Cohort Study	• Recognition of disorders. • Belief	*	*			*	***

Mental health first aid training for Extension agents in rural Communities (Robertson et al., 2021).	Quantitative Non-randomised study – Retrospective Cohort study	• Skill used post-training. • Barriers to skill use. • Confidence in ability to use skill.	*	*	*	*	*	*****
Evaluation of mental health first aid training for family members of military veterans with a mental health condition (Evans et al., 2021).	Quantitative Non-randomised Study - Non-Randomized Controlled Trial	• Mental health knowledge. • Personal and perceived mental health stigma. • Social distancing attitudes • Confidence and willingness to engage in MHFA helping-behaviours. • General mental health and burnout.	*	*	*	*	*	*****
Using Mental Health First Aid Training to Improve the Mental Health Literacy of Physiotherapy Students (Edgar & Connaughton, 2021).	Quantitative Non-randomised study – Retrospective Cohort study	• Attitudes towards psychiatry and mental health. • Confidence • Preparedness for practice.	*	*	*	*	*	*****

Table 2. 4: Quantitative randomised studies

TITLE (AUTHOR)	DESIGN	OUTCOME	2.1	2.2	2.3	2.4	2.5	Total
Helping adolescents to better support their peers with a mental health problem: A cluster-randomised crossover trial of teen Mental Health First Aid (Hart et al., 2018)	Quantitative randomized controlled trial	• Quality of MHFA intentions. • Problem recognition • Beliefs about the helpfulness of adult help • Stigmatizing beliefs (Social distance scale) • Self-reported mental health status, help-seeking, psychological distress and experiences with provision or receipt of first aid.	*	*	*	*	*	*****

Confidence and attitudes of pharmacy students towards suicidal crises: patient simulation using people with a lived experience (Boukouvalas et al., 2018).	Quantitative randomized controlled trial- Cross-over design: Parallel group repeated measures design	• Attitudes towards suicidal crises. • Self-perceived confidence in applying skills.	*	*	*	*	*	*****

Does Mental Health First Aid training improve the mental health of aid recipients? The training for parents of teenagers randomized controlled trial (Morgan et al., 2019)	Quantitative randomized controlled trial- Single-blind, parallel-group superiority RCT	• Perceptions of parent support by adolescents with a mental health problem. • Quality of parental support towards adolescents with a mental health problem. Secondary Outcomes • Social distance • Stigma: weak-not-sick • Stigma: Dangerous /unpredictable • Psychological distress (12-months) (Parents only) • Problem recognition • Quality of MHFA intentions • Confidence to help • Knowledge about mental health problems	*	*	*	*		****

		• Quality of mental health support. • Appropriate help-seeking for a mental health problem. Adolescents only • Perceived general social support from parent • Intended help-seeking from parents • Actual help-seeking from parents • Help-seeking from a health professional						

New studies since initial search									
1.	Teen Mental Health First Aid: 12-month outcomes from a cluster crossover randomized controlled trial evaluation of a universal program to help adolescents better support peers with a mental health problem (Hart et al., 2022).	Cluster crossover randomised controlled trial	• Quality of mental health first aid intentions (Confidence, first aid behaviour provided, first aid behaviour received). • Mental health literacy (beliefs about adult help, help-seeking intentions) • Stigma (Social distance, weak-not-sick, dangerous/unpredictable and would not tell anyone).	*	*	*	*	*	*****

In general, significant positive outcomes following training on MHFA were reported. Improvement in mental health knowledge amongst trained first aiders was measured by asking participants to identify mental health problems using a short vignette.

Improvement in participants' confidence levels following MHFA training was generally reported (conducted primarily through self-reported survey accounts post-training). However, in 2018, Boukouvalas and El-Den conducted studies on university pharmacy students using simulated patient case studies and vignettes assessed with an ALGEE-based assessment rubric. The studies found changes in confidence levels among the students. Participants overestimated their level of confidence in administering the ALGEE approach based on a self-reported post-training survey. An administered suicidal vignette during the study reported that only 50% of participants took appropriate actions post-training against the ALGEE criteria.

Furthermore, Hart et al. (2018) conducted a cluster-randomised crossover trial to evaluate the effectiveness of the teen version of MHFA intervention in schools, specifically in improving student supportive behaviours towards their peers. The study also examined the mental health literacy and beliefs of trained teens. The MHFA trained participants were compared to those who underwent physical first aid training (PFA) within the same study. The study utilized a vignette featuring John and Jeanie, two characters with suicidal ideation/depression and social anxiety/phobia, respectively, based on the teachings in the teenMHFA training. All outcomes were observed through this vignette. The study reported medium-to-large changes in the helping intentions (John 0.95, 95% CI = 0.78, 1.13; $p < 0.001$; Jeanie 0.75 95% CI = 0.57, 0.93; $p < 0.001$), confidence levels (John 0.34 95% CI = 0.23, 0.45; $p < 0.001$; Jeanie 0.26 95% CI = 0.14, 0.37; $p < 0.001$), and a reduction in student's social distance (John -0.14 95% CI = -0.21, -0.08; $p < 0.001$; Jeanie -0.07 95% CI = -0.14, 0.00; p 0.056), compared with participants trained on PFA. Regarding the recognition problems based on the vignette, changes were only observed in recognition of Jeanie's problem from baseline to post-training (John 1.18, 95% CI = 0.71, 1.96; p 0.528; Jeanie 3.34 95% CI = 1.88, 5.94; $p< 0.001$). A recent international study involving students (Zhuang et al., 2020) has reported similar changes in trainees' mental health literacy between groups participants. The MHFA group showed

significantly greater increases in the correct recognition of symptoms of both depression (p = .03) and schizophrenia (p = .001) and the professional consensus knowledge for both depression (p = .026) and schizophrenia (p =.029) when compared to the participants in the control group. The study also reported changes in stigmatizing attitudes amongst participants in the intervention group compared to participants in the control group (Cohen's d pre-post = .07, Cohen's d pre-follow-up = .11). A greater reduction in the social distance toward people with schizophrenia (p = .021) was found among the MHFA group participants (Cohen's d pre-post = .21, Cohen's d pre-follow-up p = .084).

Also, Aakre et al. (2016) assessed the changes in trainees' skills using a vignette developed by Jorm et al. (2007). There was no significant improvement reported for only one of the five elements of MHFA (G- Give reassurance and information), but the absence of a control group weakens the findings.

Some studies investigated the link between intention to seek help and actual help-seeking behaviour in a bid to assess the skills of trainees' post-intervention (Jorm, et al., 2005; Rossetto et al., 2014; Yap & Jorm, 2012). Rossetto et al. (2014) further probed participants' responses against the ALGEE criteria using a vignette developed by the creator of MHFA. Responses were scored based on the details reported by the subjects observed. However, these were subjective reports of data collected at a single time point, making it difficult to link the observed outcomes to the stated intervention.

A recent feasibility study by Narayanasamy et al. (2018) cited specific issues like the inclusion of more practical elements and the room for more role-play sessions to practice and rehearse the newly acquired skills from the MHFA training. The study reported that participants reported the need to update skills, especially in those who had limited opportunity to practice their skills after the initial training.

The implementation of MHFA in healthcare study programmes has been the focus of recent literature. Evaluation studies were conducted amongst undergraduate nursing students (de Jesus Loureiro & Figueiredo Pinto de Freitas, 2020); and pharmacy students (Shams & Hattingh, 2020; Witry et al., 2020). Whilst two of these studies

reported similar results consistent with results reported in previous studies examining the changes in mental health knowledge, confidence levels of trainees and attitudes change towards individuals struggling with a mental health crisis (de Jesus Loureiro & Figueiredo Pinto de Freitas, 2020; Shams & Hattingh, 2020). Witry & colleagues (2020) examined participants' reluctance to providing help, confidence level and self-reported behaviour of giving support. The study reported significant changes in confidence levels, also performing a range of MHFA behaviour post-training with approaching someone about their distressed mood as the most reported skill (82%). Regarding participants' initial reluctance to provide help, the study reported positive feedback signifying the trainee's willingness to intervene when experiencing a mental health crisis. Although these studies contribute to the current literature about the impact of MHFA on trainees, self-reported surveys limit the findings.

In summary, limited studies exist evaluating the effects of MHFA training beyond a 6-month post-intervention period, except a trial by Mohatt et al. (2017), recent ones by Hart et al. (2018) and Reavley et al., 2018), indicating a need to measure the persistency of effects of the training on knowledge, confidence levels and changes in attitudes over a longer period. Recent clustered RCT by Hart and colleagues (2022) have reported significant differences in the quality of first aid intentions towards the hypothetical vignettes depicting individuals struggling with a mental health difficulty. However, the study has identified a significant withdrawal of students from baseline to the 12-month follow up time which contributed to lack of robust analyses of help-provided and received. There has also been a lack of well-designed experimental, adequately powered studies (RCT or C-RCT) consistently reported amongst current systematic and meta-analytic reviews (Hadlaczky et al., 2014; Maslowski et al., 2019; Morgan et al., 2019).

2.5 Qualitative Studies

This section of the literature review includes qualitative studies of different designs adopted to explore MHFA training's impact in general. Thirteen qualitative studies are included in the evidence synthesis. Detailed characteristics of the studies & their quality checks are shown in Table 2.5.

Table 2. 5: Qualitative Studies

TITLE (AUTHORS)	DATA COLLECTION	THEMES GENERATED	1.1	1.2	1.3	1.4	1.5	Total
Assessing students' mental health crisis skills via consumers with lived experience: a qualitative evaluation (O'Reilly et al., 2019).	Focus group & Interviews	• Benefits to students and simulated patients • The value of lived experience • Challenges with suicide assessment • Confidence in communicating with people experiencing mental health problems or crises. • The value of immediate feedback and debrief	*	*			*	***
Experiences in applying skills learned in a Mental Health First Aid training course: A qualitative study of participants' stories (Jorm et al., 2005).	Telephone Survey	• Giving concrete support and practical help and information and advice. • Improvement in the way the respondent felt or thought. • Competence and Empathy. • Generalized empathy towards people with a mental illness. • Specific empathy towards someone with whom there had	*	*	*	*	*	*****

		previously been tensions and strain.						
Exploring the role of mental health first aid officers in workplaces: A qualitative study using case study methodology (Bovopoulos et al., 2018).	Semi-structured Face-to-face Interviews	• Mental health problems are less visible. • First aid is not provided only in a crisis. • Personal qualities of the first aider are important. • Documentation requirements differ. • More informal, subtle, discreet. • More focus on mental health first aider in the workplace	*		*		*	***
Developing a model of help giving towards people with a mental health problem: A qualitative study of Mental Health First Aid participants (Rossetto et al., 2018).	Face-to-Face Interviews	• Trigger for concern. • The helper considers becoming involved. • Actions taken by the helper. • Outcomes of help. • Member Checking	*	*	*	*	*	*****

Nursing students' experiences of mental health first aid training: A qualitative descriptive study (Hung et al., 2019).	Face-to-Face Interviews	• Reinforced knowledge and understanding. • Enhanced techniques and skills. • Rectified beliefs and values. • Improved self-awareness of personal mental health status. • A heightened sense of achievement and satisfaction	*		*	*	*	****
Experiences of a Mental Health First Aid Training Programme in Sweden: A Descriptive Qualitative Study (Svensson et al., 2015).	Focus group	• Increased awareness, knowledge and understanding. • Split Influence on Attitude and Approach. • Toolbox and confidence. • Feedback on content and layout.	*	*	*	*	*	*****
Feedback from American participants of a mental health first aid training course (Ploper et al., 2015).	Open-ended Online survey responses	• Benefits of MHFA training. • Limitations of MHFA training: direction for change. • Challenges of implementing MHFA. • Resources that facilitate MHFA	*		*	*	*	****

Experiences of instructors delivering the Mental Health First Aid training program: A descriptive qualitative study (Terry, 2010).	Face-to-face interviews	• Pre-requisite skills. • Support.	*	*	*	*	*	*****
Delivering a basic mental health training programme: views and experiences of Mental Health First Aid instructors in Wales (Terry, 2011).	Face-to-face interviews	• Logistics. • Impact. • Expectations and perceptions. • Support	*	*	*	*	*	*****
Exploring perceived costs and benefits of first aid for youth with depression: a qualitative study of Japanese undergraduates (Kashihara & Sakamoto, 2020).	Face-to-face open ended survey.	Results following content analysis showed: • Multiple facets to costs and benefited perceived. • Perceived conflict between the cost and benefits of helping.	*	*	*	*	*	*****

Investigating the barriers and facilitators to implementing mental health first aid in the workplace: a qualitative study (Narayanasamy et al., 2020).	Semi-structured interviews.	• Implementation approaches (Reasons for initial interest, attending MHFA training and How MHFA operates). • Barriers to implementation and uptake (Attitudes to mental health, individual commitment, need to tailor approach and reluctance to engage in MHFA) • Facilitators (Perceived usefulness/impact and role of instructors)	*	*	*	*	*	*****

New studies since initial search									
1.	A qualitative study exploring adolescents' perspective about Mental Health First Aid Training Programmes promoted by nurses in upper secondary schools (Costa et al., 2022).	Semi-structured interviews	Three overarching themes. • Relevance of training programmes. • Content of training programmes. • Intervention methods of training programmes.	*	*	*	*	*	*****
2.	Using Stakeholder Perceptions to Inform Future Efforts to Implement Mental Health First Aid Training in China: A Qualitative Study (Lu et al., 2021).	Semi-structured in-depth interviews	• Intervention characteristics. • Characteristics of individuals. • Contextual adaptation. • Outer and inner setting. • Implementation process.	*	*	*	*	*	*****

All the qualitative studies included in this report focused on the benefits of Mental Health First Aid (MHFA) training for trainees. Across the studies, increased confidence in helping someone with a mental health condition emerged as a common theme in the descriptive benefits of MHFA. One study conducted in Australia (Jorm et al., 2005) found that participants perceived positive impacts on both intra-personal and interpersonal levels, which emphasized empathy and confidence levels in providing help and managing crises. Another study conducted in Sweden (Svensson et al., 2015) reported that participants referred to MHFA as a "toolbox" to increase their confidence in helping someone with a suspected mental health problem. A third study, also conducted in Australia using a case-study approach (Bovopoulos et al., 2018), reported that workers were more likely to seek help after the introduction of MHFA trainees in the workplace, compared to the support provided by Human Resources prior to the implementation of MHFA.

The study by Svensson et al. (2015) expressed the need for a more tailored example to reflect on their daily life activities.

Some studies explored the experiences of instructors in delivering MHFA training. One study conducted in Wales by Terry (2010) sought to gain insights into the views and experiences of Instructors who participated in the training sessions. According to the study, instructors emphasised the importance of having prerequisite mental health knowledge as a critical tool to develop the necessary skills for the job. It's interesting to see how much emphasis is placed on the importance of having a solid foundation of mental health knowledge before diving into MHFA training.

Following a thematic analysis of data gathered from undergraduate nursing student trainees in a study by Hung et al. (2019), five themes were identified to understand trainees' experiences after receiving MHFA training. The themes identified include reinforced knowledge and understanding, enhanced techniques and skills, rectified beliefs and values, improved self-awareness of personal mental health status and a heightened sense of achievement and satisfaction (Hung et al., 2019). Results reported indicated the MHFA training programme's effectiveness in boosting mental health literacy and change in attitudes among trainees. Other improvements reported in a study by Pierce et al. (2010) involve participants’ sense of empowerment to assist anyone struggling with a mental health problem within their football club and

their local community. An American study exploring feedback provided by MHFA trainees reported anxiety about using the practical information and action plans (ALGEE) taught in training as one of the significant challenges experienced post-training (Ploper et al., 2015). The lack of a detailed explanation of the recommended action plan (ALGEE) links and the intended mental health outcomes remains a significant gap in the current literature. The later section of this thesis explored ways to address this gap.

Furthermore, a study conducted by Hung et al. (2019) that delved into the effects of MHFA training on the trainee's awareness of their mental health. According to their findings, it appears that MHFA training can improve the trainee's awareness of their mental health as a secondary outcome. It was beyond the scope of the study to determine, however, whether the training did enhance trainees' knowledge. Few studies explored the impact of MHFA from the instructors' perspective. Most instructors expressed the desire to learn more about how the effect of MHFA could be sustained through support from the government through funding of more MHFA training opportunities in a bid to improve mental health literacy (Terry, 2011). Another finding, reported by the same author in a previous study, identified that instructors reported MHFA training attendees sometimes became distressed while discussing sensitive topics, impacting their mental health during the training (Terry, 2010). In contrast, Jorm et al. (2007) reported a range of perceived benefits in discussing sensitive issues.

Bovopoulos et al. (2016) have also reported MHFA instructors' experiences and perspectives of delivering MHFA courses within an Australian context. Instructors reported the adopting various styles when providing training across various contexts, particularly considering how MHFA is applied in different areas. The adoption of MHFA in various contexts needs to be further explored.

Most recently, Bovopoulos et al. (2018) explored the nature of MHFA officers (trainees') within organizations. Interviews were conducted across organizations that had previously adopted MHFA and appointed MHFA officers. While sharing their experiences of organizational support and implementation, the study reported different organizational perspectives on the number of employees trained on MHFA and how organizations adapt to MHFA trainees' presence in the organization in

terms of access and availability to the trainees to provide support to their colleagues. The study also reported the need for MHFA training to be offered to all staff to encourage a more accepting atmosphere to have a mental health discussion within the organization.

Furthermore, understanding the implementation of MHFA in workplaces is limited; a recent study by Narayanasamy et al. (2020) explored the barriers and facilitators to the performance of MHFA across UK organizations. The research conducted semi-structured interviews with 27 participants across six organizations. Using thematic analysis in the study identified nine themes around implementation. The themes included, a) implementation approaches (Reasons for initial interest, attending MHFA training and How MHFA operates), b) barriers to implementation and uptake (Attitudes to mental health, c) individual commitment, d) need to tailor the approach and reluctance to engage in MHFA), e) facilitators (Perceived usefulness/impact and role of instructors). The study provided insight into the implementation of MHFA within the workplace. Still, the study's context was based on only individual reports on implementation and not understanding an organizational perspective. Workplaces are complex settings that sometimes requires an understanding across various contextual factors that might influence implementation apart from the different individual perspectives (Narayanasamy et al., 2020; Weiner et al., 2009). Some of these contextual factors will include the decision-making process on the adoption of MHFA within the organization rest in the hands of senior managers, the recruitment and identification of potential trainees and the accessibility of MHFA trainees considering that they are employees within the organizations (Weiner et al., 2009).

A Japanese based study (Kashihara & Sakamoto, 2020) explored the perceived cost and benefits of providing help to individuals struggling with depression. Participants were asked, using a vignette, through face-to-face survey completion, the costs and benefits of helping someone. Following some content analysis of obtained data, the study reported a perceived conflict between the cost and benefits of helping their peers. Although the lack of understanding of the various context influencing the perceived conflicts was not explored in the study. Adopting an in-depth interview will add to the current literature, which would address the lack of understanding. Two just included studies, conducted by Costa et al. (2022) and Lu et al. (2021), explored different aspects of Mental Health First Aid (MHFA) training. Costa et al. (2022)

focused on the perspective of adolescents receiving MHFA training from nurses in a secondary school setting. Participants reported that the training improved their knowledge of mental health, but also highlighted the need for the training to address physical and relational approaches when supporting someone with mental health issues.

Meanwhile, Lu et al. (2021) studied the implementation and contextual challenges of MHFA training among stakeholders. They found that contextual adaptation around course content, delivery format, and financing models were crucial for successful implementation, while low levels of engagement and lack of supportive social norms were identified as barriers. Facilitators of implementation included quality control, sustainable funding for the training of more first aiders, and support from executives.

In sum, findings reported from the included qualitative studies have explored perceived impacts and issues regarding the course content of MHFA. Positive effects are consistently reported, specifically around increased mental health knowledge of trainees, changes in trainees' (ability to manage the crisis better and increased empathy) following MHFA training, and an increase in the perceived level of confidence to provide help for those experiencing psychological distress post-training. However, none included exploring the long-term effects of MHFA training on participants' confidence, and the different ways participants implemented the interventions in their various settings, or the support and challenges encountered while implementing MHFA.

2.6 Mixed-Method Studies

This section of the review of current literature included studies that have adopted a mixture of quantitative and qualitative designs in examining the existing mechanisms of success and failures of MHFA, including the impact and reach of MHFA. Nine studies were included. Studies had primarily adopted the use of survey and interviews. Details of the studies included are in Table 2.6, alongside details of their quality checks.

Table 2. 6: Mixed method studies

TITLE (AUTHORS)	DATA COLLECTION	KEY RESULTS	5.1	5.2	5.3	5.4	5.5	TOTAL
A mental health first aid training program for Australian Aboriginal and Torres Strait Islander peoples: description and initial evaluation (Kanowski et al., 2009)	Questionnaire & Focus group	It is possible to develop and implement a culturally acceptable version of MHFA for Aboriginal and Torres Strait Islander peoples.	*	*	*	*	*	*****
Australian rural football club leaders as mental health advocates: an investigation of the impact of the Coach the Coach project (Pierce et al., 2010).	Questionnaire & Focus Groups	More than 50% of club leaders who undertook the training showed increased capacity to recognize mental illness and 66% reported increased confidence to respond to mental health difficulties in others. They reported that this training built upon their existing skills, fulfilled their perceived social responsibilities and empowered them. Indirect benefit to club players from this approach seemed limited as players reported minimal changes in attitudes.	*	*	*	*	*	*****

Evaluating the Effectiveness of Mental Health First Aid Training Among Student Affairs Staff at a Canadian University (Massey et al., 2014).	Survey & In-depth Interviews	Increasing staff knowledge, sensitivity, and confidence as it relates to providing initial supports to individuals experiencing a mental health condition has the effect of reducing the stigma associated with such conditions was a major finding in this study.	*	*	*	*	*	*****
Mental Health First Aid in Rural Communities: Appropriateness and Outcomes (Talbot et al., 2017).	Questionnaire & Follow-up Interviews	MHFA may help to reduce unmet need for Behavioural health treatment in rural communities by raising awareness of 67 behavioural health issues and mitigating stigma, thereby promoting appropriate treatment-seeking	*	*	*	*	*	*****
Effectiveness of mental health first aid training for underserved Latinx and Asian American immigrant communities (Lee & Tokmic, 2019).	Both qualitative and quantitative assessments.	The findings revealed a significant improvement in participants' mental health literacy and anti-stigma levels, following the training. In addition, participants expressed more positive attitudes toward people with mental illness and held less-extreme views of social distance from them.	*	*	*	*	*	*****
Mental health first aid for the UK Armed Forces (Crone et al., 2019).	Survey & Follow-up Interviews	Participants who attended the MHFA training course showed a significant increase in self-rated knowledge, attitude and confidence in relation to mental health issues, pre- to post-intervention (i.e. the training course)	*	*	*	*	*	*****

Evaluation of Mental Health First Aid Training with Northumberland Fire and Rescue Service (Robson & Bostock, 2010).	Questionnaire & follow-up interviews	The results identified show that the MHFA training was significantly more effective than a leaflet session at promoting more positive attitudes towards people with mental health problems.	*	*	*	*	*	*****
Evaluation of mental health first aid training in a diverse community setting (Morawska et al., 2013).	Questionnaire & Follow-up Interviews .	Pre–post analyses suggested that after engaging in training regardless of the cultural groups, participants showed significant improvements in recognition of mental illnesses, concordance with primary care physicians about treatment, confidence in providing aid in crises, actual help provided to others, and a reduction in stigmatizing attitudes. Also shows that, MHFA can help improve help-seeking behaviour and mental health literacy	*	*	*	*	*	*****

New study since the initial search								
“I was able to actually do something useful”: evaluating the experiences of university students after completing Mental Health First Aid: a mixed-methods study (Rodgers et al., 2021).	Questionnaire & Semi-structured Interviews	Associations were found between the “amount of help offered” and confidence (p = 0.02); and with participants who completed MHFA prior to 2016 (p = 0.02). Two overarching themes were identified in their analysis: challenging experiences (personal investment in the relationship; emotional energy); and positive experiences (confidence; stronger relationships and trust; emotional intelligence).	*	*	*	*	*	*****

A study by Massey et al. (2014) in a Canadian setting reported the benefit of MHFA training of staff members of a university's department on the number of supports that student experiencing a mental health condition received. The results demonstrated that MHFA increases the knowledge of mental health conditions among those trained when observed against individuals untrained under pretest & post-test conditions (effect size difference = 1.06). Furthermore, Massey & colleagues reported an increase in trainee's interaction with individuals with mental health conditions (Pretest=75%, Posttest=86%) and an increase in recognition of more cases of mental health conditions (recognition of 2-4 people: pretest 58%, posttest 80%). However, a report of openness towards people with a mental health condition showed no difference between groups, from the survey result ($t(79) = -0.68$, $p > .05$). Still, the study reported increased sensitivity and openness after exploring the qualitative feedback from the MHFA trainees against the untrained group. Similarly, Australian research observed comparable results when MHFA training was delivered to a football team's coaches. Results reported by Massey et al. (2014) were similar to those reported by Talbot et al. (2017), demonstrating the benefit of MHFA in promoting treatment-seeking through indirect reports from trainees of MHFA. The study also reported problems associated with indirect capturing of the treatment-seeking outcomes. The study also reported the lack of an appropriate tool to capture completed referrals following direct contact with mental health first aider.

Crawford & Burns (2020) have recently utilized a mixed-method approach to explore the confidence and motivation to help individuals with mental health problems amongst nursing students following MHFA. The study has adopted a self-reported survey with some open-ended answers provided, which were analysed using thematic analysis. Participants in this study were randomized in both intervention and control groups, but only baseline data were collected to examine participants' confidence levels and helping intentions. Following the thematic analysis of answers provided to survey questions, four interrelated themes were developed, hoping to explore the motivators to participate in an MHFA training. Confidence levels at baseline also varied across participants in both groups; the study did not mention any post-intervention survey collected. The study adds to the current narrative about the confidence levels of individuals participating in MHFA training. However, self-reported survey data does not allow for the opportunity to seek clarifications from

participants on the answers provided. In another study (Day et al., 2021), participants recruited across various courses delivered in two states in Australia were invited to complete pre, post and follow-up surveys and provide qualitative feedback post-intervention. The study reported a significant improvement with a moderate effect size was observed between the mean scores between the timepoints t (250) =-6.80, p<0.001, d=0.43. The study reported a significant change in stigmatising attitudes despite a small effect size observed t (223) =- 3.91, p<0.001, d=0.23., participants also reported more confidence in their ability to deal with the circumstances described in the vignettes used. During follow-up, there was no significant decrease in mental health knowledge at follow-up. However, the study reported an increase in mean confidence levels over time; however, the difference was not significant compared to pre-intervention. In the qualitative aspect of the study, the participants' responses to the training revealed mixed feelings. Although the survey reported changes in participants confidence levels, this was primarily attributed to the different real-life experiences shared by the MHFA instructors during the training.

More recent study utilising a mixed-method approach to examining the long-term benefits of MHFA among students (Rodgers et al., 2021). University students that had completed MHFA training were invited to complete an online questionnaire aimed at examining the effect of MHFA on mental health knowledge, recognition, intentions and stigmatising attitudes of mental health difficulties. Confidence to help individuals struggling with mental health difficulties was also assessed. Semi-structured interviews were conducted to explore how mental health first aiders applied their MHFA skills. Consistent with previous studies, the study reported that participants who received training in Mental Health First Aid (MHFA) demonstrated increased awareness of mental health issues. Additionally, the study found that there was a correlation between taking MHFA actions and feeling more confident in helping others. The study also highlighted some of the complexities that participants faced, such as having personal relationships with the people they were helping in various situations within their own environment.

2.7 Delphi studies

Following the development of MHFA, several problem-specific guidelines designed to enable mental health first aiders to use the ALGEE approach better have been developed using Delphi- consensus methods. The Delphi technique is known as a method of eliciting and refining group judgments (Dalkey, 1969). Studies using this methodology have been included in this review to understand how the intervention is administered to achieve the intended outcomes. The guidelines developed because of this process give insight into the elements/mechanisms within the intervention that aim to perform various mental health outcomes.

Fifteen studies have been included here. The detailed characteristics of the studies & their quality checks are shown in Table 2.7. While all the studies included were developed in Australia, the consensus process was international, with a panel consisting of experts based in the USA, Ireland, UK, Canada, and New-Zealand.

Table 2. 7: Delphi Study Characteristics Against Quality Criteria

Study Title and Author	Country	N= Panel Size	Quality Criteria			
			1	2	3	4
First aid for depression: A Delphi consensus study with consumers, carers and clinicians (Langlands et al., 2008a).	Australia	167 (Mental health consumers, carers and clinicians)	*	*	*	*
First aid recommendations for psychosis: Using the Delphi method to gain consensus between mental health consumers, carers, and clinicians (Langlands et al., 2008b).	Australia	157 (Mental health consumers, carers, and clinicians)	*	*	*	*
First aid for eating disorders (Hart et al., 2009)	Australia	85 (Clinicians, Caregivers and 22 consumers)	*	*	*	*
Helping someone with problem drinking: Mental health first aid guidelines - a Delphi expert consensus study (Kingston et al., 2009)	Australia	99 (Clinicians, Consumers and carers)	*	*	*	*
Development of mental health first aid guidelines for panic attacks: a Delphi study (Kelly et al., 2009)	Australia	56 (50 professionals & 6 consumers)	*	*	*	*
Helping someone with problem drug use: A Delphi consensus study of consumers, carers, and clinicians (Kingston et al., 2011)	Australia	87 (29 consumers, 31 carers, 27 clinicians)	*	*	*	*

Development of critical messages for adolescents on providing essential mental health first aid to peers: A Delphi consensus study (Ross et al., 2012)	Australia	36 youth mental health consumer advocates and 97 Youth MHFA instructors	*	*	*	
Providing culturally appropriate mental health first aid to an Aboriginal or Torres Strait Islander adolescent: Development of expert consensus guidelines (Chalmers et al., 2014)	Australia	41 participants.	*	*	*	*
Re-development of mental health first aid guidelines for non-suicidal self-injury: A Delphi study (Ross et al., 2014)	Australia	61 Experts (28 professionals and 33 consumer advocates)		*	*	*
Development of mental health first aid guidelines for suicidal ideation and behaviour: A Delphi study (Kelly et al., 2008)	Australia	38 Participants (22 professionals, ten consumers, six carers)	*	*	*	*
Providing mental health first aid in the workplace: a Delphi consensus study (Bovopoulos et al., 2016)	Australia	87 experts (23 consumers, 26 managers and 38 workplace mental health professionals)	*	*	*	*
How a concerned family member, friend or member of the public can help someone with gambling problems: a Delphi consensus study (Bond et al., 2016).	Australia	66 Experts (32 professionals & 34 with lived experience)	*	*	*	*
Re-development of mental health first aid guidelines for supporting Aboriginal and Torres Strait Islanders who are engaging in non-suicidal self-injury (Armstrong et al., 2017)	Australia	26 Aboriginal and Torres Strait Islanders (all have expertise in non-suicidal self-injury)	*	*	*	*

Considerations when providing mental health first aid to an LGBTIQ person: a Delphi study (Bond et al., 2017)	Australia	75 mental health professionals who were part of the LGBTIQ community	*	*	*	*
Offering mental health first aid to a person with depression: a Delphi study to re-develop the guidelines published in 2008 (Bond et al., 2019).	Australia	53 Experts (36 lived experience and 17 professionals)	*	*	*	*

Development of guidelines for workplace prevention of mental health problems: A Delphi consensus study with Australian professionals and employees (Reavley et al., 2014)	Australia	113 experts (47 employees, 32 Managers & 34 health professionals)	*	*	*	*

First aid guidelines for psychosis in Asian countries: A Delphi consensus study (Jorm et al., 2008)	Australia	28 Mental health professionals	**?**	*	*	*
Mental Health First Aid guidelines for helping a suicidal person: a Delphi consensus study in India (Colucci et al., 2011).	India	30 Mental health professionals were involved in the process. (68% of those initially invited)	*	*	*	*

Development of guidelines for caregivers of people with bipolar disorder: a Delphi expert consensus study (Berk et al., 2011)	Australia	143 Panel Members (51 clinicians, 47 consumers and 45 caregivers)	*	*	*	*

Suicide first aid guidelines for assisting persons from immigrant or refugee background: a Delphi study (Colucci et al., 2018).	Australia	52 Panel members (Self-selected, 27 professionals, ten advocates with lived experiences and 7 had both capacities)	*	*	*	*
Offering mental health first aid to a person after a potentially traumatic event: a Delphi study to redevelop the 2008 guidelines (Chalmers et al., 2020).	Australia	54-panel members (28 experts, 26 experts with lived experience)	*	*	*	*
Development of mental health first aid guidelines on how a public member can support a person affected by a traumatic event: a Delphi study (Kelly et al., 2010)	Australia	54-panel members (37 experts, 17 consumers, which comprises of individuals that have experienced a traumatic event)	*	*	*	*

Redevelopment of mental health first aid guidelines for supporting someone experiencing a panic attack: a Delphi study (Chalmers et al., 2022)	Australia	56 (50 professionals & 6 consumers)	*	*	*	*
Development Of Mental Health First Aid Guidelines for Deaf People: A delphi Expert Consensus Study On Culturally Appropriate Responses To Mental Health Problems Experienced By A Deaf Person (Ferndale, 2021)	Australia	32 (Expert panelist with experience of sign language)	*	*	*	*

Considerations when offering mental health first aid to a person with an intellectual disability: a Delphi study (Bond et al., 2021)	Australia	53 (Expert panelist with experience of working with people with learning disability)	*	*	*	*
Offering mental health first aid to a person experiencing psychosis: a Delphi study to redevelop the guidelines published in 2008 (Cottrill et al., 2021)	Australia	157 (Mental health consumers, carers, and clinicians)	*	*	*	*

Studies included that adopted Delphi techniques have developed guidelines beyond the details in the conducted RCTs to assist trainees on how best to respond to anyone whose mental health is causing concern. It was envisioned that these guidelines, available from MHFA Australia, would help in more context specific MHFA courses like the workplace guideline for managers (Narayanasamy et al., 2018).

Of all the studies included here, only one (Bovopoulos et al., 2016) developed a guideline to assist anyone living with mental distress in the workplace. The Delphi methodology enabled the authors to establish procedures that provide detailed instructions on when and how to approach a co-worker who may be experiencing a mental health issue or crisis; this includes listening and communicating non-judgmentally; providing support and information; and how best to respond to situations. However, the applicability of the guideline across different contexts is problematic due to the lack of knowledge about the impact of MHFA on recipient outcomes since the guidelines are aimed at supporting MHFA trainees to how best to help individuals experiencing a mental health difficulty.

Several guidelines have been developed before that of Bovopoulos et al. (2016); two guidelines have been developed for psychosis and depression, emphasizing the need to detect symptoms to help trainees identify when an individual is experiencing a mental health difficulty (Langlands et al., 2008b). Others include; guidelines developed to assist individuals with problem drinking & problem drug use (Kingston et al., 2011) (Kingston et al., 2009) and panic attacks (Kelly et al., 2009). There are also culture-specific guidelines developed for Aboriginal or Torres Strait Islander adolescents (Chalmers et al., 2014) and one for Lesbian, Gay, Bisexual, Transgender, Intersex, and Queer (LGBTIQ) communities (Bond et al., 2017). There was an initial development of guidelines for suicidal ideation and behaviour (Kelly et al., 2008), with a redevelopment required following the findings of non-suicidal self-inflicted injury interventions subsequently (Ross et al., 2014). Guidelines to support individuals that have experienced a traumatic event were developed previously in 2008 (Kelly et al., 2010) and redeveloped in 2020 (Chalmers et al., 2020). Studies included after the initial search include guidelines developed for individuals with hearing problems (Ferndale, 2021) and intellectual disabilities (Bond et al., 2021).

There was also a recent redevelopment of guideline for offering mental health first aid to someone experience a psychotic episode (Cottrill et al., 2021).

In this section, I discussed a variety of guidelines for providing MHFA interventions that are tailored to address specific issues faced by individuals from diverse cultural backgrounds and within the LGBTIQ community. These guidelines have been developed based on the core components of MHFA, which include the ALGEE approach for supporting individuals experiencing mental health challenges. We have also adapted these elements to provide additional support for individuals across other minority groups in society. By following these guidelines, we can ensure that we are providing effective and inclusive support to those who need it most. However, the ALGEE step has no theoretical basis and cannot be easily mapped to any behavioural change taxonomies (BCT) like prompts/cues, goal setting, support amongst the 93 BCTs developed by Michie et al. (2013). Furthermore, there is no empirical evidence to show the set guidelines' impact on their intended recipients. The effect of the guidelines on recipient outcomes remains a gap in the literature that future studies should consider. Without this gap being addressed, nothing is known about the effectiveness or safety of working with people living with severe mental distress.

2.8 Quality Assessment

Systematic Review & Meta-Analyses

Using the PRISMA checklist (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), each review’s compliance details are detailed in table 7.

The first review by Hadlaczky et al. (2014) had low compliance with the PRISMA checklist, as the study was not clear on the objectives using the PICO approach, as suggested in the statement. There was also no detailed presentation of data on the risk of bias. Reviews by Morgan et al.(2018), Maslowski et al. (2019), Liang et al. (2021), Forthal et al. (2021) and Sanchez et al. (2021) presented a higher level of compliance with the PRISMA checklist, with a detailed presentation of data extraction amongst many other items on the lists.

Evaluative studies

The evaluative studies are sub-categorized into quantitative non-randomized and quantitative randomized studies. The studies included were quality assessed using the mixed method assessment tool (MMAT). The quantitative non-randomized studies were of moderate to high quality. Only one study was below the moderate threshold of 3 stars (Mendenhall et al., 2013); this was based on the study failing on the three quality criteria. This study did not use a validated, tested measure to answer the set outcome measures. Participants were recruited through convenience sampling, which increases the risk of selection bias.

The three included quantitative randomized studies were relative to good quality. All three studies' quality criteria not met, were linked to how the studies reduced bias. These studies did not report the power calculations used to determine their sample sizes, making it difficult to assess whether the studies were adequately powered. However, the studies identified small sample sizes that were likely to result in inadequate statistical power. This is a serious limitation of these studies.

Qualitative studies

Qualitative research methods are more suitable for exploring the 'what', 'how' and 'why' of a complex topic to understand, including the meaning people attach to experiences alongside understanding *how* an intervention works in the case of an evaluation. Qualitative studies are concerned with processes, experiences and the interpretative practices of a specific population (Green & Thorogood, 2004).

Similar methodological approaches were adopted by the qualitative studies included here. The MMAT quality criteria state the following criteria with which all qualitative studies need to be assessed:

- Is the qualitative approach appropriate to answer the research question?
- Are the qualitative data collection methods adequate to address the research question?
- Are the findings adequately derived from the data?
- Do the data sufficiently substantiate the interpretation of results?

- Is there coherence between qualitative data sources, collection, analysis, and interpretation?

All the included studies in this category were, therefore, of moderate to high quality.

Mixed method studies

The studies included have met all the recommended criteria; the studies have shown a clear rationale for the use of mixed-method design, by using in-depth interviews to explore the effects of training on MHFA on trainees and feedback on the delivery of the training from MHFA instructors (Crone et al., 2019; Massey et al., 2014; Talbot et al., 2017). Three studies have also used focus groups to capture data (Kanowski et al., 2009; Lee & Tokmic, 2019; Pierce et al., 2010).

All included studies have reported using an explanatory sequential mixed-method design, with outputs from quantitative reviews and interviews gathered at different phases. Priority was given to the quantitative data in all studies, with the qualitative data serving as supplementary outputs to explain the quantitative results.

Delphi Studies

The quality of the studies included in this category was checked against four quality items, as suggested by Diamond et al. (2014). Table 2.7 shows the details of the investigations against quality criteria and their characteristics.

The four items are as follows:

1. Were the criteria for participants reproducible? (Checking if the method to select and exclude participants was stated. If the number and type of participants' subgroups are needed.)
2. Was the number of rounds to be performed stated?
3. Were the criteria for dropping items clear?
4. Are the stopping criteria other than rounds specified?

All included studies met the quality criteria recommended by Diamond et al. (2014). A few of the studies had problems recruiting a representative group in the development of their guidelines. Kelly (2009), Kingston et al. (2011), and Kingston et

al. (2009) had issues recruiting carers or youth advocates whilst Ross et al. (2012) attributed the recruitment difficulty to participants inability to identify themselves as carers.

2.9 Summary of Evidence Synthesis chapter

Following the introduction of MHFA in 2000, there has been arguably a large body of evidence-based research reported about the subject. Much of this literature evaluates the short and long-term impact of MHFA. Qualitative studies exploring the effect at various time points are fewer. Simultaneously, some of the RCTs reported in the two reviews have highlighted the need for a more extended follow-up period beyond 12 months. There is some evidence to show the impact of MHFA on increasing the knowledge of trainees about mental health disorders, raising the confidence levels of the trainees in rendering help to someone in distress or a mental health crisis, and reducing stigmatizing attitudes towards people with a mental health challenge. However, no studies have assessed the impact of this training on direct or indirect end-users of MHFA. The implementation of MHFA by participants in their various organizations and the support and barriers experienced in the process have not been widely explored in studies to date.

Also, the ALGEE approach is the guiding principle overseeing the MHFA intervention. However, this ‘guiding principle’ lacks theoretical or conceptual clarity. Arguably, the primary purpose of MHFA is to improve mental health literacy, help people experiencing a mental health crisis and improve their help-seeking behaviour, whether it be self-treatment, professional, voluntary or other help. But what active ingredients in the intervention help in improving help-seeking behaviour amongst recipient remain unclear.

The next chapter will cover a review of theoretical issues in help-seeking, addressing the concept of help-seeking and current gaps in the theories adopted in developing mental health help-seeking interventions.

Chapter 3 - Literature Review: Theoretical Issues in Help-seeking.

3.1 Introduction

This chapter provides a review of theoretical issues in help-seeking, specifically the origins of mental health literacy and relevant concepts considered for developing mental health literacy interventions. This chapter examined the mental health help-seeking concept and the gaps and issues around the theories adopted in developing interventions used to promote help-seeking behaviours. This chapter explored the current theoretical weakness in current help-seeking theories and models and gave a scope for the use of the COM-B model.

3.2 Overview of theoretical framework in health-behaviours.

A theory is argued to provide a framework for testing predictors across the sciences. To be able to predict health behaviours, a theoretical framework is necessary as a means to explain key underlying psychological mechanisms and processes. Theories can inform the development of interventions designed to change behaviours and promote healthy living (Prestwich et al., 2015). Numerous reviews have reported positive changes in health behaviour from those interventions based on theories, compared with those that are not theory-based (Prestwich et al., 2015). The development of theory-based interventions requires an understanding of the critical elements of an intervention and its mechanisms of action (MoA). The MoA provides a comprehensive understanding of how the theory-based interventions achieve their predicted outcomes (Carey et al., 2018). Establishing a link to the MoA also provides pertinent contextual influences on how interventions influence their change in achieving a healthy behaviour (Michie, Susan & Prestwich, 2010). For instance, following the evidence synthesis of MHFA studies in the earlier section, few mechanisms of action were identified for MHFA trainee related outcomes. Few studies have also reported changes in attitudes and behaviour of trainee's post-training (Maslowski et al., 2019). The effectiveness of MHFA upon recipients is an area that is absent in current literature. Despite the changes in behaviours towards people struggling with a mental health difficulty, knowledge about mental health difficulties and confidence to assist someone struggling with a mental health difficulty reported amongst trainees, none of the studies reviewed has demonstrated how the

intervention content in MHFA might have caused the reported changes. Evidence shows that robust behaviour change theories underpin the most effective 'psychological interventions' and yet there is currently no such data on this with regards MHFA (Michie et al., 2005).

3.3 Mental Health Literacy (MHL)

Jorm and Colleagues (1997) defined MHL as an individual's knowledge and beliefs about mental health disorders, which they hope would aid the recognition, management, or prevention of these disorders. This definition evolved from health literacy. The definition was further refined by Jorm & Colleagues (2012) to include knowledge that aids early recognition of mental health disorders, knowledge about self-help strategies, and first aid skills to support anyone struggling with a mental health challenge. There have been calls for the expansion of MHL (Kutcher et al., 2016; Wei et al., 2015). The proponents suggested that MHL should be context-specific and developmentally appropriate, achieved by not straying too far from the core principles of MHL, which include knowledge, attitudes, stigma, and help-seeking efficacy. The proponents focused on the need to include details on how MHL is decreasing stigma associated with mental health difficulties, knowledge on how to attain and sustain positive mental health and help-seeking efficacy, which is related to having an understanding of when and where to seek help to improve one's mental health (Bjørnsen et al., 2019; Kutcher et al., 2016; Wei et al., 2015).

The failure to recognise symptoms of mental health disorders is a component currently been addressed by one of the core principles of MHL; individuals' ability to communicate their mental health difficulties to health practitioners makes it difficult for appropriate help to be rendered on occasions (Jorm et al., 2000). The inability to recognise symptoms has previously been identified as one of several factors contributing to individuals' failure to seek help for their symptoms (Gulliver et al., 2010). Early studies in this area examined a representative sample of the Australian public using a vignette detailing the story of a person experiencing major depression and schizophrenia. The study reported only 39% (n=1010) and 27% (n=1021) of the public sample were reported to have identified the correct diagnostic label as depression and schizophrenia. However, 72% of them identified that the vignette referred to an individual struggling with a mental health difficulty, whilst 11%

(n=1010) referred to the details of the symptoms as a physical disorder (Jorm et al., 1997). Other studies conducted worldwide (India, Sweden, Japan, Canada, and the United Kingdom) have generally reported under-recognition of mental health symptoms (Dahlberg et al., 2008; Kermode et al., 2009; Klineberg et al., 2011; Wang et al., 2005). Recognition has been reported in several studies to play an essential role in help-seeking (Gulliver et al.,2010). However, there is a considerable debate about using psychiatric labels within society to promote recognition and early help-seeking (Wright et al., 2007).

The use of psychiatric labels predisposes individuals to the societal expectations of certain behaviours, whilst some have argued it makes people susceptible to stigmatizing behaviour (Picco et al., 2018).

Other MHL components are focused on the knowledge and beliefs of individuals about the causes of mental health disorders, professional help available and information on how to seek help, and beliefs about self-help interventions.

The next section of this chapter will focus on the help-seeking concepts of MHL identified earlier. The section will explore the various forms of help-seeking, the theories adopted in developing help-seeking interventions like MHFA and the current gaps and limitations in the theories currently adopted in developing help-seeking interventions.

3.4 Help-Seeking as a concept

Help-seeking from a professional source remains a public health challenge to ensuring adequate prevention, early detection and treatment of mental health difficulties (Gulliver et al., 2012). It is considered an essential step to improving quality of life, which is considered a key factor in developing policies, campaigns, and programmes for improving the public's wellbeing and access to mental health services (Salaheddin & Mason, 2016).

It is understood that the concept of one aspect of illness behaviour explores how individuals respond to changes in their health based on their actions to resolve such health-related difficulty experienced in that present time. Illness behaviour is described as "how symptoms are perceived, evaluated, acted upon by a person who

recognises some pain, discomfort, or other signs of organic malfunction" (Mechanic, 1986p.52).

As defined in a World Health Organization study on adolescent help-seeking (Barker, 2007), help-seeking is described as any action carried out by an individual that recognises the need for personal, psychological, affective assistance intending to get some support. There is still no agreed definition of the term help-seeking (Gulliver et al., 2012). There were implicit and explicit understandings of help-seeking, which has driven the definition of Rickwood and Colleagues (2012 p.30). They describe help-seeking as "an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern" They described the concept as an "attempt to find" (seek) "assistance to improve a situation or a problem". The definition has three main components which are the "behavioural process", the "assistance", which focuses on the characteristics of the help, which is commonly classified into formal and informal assistance, and "concern", referring to the mental health difficulty for which an individual is seeking help (Rickwood et al., 2012).

Research has shown a multifaceted link between help-seeking behaviour and self-stigma. Studies have constantly found that individuals who experience mental health difficulties are often reluctant to seek help due to the fear of being stigmatised (Pescosolido et al., 2007). The fear discussed is often based on the conviction that help-seeking is a sign of weakness and could lead to negative consequences like being labelled as crazy or incompetent (Corrigan & Rao, 2012).

Furthermore, it’s been reported that individuals that get round to seeking some support for their concerns often experience increased self-stigma, which can lead to feelings of shame, and a decreased sense of personal control (Vogel et al., 2007).

However, it is also important to understand that are other factors that can mitigate the negative impact of help-seeking behaviour on self-stigma. For instance, research has shown that social support can serve as a protective factor against self-stigma and can increase an individual's sense of control over their mental health (Livingston & Boyd, 2010). Additionally, interventions that focus on reducing self-stigma and increasing help-seeking behaviour effectively reduce the negative impact of self-stigma on individuals' mental health (Corrigan & Rao, 2012).

The current thesis will adopt the help-seeking definition by Rickwood et al. (2012) as it acknowledges all the essential components often neglected in different versions of the definition. Poorly operationalised elements in the previous version of help-seeking definitions include the timeframe taken for the help-seeking action and the type of assistance (either formal or informal). The thesis aims to understand the impact of MHFA on the behavioural process involved in help-seeking, most significantly, observable help-seeking behaviour.

3.5 Help-seeking theory

Individuals are understood to have the ability to affect their health and wellbeing by adopting behaviours that contribute towards their improvement. The study on the determinants of some of these healthy behaviours started as far back as the nineteenth century; most of the studies then were focused on the processes of "social learning and relationships between knowledge, attitudes and behaviours" (Taylor et al., 2006 p. 22). For example, several theories and models like the theory of planned behaviour (Tomczyk et al., 2020a) and health belief models (Langley et al., 2021) have been used to understand and explain help-seeking behaviours for mental health conditions. However, none of these theories or models is widely accepted in the research community (Gulliver et al., 2012).

Several theories or models can explain or understand health behaviour change. Whilst it is beyond the scope of this thesis to look at all the theories or models, the thesis will consider specific theories and models reported in previous literature (Gulliver et al., 2012) that explains and understands mental health help-seeking behaviour. The theories and models, alongside their descriptions, are detailed in Table 3.1.

Table 3. 1: Selected help-seeking behaviour change theories & descriptions.

Help-seeking Behaviour Change Theories	Description	Current Limitations
Health Belief Model (Becker et al. 1972)	HBM posits that specific beliefs primarily determine the likelihood of preventative action; perceived	HBM only predicts help-seeking intentions, there is a lack of evidence

	susceptibility to the disease, perceived severity, perceived benefits, and perceived barriers.	that intentions translate to actual behaviour particularly in mental health context.
Andersen' behavioural model (Andersen, 1995)	The model explains incorporating both individual and contextual determinants of health services use. The model recognises three predictors to health service utilisation namely: Predisposing factors, enabling factors and Needs.	There is a lack of emphasis on health beliefs and social structures' influence on individual needs, particularly service utilisation.
Theory of Planned Behaviour (Azjen, 1991)	The theory acknowledges intentions to be critical in undertaking any given action. Intentions is understood to be influenced by individuals' attitude to behaviour, subjective norm and perceived behavioural control.	The TPB, amongst other theories designed to predict health behaviour, interprets goal intention as a willingness to perform the behaviour.
A dynamic interpretive model of illness behaviour (Biddle et al., 2007)	The model describes non-help-seeking in a circular process, the cycle of avoidance. This describes influences an individual's conceptualisation of mental distress, beliefs on how society view help-seeking and the act of seeking help.	The portrayal of both categories of the continuum might create a certain level of reluctance to ask for assistance, as the convictions expressed by the respondents indicate a difficulty in recognizing the appropriate moment to seek expert aid for mental health problems.

Conceptual measurement framework for help-seeking for mental health problems (Rickwood et al. 2005)	The model conceptualises help-seeking as a multi-stage process which usually starts with an individual's understanding of a problem, expression and the need to seek help.	The investigation into this conceptual framework is still in its nascent stage.

This thesis aims to understand how applicable the theories and models are in explaining and understanding mental health help-seeking behaviour. The help-seeking behavioural change theories examined are the theories and models commonly applied to help-seeking for mental health difficulties from previous literature (Gulliver et al., 2012). To evaluate the applicability of a theory, Brawley (1993 cited in Callaghan, 2014) set five criteria against which to test a theory. These are shown in figure 3.1.

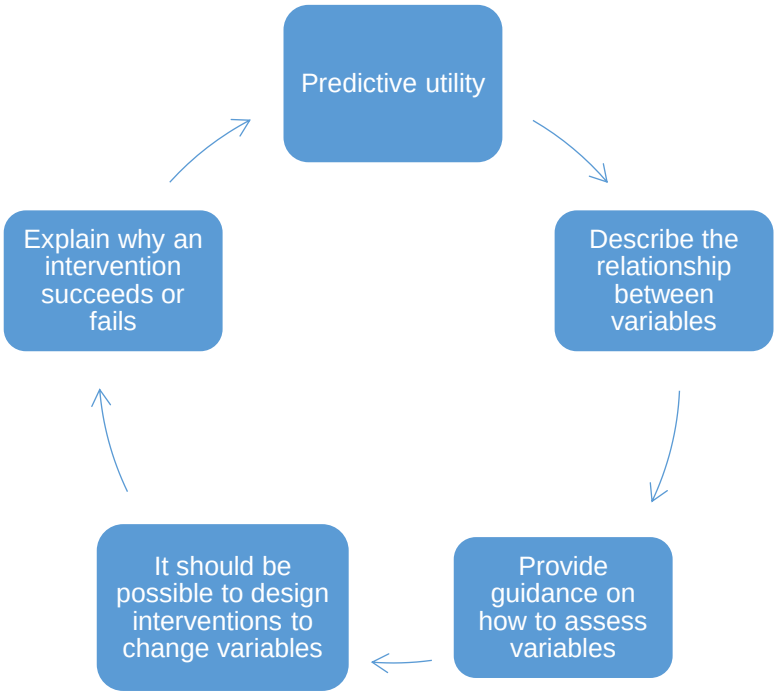

Figure 3. 1: Brawley's framework for testing the practicality of a theory.

Health Belief Model (HBM)

The HBM was the first conceptualised model for understanding health behaviours on a large scale; the model has been utilised in several ways in understanding some healthy behaviours like healthy eating (Webb et al., 2010), screening uptake in the general population (Lau et al., 2020; Ritchie et al., 2021). HBM posits that specific beliefs primarily determine the likelihood of preventative action; perceived susceptibility to the disease, perceived severity, perceived benefits, and perceived barriers (Michie et al., 2014). Studies have reported that demographic variables like race, age and socioeconomic status influences all four variables (Henshaw & Freedman-Doan, 2009). There is evidence suggesting the utility of HBM in predicting behaviours relating to physical health difficulties (Langley et al., 2018).

With Brawley's criteria for the theory's applicability, the health belief model has been reported to have moderately performed on the predictive utility criteria (Callaghan, 2014). The theory has been reported elsewhere to have a low predictive capability as it predicts only 20% of the variance in healthy behaviour (Orji et al., 2012). Also, the theory is notably weak in describing the relationships between its variables/determinants as some of the variables are not directly related to health behaviour. However, the lack of a description of the relationship between the variables allows for flexibility in using HBM across several healthy behaviours; there is less knowledge on the model's validity in predicting mental health behaviour. A previous review has questioned its disconformity as many studies included in the review identified one or two variables that were not significant predictors of actual behaviour (Ogden, 2003). In a meta-analysis by Carpenter (2010), only perceived barriers and perceived benefits were the strongest predictors of behaviour. The usefulness of HBM in predicting help-seeking behaviour in the form of mental health service utilisation remains an emerging area addressed in help-seeking literature (Henshaw & Freedman-Doan, 2009). An earlier study by O'Connor et al. (2014a) examined the aspects of HBM that explains the predictors for mental health help-seeking. The study reported that high perceived benefits, low perceived barriers, high extraversion, and low social support were indicators of the likelihood to seek help whilst level of perceived treatment benefits predicted the likelihood to seek help despite perceived barriers identified (Langley et al., 2021). The utility of HBM has been used in predicting help-seeking intentions for specific mental health difficulties,

including depressive symptoms and anxiety disorder (Langley et al., 2018; Langley et al., 2021). Perceived treatment benefits were reported as the most significant predictors of help-seeking intentions for anxiety disorders and depressive symptoms (Langley et al., 2018). Despite the ability of HBM to predict help-seeking intentions as reported in the studies highlighted, the scope remains at the intentions stage. It does not necessarily translate to actual behaviour. This is an area that is still lacking across current literature.

Andersen's behavioral model

Andersen's behavioural model has also been applied to predicting help-seeking behaviour for mental health difficulties (Goodwin & Andersen, 2002; Portes et al., 1992). The model explains incorporating both individual and contextual determinants of health services use. In doing so, it "… divides the major components of contextual characteristics in the same way as individual characteristics have traditionally divided—those that predispose …, enable …, or suggest a need for individual use of health services" (Andersen, 2008 p. 652).

The model recognises three predictors to health service utilisation, *predisposing factors* which is not limited to demographic variables like age, gender, and race. Also, within this category lays attitudes and beliefs about seeking help (Andersen, 2008). The *enabling factors* refer to resources that support access to formal support, including an individual's support system and structural resources like income. The third predictor is *needs,* which is understood to be based on how symptoms are perceived and experienced, which predisposes an individual to use services.

Cairney et al. (2004) utilised Andersen's model to examine whether mental health service utilisation amongst single-parent mothers was due to need factors (as defined based on diagnostic criteria reported in DSM -IIIR and ICD-10) compared to the other variable as predictors of service utilisation. The study utilised data from two large surveys in Canada to test this assumption. The study findings revealed that single-parent mothers were more likely than married mothers to have sought professional help for mental health issues, mainly due to the need factors and no other variable. The study suggested that the use of services appeared equitable in that, needs related to symptoms experienced amongst single mothers as compared

to married mothers was the critical factor differentiating the use of services between both parties.

In a systematic review exploring the factors associated with health service utilisation for mental health difficulties (Roberts et al., 2018), needs factors were the most associated with treatment-seeking for mental health difficulties. The needs factors included individuals self-rated perceived need for care, evaluated symptoms severity amongst many others detailed in their review. The review also highlighted the lack of evidence linking psychological and health system factors to predict treatment seeking. In contrast to the review, a study by Simo et al. (2018) reported having a family doctor, previous experience of mental health services and being employed were the three main enabling factors predictive of the use of services. The study also reported three non-clinical needs variables to predict mental health service use. The needs factors included individual perception about mental health, unmet needs, and stressful events. Although this finding adds to the current literature on predictors of mental health service use, data utilised for this conclusion were from self-reported measures. The study relied on the participant's ability to recall past events predisposes the finding to report bias.

With Brawley's framework, the model has a low to moderate predictive utility in explaining help-seeking behaviour. The predictive utility has been shown in studies across various populations (Roh et al., 2017; Simo et al., 2018). In assessing key variables on a general basis, the model has explained the key variables quite well. Although observed in a few studies identified in a systematic review by Babitsch et al. (2012), variables were merged. The relationships between the variables were sufficiently described within this model (Andersen et al., 2007), with some variables like socioeconomic factors playing a dual role in explaining health service use. However, a significant criticism of Andersen's model is the lack of emphasis on health beliefs and social structures' influence on individual needs, particularly service utilisation (Babitsch et al., 2012).

Theory of planned behaviour

Azjen's theory of planned behaviour (TPB) (1991a) has been applied to improve help-seeking behaviour (Gulliver et al., 2012). Compared to other psychological models, it is regarded as the only model that addresses all aspects of help-seeking

intentions (White et al., 2018). After reviewing various concepts of help-seeking, help-seeking intentions were defined as "a conscious plan to exert effort to communicate about a problem, emotional pain or psychological issue where that communication is an attempt to obtain perceived support, advice or assistance that will reduce personal distress" (White et al., 2018 p. 65).

The theory acknowledges intentions to be critical in undertaking any given action. It is also understood to "capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, performing the behaviour" (Ajzen, 1991, p. 181).

TPB components have also been linked to the various stages of help-seeking (Tomczyk et al., 2020), subjective norms that are regarded as beliefs about what others think about the behaviour that links to recognition and awareness of social support available to deal with a mental health concern. The attitudes element appraises behaviour, weighing its benefits linked to an individual's readiness/willingness to seek help. The last component of the TPB, which is perceived behavioural control, focuses on an individual's confidence and control over performing any behaviour is linked to an individual's ability to seek help for their mental health difficulty.

A range of studies has investigated TPB components in help-seeking for mental health concerns (Bohon et al., 2016; Hui et al., 2015; Mak & Davis, 2014; Schomerus et al., 2009; Tomczyk et al., 2020b). Previously identified studies have examined the predictors of help-seeking intentions using TPB apart from the study by Tomczyk et al. (2020b) that aimed at addressing the help-intentions and behaviour gap commonly not addressed by previous study. The study examined the prediction of actual help-seeking behaviour from help-seeking intentions, although they reported a strong prediction fifty-four percent (54%) of the participants examined in the study has previously received some form of therapeutic support for a mental health difficulty. Therefore, expectancies about actual help-seeking behaviour might be misunderstood. Other studies, Bohon et al. (2016) reported a partial predictive explanation for help-seeking intentions; the study highlighted that only attitudes and perceived behavioural control directly predicted intentions. Also, Mak & Davies (2014) reported perceived behavioural control as the strongest

predictor of help-seeking intention. Schomerus et al. (2009) reported a slightly different result where attitudes and subjective control were regarded as the strongest predictors of intention. In contrast, the study by Hui et al. (2015) reported no significant changes to help-seeking intentions. However, their lack of adequate statistical power might have accounted for the non-significant result.

With Brawley's framework, the TPB fulfil two of the five criteria. The two criteria include its ability to explain why an intervention succeeds or fails and the possibility of designing interventions to change the variables. The former could be due to a lack of intervention developers clearly not explaining the theoretical basis for the intervention. The TPB, amongst other theories designed to predict health behaviour, interprets goal intention as a willingness to perform the behaviour. Gollwitzer (1999) developed the implementation intentions model to address the misinterpretation of a goal intention. Based on the model of action phases developed by Heckhausen & Gollwitzer (1987), intention alongside steps taken to implement intentions complements each other to ensure goal attainment. The concept has been utilised in smoking cessation (McWilliams et al., 2019).

Furthermore, other criticisms of TPB have been its focus on rational reasoning, excluding other influences on behaviour and the role of emotions in sustaining behaviour (Conner et al., 2013; Sheeran et al., 2013). The theory does not explain the influence of behaviour on cognitions and future action (McEachan et al., 2011). Previous reviews have shown that TPB measures have not accounted for the variability in observed behaviour. Most significantly are individuals who were considered to have formed an intention but have failed to act out the intended behaviour, which remains unaddressed by the theory (Orbell & Sheeran, 1998).

In mental health help-seeking, implementation intention formation involves overcoming limitations to help-seeking by coming up with active responses referred to as “variable that determine effective goal pursuit” by Gollwitzer (1999, pg. 473) that are accessible to carry out the intended action.

Other help-seeking models

Help-seeking has also been conceptualised from a sociological perspective. A dynamic interpretive model of illness behaviour developed by Biddle & Gowen

(2009) describes non-help-seeking in a circular process, the cycle of avoidance which influences an individual's conceptualisation of mental distress, beliefs on how society view help-seeking and the act of seeking help. The model was developed from an inductive analysis of participants' explanation of their interpretation and response to mental distress. The study by Biddle et al. (2007) looked more specifically at non-help seekers to understand why individuals decide not to seek help. The narrative revolved around participants' explanation of distress within a framework of normal and real distress, which further influences their actions to address their distress. Young people experiencing mental health distress attributes their feelings and behaviours afterwards to a mental health difficulty which often causes a delay in them seeking help for the difficulty. The cycle of avoidance occurs from the narrative around how mental health distress is conceptualized, Biddle reported two distinct categories where participants reported that their mental health difficulty could be placed into along a continuum from slight to serious. The categories are normal and real distress, whilst the normal distress is regarded as nonconsequential a phase that's temporary. The real distress category is on the other hand regarded as something that could be extreme, rare, and often permanent. The description of both categories could relatively cause some resistance to seeking help as the beliefs described by the participants signifies a challenge in identifying the right time to seek professional help for a mental health distress.

Furthermore, Rickwood & colleagues' (2005) model focused on help-seeking amongst young people who conceptualised help-seeking as a multi-step process. The process starts with developing awareness, expression, and a need to seek help for a particular problem. The identification of appropriate sources and a willingness to seek help follows. Help-seeking is regarded as a relationship of personal and interpersonal factors. The personal factors explore the thoughts and feelings that influence the decision to seek help whilst the interpersonal factors look more at the social relationships that influence individuals' decision to seek help. However, the examination of this relationship remains in its early infancy.

Conclusion on reviewed theories and models

The primary criticism of the major theories and models that have conceptualised help-seeking behaviour or mental health service utilisation is their lack of addressing

some health behaviours' emotional components (Henshaw & Freedman-Doan, 2009). Previous studies on help-seeking have investigated the links between behavioural intentions and actual help-seeking behaviour (Tomczyk et al., 2020b). The study reported that attitude and subjective norms were associated with help-seeking intentions, which predicted help-seeking behaviour. In contrast, the perceived barriers to help-seeking were weak and required more attention. Despite the positive association between two of the three components, the challenge remains understanding aspects of willingness. Contemplating seeking out help should not be misinterpreted as actual behaviour.

The reviewed theories have shown how attitudes and beliefs influence intentions to seek help. Still, there is little empirical evidence to support the hypothesis related to mental health difficulties more specifically. It's been established that attitudes do not translate into action (Han et al., 2006). Help-seeking behaviour has been conceptualised as a long process; that occurs in stages that involve recognition, readiness, ability, and willingness to seek help for a mental health concern (Rickwood & Thomas, 2012). Also, help-seeking behaviours are external; thus, changing individuals' perceptions might be challenging (Gulliver et al., 2010). All forms of stigmatisation attitudes to mental health difficulties are significant barriers to help-seeking; this also involves how individuals perceive all the steps involved in seeking help, including the source of help. A review by White et al. (2018) reported TPB as the only psychological model that addresses all stages of help-seeking intentions (recognition, willingness, and ability) discussed by Rickwood & Thomas (2012). However, studies investigating the components of TPB in help-seeking have only focused on help-seeking intentions and attitudes and not actual behaviour (Tomczyk et al., 2020b).

In conclusion, applying theory in the design and evaluation of behavioural change interventions is considered good practice (Craig et al., 2013). Glanz & Rimer (2005 p. 4) explain a theory as "a systematic way of understanding events or situations. It is a set of concepts, definitions, and propositions that explain or predict these events or situations by illustrating the relationships between variables". One of the benefits of using theories in evaluating interventions is the identification of constructs that are theorised to identify the relationship between a behaviour and intended interventions (Prestwich et al., 2015). Also, identifying these constructs and their interactions

resulting in a particular behaviour will more likely lead to behaviour change (Hardeman et al., 2005).

To date, no theory has been utilised to explain the mechanisms of successfully performing a help-seeking behaviour. This thesis will utilise (Rickwood et al., 2012, pg. 30) definition of help-seeking behaviour as "an adaptive coping process that attempts to obtain external assistance to deal with a mental health difficulty". There is a need to address the identified limitations from the review of the theories and the overlapping nature of the variables utilised across the currently used theories/models for predicting help-seeking behaviour. It also identifies health behaviour change theories that could be utilised to address all aspects of help-seeking behaviour beyond its current limits where help-seeking intentions are misconstrued for behaviour.

3.6 Scope for a new model for Help-seeking: Addressing current limitations.

Michie & colleagues (2005) developed a theoretical domains framework to address the numerous shared and overlapping constructs across psychological theories. They envisioned the future of implementation science to be enhanced by applying psychological explanations of behavioural change rather than examining theoretical models' predictive nature. The Theoretical Domains Framework (TDF) is a set of domains developed from a formal consensus process by three health psychology theorists (HPT). The group was tasked to identify theoretical constructs and reach a consensus on how related the constructs were. Health services researchers (HSR) were tasked with giving critical feedback on the list of constructs developed, and health psychologists (HP) were included for the validation exercise. The team identified 128 constructs from 33 psychological theories relevant to behavioural change. The constructs were then grouped into 12 domains, further refined to 14 domains (Cane et al., 2012). Moreover, TDF has been utilised in a couple of ways, like in a synthesis of systematic reviews (Richardson et al., 2019), in identifying barriers and facilitators to interventions (Armstrong et al., 2021; Eilayyan et al., 2020; Hayes et al., 2019). The framework has not been utilised in examining the nature and extent of mental health help-seeking.

Despite the emphasis on the use of theory in the development and evaluation of interventions, there is considerable evidence of failings in studies assessing

behavioural interventions to state any theoretical model they have used to observe the constructs that underpin intended behaviours observed (Kleinman & Dougherty, 2013; Marcus et al., 2006; Michie et al., 2005). Also, the categorisation of intervention content has been problematic due to the lack of a standardised definition of intervention components (Abraham & Michie, 2008). In recent years, guidance for reporting interventions like the Template for Intervention Description and Replication (TIDieR) and behaviour change taxonomies have helped identify appropriate active ingredients in any intervention. These have been linked to theoretical constructs of behaviour change and understanding the process through which BCTs have their effects.

Furthermore, the health behaviour change field is gradually utilising this tool to ensure replication, evaluation, and synthesis of findings applicable to any behaviour change process. A recent review by (Carey et al., 2018) aimed at identifying links between BCTs and Mechanisms of Actions (MoA) through which an intervention brings about change. Twenty-eight per cent of the 974 intervention articles published between 1982 and 2016 were included in their review because they described at least one link between BCTs and MoA. The included intervention studies that targeted a range of behaviours, primarily physical activity, dietary behaviours, alcohol reduction and smoking. Fourteen per cent (14%) of these papers did not mention any theoretical basis for their intervention. The team identified 2,636 BCT-MoA links between 70 BCTs and 25 MoAs. However, the links identified were based on the authors' description of what's assumed to be linked. Only 0.9% of the links were reported to be empirically tested. Most linked BCTs includes "instruction on how to perform the behaviour" and "problem-solving", whilst the most frequently linked MoA was "beliefs about capabilities" and "Intentions".

A few techniques have been identified as essential to promoting positive mental health help-seeking behaviour within mental health help-seeking. They include a general focus on improving mental health literacy, which aids in recognising, managing, or preventing mental health disorders (Jorm et al., 1997) — also focusing on reducing stigma surrounding mental health disorders and encouraging contact with mental health services. Other content types aim to provide valuable information about services (Gulliver, 2012).

In addition, a review by Gulliver et al. (2012) of help-seeking interventions reported three broad aspects commonly examined by studies investigating help-seeking. The aspects commonly examined are attitudes towards help-seeking, including the current beliefs and willingness to seek help, intentions to seek help, and actual help-seeking behaviour (Gulliver et al., 2012). The review also reported effective ingredients in help-seeking interventions; attitudes alongside its related facets (beliefs and willingness) are the only outcomes to have shown considerable improvement in post-intervention studies (Gulliver et al., 2012). Previous studies have established links between attitudes, intention, and predicting behaviour (Mackenzie et al., 2006; Robb et al., 2003).

Two systematic reviews of help-seeking interventions for mental health difficulties have been conducted. Gulliver et al. (2012) examined the effectiveness of help-seeking interventions for individuals struggling with depression, anxiety, and general psychological distress. The review included studies (n=6) (Buckley & Malouff, 2005) video-based intervention of psychotherapy account of previous service user; Christensen et al., (2006) (Two web-based intervention which includes a MHL & CBT programme); Costin et al., (2009) (Two e-cards intervention which includes basic and advanced MHL programme with help-seeking source information); Donohue et al., (2004) (Interview based intervention which includes MHL programme with help-seeking source information); Han et al., (2006) (Three written material intervention which includes advanced MHL on biological attribution of depression and destigmatisation); Sharp et al., (2006) (Classroom-based intervention which includes advanced MHL, destigmatisation and help-seeking source information) that contained extractable data on help-seeking outcomes of attitudes, intentions, and behaviour. Of all the studies included, only three measured help-seeking behaviour from a professional source (Christensen et al., 2006; Costin et al., 2009; Sharp et al., 2006) whilst Sharp et al. (2006) used a self-reported measure developed for the study. Other studies, including Sharp et al. (2006), examined attitudes and beliefs about professional help. The review also reviewed the contents of the intervention targeting various aspects of help-seeking. The majority of the studies included (n=6) comprised content targeting mental health literacy, others included content targeting de-stigmatisation information (n=3), offering help-seeking source material (n=3), weekly contact via telephone (n = 2), contact with previous consumers of

psychotherapy via pre-recorded video (n = 1), online CBT using cognitive restructuring with a range of behavioural techniques (n= 1), and personalised feedback about the individual's symptoms (n = 2). Only the intervention used by Buckley & Malouff (2005) has a theoretical underpinning using cognitive learning theory where a short video of a positive experience of an individual receiving psychotherapy improved attitudes towards help-seeking for mental health treatment. Gulliver's review reported significant improvements at post-test for at least one help-seeking measure, specifically attitudes towards mental health difficulties, willingness to seek help, and beliefs about mental health difficulties.

Xu et al. (2018) examined the effectiveness of help-seeking interventions for promoting help-seeking for mental health difficulties, specifically the impact on attitudes, intentions, and behaviours in terms of the form of help that an individual might seek (Formal, Informal and Self-help). Other outcomes examined included mental health literacy and stigma. Ninety-seven articles were included in the meta-analysis, interventions reported in the studies targeted various population groups. For relatives or significant others of individuals with a mental health difficulty, motivational enhancement was commonly used most significantly for carers of individuals at risk of substance use disorder. Psycho-educational or cognitive behavioural strategies were commonly used to improve the mental health literacy of individuals with a mental health difficulty; a similar approach was used to reduce stigma as a barrier for seeking help. On a community level, collaborative care training for primary care and community-based professionals were adopted.

Similarly, this review (Xu et al., 2018) also reported content of the intervention targeting various aspects of help-seeking; they also reported increasing mental health literacy, de-stigmatisation and content aimed at motivational enhancement. Compared to Gulliver's review that focused on promoting help-seeking for some mental health difficulties, Xu's review reported a significant improvement in help-seeking behaviour in only one study from the three that measured help-seeking behaviours. Moreover, the intervention used in the study was cognitive behavioural therapy (CBT) and personalised feedback. There was no significant improvement post-test in the only study that measured help-seeking intentions (Gulliver, 2012). Ziyan's review reported improvement in help-seeking measures like intentions, attitudes, and formal help-seeking behaviours for interventions delivered directly to

those at risk of mental health compared to those delivered to the public. It remains unclear if attitudes towards mental health difficulties and beliefs influence mental health help-seeking behaviour as highlighted by the theories used to predict help-seeking behaviours (Ajzen, 1991b; O'Connor et al., 2014).

The development of theory-based interventions requires an understanding of the critical elements of the intervention and mechanisms of action (MoA). The MoA provide a more comprehensive understanding of how the theory-based interventions achieve their predicted outcomes (Carey et al., 2018). Establishing a link to the MoA also provides pertinent contextual influences that could affect achieving a health behaviour intended by any intervention (Moore & Evans, 2017). As reported in the two systematic reviews of help-seeking interventions, formal help-seeking behaviour is increased for interventions targeting individuals at risk of a mental health difficulty (Gulliver et al., 2012; Xu et al., 2018). However, this is unclear due to the lack of any theoretical underpinnings to show how the interventions achieved their predicted outcomes.

Moreover, behavioural interventions are commonly delivered as part of a complex system. That system includes behavioural change techniques (BCTs) that serve as active ingredients designed to alter or redirect causal processes that affect health behaviour change (Carey et al., 2018). To develop an effective intervention, there is a need to understand the mechanisms through which various active ingredients of an intervention achieve its predicted outcomes (Michie et al., 2018). BCTs have been used across various behavioural areas (Bobrow et al., 2014; Devi et al., 2014; Webster et al., 2016). Also, BCTs have been applied in evidence synthesis to systematically identify active ingredients used in behavioural change intervention to achieve their intended outcomes (Bull et al., 2018; Gardner et al., 2016).

Michie & Colleagues also developed the COM-B model (see figure 3.2 below) as a response to the failings of the prominent theories to provide strategies to change behaviour and as a means of describing interventions and linking them to addressing a targeted behaviour (Michie et al. 2011). Embedded into COM-B is a psychological model that explains how human behaviour interacts through various mechanisms to achieve a behavioural change. The model assumption is that for the execution of any intended behaviour (B), there is usually an interaction between three essential

components, which are Capability, Opportunity, and Motivation (COM) (Eliasson et al.,2011). As discussed in the previous section of this chapter, the behavioural change models reviewed were antecedents of the COM-B model. Each of the components is understood to directly influence behavioural change, whereas capability and opportunity might also influence motivation to change behaviour.

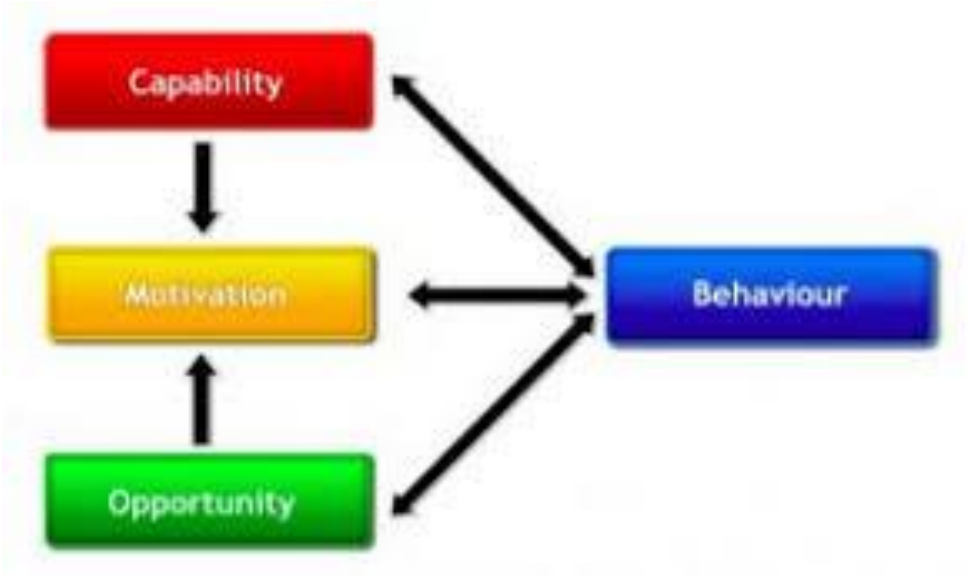

Figure 3. 2: COM- B Model (Michie et al., 2011, p. 4)

Capability can be either 'psychological' that involves knowledge and psychological skills involved in undertaking the behaviour like the having decision-making skills necessary to perform a behaviour or 'physical', aiming at the physical skills involved in undertaking any behaviour like having the strength and dexterity required to perform a behaviour. Opportunity can be either 'social', which includes social influences and cultural norms that influence behaviour like prompts and cues or 'physical', including all resources needed to perform the behaviour such as time and money. The motivation could either be 'reflective' as in conscious processes involved in performing a behaviour such as reflecting on what is good or bad about the intended behaviour or 'automatic motivation', which involves emotions and impulses in play whilst performing any behaviour such as impulses and inhibitions (Michie et al., 2014).

Furthermore, the lack of a comprehensive theoretical assessment of the implementation of behavioural change interventions and the overlapping nature of

the constructs used in developing these interventions (Nigg et al., 2002) has also been highlighted as a concern in the behaviour change field. An integrative framework of behaviour change theories was developed using a six-step consensus process (Michie et al., 2005). Further development has been undertaken to map the theoretical constructs of the TDF onto the COM-B model, most importantly drawing the relationship between domains in the three components of the COM-B model (Michie et al., 2014).

Hence, the TDF provides an opportunity for a more comprehensive examination of some of the limitations to behaviour change. It also helps intervention designers identify various intervention functions that are most likely to bring about a change. These intervention functions can also serve as facilitators that support specific behavioural change techniques to affect any intended behaviour.

The TDF framework has been utilised across several studies internationally, including the UK, including studies related to hand hygiene (Dyson et al., 2011), for healthcare professionals, identifying theories that guide decision-making in blood transfusion practice (Francis et al., 2009b; Francis et al., 2009a); and difficulties implementing guidelines relating to the treatment of schizophrenia within a healthcare setting (Michie et al., 2007). Some of the identified difficulties in the implementation of guidelines for the treatment of schizophrenia reported by healthcare professionals across three UK NHS mental health trusts interviewed as part of the study (Michie et al., 2007) were linked to environmental context and resources which is a domain in the TDF. The assessment of implementation difficulty using a theoretical approach offers an opportunity for a comprehensive assessment that covers aspects linked to relevant behaviour change theory. Also, it offers the opportunity to understand behaviour theoretically to develop more effective interventions.

In the case of help-seeking, the COM-B can be utilised to account for the barriers and facilitators to help-seeking behaviour for mental health issues. Reluctance to seek help for mental health difficulty amongst young adults and adolescents have been investigated (Barker, 2007; Gulliver et al., 2012; Rickwood et al., 2005; Rickwood et al., 2007). In a key review of barriers and facilitators to help-seeking amongst young people reported by Rickwood et al. (2005), the review identified

three barriers to help-seeking. They include the lack of emotional competence, help-negation which involves the conscious avoidance and refusal to utilise available help, and negative attitudes to seeking professional help. The lack of emotional competence is referred to as the ability to identify, understand, and describe emotions effectively. The review reported that individuals with low emotional competence also had the least intentions to seek help which could be due to the lack of social support, lack of past successful experiences of help-seeking and feeling of embarrassment about not being competent enough to seek help (Rickwood et al., 2012). Also identified as a barrier is help-negation, this barrier is commonly reported in previous studies examining suicidal ideation and help-seeking intentions (Rickwood et al., 2012). Lastly, negative attitudes and beliefs to seeking professional help is reported to emerge from negative past experiences with engaging with services; young people commonly reported the preference to speak to their family members than a professional (Rickwood et al., 2012). Facilitators identified in the review include higher emotional competence levels, positive attitudes and mental health literacy, and social influences on help-seeking. Related to the COM-B components, mental health literacy can relate to psychological capability which is an individual's capability to engage in necessary thought processes such as the ability to comprehend and reason how to actually seek help for an individual's mental health difficulty. The lack of emotional competence and perceived stigma could relate to reflective motivation; negative attitudes towards seeking professional help relate to automatic motivation. Facilitators to help-seeking also reported in previous reviews includes previous engagement with mental health services, and the influence of social support from family members (Gulliver et al., 2010). The influence of social support from family relates to social opportunity on the COM-B model.

To conclude this chapter, the theoretical review has looked at explanations of previously utilised psychological theories and models for predicting help-seeking behaviour and their current failings. Therefore, the COM-B model, alongside other elements of the behaviour change wheel, can be used to address the current failings by providing a strong support for the relevant theoretical construct for promoting mental health help-seeking behaviour. This thesis will draw upon the new model of behaviour change to evaluate mental health first aid (MHFA). The operational

definition of MHFA was crafted around the components of MHL discussed earlier. The five steps undertaken in MHFA intervention includes:

Action 1: Approach the person, assess, and assist with any crisis.

Action 2: Listen non-judgmentally.

Action 3: Give support and information.

Action 4: Encourage the person to get appropriate professional help.

Action 5: Encourage other supports.

An embedded component within this thesis examined the components/elements of MHFA to understand the constructs within the theory that underpins help-seeking behaviour.

3.7 Rationale for the study.

Following both the evidence synthesis and theoretical review, there is a pressing need for more and better-designed studies evaluating mental health First Aid. Current systematic reviews identified that studies included in their reviews were prone to potential bias due to the combination of self-reported outcomes and not blinding participants from randomisation. Honest answers from participants are among the many problems with the self-reported outcome that could be quickly addressed using qualitative data gathered via interviews of the MHFA trainees in future studies. Considering the aim of MHFA is to improve mental health literacy, help people experiencing a mental health crisis and improve their help-seeking behaviour, data on the mental health behaviours of individuals who have been recipients of the intervention is an important goal that previous studies have yet to address. Evaluation of MHFA may be generalisable if data are collected from a representative group of the intervention's supposed end-users.

Furthermore, no existing study has explored the implementation of MHFA in workplace settings, considering how it has been used extensively in various workplaces. There is considerable evidence of failings in studies assessing behavioural interventions to clearly state any theoretical model they have used to observe the constructs that underpin the intended behaviours observed (Kleinman & Dougherty, 2013; Marcus et al., 2006; Michie et al., 2005). Arguably, the primary

purpose of MHFA is to improve mental health literacy, help people experiencing a mental health crisis and improve their help-seeking behaviour, whether it be self-treatment, professional, voluntary, or other help. Based on empirical evidence, MHFA, as defined by the ALGEE approach, does not explain its mechanisms of action in promoting help-seeking behaviour.

This chapter provides a comprehensive review of theoretical issues in help-seeking, focusing on mental health literacy and the current gaps and issues around the theories adopted in developing interventions used to promote help-seeking behaviours. The chapter highlights the importance of having a theoretical framework in health behaviours and how theories inform the development of interventions designed to change behaviours and promote healthy living. The concept of mental health literacy and its core principles were also discussed, with a call for the expansion of MHL to be more context-specific and developmentally appropriate. The chapter also emphasizes the need to address the failure to recognize symptoms of mental health disorders and the importance of individuals' ability to communicate their mental health difficulties to health practitioners. Overall, the chapter sets the stage for the use of the COM-B model in evaluating MHFA aimed at understanding the active ingredients and mechanisms of actions to promote help-seeking behaviours, which will be discussed in detail in the subsequent chapters.

The next chapter will detail the methodology used in addressing the gaps in the literature, more specifically discussing the philosophical underpinnings of the research and providing a justification of the research design.

Chapter 4 - Methods

4.1 Introduction & Overview

This chapter presents the methods used to address the research gaps identified following the evidence synthesis and theoretical review. The aims, objectives and research questions are initially presented, and these are followed by a description and discussion of the study design and philosophical paradigm underpinning the methodology. The justification and description for all the methods used are also presented.

4.2 Aims & Objectives of the study.

Following a review of most published studies evaluating the effectiveness of MHFA, some research gaps were identified. Current evaluation studies reviewed have reported both the short- and long-term impact of MHFA on trainees' outcomes (knowledge, confidence, and stigmatising attitudes). Still, no studies have evaluated the impact of MHFA on direct end-users of the intervention. Also, the ALGEE steps, the guiding principle overseeing the implementation of MHFA, lack theoretical and conceptual clarity as the steps do not explain the mechanisms of action in promoting help-seeking behaviour. Despite this, better help-seeking behaviour is reiterated as one of the key implications of increasing mental health literacy (Jorm, 2000). These gaps are addressed in the aims and objectives of this project.

Aims

[1] To evaluate the effectiveness of MHFA on help-seeking behaviours, the primary outcome, and other psychosocial outcomes on workplace employees in UK organisations.

[2] To explore employees' experiences of MHFA in the workplace.

Objectives

1. To understand the active ingredients in MHFA that improve help-seeking behaviour and other outcomes for mental distress.

2. To understand if MHFA improves employees' and recipients' help-seeking behaviour and other outcomes compared with consultation on improving mental health and well-being in the workplace.
3. To understand how MHFA works in practice in the workplace.

Research Questions

The study addressed the following research questions:

1. Does MHFA, the intervention condition, promote help-seeking behaviour and improve other outcomes amongst recipients compared with a consultation on MHFA in the workplace, the control condition?

2. How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?

3. What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?

4. What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?

5. What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?

Table 4. 1: Research questions and corresponding designs.

	Research Questions	Research Design
1.	Does MHFA, the intervention condition, promote help-seeking behaviour and improve other outcomes amongst recipients compared with a consultation on MHFA in the workplace, the control condition?	Clustered Randomised Control Trial (C-RCTs)
2.	How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?	Qualitative Semi-structured Interviews

3.	What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?	Qualitative Semi-structured Interviews
4.	What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?	Qualitative Semi-structured Interviews
5.	What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?	Qualitative Semi-structured Interviews/ Behavioural change taxonomy exercise

4.3 Mental Health First Aid as a complex intervention

Complex interventions are adopted in various services that might directly or indirectly affect health outcomes. Complex interventions are any intervention with several components that pose considerable complexity for developers and evaluators to consider (Skivington et al., 2021). These dimensions of complexity include the number of possible outcomes resulting from the intervention, the variability in the context in which the intervention may be applied and the various elements interacting in the intervention. The mental health first aid intervention promoting early help-seeking for mental health difficulties is a complex intervention considering the various elements involved in achieving its intended outcomes and the context where MHFA can be applied. Although not outlined in previous evaluation studies of the intervention, it is vital to understand how the intervention works, including identifying the active ingredients in the interventions and how they exert their effects.

In evaluating any intervention, randomised controlled trials (RCTs) and variations thereof, are considered the gold standard when trying to establish the effectiveness of an intervention. Still, some authors have argued against their use in evaluating mental health treatments in psychiatry (Craig et al., 2006). Walwyn & Wessely (2005) reported that treatment is too individualistic, the complexities involved in managing psychiatric patients within a wider community and lack of relevance of

results in day-to-day treatment as their argument against the use of RCTs. Besides the use of RCTs, it is important to be aware of a range of experimental and non-experimental approaches that can be used to understand the effectiveness of an intervention and the variability in the intervention across various contexts.

Furthermore, there has also been an emphasis on the need for process evaluation within trials in more recent guidance on the evaluation of complex interventions. Process evaluation is understood to be useful in accessing the "fidelity and quality of implementation, clarify causal mechanisms and identify contextual factors associated with variation in outcomes" (Moore et al., 2015 P. 1). Qualitative methods play a distinctive part in understanding how and why different components of the intervention are implemented; beyond that is also an opportunity to identify barriers and facilitators to the implementation of the intervention within any context (Pons-Vigués et al., 2019).

The current thesis used an embedded mixed-method design to address the research questions. Quantitative data collection using a clustered-randomised control trial addressed the causal questions about the effectiveness of Mental Health First Aid (MHFA). Complementary qualitative data were gathered following the intervention to explain the findings of the clustered randomised control trial. The data were also gathered to explain the context around the implementation of the intervention, like the influence on organisational culture and relationships amongst employees and retrospectively understand the mechanisms of actions for MHFA to promote mental health help-seeking behaviour. The objective for gathering complementary data was threefold. First, complementary data (i.e., qualitative data) were collected to examine views of the intervention outcomes by examining the experiences of key stakeholders (Employees, Senior managers, Recipients and MHFA Trainees) and triangulating these with the trial findings. Second, the study also generated more detailed insight into the factors affecting the outcomes of the intervention, including the barriers to implementing the intervention. Third, the study identified the theoretical underpinning of MHFA. This included identifying the active ingredients and their mechanisms of action using the behavioural change wheel (Michie et al., 2011).

4.4 Philosophical underpinnings

All scientific studies are believed to be underpinned by certain assumptions about the world guided by philosophical principles (Creswell & Plano-Clark, 2017). This section will discuss philosophical paradigms generally and the one that underpins this thesis. Paradigms were initially referred to as a philosophical way of thinking (Kuhn, 2021), defined by Guba & Lincoln (2005) as the basic set of beliefs or worldviews that drives actions taken when investigating a topic area. Paradigms provide beliefs or guiding principles for researchers in a discipline on what should be studied, how it should be studied and how results have been interpreted. Paradigms comprise four core elements: epistemology, ontology, axiology, and methodology (Hanson et al., 2005).

Epistemology is commonly concerned with how reality is understood by the researcher (Alharahsheh & Pius, 2020), simply how researchers come to know about something. According to Kivunja & Kiyini (2017), beliefs, faith, or intuition remains the natural source of knowledge acquired, but there are ways researchers can acquire knowledge about a subject. These ways are through authoritative sources that are gaining an understanding by relying on individuals that are knowledgeable about a subject. It could be via rationalist or logical sources whereby a researcher emphasises reasoning as the only path to gaining knowledge. Lastly, it could also be via sense experiences or verifiable facts which defines empirical sources (Okesina, 2020). There is a three-way relationship between the nature of knowledge, the research, and participants. This three-way relationship drives key questions to ask when establishing the epistemology of any research. What is the nature of the knowledge being sourced for? Is it the knowledge that can be acquired or something that must be experienced? These questions enable researchers to position themselves to establish a new 'truth' compared to what is already known (Kivunja & Kuyini, 2017).

Furthermore, there are four common epistemological positions which are objective, subjective, transactional, and relational. The objective epistemological position claims that knowledge can be acquired independently of the participants. In contrast, the subjective and transactional ones argue that knowledge is generated based on researchers' personal experiences and interactions with participants. Although,

transactional epistemology requires the researcher to explore beyond a participant's take about a topic area. The relational epistemology position argues that the relationship between researcher and participant is relative to the aim of the research (Okesina, 2020).

The ontology of any paradigm is concerned with the assumptions made to understand the nature of the investigated phenomenon (Scotland, 2012). It is defined as the nature of reality (Alharahsheh & Pius, 2020). It is an essential component of any paradigm as it seeks to ascertain concepts underpinning our inferences following our analysis of the research data retrieved. The ontology allows questioning the nature of reality in the social world compared to one's assumptions. These assumptions are crucial to how researchers look at their research (Kivunja & Kuyini, 2017).

The methodology is concerned with the research design, methods and approaches used in the research; it conveys the processes undertaken by a researcher to gain knowledge about a subject. This process includes initial assumptions and limitations encountered in acquiring knowledge about a particular subject (Kivunja & Kuyini, 2017). Axiology refers to values and ethical considerations in research (Okesina, 2020). Based on different paradigms, axiology could be value-neutral, where findings from gaining knowledge remain independent of the researcher's values/bias, whereby research assumes an objective stance at all points (Fard, 2012). It could also be value-laden and balanced axiology where researchers account for their and participants' bias whilst reporting their findings. So, there is a need to always account for the influence of subjectivity (Kivunja & Kuyini, 2017). Value-laden, biased, and culture-sensitive axiology requires the researcher to acknowledge the influence of their cultural norms and orientation on their research. Lastly, value-driven axiology is where the research is influenced by the research problem (Okesina, 2020).

Positivism

Positivism is aligned with the hypothetico-deductive model of science, where all scientific journeys start from a theory established in the existing literature. It then leads to testable predictions, identifying variables that can be manipulated and measured and finally conducting an experiment to inform the theory (Park et al., 2020). The primary goal of inquiry in positivism is to generate causal associations

that lead to predictions and control of trends. In terms of the nature of reality (ontology), positivism is rooted in supposing that a single reality exists, which can be tested and ultimately understood (Creswell & Plano-Clark, 2017; Fard, 2012). In positivism, knowledge is developed objectively independent of the researcher and participant's values (Okesina, 2020; Park et al., 2020). Positivism disregards the importance of subjective experiences and values and depends on objectivity. Research within this paradigm relies on deductive reasoning, where researchers develop a hypothesis and test its influence on measurable outcomes. In terms of methodology, research will involve the manipulation of one variable to check if there is an impact on another variable. This manipulation is based on certain principles commonly reiterated within the positivism paradigm (Kivunja & Kuyini, 2017). Firstly, determinism we reiterate the need to be able to make predictions and control for the possible impact of the independent variable on the dependent variable. Secondly, empiricism emphasises on the need to be able to collect verifiable observed data that enables you to test hypothesis developed earlier. Thirdly, generalizability places emphasis on the need to ensure that findings from studies should be applicable to other circumstances by “inductive inferences” (Kivunja & Kuyini, 2017, p. 30). The most common research designs favoured in the positivism paradigm are experimental designs (Randomised control trials, Clustered-Randomised control trial), including quasi-experimental designs (Pre-test-post-test designs, non-equivalent group designs etc.). In terms of axiology, positivism holds up to the idea of research been value-neutral whereby researchers’ values are kept out of the research and always maintain an objective stance.

Positivism has faced some criticism in the past; one of the main criticisms has been its claim for certainty, with the understanding that scientific knowledge is objective with no influence on social context (Houghton, 2011). Also, the understanding that research is value-free is flawed because researchers make value-laden judgments throughout the process, from selecting variables to be examined right to interpreting findings (Salomon, 1991). The post-positivism has taken more of the value-laden stance with claims that their value system plays quite a role in how research is conducted, and findings are interpreted.

Furthermore, the philosophy of falsification was developed by Popper following issues regarding induction in the scientific method. Popper argued that all scientific

statements of predictions should remain tentative (Houghton, 2011); instead, all hypotheses should be presented in a manner that allows them to be falsified, and if tested and stands up to thorough repudiation, they can be considered valid.

Constructivism and Interpretivism

In constructivism and interpretivism, knowledge is developed through interaction between the researcher and the participant. Proponents of both assumptions share a common understanding that one can only understand the complex world from the perspectives of those who experience it (Schwandt, 1994). The contrast between these paradigms and positivism is expressed using three main issues: ontology, epistemology, and axiology (Shan, 2021). Regarding ontology, constructivist/interpretivism assumes that the construction of reality is based on multiple realities and truth (Sale et al., 2002). Although they share some fundamental understanding of reality, researchers are expected to be quite mindful about drawing nuanced distinctions between both perspectives. An interpretivism perspective understands human experiences by interpreting the meaning they give to their world, mostly uncovered through their use of language and dialogue mode (Williams, 2008). The constructivism perspective assumes that what is real is in the construction of an individual's mind, so instead of interpreting their meanings, there are multiple, often conflicting, meaningful constructions (Guba & Lincoln, 1989).

Regarding the nature of knowledge (epistemology), it is understood to be established from notions and meanings that are socially constructed. Researchers are a vital tool that cannot be separated from the knowledge they seek. Interpretivism accentuates the need to investigate the complex nature of how the world is viewed and how individuals interact.

Interpretivism has received some criticism bringing into question the validity of the knowledge developed due to its dismissal of a foundational knowledge base (Scotland, 2012). There has been a call to question about knowledge produced which is fragmented considering the non-consensus in meanings attributed across the board. So, generalization of findings is usually quite difficult to achieve as an interpretation of data involves some level of subjectivity (Rashid et al., 2013).

Argument for a mixed-method paradigm.

There is a persistent argument across paradigms rooted in the competing scientific worldviews between the two dominant paradigms (Positivism vs Constructivism), mainly on philosophical and methodological issues (Tashakkori et al., 2020). The major component of the debate is based on the incompatibility thesis, which negates the mixing of the qualitative and quantitative methods due to significant differences in the paradigms underlying the methods (Sale et al., 2002). The incompatibility thesis is based on the idea that research paradigms are expected to be linked with the research method on a "one-on-one correspondence" (Tashakkori et al., 2020, p. 17). If the fundamental principles guiding the paradigms are conflicted, the core elements like methods associated with the individual paradigms cannot be merged in any way. However, proponents of a mixed-method paradigm have developed arguments to counter the incompatibility premise. They also argue the need to focus on ways to combine positivism and interpretivism usefully.

The arguments put forward originated from the notion that maybe there is room for a new research paradigm that originates from the mixture of both paradigms. There are two central notions of paradigm within the mixed-method research community. One is in line with the Kuhnian concept of paradigms as a framework or guiding principles shared within a scientific community (Denscombe, 2008; Ghiara, 2020; Hemmings et al., 2013; Morgan, 2007), and the other views the idea of paradigm as a worldview which details researchers' assumptions about reality, epistemology and the methodology (Guba & Lincoln, 2005).

Ghiara (2020) presented arguments that support both notions; however, she has questioned the notion of paradigms as a framework or guiding principles shared within a scientific community by identifying themselves to be "quantitative", "qualitative", or "mixed method" researchers. The author claims that although members of the same scientific community might share a similar idea on their research methods, the ontological, epistemological, and axiological ideas guiding their respective studies might differ.

There is an understanding of mixing ontological and epistemological stances in mixed-method studies. As illustrated in figure 4.1 below, adapted from Ghiara

(2020), each scientific community is not solely associated with one specific worldview.

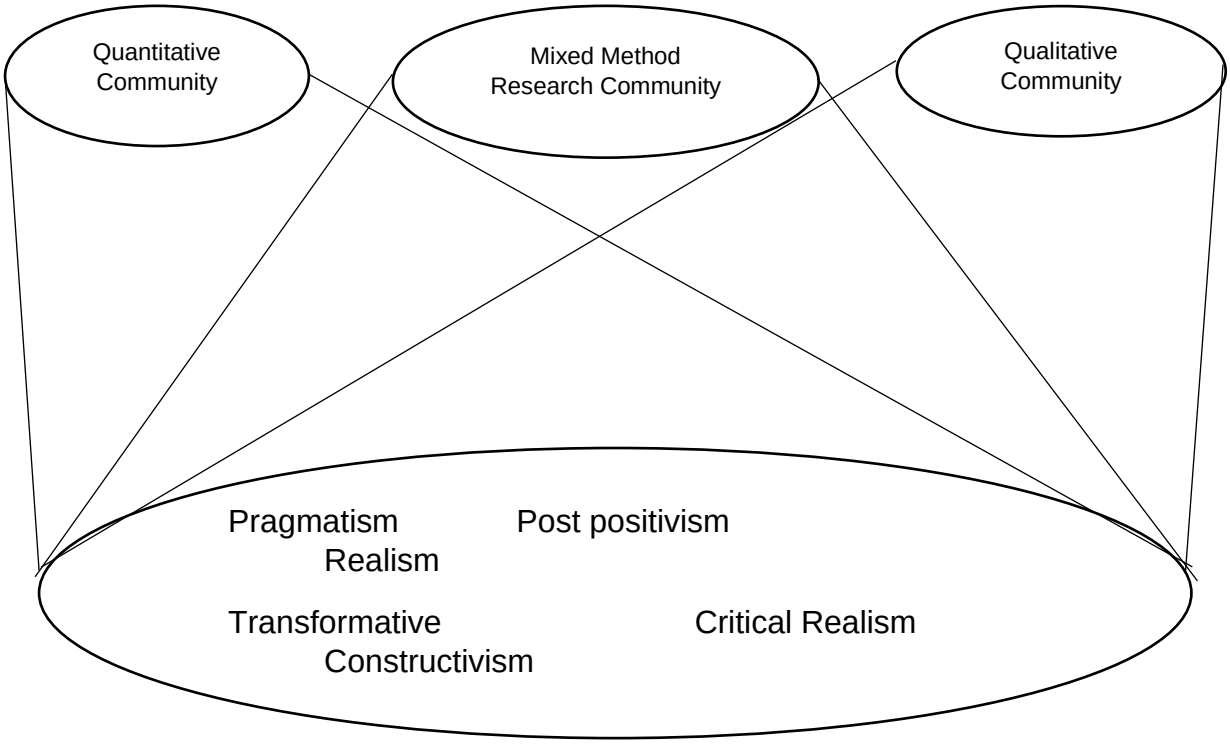

Figure 4. 1:The pluralistic debate in mixed-method research clarified using the notion of paradigms.

Still, they can utilise a number of these paradigms in their respective studies, not disputing the preference for a subset of worldviews by specific communities, for example, in quantitative communities with positivism. Essentially, paradigms can be mixed if only they are viewed solely from the notion of philosophical worldviews based on their ontology, epistemology, and methodology. This idea is not entirely ruling out the notion of paradigm as a set of standards shared by scientific communities but moving away from the understanding that there is a one-to-one relationship between a specific scientific community and a subset of philosophical worldviews. Scientific enquiries involving various elements of key paradigms should welcome the emergence of diversions and focus on understanding a subject of enquiry beyond the surface level (Uprichard & Dawney, 2019).

This thesis adopted the notion that a paradigm is a worldview that details researchers' ontology, epistemology, axiology, and methodology used to examine a particular subject. The thesis utilises a version of a randomised control trial (clustered randomised control trial), which falls within the remit of the positivism

paradigm to produce objective knowledge about the effect of mental health first aid on help-seeking behaviour of recipients within a workplace context. The study used a quantitative survey strategy to gain objective insight into the effectiveness of the intervention.

The study also used an interpretivist paradigm that aims to interpret the meanings of individuals in their social world. In this context, the PhD student sought to understand and interpret the description of their experience of mental health first aid in their workplace and understand the influences of context on the success and failure of the intervention in practice. The ontology of interpretivism is relativism in that it advocates that there are many realities about the experiences of individuals with mental health first aid in their workplace. Through a subjective approach, the research gained further insights by understanding the behaviour and explaining actions from participants' perspectives.

The process of combining qualitative and quantitative data collection methods necessitates a unique approach that recognizes the need for different types of knowledge to gain a comprehensive understanding of a phenomenon. This approach is based on pragmatism, which is a theoretical and epistemological stance that permits researchers to use various types of knowledge in conjunction. As per Creswell and Plano Clark (2018), pragmatism is founded on the notion that an ideology or proposition is valid if it works effectively and acknowledges that different realities are open to empirical inquiry. This approach prioritizes addressing real-world problems, thereby enabling researchers to select the most appropriate research tools available to them to answer their research question.

According to Patton (2015), pragmatism differs from other philosophical viewpoints in that it emphasizes the significance of the nature of experiences rather than the nature of reality. This, however, does not imply that pragmatism refutes the existence of reality; instead, it concentrates on experiences that constitute an individual's reality, rather than attempting to determine what reality is. Pragmatists also recognize that knowledge is fallible (Biesta & Burbules, 2003). Therefore, the primary objective of pragmatic research is not to validate the nature of reality but to discover practical and useful solutions that can offer answers to real-world problems. The pragmatic worldview proposes that researchers need not classify themselves as

either post-positivist or constructivist, according to Creswell and Plano Clark (2018). Instead, the focus should be on selecting the most appropriate methods to answer the research question and provide practical solutions that can be applied in real-world settings. The pragmatic approach acknowledges that practical limitations such as financial and time constraints also play a role in determining the most suitable methods to use. Hence, researchers choose methods that best suit the question they wish to address for real-world relevance while also allowing flexibility in the methods used, rather than being restricted to a philosophical paradigm with an explicit research design for carrying out research.

The pragmatic worldview is an ideal choice for this PhD research as it highlights the importance of utilizing practical methods that work in real-world scenarios. Such an approach allows the researcher to select the most appropriate combination of quantitative and qualitative methods to answer the research question while factoring in time and financial constraints.

The next section details the choice of study design based on the philosophical underpinnings explained earlier.

4.5 Study design

In this thesis, an embedded mixed-method design was used. In this design, a particular research phase is intertwined with another research phase considered a larger design, for example, a qualitative element embedded within a quantitative study (Creswell & Plano-Clark, 2017). When quantitative and qualitative approaches are used, they provide a better understanding of the problem and allow room for extensive analysis (Tashakkori & Teddie, 1998, Cresswell & Plano Clark, 2011). Cresswell & Plano Clark (2011) outlined several reasons for combining approaches in the form of a mixed-method study. The outlined reason relevant to the current thesis includes the need to obtain complete and corroborative results, knowing that examining the gap in knowledge using one approach might not provide a detailed understanding of a problem. Combining both forms of data ensures a fuller understanding of the issues under investigation. The use of different methods in addressing the complex nature of social problems has a long history, even though the label of mixed method just began to gain traction in recent years. Some common limitations have been associated with independent quantitative and qualitative

research designs (Cresswell & Plano Clark, 2011). Some include the inability to generalise results from conducting a study involving few people in qualitative research and the diminished in-depth understanding of one individual due to the number of individuals included in a quantitative study.

Teddlie & Tashakkori (2009) explain that the different research strands lie along a continuum (see figure 4.2).

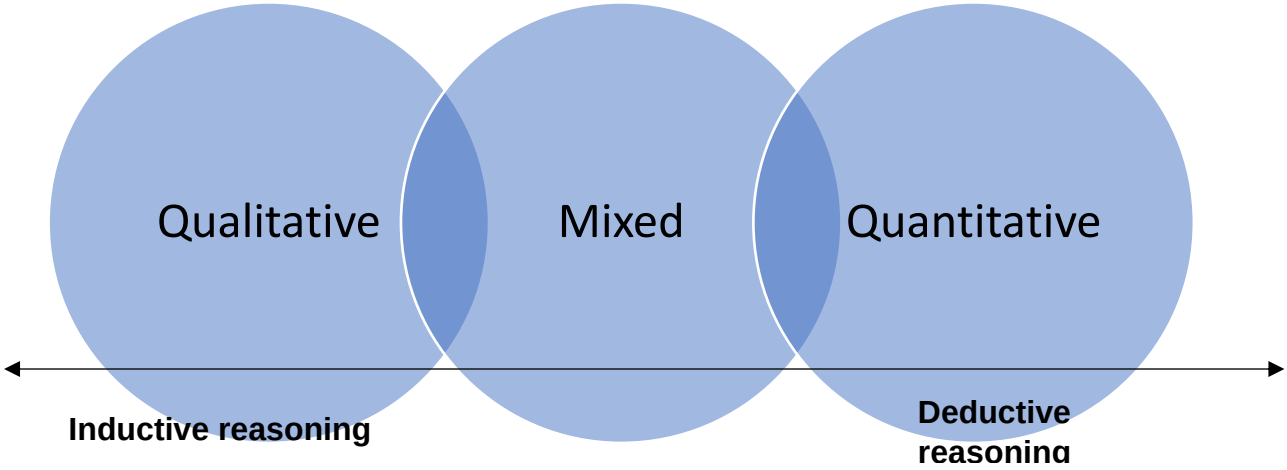

Figure 4. 2: The Qualitative-Mixed Methods-Quantitative continuum (adapted from Teddlie & Tashakkori, 2009)

Quantitative approaches notably involve addressing confirmatory research questions, applying deductive logic, and drawing conclusions from tested predictions (hypotheses) (Tashakkori et al., 2020). In the middle of both approaches lies the mixed-method approach, which combines both approaches by adopting inductive and deductive reasoning to address the posed research question. Mixed method research draws from deductive and inductive reasoning; relying on both has previously been emphasised in the inductive-deductive research cycle. In deductive reasoning, research studies start from a general theory or set of predictions that are tested, and observable consequences are inferred. In inductive reasoning, research starts with data collection, from which theories are generated (Tashakkori et al., 2020).

Several mixed-method designs are applied to research studies; (Creswell & Plano-Clark, 2017 p. 51) described six-core designs associated with mixed-method studies. The designs are reiterated to differentiate based on a few factors: a) the purpose for combining the Quantitative and Qualitative methodologies, b) the dominance of any of the methodologies, and c) the point of data collection and analysis. Standard mixed method designs are.

- A convergent parallel mixed method design- researchers in this design, simultaneously collect quantitative and qualitative data in the study. Both data are later integrated to provide answers to the research questions.
- Explanatory sequential mixed method design – A researcher collects quantitative data first, followed by qualitative data, which aims to build upon the findings from the quantitative phase.
- Exploratory sequential mixed method design is the opposite of the explanatory sequential design, where participants' views are explored through a qualitative study before developing a quantitative study.
- Embedded mixed-method design – In this design, a particular research phase is intertwined with another research phase, considered a larger design. Data collected in the research phase is commonly considered supplementary to answering the study's research questions. In this design, concurrent or sequential collection of supporting data with separate data analysis happens before, during or after the primary data collection procedures.

The use of multiple methods to validate and confirm findings is an effective way to increase the reliability and accuracy of research results. This study employed a pragmatic approach to data collection and interpretation, utilising triangulation to support a comprehensive analysis of the research topic through the combination of different data strands (Bryman, 1996). The use of triangulation to validate research findings is possible in four ways (Bryman, 2001). The first way is elaboration, which involves using one type of data analysis to enhance the understanding of another data. The second way is initiation, where one method is used to generate new research questions that can be investigated by another method. The third way is complementarity, where both quantitative and qualitative findings are treated as distinct components and used to provide complementary insights into the research

problem. The fourth way is contradictions, where discrepancies between the two types of data are examined to assess the significance of a particular method over the other. For this PhD Thesis, the complementarity approach was used. All the methods employed in the study offered complementary insights into the effectiveness of MHFA from the perspective of end-users in a workplace setting. This approach will be reflected in the discussion and interpretation of the results.

4.6 Context of the overall thesis

This PhD study was conducted within a 2-year Clustered Randomized Controlled Trial-RCT project funded initially by MHFA England [Trial registration number: NCT04311203] (Atanda et al., 2020). The trial examined the effectiveness of MHFA in the workplace on the help-seeking behaviours of employees who sought help from a trained mental health first aider; embedded within the trial were an economic, qualitative, process, and social evaluation. The competitive funding process, in which the PhD student was not involved comprised an outline sketch of a proposal and interview with the funders prior to funding being secured. Following this, the PhD student was appointed to lead, under supervision the development of the larger study, and led on the data collection, processing and analyses of the trial and qualitative data.

4.7 Quantitative evaluation of the effectiveness of MHFA

This section of the thesis details the cluster randomised controlled trial conducted. The study was a multi-centred two-arm clustered randomised controlled trial comparing organisations implementing MHFA (intervention arm) with a consultation on mental health and well-being in the workplace (control arm). A clustered randomised controlled trial “involves the randomisation of groups of individuals to either a control or intervention conditions” (Hemming et al., 2017, p. 1). The clusters in this study were the companies willing to implement MHFA in their organisation. This design is commonly used to evaluate interventions administered at group level; the main argument for the randomisation by cluster is that interventions are administered to a cluster of individuals as opposed to individuals in the typical RCT style (Edwards et al., 1999). For example, this thesis examines the implementation of MHFA in a workplace to promote early help-seeking behaviours amongst employees of an organisation.

On the other hand, the intervention administered at an individual level could also affect others within a cluster; this might lead to a risk of contamination participants speaking to individuals that have not received the intervention about the intervention which invariably affects any attempt to measure the effect of treatment (Edwards et al., 1999; Hemming et al., 2017). Another rationale for the choice of clustered randomised controlled trial includes the perceived increase in the external validity of the intervention as its implementation provides a better estimate of effect at the group level, and acceptability and adherence to intervention are better controlled for in clustered trials compared to individual RCTs (Dron et al., 2021). The clustered randomised control trial sought to answer the research question; Does MHFA, the intervention condition, promote help-seeking behaviour and improve other outcomes amongst recipients when compared with a consultation on MHFA in the workplace, the control condition?

The MHFA intervention (Intervention arm): had three parts.

1. The two-day MHFA training that MHFA England provided. This manualised training is designed to provide individuals with an in-depth understanding of mental distress and health. The training includes the factors that can affect well-being, practical skills to spot the triggers and signs of mental health issues, confidence to step in, reassure and support a person in distress, enhanced interpersonal skills such as non-judgemental listening, knowledge to help someone recover their health by guiding them to support further - whether that's self-help resources, through their employer, the NHS, or a mix.

2. Raising awareness of the presence of MHFA in the company, awareness is left to the companies; for example, companies might decide to have a workplace poster that includes pictures of colleagues trained as first aiders and having a MHFA badge on their email signature.

3. The application of MHFA to employees in the workplace. The MHFA encounter uses a manualised five-stage approach, ALGEE: Approach the person, assess, and assist with any crisis; Listen and communicate non-judgementally; Give support and information; Encourage the person to get appropriate professional help and encourage other supports.

Control arm intervention

The control clusters received a brief consultation from MHFA England on promoting mental health and well-being in the workplace.

The consultation included:

- Smart Start Meeting - a two-hour scoping session with a MHFA England expert which sought to better understand each cluster's needs, the context of their sector, and where they were in terms of creating a mental health and wellbeing strategy. The core project team was part of the session, and a senior stakeholder attended who acted as a sponsor for the project.
- From this meeting, recommendations for change were made which included actionable next steps that the clusters were expected to improve their mental health and wellbeing support for their colleagues.
- Presentation of the recommendations were organised, and follow-up sessions were offered on subsequent basis.

4.8 Outcome Measures

This section details the outcome measures used in the quantitative evaluation of the effectiveness of Mental Health First Aid. The primary and secondary outcome measures were taken at two timepoints (baseline & post-intervention at 6-months). Identifying primary and secondary outcomes is one of the main steps when designing trial studies. The primary outcome of a study should be "most existing or plausible evidence being associated with the intervention" (Vetter & Mascha, 2017). Secondary outcomes are also helpful as they could provide some supporting evidence to the primary outcome. The primary outcome of this study was concluded based on discussions within the research team, interactions with Mental Health First Aid England, the study's funders, and in the absence of previous empirical studies testing the effectiveness of MHFA on recipient and employee outcomes.

The PhD study used the Actual Help-seeking Questionnaire (ASHQ) (Rickwood et al., 2005) as the primary outcome measure to capture the behaviour of participants retrospectively following their engagement with mental health first aid. Help-seeking intentions has more often been utilised to capture future help-seeking behaviours rather than examining actual help-seeking behaviours. Having an intention to

perform a behaviour doesn’t often translate into the actual behaviour due to many factors (White et al., 2018). The current PhD study captures both the actual help-seeking behaviour and intentions to seek help following a direct or indirect contact with mental health first aid.

Other measures utilised were aimed at capturing the effect of the intervention on mental wellbeing of participants (WEMWBS), social wellbeing (SWBS) and self-efficacy which is a factor that is reported to impact help-seeking behaviour was also captured (Moore et al., 2015). See appendix 1 for a copy of all the measures.

Primary outcome measure

The primary outcome was employees' help-seeking behaviour, measured by the Actual Help-Seeking Questionnaire [AHSQ] (Rickwood et al., 2005). The primary outcome addressed the research question about the effectiveness of mental health first aid on the help-seeking behaviour of its direct recipients. The AHSQ measured help-seeking behaviour in the two weeks preceding the assessment and was assessed at baseline and 6-month post-intervention. Help-seeking behaviour is determined by listing the number of help sources, whether they have been sought in the period, and the problems they had that necessary support. Reliability data show internal consistency for this measure: Cronbach's alpha and test-retest values were 0.70 and 0.86, respectively, for personal-emotional problems (Rickwood et al., 2007). Regarding validity, scores correlate positively with social and psychological well-being measures with demonstrable convergent and discriminant validity (Rickwood et al., 2005).

The primary analysis was conducted on those participants who received MHFA and therefore was a per-protocol analysis. As this is a small non-random subsample of randomised participants, it is recognised that this analysis will be vulnerable to selection bias and uncontrolled confounding. For this reason, baseline participant characteristics were included in the primary analysis to mitigate these limitations.

Secondary outcome measures

Including secondary outcomes in any study requires some form of justification; Vetter & Mascha (2017) argue that these outcomes are particularly helpful in providing

evidence to support our primary endpoint. They might also be a mediator variable between the intervention and primary outcome. Stamuli et al. (2017) argue that it is often driven by previous literature considering outcomes that have been measured about the supposed intervention. In this study, secondary outcomes were considered within parameters of providing supporting evidence for the primary outcome and as a mediator variable as this was the first study evaluating the effect of the intervention on direct recipients. A pilot study (see below) mirroring the main trial was also conducted to check for the relevance of the outcome measures, among other issues.

Employees' Help-seeking intentions using the General Help-Seeking Questionnaire [GHSQ] (Wilson et al., 2005)***.***

The GHSQ assesses future help-seeking intentions and recent and past help-seeking experiences. Intentions are measured by listing several potential help sources and asking employees to indicate how likely it is that they would seek help from that source for a specified problem on a 7-point scale ranging from (1) extremely unlikely to seek help to (7) extremely likely to seek help. The GHSQ has been used in several studies with youths and adults reporting mental health challenges (Barksdale & Molock, 2009; Barney et al., 2006). The GHSQ as a single scale which includes all the help source options for suicidal and non-suicidal problems has a Cronbach's alpha score of .85 and a test-retest reliability score assessed over a three-weeks period of .92.

Employees' mental health and well-being using the Warwick-Edinburgh Mental Health and Well-being Scale [WEMHWBS] (Tennant et al., 2007)

The WEMWBS is a 14- item scale measuring mental well-being in general populations with five response categories: 1: none of the time to 5: all the time in response to items such as "I've been feeling optimistic about the future." Responses are totalled to provide a single score ranging from 14-70. The WEMWBS has been used extensively in all age groups and most continents, with moderate to strong reliability and validity data ranging between Cronbach alphas 0.60 - 0.90.

SF-12 (Ware et al., 1996)

The SF-12 is a 12-item standardised measure that assesses limitations in role functioning due to physical and mental health. A shorter form of the SF-36, the SF-

12, has been used with various clinical and non-clinical populations and captures eight physical and mental health domains. Each item is scored from 1 (all the time) to 5 (none of the time) in response to statements such as in the past four weeks, how much of the time has your physical or emotional problems interfered with your social activities? The critical scores for the SF-12 are a physical health composite score (PCS-12) and a mental health score (MCS-12). Reliability estimates average 0.89 for the PCS-12 and 0.97 for the MCS-12 (McDowell, 2006).

Employees' Self-Efficacy for Seeking Mental Health Care Scale [SE-SMHC] (Moore et al. 2015)

The SE-SMHC is a 9-item measure of recipients' confidence in seeking mental health care. It comprises two sub-scales: one measuring confidence in knowing how to access mental health care, communicating with health care staff (SE-Knowledge), and successfully coping with the social and interpersonal consequences of seeking care (SE-Coping). The SE-SMHC is scored by asking employees to rank items from 1-10 and summed to determine low (1-3), medium (4-6) or high (7-10) confidence. Cronbach's alpha for the total scale averages 0.88. The mean for each sub-scale is 0.85 [SE-Knowledge] and 0.83 [SE-Coping] (Umubyeyi et al., 2016).

Social Well-being Scale [SWBS] (Keyes, 1998)

The SWBS is a 15-item scale measuring five dimensions of social well-being: Social Coherence, Social Integration, Social Contribution, Social Actualisation, and Social Acceptance. Participants respond to items such as "People do not care about other people's problems", using a seven-point scale from strongly agree to disagree, which are summed for each dimension powerfully—Cronbach's alpha scores for the SWBS range from 0.60 and 0.70 (Keyes, 1998).

In addition to the outcome measures, demographic data on participants' ages, gender, level of education, ethnicity and nature and frequency of any MHFA interventions directly experienced were also captured.

Pilot study

An external pilot study mirrored the main trial's components with ten participants in each arm, and the study lasted for approximately three months (October 2019 –

December 2019). The pilot study was conducted to determine the acceptability of the research methods, participant adherence to the interventions and relevance of outcome measures. The study explored experiences of the intervention and research methods and fidelity of intervention delivery and refined fidelity assessment tools if required for the main trial.

Participants and recruitment

Organisations interested in undertaking MHFA training contacted MHFAE, those who had not undertaken this training previously were recruited. The organisations were referred to as clusters; departments or regions were considered clustered if necessary for larger regional organisations. Employees of the clusters were eligible if they consented to participate. For the study, employees were split into three groups: participants were all employees working in each clusters offering MHFA; recipients were those who had received at least one individual MHFA intervention from a trained mental health first-aider, and mental health first-aiders were those who had undergone MHFA England's two-day MHFA training. Recipients were identified through responses to questions in the survey (see below), seeking data on the frequency and nature of their MHFA encounters.

Organisations that had already introduced MHFA across all sites and departments and that had declined to adopt MHFA training were excluded from the study.

Allocation procedure

Allocation to the intervention or control arm took place after baseline measures had been taken, blinded to any identifying information, using computer-generated random numbers through Random.org: https://www.random.org/randomness/. Independent researchers not associated with the study generated the random sequence and communicated this via email to the PhD student. The procedure taken was as follows: An independent researcher compiled four envelopes: envelope one contained a piece of paper on which is written intervention; envelope two contained a piece of paper on which is written control; envelope three contained a piece of paper on which is written the number 1 and the final envelope contained a piece of paper on which is written the number 2.

1. A second independent researcher randomly selected one envelope from the two containing the papers marked intervention and control and one envelope containing the papers marked 1 and 2. This process decided which number 1 or 2 was allocated to the intervention and control groups.
2. A third independent researcher generated a random number sequence containing the numbers 1 and 2 from which allocation to the intervention or control was decided. When an eligible cluster agrees to participate, the third independent researcher notifies the v student via email of their allocation.

The flow of participants through the study is presented in figure 4. 3 below.

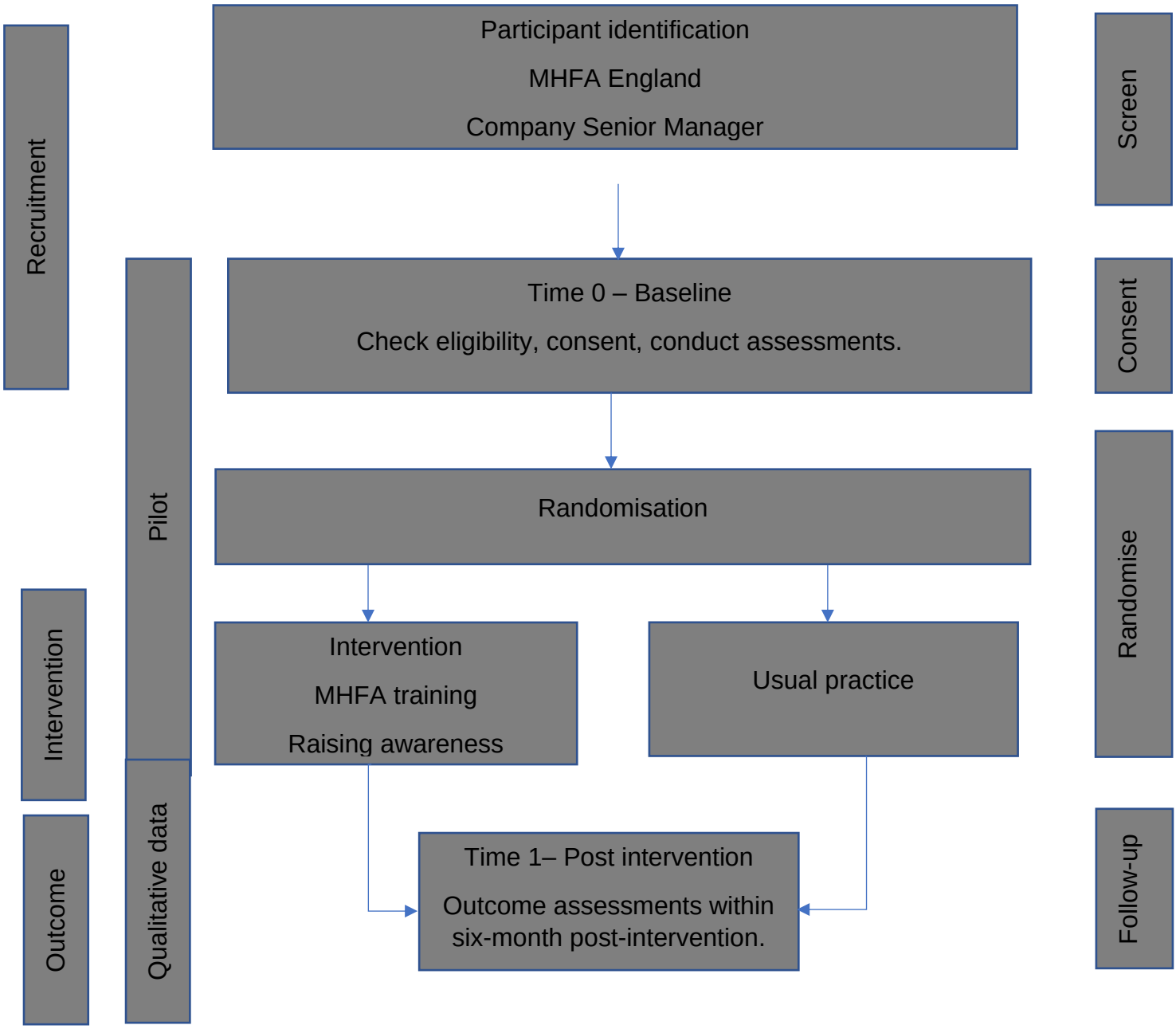

Figure 4. 3: The proposed flow of participants through the study.

Sample size & justification

Working with a statistician and my Director of Studies (DoS, Primary Supervisor), I conducted a power calculation to determine the sample size required to detect a difference between intervention and control group participants on the outcomes of interest and to reduce the potential of making a sampling error, commonly referred to as the probability of achieving statistically significant results. It is calculated by specifying the predicted outcomes in statistical terms. In this study, the sample size calculation simplifies the proposed analysis model. The intervention is relatively untried on the direct recipients. As such, data from the pilot study helped determine the sample size for the main study.

The study was powered to detect a change of two additional help-seeking resources, with 90% power at the 0.05 alpha level, allowing for 15% attrition, 12 employers per condition, assuming that the mean in the control group is one and, in the intervention, group is 3 with a typical standard deviation of 8, 506 participants were required, increasing to 596 allowing for 15% attrition at six months. The pilot study indicated a response rate of 40% across organisations and an average cluster size of 72 employees (calculated from organisations recruited), Approximately 29 employees per organisation (cluster size). With 24 clusters, 12 employers per condition, and assuming an intraclass correlation coefficient (ICC) equal to 0.01 (ICCs are lower for participant outcomes as opposed to process variables when cluster size is large and when participant baseline characteristics adjust estimates (Campbell et al. 2000) a minimum target sample size was estimated at 763, rounded up to 800, 400 per condition.

Data collection

Data at every point were collected via an online QUALTRICS survey, whilst also offering employees an opportunity to complete the survey in hard copy form, if they so preferred. The PhD student oversaw all aspects of the data collection, contacting the designated person from each organisation and providing instructions and information about the survey link. The PhD student also emailed the senior manager (see email drafts in Appendix 2) weekly reminders for employees to complete measures at each follow-up for four weeks.

Procedure section

Organisations that expressed an interest (directly to MHFAE) in undertaking MHFA training and were willing to participate in the study were asked to contact the Centre for Mental Health which was one of the study partners. Companies signed a memorandum of understanding agreeing to abide by all set standards of the study which was managed by the study partner (Centre for Mental Health), and they were then provided with a company information sheet about the study (attached in appendix 3). Contact of a senior manager in charge of the project was then shared with the PhD student.

All employees within each included organisation were invited to participate and provided a participant information sheet (see appendix 4) giving detailed information about the study via the Qualtrics survey. The information provided included: the benefits and potential harm of participation, how the study data were treated, and their choice to opt-out or withdraw from the study at any time, at least two weeks before any outcome assessment. Participants provided consent by checking the first item on the online survey that sought consent. After completing all sections of the survey, participants were shown a debrief page (Appendix 5) containing supporting information about the study and where a participant could get help in case of any distress experienced from participating in the study.

Quantitative data analysis

The approach to analysis was intention-to-treat. This method of analysis preserves the analytical balance afforded by randomisation. The primary analysis estimated the difference in ASHQ scores and 95% CI post-intervention between the intervention and control arms. Secondary analyses included estimation of intervention effect longitudinally, using all follow-up data; comparison between the two arms; and analysis of other secondary outcome measures using appropriate regression models depending on the outcome variable. Covariates included in regression models included randomisation variables, and the baseline value of the outcome was measured. Sensitivity analysis estimated the effect of compliance (CACE analysis) and missing outcome data.

4.9 Embedded Aspects of the Research Design

Additional data were gathered to explain further the outcomes of the study alongside the mechanisms that might explain the outcomes, addressing the following research questions:

1. How does the introduction of MHFA promote help-seeking behaviours for mental health difficulties in a workplace context?
2. What are the experiences of direct and indirect end-users of MHFA in the workplace?
3. How does the introduction of MHFA impact organisational culture and work relationships?
4. What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?

Details about the methods used for sampling and data collection in the embedded aspects are discussed next.

Qualitative design: Using semi-structured Interviews.

Qualitative research methods allow the researcher to examine in-depth participant experiences and understandings, most significantly in areas of a study not commonly understood (Jamshed, 2014). This approach helps understand people's experiences about phenomena (Alderfer & Sood, 2016). Willig (2008) developed guiding principles to help direct the researcher to the types of data to collect, methods used for collection, issues around validity and reliability of the data collected and issues around ensuring representativeness.

Willig (2008) reiterated the need for data to be naturalistic so all words and actions of a participant during an interview are relevant. Although qualitative studies utilise several data sources, (Carroll & Rothe, 2010), the chosen methods stem from the fundamental assumptions that the researcher reflects upon at the start of developing knowledge about the phenomenon under study. So, the movement from data sources to information gathered and knowledge developed should reflect the researchers' philosophical assumptions.

Furthermore, qualitative research allows validity issues to be equally addressed by using techniques that allow participants to challenge meanings created by research, which is commonly achieved by obtaining feedback on study findings from participants. Also, the researcher's reflexivity ensures that their role in knowledge development is carefully monitored (Willig, 2008). Issues around representativeness are commonly addressed by understanding the aim of the study. For example, in the context of workplace employees, the researcher needed to ensure proper representation across all employees to draw an accurate picture of their experience of mental health and well-being. The following paragraphs will detail some decisions made regarding this aspect of the embedded study reported in this thesis.

As outlined earlier, embedding a qualitative element of the study was to obtain complete and corroborative results, knowing that examining the gap in knowledge using one approach might not provide a detailed understanding of the issue (Yu & Khazanchi, 2017), in this case, to understand the effectiveness of MHFA from the perspectives of its direct recipients.

The qualitative component of the research utilised a qualitative interview technique because the researcher was interested in having a subjective perspective about the experiences of recipients and other stakeholders of MHFA within a workplace setting (Roberts, 2020). Most qualitative research interviews are either semi-structured, structured, or in-depth (Jamshed, 2014). In this thesis, semi-structured interviews were used. A semi-structured interview is regarded as the most widely used technique in qualitative research in psychology (Willig, 2008) because it is compatible with various forms of analysis. Interviews also offer the advantage of using open questions that might prompt more detailed responses about participants' experiences that could sometimes be personal and sensitive to reflect upon (DeJonckheere & Vaughn, 2019) especially when exploring mental health issues.

Participants and Sampling

Compared to quantitative sampling, where there is a standardisation of procedure drawn up for random selection of participants, participants in qualitative studies are carefully and purposefully selected to boost understanding of the topic area (Sargeant, 2012). The decision on the set of participants to yield an in-depth

understanding should be informed by the theoretical perspective, evidence informing the study itself, and ultimately the research question(s) (Alderfer & Sood, 2016).

A purposeful sampling technique was adopted; this technique involves identifying and selecting individuals knowledgeable about a subject of interest (Palinkas et al., 2015). Beyond the idea of knowledge about a subject is participants' willingness to participate in sharing their experiences.

Participants interviewed were recipients, employees, and senior managers to gain more insights into the beyond surface-level impact of mental health first aid. MHFA trainees who in previously reviewed studies have been reported to develop distress due to participating in the MHFA training (Talbot et al., 2017) and recipients are a group not commonly studied in previous literature.

Participants were selected from a pool of individuals who completed the survey and indicated that they were willing to discuss their experiences of mental health and well-being issues via an interview. Details on the purposive selection of participants for this element of the study are reported in the procedure section.

Interview guides

The interview guides were developed, including prompts to probe participants' responses to answer the research question. This helped sustain the conversation and allowed the researcher to ask follow-up questions they might consider relevant. In a systematic methodological review of qualitative studies (Kallio et al., 2016), five phases were outlined to develop an interview guide. The phases included: 1) identifying the prerequisites for using semi-structured interviews; meaning thinking about the purpose of the research; 2) retrieving and using previous knowledge and experience about the subject area; 3) formulating a preliminary semi-structured interview guide; 4) pilot testing; and 5) presenting the complete semi-structured interview guide. The interview guide development follows the outlined phases; the PhD student developed the guide with several iterations following regular review. The guide was pilot tested to identify possible needs to reformulate questions. The topic areas for each participant group are described below. See Appendix 6 for the final version of the interview guide used.

For the mental health first aiders, the interview explored:

- The perceived development of their knowledge, skills, and competencies in addressing mental health issues in the workplace and beyond.
- Their relationships with colleagues include managing stress and emotions in their own and colleagues' mental health issues.
- The perceived efficacy of MHFA in their workplace.
- Their perceptions of any organisational challenges and obstacles of mental health first-aiders in delivering MHFA interventions and the perceived impact on company culture.

For recipients of MHFA and employees who had not received MHFA, the interview explored:

- Their experiences of mental health challenges at work, as well as their experience of seeking help
- The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received and more generic aspects of their experience, such as warmth, empathy, etc.
- Any perceived changes in relationships at work result from their mental health challenge and the support they have received from the MHFA-trained staff. This would include relations across the spectrum, such as relations with line managers and equal-level colleagues.
- Any significant changes to workplace relations and organisational behaviour result from seeking help for mental health challenges.
- Their perceptions of relations outside work, including an improvement in discussing mental health with others.
- Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualisation, and social coherence.

For senior managers in the workplace

- Their perceptions of any organisational challenges and obstacles of mental health first-aiders in delivering MHFA interventions and the perceived impact on company culture.
- Implementation process – considering barriers and facilitators.

- The recruitment process for trainees in their company.
- Any significant changes to workplace relations and organisational behaviour result from seeking help for mental health challenges.

Procedure

Participants were purposively sourced from a pool of individuals who volunteered to be interviewed when completing the Qualtrics online survey at baseline and post-intervention. The PhD student sent the information sheet (appendix 7) about the study's nature and gained both written and verbal consent from all interviewees (see consent form in appendix 8). All interviews were conducted online via Microsoft teams and audio recorded using an external digital recorder; the interviews lasted between 45-90 minutes. All participants were debriefed at the end of the interview (see debrief sheet in appendix 9).

Qualitative Data Analysis

A reflexive thematic analysis (RTA) was used for qualitative data analysis. TA is a widely used concept, process, method, or approach for analysing qualitative data. TA aims to identify patterns within data (Braun & Clarke, 2006). In their latest practical guide, (Braun & Clarke, 2021b) specified an approach to thematic analysis due to the diversity in orientations, practices and approaches to conducting TA. Reflexive TA was suitable for the study to gain an understanding of the experiences of direct recipients of MHFA in a workplace context as it offers an opportunity to explore and interpret interview data and drawing patterns of meanings from the experiences discussed by participants of the study (Braun et al., 2023).

As mentioned earlier, the qualitative phase was based on a paradigmatic framework of interpretivism. The thesis was interested in reflecting on recipients, employees, trainees, and senior managers experience of MHFA as sincerely as possible. The thesis interest is based on the ontology of relativism which believes that the subject being studied have multiple realities which can be explored through human interactions between researcher and participants (Kivunja & Kuyini, 2017).

Braun & Clarke (2021) have highlighted some theoretical assumptions that must be addressed when conducting a reflexive TA. They are conceptualised on a series of continua, including essentialist versus constructionist epistemologies, experiential versus critical orientation to data, inductive versus deductive analyses, and semantic

versus latent data coding. The expectation is not to favour one side of the continua over the other but to justify the theoretical assumptions that have guided the analysis with the sole aim of providing answers to the research question (Byrne, 2022).

The first assumption reflects either critical or experiential orientations. The experiential orientation is centred around meanings and experiences articulated by study participants. Experiential approaches could be traced back to giving voice to data. This approach is strengthened by the understanding that a language is a vital tool in communicating meaning to the social world. Experiential approaches are said to be informed by a philosophy of interpretation which Braun & Clarke (2021a) have referred to as hermeneutics of empathy.

On the other hand, critical orientations seek to interrogate patterns of meaning that focus on the effects and functions of a particular language pattern. It views language as a critical way to develop an understanding (Terry et al., 2017). This orientation's understanding is centrally connected to the ontological and epistemological assumptions underpinning any qualitative research. In this thesis, an experiential orientation to data was adopted to highlight the meanings of experiences about MHFA ascribed by participants. The experiential approach was most appropriate as the study aimed to prioritise participants' accounts of their experiences.

Regarding epistemology, either essentialism or constructionist epistemologies. The idea here is based on how the researcher understands the data; in essentialism, the researcher adopts a direct understanding of the relationship between language and communicated experience, in that it is assumed that language is a simple reflection of the participants' articulated meanings and experiences (Widdicombe and Wooffitt 1995). On the other hand, constructionist persuasion adopts a two-way understanding of the language/experience relationship, which means language is indirectly important in reproducing both meaning and experience (Schwandt 1998). In this thesis, a constructionist perspective was the epistemological consequences as the importance of recurrence and meaningfulness in experience as the main criteria in the analysis process. So, close attention is placed on recurrence in the meanings and experiences that participants share.

Regarding inductive versus deductive analysis, researchers are expected to decide on the approach they intend to use in identifying patterns within their data. This could

be undertaken either in an inductive or deductive manner (Patton, 1990); the inductive approach is where data are linked to the themes generated. Data, in this case, are not coded in any analytic notions; instead, they are solely reflective of the content of the data (Byrne, 2022). The deductive or the top-down approach is where data are coded to an existing theoretical framework developed by the researcher. The thesis predominantly used an inductive approach, so data was open-coded, and meaning was data-driven. However, deductive analysis was also employed to ensure that the themes developed were relevant to the research question.

Lastly, the theoretical assumption that needs to be addressed when conducting a reflexive TA is the levels to identify the themes within coded data on a semantic level. The semantic level involves themes being "identified within the explicit or surface meanings of the data, and the analyst is not looking for anything beyond what a participant has said or what has been written" (Braun & Clarke, 2006, p. 13), whilst the latent level involves "identify or examine the underlying ideas, assumptions, and conceptualisations and ideologies that are theorised as shaping or informing the semantic content of the data" (Braun & Clarke, 2006, p. 13). In this thesis, both levels of coding were adopted.

Now that the theoretical assumptions have been addressed, the following six steps set out by Braun & Clarke (2006) were adopted as a guide to the analysis.

- Familiarisation with the data
- Generating initial codes
- Generating themes
- Reviewing potential themes
- Defining and naming themes
- Producing the report

The software package Nvivo 12 was used to organise and code the data, particularly useful for this process.

The theoretical underpinning of MHFAs and their mechanisms of action.

As explored in the theoretical review chapter, there is no explanation from previous literature regarding the mechanisms of action in promoting help-seeking behaviour for those that might engage with mental health first aid. The COM-B model,

alongside other elements of the behaviour change wheel (i.e., theoretical domains framework (TDF) and Behaviour Change Technique Taxonomy Version 1 (BCTTv1)), have been utilised to inform intervention design, to characterise intervention content and mechanisms of change in existing interventions (i.e. retrospectively) (Bourne et al., 2020; McHugh et al., 2018; Pearson et al., 2020; Powell & Thomas, 2022; Steinmo et al., 2015; Watkins et al., 2016). The BCW has been adopted in the development of some behavioural change interventions, including non-clinical interventions, like changing sitting-time amongst office staff (Ojo et al., 2019), increasing physical activities (Truelove et al., 2020), promoting physical activities of young people at risk of psychosis (Carney et al., 2016). It has also been used in many health-related activities, addressing prescribing errors and encouraging proper hand hygiene (Steinmo et al., 2015). Connell et al. (2018) have attempted to provide links between BCTs and mechanisms of action through a consensus process. However, the links were limited to only some BCTs, and MoAs The behaviour change taxonomy has been used to identify the active ingredients in existing interventions. The current study has drawn from steps taken from previous work carried out by (Bourne et al., 2020; McHugh et al., 2018; Pearson et al., 2020; Powell & Thomas, 2022; Steinmo et al., 2015; Watkins et al., 2016) to answer the research questions; 1) What factors influence employees' capability, opportunity, and motivation for mental health help-seeking? 2) How does MHFA promote help-seeking behaviours?

Sources of data

Three sources of data from both the MHFA training programme and interviews of trainees and recipients were collected to help deconstruct the intervention content:

1. **MHFA Training Manual** – This manual accompanies the MFHA training programme. The manual includes a general introduction to the ALGEE approach, four sessions to illustrate the ALGEE approach applied to different mental health conditions and a directory of mental health support sources. The session on applying the ALGEE approach in the context of a recipient experiencing (or showing behavioural symptoms of) psychosis was selected as the data source 1 (Session 4, Page 188-219). This session was selected to match a role-play training video 'good practice' example often used in the training programme to demonstrate the ALGEE approach.

2. **MHFA Role-play Video** – A role-play training video on psychosis was obtained from MHFAE.
3. **Interviews –** Qualitative data from interviews of mental health first aiders and recipients of the MHFA intervention presented in Chapter 6 were analysed to identify active ingredients in trainees' descriptions of how they have supported any individual following the training. Also, the researcher captured feedback from recipients on the descriptions of skills they identified from the first aiders when they were being supported. As detailed in Chapter 6, five recipients and ten mental health first aiders were interviewed as part of the qualitative interviews. Four of the interviewed recipients were also mental health first aiders. Recipients were asked to describe “the kind of support they received and how it affected their feelings and mental health”. They were prompted to describe specific qualities they identified during their encounter with the first aider. Whilst the MHFAiders were asked to describe “the instances where they have applied their MHFA skills post-training”, they were prompted to provide a detailed example of their encounter, explicitly identifying the application of the ALGEE approach. Five of the mental health first aiders were the only ones who had supported a colleague after being trained. Details of the interview questions are in Appendix 6.

Analysis

The analysis aimed to characterise MHFA intervention content to identify the active ingredients and their theoretical mechanisms of action. A consensus approach was taken in each of the stages in the step to identify BCTs, intervention functions, and TDF from the training manual and video. In this approach, two researchers (including the PHD student) independently conducted the analysis. Following the independent review, a meeting was held at each stage to discuss the findings, resolve discrepancies, and reach a consensus with a senior researcher with expertise in applying the BCW framework.

Step 1. Deconstructing MHFA intervention – Details of the explanation of the application of the MHFA intervention were extracted from the data sources. As mentioned earlier, the TIDIER framework's purpose in this step was to recognise the crucial elements involved in delivering the intervention and enhance the efficiency of MHFA. In the training manual, the focus was explicitly placed on explaining the steps

a first aider needs to follow when supporting someone experiencing mental distress. There was also access to a role-playing video often used as part of the training materials where the intervention steps were applied to an individual having a psychotic episode. An outline of the MHFA intervention was specified according to the TIDieR framework (Hoffmann et al., 2014); this included the rationale for MHFA intervention, materials used to deliver the intervention, procedures involved when a mental health first aider is administering MHFA and the frequency of contact with a recipient. Data from all three sources were used.

Step 2- Stage 1- Intervention content was extracted from the three data sources to identify the active ingredients to enable appropriate mapping to the BCW. BCTs were extracted from the training manual (specifically the content on supporting an individual struggling with psychosis), the MHFA role-play video using the BCTTv1 (Michie et al., 2013) (Bourne et al., 2020; McHugh et al., 2018; Pearson et al., 2020; Powell & Thomas, 2022; Steinmo et al., 2015; Watkins et al., 2016) and the interview transcripts of five mental health first aiders who had supported a colleague after being trained (n= 5). Of the eleven (11) mental health first aiders, four also reported being recipients of the intervention. The interview transcripts are taken from the qualitative study in Chapter 6, and BCTs were identified by the PHD student and discussed with a senior researcher.

Step 2: Stage 2- BCTs identified in stage 1 were then linked to the intervention functions (broad categories of things one can do to change behaviour) on the BCW to show how MHFA aims to achieve its help-seeking behaviour outcome. Guidance detailed in Chapter 3 of The Behaviour Change Wheel Guide to Designing Interventions (Michie et al., 2014b, p. 150) was used to link the BCTs to intervention functions.

Step 2: Stage 3- Following the mapping of the BCTs to their corresponding intervention function, they were then mapped to the TDF domains and the applicable elements of the COM-B model using 1) Steps suggested in Chapter 5 of the Behaviour Change Wheel Guide to Designing Interventions (Michie et al., 2014a, Chapter 5) and 2) Consensus between the three researchers about to which domains the BCTs were best suited.

Below, in figure

4.10 Data Management

The PhD student was required to follow the Data Protection Act (DPA) (1998) and ensure the rights of the study participants to privacy and informed consent were upheld. Participant data were exported from Qualtrics into SPSS by the PhD student; data were stored on a password-protected network drive accessible only to the PhD student and other designated research team members. In addition, there was an undertaking that each participant's research file only contained the minimum required information for the study.

4.11 Ethics implications and approvals.

Ethical approval for the study was granted by the London South Bank University Applied Sciences Ethics Panel (4th of June 2019) see appendix 10. The study adhered to standard ethical principles recommended by the British Psychological Society (Oates et al., 2021). The study adhered to standard ethical principles in the following ways:

Beneficence & Non-maleficence was upheld by informing all participants of the potential benefits and harm of the study to them personally, their organisation and wider society. These benefits included improving their mental health and well-being at work and a shift in the culture around mental health & well-being in the organisation they work in, which could impact the burden of mental health issues in the community. Although the study's potential harm was minimal, it mainly refers to potential distress to participants by speaking about their mental health issues. To ensure that participants were equipped with accurate information about the potential benefits and harm of participating in the study, they were provided with an information sheet with all these details (see appendix 4). Also, additional resources which participants can seek help from (for example, Samaritans etc.), if needed, were detailed in the debrief sheet sent out to participants (appendix 5).

To ensure the principle of Respect for Human Dignity is upheld, the PHD student ensured participants were made aware of their right to decide whether to participate or withdraw at any stage with impunity. The PhD student also engaged with participants in a professional manner with no form of coercion at any point.

The Right to Full Disclosure was ensured in the study by providing sufficient detailed information about the study and what participants were consenting to in the participant information sheet. Potential deviations from the original study protocol approved by the ethics committee were submitted for consideration by the committee. To ensure that participants' right to justice was upheld, they were treated fairly and equitably throughout their participation in the research by ensuring that an eligibility criterion agreed upon by the research team and approved by the ethics committee was clear. Participants' right to privacy is an important component of upholding justice; the PHD student ensured that data collected from participants were held in the strictest confidence and under secure arrangements. In the quantitative survey component of the thesis, participant data were exported from Qualtrics into SPSS by the PHD student; data were stored on a password-protected network drive accessible to only the PhD student and other designated research team members. Similarly, in the qualitative component of the thesis, participants recorded interviews were transcribed and stored on a password-protected network drive accessible to the PHD student.

This chapter introduces the methods used to address research gaps identified after an evidence synthesis and theoretical review. It presents the aims, objectives, and research questions of the study, along with a description and discussion of the study design and philosophical paradigm underpinning the methodology. The chapter also highlights the complexity of the Mental Health First Aid (MHFA) intervention and the need to understand its active ingredients. The study's research questions are presented with their corresponding designs, including randomized controlled trials and qualitative semi-structured interviews. The next chapter will present the results of the clustered randomised control trial.

Chapter 5 - Clustered Randomised Control Trial Results

5.1 Introduction

This chapter presents the results of the clustered randomised control trial. The chapter will begin with an overview of recruitment and attrition throughout the trial. This will be followed by an overview of the participants' baseline characteristics, discussions about intervention adherence and data cleansing. The results of the primary outcome measure are presented alongside the results of the secondary outcomes.

5.2 Recruitment and loss to follow up.

Recruitment for the trial ran from January 2020 – December 2020 but it was put on hold for 6-months (March – September 2020) due to the pandemic and the original funders (MHFA England) withdrawing their funding. Figure 5.1 shows a flow of clusters throughout the study. When recruitment initially started, 19 clusters (n=3042 employees) across 16 organisations were recruited into the study. Baseline data collection and randomisation commenced for 12 clusters at the initial stage, following the break from recruitment due to the reasons stated earlier. Consequently, 9 clusters (1585 employees) remained in the project and completed baseline data collection and were randomised accordingly to their respective groups.

The recruitment drive stopped following the official withdrawal of research funding from MHFA England. Clusters were randomly allocated across two arms of the trial: intervention (n=6) and control (n=3). At baseline, 468 participants completed the online survey (29.5% of the total number of employees within the recruited clusters). Reasons for non-participation in the study were not explored because the PhD student did not have direct contact with employees within clusters that had completed the baseline data. The total lost to follow up was 48.5%, with more participants in the intervention group (85.9%) compared to the control arm (14.1%) remaining in the study. A goodness-of-fit chi-square reported no statistically significant differences between respondents and non-respondents at follow-up.

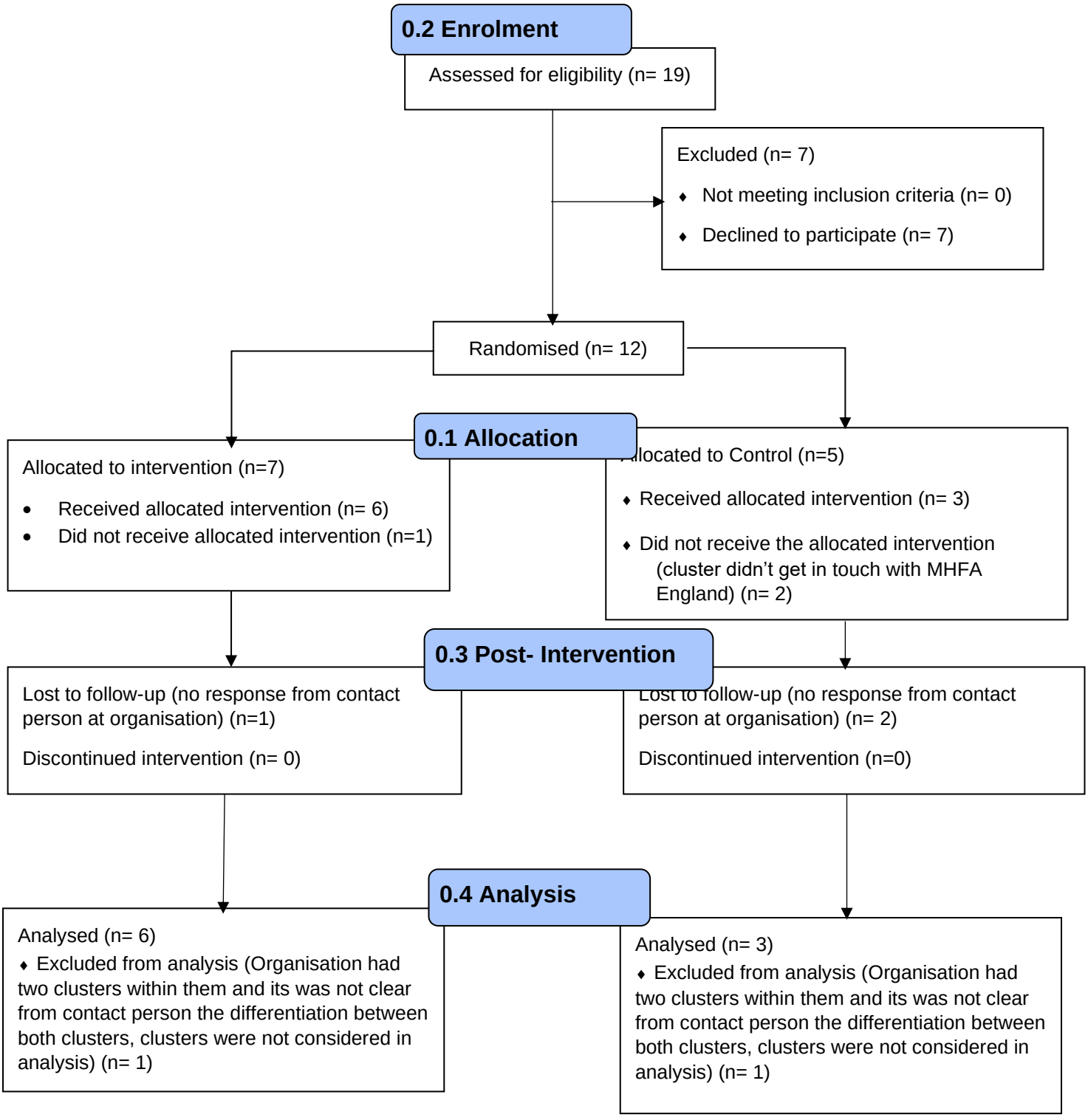

Figure 5. 1: CONSORT 2010 flow diagram

5.3 Data processing and analysis

On completing the data collection period for the trial, i.e., the end of the post-intervention survey period, raw data files were extracted from Qualtrics databases into an SPSS database ready for data analysis.

Data were cleansed to ensure that data output met the requirement for data analysis. The researcher followed the recommendations of reporting missing data to understand results better as reported by Schlomer et al. (2010). In the survey, participants had the option to proceed without completing items, but they got a prompt for every question they missed. Participants that did not complete at least the primary outcome measure (AHSQ) were removed from the analysis. Missing data are commonly classified into three groups: Missing Completely at Random (MCAR), Missing at Random (MAR) and Missing Not At Random (MNAR). When missing data is not associated with any observed or unobserved variable such data is classed as MCAR. When observed values determine the data's probability, the data is known to be MAR. In this case, unobserved values do not determine whether the data is mis. Instead, it is understood that data is missing for a random reason. So, the observed values can be used to impute data for the missing values. Within the analysis, it was assumed that the data was MCAR. First, the amount of missing data was assessed using the SPSS missing values analysis at both time points to test this assumption. The missing data pattern was also assessed to determine whether there were any missing data patterns, which may suggest that the data was not MCAR. MCAR test conducted using SPSS was significant X^2= 99.37, DF = 103, P = .023, meaning missing values were not missing completely at random. An arbitrary value imputation was performed, replacing the missing values with -99 and -999 where appropriate.

In this thesis, data description and analysis took two forms (descriptive and inferential statistics). The researcher used descriptive statistics to present the numerical data summarising the data gathered. Inferential analyses, which allow for conclusions to be drawn, were conducted. To check for the assumption of normally distributed data at both time points, the researcher ran a descriptive statistical analysis and reported the skewness and kurtosis for all relevant variables, as illustrated in Table (5.1) below. As a further precaution, to determine whether the assumption of normality has been violated, the Shapiro-Wilks statistics were also

examined for all variables. On examination, the well-being scale, SF12 subscales, Self-Efficacy and social well-being total were normally distributed at both time points. At baseline, formal help, EQ5D subscales excluding usual activities and GHSQ general intentions were not normally distributed. While post-intervention, formal help. EQ5D subscales, GHSQ total, SWB contribution, and General Help intentions.

There are two sets of data presented in this chapter, one that includes all the employees in the clusters in each treatment arm of the study and another that includes the paired sample (participants that completed the online survey at both timepoints).

Table 5. 1: Skewness and kurtosis for all variables at baseline and post-intervention

	Variable	Skewness		Kurtosis	
		Statistic	S. E	Statistic	S. E
Baseline	Formal Help	-1.66	.11	.75	.23
	SF12 -Physical subscale	.455	.11	-.70	.23
	SF12 -Mental Health subscale	-.64	.11	-.06	.23
	Social wellbeing Total	-.21	.11	.40	.23
	Wellbeing Scale	-.18	.11	-.06	.23
	SE_Knowledge	.01	.11	-.61	.23
	SE_Coping	-.20	.11	-.79	.23
	GHSQ-Total	-.40	.11	.24	.23
	GHSQ-Informal	-.60	.12	.42	.23
	GHSQ-formal	-.22	.12	-.32	.23
	GHSQ-GenIntentions	.48	.12	-.81	.23
Post-Intervention	Formal Help	-1.65	.16	.74	.31
	SF12 -Physical subscale	.62	.16	-.13	.32
	SF12 -Mental Health subscale	-.47	.16	-.04	.32
	Social wellbeing Total	-.39	.16	.21	.32

	Wellbeing Scale	-.17	.16	-.24	.33
	SE_Knowledge	-.22	.16	-.74	.33
	SE_Coping	-.60	.16	-.36	.33
	GHSQ-Total	-.17	.16	-.33	.33
	GHSQ-Informal	-.64	.16	.31	.33
	GHSQ-formal	-.22	.16	-.44	.33
	GHSQ-GenIntentions	.53	.16	-.68	.33

5.4 Comparisons of clusters and individuals recruited to the trial.

Study sample characteristics

Baseline data collection was collected from 468 employees across nine clusters prior to the allocation of their respective clusters to either the intervention arm (n=6) or the control arm (n=3). At baseline, participants who responded were on average 37.4 years old, ranging from 21 to 66 years. 69.70% of the sample was female, 95% were of white ethnicity, approximately 75% were university educated and over 60% were married or living with a partner. Thirty-five per cent of the sample were diagnosed with a mental illness and two thirds had experienced mental distress at work. Nearly 80% had worked while unwell and at baseline 20% had sought support from a mental health initiative. Table 5.2 summarises the sample at baseline and follow period for socio-demographic and mental health variables at work. Differences between both timepoints were examined using the chi-square test and independent t-test where appropriate. Differences was regarded as statistically significant at 0.05 level/ statistically significant difference between the baseline and follow-up group was only observed in the “age” and “support from mental health initiative in current workplace” variables. The mean age of participants in the post-intervention survey was 40.5 compared to 37.4 at baseline. Also, post-intervention, more support from a mental health initiative in the workplace was received compared to the baseline period.

Table 5. 2: Summary statistics of samples to assess sample representativeness at baseline and follow-up.

Variable	Label	All employees n=468		Paired sample n=57	
		Baseline	Follow-up	Baseline	Follow-up
Participants numbers		468	241	57	57
Age, mean (SD), min–max, n.		37.4 (10.9) 21-66, 464	40.5 (11.0) 22-63, 235	34.9 (9.12) 22-57, 57	37.3 (9.67) 24-59, 57
Gender	Female	326 (69.7%)	168 (69.7%)	39 (68.4%)	40 (70.2%)
	Male	134 (28.6%)	65 (27.0%)	14 (24.6%)	13 (22.8%)
	Other	8(1.7%)	8 (3.3%)	4 (7%)	4 (7%)
Ethnicity	Asian	12 (2.6%)	5 (2.1%)	0	0
	Black	6 (1.3%)	2 (0.8%)	0	0

	Mixed race	3 (0.6%)	5 (2.1%)	1 (1.8%)	1 (1.8%)
	White	444 (94.9%)	228 (94.6%)	54 (94.7%)	53 (93%)
	Other	3 (0.6%)	1 (0.4%)	0	0
Highest education qualification	Pre-University	111 (23.9%)	56 (23.2%)	13 (22.8%)	14 (24.6%)
	Undergraduate	190 (40.9%)	103 (42.7%)	22 (38.6%)	21 (36.8%)
	Postgraduate degree	116 (24.9%)	66 (27.4%)	17 (29.8%)	17 (29.8%)
	Doctoral degree	18 (3.9%)	7 (2.9%)	5 (8.8%)	5 (8.8%)
	Other	30 (6.5%)	9 (3.7%)	0	0
Marital status	Single	144 (30.8%)	60 (24.9%)	20 (35.1%)	17 (29.8%)
	Married	186 (39.7%)	97 (40.2%)	18 (31.6%)	24 (42.1%)
	Divorced/separated	29 (6.2%)	18 (7.5%)	5 (8.8%)	4 (7.0%)
	Living with partner	109 (23.3%)	66 (27.4%)	14 (24.6%)	12 (21.1%)
Diagnosed with a mental illness		165 (35.3%)	83 (34.4%)	17 (29.8%)	16 (28.1%)
Experienced mental distress as result of work		315 (67.3%)	155 (64.3%)	41 (71.9%)	37 (64.9%)

Form of mental health distress experienced	Anxiety	65 (20.9%)	33 (22.1%)	9 (15.8%)	8 (14%)
	Stress & burnout	64 (20.6%)	34 (22.8%)	9 (15.8%)	9 (15.8%)
	Depression	24 (7.7%)	17 (11.4%)	4 (7%)	2 (3.5%)
	Panic attack	6 (1.9%)	5 (3.4%)	4 (7%)	2 (3.5%)
	Suicidality	1 (0.3%)	0 (0%)	0 (0%)	0 (0%)
	Others	151 (48.6%)	60 (40.3%)	15 (26.3%)	12 (21.1%)
Attended work when been unwell		369 (78.8%)	184 (76.3%)	47 (82.5%)	41 (71.9%)
Support from mental health initiative in current workplace		67 (20.4%)	71 (30.7%)	15 (26.3%)	20 (35.1%)
Number of recipients of MHFA		6 (1.4%)	2 (0.42%)	2 (3.5%)	2 (3.5%)

5.5 Equivalence at Baseline

As presented in Table 5.3 below, the two intervention arms (experimental and control) are equivalent at baseline on most of the outcome measures, meaning that there is no significant difference between the groups at the start of the study. To test whether the two groups were equivalent at baseline, the study conducted a chi-square test for independence for the categorical variables, an independent samples t-test and a Mann-Whitney U test.

Table 5. 3: Descriptive statistics of baseline sample by randomised group for all employees

Variable	Label	Total n=468	Intervention n=413	Control n=55	(p-value)
Demographics					
Age, mean (SD)		37.8 (10.7)	37.7 (10.7)	38.3 (11.1)	0.4 (0.70)
Gender	Female	326	290 (70.2%)	36 (65.5%)	38.3[c] (<0.001)
	Male	134	120 (29.1%)	14 (25.5%)	
	Gender variant / non-confirming	3	0 (0.0%)	3 (5.5%)	
	Prefer not to say	3	3 (0.7%)	0 (0.0%)	
	Non-binary	2	0 (0.0%)	2 (3.6%)	
Ethnicity	Asian	12	11 (2.7%)	1 (1.85)	3.6 (0.458)
	Black	6	4 (1.0%)	2 (3.6%)	
	Mixed race	3	3 (0.7%)	0	
	White	444	392 (94.9%)	52 (94.5%)	

	Other	3	3 (0.7%)	0	
Highest education qualification	Pre-University	111	92 (22.4%)	19 (35.2%)	13.4[c] (0.007)
	Undergraduate	190	178 (43.3%)	12 (22.2%)	
	Postgraduate degree	116	103 (25.1%)	13 (24.1%)	
	Doctoral degree	18	15 (3.6%)	3 (5.6%)	
	Other	30	23 (5.6%)	7 (13.0%)	
Marital status	Single	144	127 (30.8%)	17 (30.9%)	3.0 (0.393)
	Married	186	169 (40.9%)	17 (30.9%)	
	Divorced/separated	29	24 (5.8%)	5 (9.1%)	
	Living with partner	109	93 (22.5%)	16 (29.1%)	
Diagnosed with a mental illness	Yes	165	147 (35.6%)	18 (32.7%)	0.2 (0.765)
	No	303	266 (64.4%)	37 (67.3%)	
Experienced mental distress as result of work?	Yes	315	283 (68.5%)	32 (58.2%)	2.4[c] (0.129)
	No	153	130 (31.5%)	23 (41.8%)	
Form of mental health distress experienced	Anxiety	65	59 (21.1%)	6 (19.4%)	1.7 (0.945)
	Stress & burnout	64	58 (20.7%)	6 (19.4%)	

	Depression	24	20 (7.1%)	4 (12.9%)	
	Panic attack	6	6 (2.1%)	0	
	Suicidality	1	1 (0.4%)	0	
	Others	151	136 (48.6%)	15 (48.4%)	
Attended work when you have been unwell	Yes	369	331 (80.1%)	38 (69.1%)	3.6 (0.077)
	No	99	82 (19.9%)	17 (30.9%)	
Support from mental health initiative in current workplace	Yes	67	56 (19.4%)	11 (28.2%)	1.6 (0.207)
	No	261	233 (80.6%)	28 (71.8%)	
Outcome measures					
Actual HSQ - informal	Partner	243	218 (52.8%)	25 (45.5%)	1.0 (0.318)
	Friend	227	202 (48.9%)	25 (45.5%)	0.2 (0.668)
	Parent	165	144 (34.9%)	21 (38.2%)	0.2 (0.654)
	Relative	87	76 (18.4%)	11 (20.0%)	0.1 (0.854)
Actual HSQ - formal	Mental health professional	47	43 (10.4%)	4 (7.3%)	0.5 (0.497)

	Helplines	7	7 (1.7%)	0 (0%)	0.9 (0.608)
	GP	54	44 (10.7%)	10 (18.2%)	2.7 (0.115)
	MHFA	2	2 (0.5%)	0 (0%)	0.3 (1.0)
	Formal - total	85	72 (17.4%)	13 (23.6%)	1.3 (0.266)
	Someone else	35	31 (7.5%)	4 (7.3%)	0.0 (1.0)
	Not sought help	100 (21.4%)	92 (22.3%)	8 (14.5%)	1.7 (0.223)
			Mean (SD)	**Mean (SD)**	**t and u values (p-value)**
Total AHSQ		468	1.9 (1.50)	1.8(1.40)	0.2 (0.86)
Social wellbeing (SWB) - Total		448	3.7 (0.4)	3.9 (0.4)	2.4 (0.02)[b]
SWB – Social Integration		448	11.8 (3.2)	12.4 (3.4)	1.4 (0.17)
SWB – Social Acceptance		448	11.0 (3.0)	12.8 (3.0)	4.1 (<0.001)[b]
SWB - Social Actualization		448	11.2 (2.0)	10.7 (2.1)	1.7 (0.096)
SWB - Social Coherence		448	12.1 (2.2)	12.7 (2.4)	1.9 (0.053)
SWB - Social Contribution		448	10.2 (2.0)	9.8 (2.6)	1.1 (0.263)
General HSQ (GHSQ) - total		444	5.8 (1.9)	5.7 (1.8)	0.6 (0.56)
GHSQ – informal help-seeking		444	4.3 (1.1)	4.5 (0.8)	0.9 (0.36)

GHSQ – formal help-seeking	444	3.9 (1.4)	3.6 (1.4)	1.2 (0.23)
GHSQ – general help-seeking	441	3.1 (1.8)	2.5 (1.6)	2.2 (0.03)[b]
Wellbeing (WEMBS)	438	45.8 (9.6)	49.3 (10.6)	2.5 (0.01)[b]
Self-efficacy – knowledge	437	5.8 (2.2)	7.4 (2.2)	4.9 (<0.001)[b]
Self-efficacy – coping	433	6.0 (2.4)	7.0 (2.4)	2.9 (0.004)[c]

[a] Mann-Whitney U-test

[b] independent samples t-test

The chi-square test of independence is used to test for any relationship between two categorical variables. There are two main assumptions made when conducting this test, firstly the two variables should be categorical variables measured at nominal level. Secondly, the two variables should consist of two or more categorical independent groups (*Chi-Square Test for Association using SPSS Statistics - Procedure, assumptions and reporting the output.* 2013). The variables examined for difference using this test was all the socio-demographic variables except age. Fisher's exact test was recorded instead for variables with not more than 2 categorical answers like questions asking if participants has experienced mental health distress at work (Kim, 2017).

Additionally, the independent t-test was used to compare the means of scores across the variables between the treatment and control arm of the study. The t-test is used to check if there is a difference between two independent groups and the dependent variable is continuous (Brace et al., 2012). The independent t-test is a parametric test, certain assumptions must be met for the test to be conducted. First is meeting the assumption of homogeneity of variance and the samples are drawn from a population with a normal distribution. The level of statistical significance was set at $p \leq 0.05$ which simply implies that there is 5% chance of obtaining a difference in the sample means of both treatment arms. This test was only used to examine differences in the age variable.

Also, a non-parametric test Mann-Whitney U test which is the non-parametric equivalent of the independent t-test, is utilised when data are only of ordinal level of measurement and if the dataset does not meet the assumptions for a parametric test which includes normality of distribution, equal variance, independence and no outliers (Brace et al., 2012). This was only used for EQ25D subscales except health status, the EQ25D subscales met the assumptions of a Mann-Whitney U test considering data were measured an ordinal level, the independent variable consists of two independent groups (Intervention arm and Control arm), there is no differences between both groups.

With respect to socio-demographic characteristics the randomised groups differed significantly with respect to gender ($p<0.001$) and education ($p=0.007$). In the

intervention group only 3 participants (0.7%) self-reported as not male or female in contrast to the 5 (9.1%) participants in the control group. Nineteen (35.2%) participants in the control group had not been to university in contrast to 92 (22.4%) in the intervention group. The randomised groups did not differ on the remaining socio-demographic and mental health at work variables at a 5% significance level.

All participants had sought informal support for a personal or emotional problem, most commonly from a partner (52.8%). Approximately 20% had sought some form of formal support for a personal or emotional problem, a GP being the most common professional providing this support in both groups. Overall, 100 participants (21.4%) had not sought any help for a personal or emotional problem. The randomised groups did not differ significantly with respect to Actual Help Seeking from any sources. In one of the five EQ5D questions there was small but statistically significantly difference between the two groups. The intervention group scored higher on Anxiety/depression ($p=0.03$). The control group scored slightly higher on the Social Wellbeing Total scale ($p=0.019$) and the Social Acceptance subscale ($p<0.001$). The intervention group scored significantly higher with respect to general help-seeking intentions ($p=0.03$). The control group scored higher on wellbeing ($p=0.01$), and self-efficacy – both knowledge ($p<0.001$) and coping ($p=0.004$).

Descriptive statistic of the paired sample at baseline by randomised groups are presented in table 5.4.

Table 5. 4: Baseline sample characteristics by group allocation: **paired sample**

Variable	Label	Total	Paired n=57		(p-value)
			Intervention 37	Control 20	
Demographics					
Age, mean (SD), min–max			34.2 (9.17) 22-57	36.1 (9.36) 27-53	0.80(0.44) [b]
Gender	Female	39	29 (78.4)	10 (50.0%)	9.30 (0.10) [c]
	Male	14	8 (21.6%)	6 (30.0%)	
	Other	4	0 (0%)	4 (20%)	
Ethnicity	Asian	0	0	0	1.71(0.43) [c]
	Black	0	0	0	
	Mixed race	1	1 (2.7%)	0 (0%)	

	White	56	36 (97.30%)	20 (100%)	
	Other	0	0	0	
Highest education qualification	Pre-University	13	4 (10.8%)	9 (45.0%)	23.30(0.001) [c]
	Undergraduate	22	22 (59.5%)	0 (0%)	
	Postgraduate degree	17	10 (27.0%)	7 (35.0%)	
	Doctoral degree	5	1 (2.7%)	4 (20.0%)	
	Other	0	0	0	
Marital status	Single	20	13 (35.1%)	7 (35.0%)	5.41(0.14) [c]
	Married	18	18 (40.5%)	3 (15.0%)	
	Divorced/separated	5	2 (5.4%)	3 (15.0%)	
	Living with partner	14	7 (18.9%)	7 (35.0%)	
Been diagnosed with a mental illness	Yes	17	10 (27.0%)	7 (35.0%)	0.39(0.60) [c]
	No	40	27 (73%)	13(65%)	
Experienced mental distress as a result of work	Yes	41	31 (83.8%)	10 (50.0%)	7.34(0.01) [c]
	No	16	6 (16.2%)	10 (50.0%)	

Form of mental health distress experienced	Anxiety	43	30 (81.1%)	13 (65%)	8.95(0.06) [c]
	Stress & burnout	1	1 (2.7%)	0 (0%)	
	Depression	8	5 (13.5%)	3 (15%)	
	Panic attack	1	1(2.7%)	0 (0%)	
	Suicidality	0	0 (0%)	0 (0%)	
	Others	4	0 (0%)	4 (20%)	
Attended work when been unwell	Yes	47	34 (91.9%)	13 (65.0%)	6.50(0.02) [c]
	No	10	3 (8.1%)	7 (35%)	
Support from mental health initiative in current workplace	Yes	15	4 (16.0%)	11 (78.6%)	14.85(0.001) [c]
	No	24	21(84.0%)	3(21.4%	
Outcome Measures					
Actual HSQ - informal	Partner	28	21 (56.8%)	7 (35%)	2.46 (0.167) [c]
	Friend	34	23 (62.2%)	11 (55%)	0.28 (0.78) [c]
	Parent	27	16 (43.2%)	11 (55.0%)	0.72 (0.42) [c]

	Relative	14	10 (27.0%)	4 (20.0%)	0.35 (0.75) [c]
Actual HSQ - formal	Mental health professional	5	5 (13.5%)	0 (0%)	2.96 (0.15) [c]
	Helplines	0	0 (0%)	0 (0%)	0
	GP	15	8(21.6%)	7 (35%)	1.20 (0.35) [c]
	MHFA	0	0 (0%)	0 (0%)	0
	Formal - total	17	10 (27.0%)	7 (35.0%)	0.40 (0.56)
	Someone else	7	3(8.1%)	4 (20.0%)	1.70(0.23)
	Not sought help	12	6 (16.2%)	6 (30.0%)	1.48 (0.31)
			Mean (SD)	Mean (SD)	t and U values (p-value)
Total AHSQ	57		2.32 (1.53)	2.2(1.79)	0.28 (0.78)
SF12 Physical Subscale	57		42.7 (2.87)	44.2 (4.23)	1.31 (0.19)[a]
SF12 Mental Health Subscale	57		48.7 (5.6)	45.88 (4.13)	1.96 (0.55)
Social wellbeing (SWB) - Total	55		3.6 (0.4)	3.9 (0.23)	3.2 (0.01) [a]
SWB – Social Integration	55		12.0 (3.15)	13.9 (2.62)	1.4 (0.33)
SWB – Social Acceptance	55		11.1 (3.0)	13.9 (3.0)	3.5 (<0.001)

SWB - Social Actualization	55	10.5 (2.0)	10.3 (1.65)	0.5 (0.617)
SWB - Social Coherence	55	11.6 (2.2)	13.6 (2.68)	2.83 (0.07)
SWB - Social Contribution	55	8.8 (1.3)	8.2 (3.3)	1.0 (0.31) [a]
General HSQ (GHSQ) - total	55	5.9 (1.4)	5.7 (1.8)	0.15 (0.88)
GHSQ – informal help-seeking	55	4.5 (1.0)	4.5 (1.25)	0.12 (0.92)
GHSQ – formal help-seeking	55	4.0 (1.05)	3.5 (1.27)	1.38 (0.18)
GHSQ – general help-seeking	52	3.2 (1.6)	2.0 (1.28)	2.2 (0.01)
Wellbeing (WEMBS)	55	47.0 (8.96)	52.7 (6.70)	2.0 (0.44) [a]
Self-efficacy – knowledge	55	5.8 (2.2)	7.4 (2.1)	5.2 (<0.001)
Self-efficacy – coping	55	6.2 (2.51)	7.4 (2.1)	1.8 (0.08)

[a] Mann-Whitney Test

[b] independent samples t-test

[c] Chi-Square test

With respect to socio-demographic characteristics the randomised groups differed significantly with respect to education ($p<0.001$), experienced mental distress as a result of work ($p=0.01$), attended work when been unwell and education ($p=0.02$) and support from mental health initiative in current workplace ($p<0.001$). Eleven participants (55%) have been to university in the control group as compared to the thirty-three (89.2%) in the intervention group. Thirty-one participants (83.8%) in the intervention group have experienced a form of mental distress as a result of work compared to ten (50%) in the control group at baseline. Also, many participants in the intervention group (n=34(91.9%)) has attended work when been unwell compared to thirteen (65%) in the control group. A limited number of participants in the intervention group (n=4 (16%)) has sort some form of support from a mental health initiative in the workplace compared to n=11 (78.6%) participants in the control group. The randomised groups did not differ significantly with respect to Actual Help Seeking from any sources. The control group scored slightly higher on the Social Wellbeing Total scale ($p=0.01$) and the Social Acceptance subscale ($p<0.001$). The intervention group scored significantly higher with respect to general help-seeking intentions ($p=0.01$). The control group scored higher self-efficacy knowledge ($p<0.001$).

5.6 Primary analysis

The primary outcome for this study was actual help-seeking behaviour measured using the AHSQ. Participants were asked to retrospectively detail routes of help-seeking for any mental health difficulties at 6-month post-intervention. This was analysed using multilevel mixed-effects regression models which was preferred to univariate t-tests which cannot control for clustering factors, not controlling for these can results in false findings. The reason for utilising a multilevel mixed-effects analysis is because of the similarity in data within clusters compared to data from another cluster. Multilevel modelling allows for the effect of clustering at the team level to be included in the model as a random variable, with fixed effects for the outcome variables and covariates. Fixed effects in this case are comparable to standard regression coefficients. Random effects allow for an individual's pattern of responses to depend on many attributes of that individual.

Two-hundred and forty-one participants completed the follow-up survey, 207 (86%) in the intervention group, 34 (14%) in the control group. Firstly, a mixed generalised linear model was used to assess the extent of a cluster effect but both linear and logistic models indicated non-significant variation in random effects meaning similarities between individuals within clusters are not statistically significant. Therefore, both linear and logistic regression models were fitted with a fixed treatment effect. Gender and education differed between randomised groups and so adjusted models were also fitted adding in gender (recoded to male, female, other) and education (recoded as pre-university, university +) as categorical covariates.

In Table 5.5 participants in the intervention group were significantly less likely to seek formal support, AOR=0.34 (95% CI: 0.12, 0.95, p=0.039). Fourteen (41.2%) participants in the control group have sought formal support for a personal or emotional problem in contrast to 30 (14.5%) in the intervention group.

Also, participants in the intervention group scored, on average, 0.21 points less on the SWB scale than the control group (95% CI: -0.40, -0.03, p=0.024).

Table 5. 5: Primary analyses: All employees' sample

		Intervention n=207	Control n=34	Unadjusted model		Adjusted model[a]	
Outcome				**OR (95% CI)**	**p-value**	**AOR (95% CI)**	**p-value**
Formal support	44/241	30 (14%)	14 (41.2%)	0.24 (0.11, 0.53)	<0.001	0.34 (0.12, 0.95)	0.039
Not sought any help	68/241	61(29.5%)	7(20.6%)	1.61 (0.67, 3.89)	0.296	1.32 (0.50, 3.47)	0.576
		Intervention Mean (SD)	**Control Mean (SD)**	**B (95% CI)**	**p-value**	**B (95% CI)**	**p-value**
Total AHSQ	241	1.83(1.55)	2.24(1.84)	-0.33 (-0.90, 0.25	0.266	0.22(0.40,0.84)	0.48
SF12 – Physical subscale	236	44.33(4.22)	45.54(4.76)	-1.58 (-3.16, -0.01)	0.049	-1.11 (-2.92, 0.70)	0.227
SF12 – Mental health subscale	236	45.91(6.23)	45.29(5.81)	0.56 (-1.69, 2.81)	0.623	-0.65 (-3.22, 1.92)	0.620

WEMWBS - Wellbeing	219	47.31(9.42)	49.31(10.13)	-1.99 (-5.72, 1.74)	0.294	-3.35 (-7.65, 1.32)	0.125
GHSQ – Total	222	5.80(1.70)	5.86(1.51)	-0.09 (-0.76, 0.58)	0.790	0.05 (-0.71, 0.82)	0.895
GHSQ - Informal Help-seeking Intentions	222	4.36(1.00)	4.32(1.10)	0.02 (-0.38, 0.42)	0.910	-0.20 (-0.66, 0.25)	0.383
GHSQ - Formal Help-seeking Intentions	222	3.83(1.36)	3.93(1.37)	-0.10 (-0.63, 0.43)	0.705	0.29 (-0.31, 0.89)	0.346
GHSQ - General Help-seeking Intentions	222	2.91(1.79)	2.62(1.64)	0.28 (-0.41, 0.97)	0.425	0.24 (-0.55, 1.04)	0.545
SWB – Social Wellbeing - Total	223	3.81(0.42)	3.99(0.39)	-0.18 (-0.34, -0.02)	0.026	-0.21 (-0.40, -0.03)	0.024
Self-efficacy - Knowledge	220	6.65(2.21)	6.95(2.17)	-0.30 (-1.16, 0.57)	0.502	0.33 (-0.65, 1.32)	0.505
Self-efficacy - Coping	220	6.59(2.47)	6.88(1.67)	-0.26 (-1.20, 0.67)	0.578	-0.05 (-1.13, 1.03)	0.928

[a]Adjusted for education and gender

5.7 Paired analysis

Data on 57 participants was available at both baseline and follow-up. Table 5.6 shows the analysis of the paired sample, n=57, provides broadly similar results as above; Social Wellbeing is significantly lower in the intervention group by 0.30 points (95% CI; -0.53, -0.07, p=0.009), intervention participants less likely to seek formal support, AOR=0.20 (0.03, 1.25, p=0.085. Intervention participants score significantly higher on Self-efficacy-knowledge by 1.90 points (95% CI: 0.74, 3.06, p=0.001).

Table 5. 6*:* Analysis of paired sample

		Intervention	Control	Unadjusted model		Adjusted model[a]	
Outcome	**N**	**N (%)**	**N (%)**	**OR (95% CI)**	**p-value**	**AOR (95% CI)**	**p-value**
Formal support	17/57	7(18.9)	10(50)	0.24 (0.07, 0.79)	0.019	0.20 (0.03, 1.25)	0.085
Not sought any help	9/57	6(16.2)	3(15)	0.97 (0.21, 4.54)	0.971	Not estimable	
		Mean (SD)	**Mean (SD)**	**B (95% CI)**	**p-value**	**B (95% CI)**	**p-value**
Total AHSQ	57	1.97(1.40)	2.55(2.19)	-0.64 (-1.61, 0.33)	0.192	-0.75 (-1.85, 0.36)	0.181
SF12 – Physical subscale	57	43.80(4.63)	46.41(5.23)	-0.50 (-3.36, 2.36)	0.727	1.86 (-1.35, 5.10))	0.256
SF12 – Mental health subscale	57	46.81(6.10)	44.42(4.16)	0.70 (-2.72, 4.12)	0.684	0.54 (-3.83, 4.91)	0.808
WEMWBS - Wellbeing	54	48.03(8.75)	50.40(8.58)	-0.19 (-4.35, 3.98)	0.929	-3.38 (-8.72, 1.96)	0.215

GHSQ - Total	54	6.22(1.68)	5.10(1.41)	1.16 (0.36, 1.97)	0.006	1.26 (-0.10, 2.61)	0.069
GHSQ - Informal Help-seeking Intentions	54	4.40(0.80)	3.98(1.24)	0.61 (0.29, 0.92)	<0.001	0.19 (-0.16, 0.53)	0.291
GHSQ - Formal Help-seeking Intentions	54	3.97(1.39)	3.07(1.49)	0.57 (0.00, 1.34)	0.048	0.49 (-0.17, 1.15)	0.146
GHSQ - General Help-seeking Intentions	51	3.14(1.36)	3.00(1.26)	0.14 (-0.53, 0.81)	0.675	0.39 (-0.29, 1.07)	0.261
SWB – Social Wellbeing - Total	54	3.85(0.44)	3.91(0.28)	-0.05 (-0.26, 0.16)	0.641	-0.30 (-0.53, -0.07)	0.009
Self-efficacy - Knowledge	54	7.05(2.01)	7.98(1.40)	1.50 (0.40, 2.59)	0.008	1.90 (0.74, 3.06)	0.001
Self-efficacy - Coping	54	7.04(2.24)	7.46(1.06)	-0.70 (-1.84, 0.44)	0.226	-0.48 (-1.80, 0.85)	0.478

[a] Adjusted for education and gender

5.8 Summary of quantitative results

This chapter details the statistical methods used and the rationale for their selection. The results for both primary and secondary outcomes are outlined below.

The primary aim of the research was to examine the effectiveness of MHFA on actual help-seeking behaviour of direct recipients. However, the study has only six recipients of MHFA at post-intervention across the study. Examining the impact of MHFA on clusters in the intervention arms, participants in the intervention arm were significantly less likely to seek formal support which includes MHFA support. Participants in the control group sought more formal support for their personal or emotional problems compared to those in the intervention group. On the other hand, both intervention and control group participants were less likely to seek any form of help.

Regarding the secondary outcomes, the only variable that reported any significant difference was social wellbeing. Participants in the intervention groups scored 0.21 points fewer on the SWB scale compared to the control group. The introduction of MHFA in the intervention arm made no statistically significant difference in the social wellbeing of participants compared to treatments introduced to the clusters in the control arm of the study.

In the analysis of the paired sample, for participants that completed both baseline and follow surveys, social wellbeing was significantly lower in the intervention group. On the contrary, participants in the intervention arm scored significantly higher on self-efficacy knowledge subscale compared to the control group.

The next chapter presents the results of the reflexive thematic analysis. The qualitative research aims to explore the subjective experiences and opinions of participants. It can provide valuable insights into the underlying reasons for the results presented in this chapter.

Chapter 6 - Qualitative Results

6.1 Introduction

This chapter details the outcomes of a reflexive thematic analysis of the semi-structured interview data. The qualitative data was collected at the end of the 6-months post-intervention period to allow time for intervention in both arms of the trial to be embedded.

The findings presented in this chapter are based on the analysis of 24 semi-structured interviews conducted with participants in the intervention group. Participants were selected from 4 different demographic representations; a) recipients of the intervention (n=5), b) mental health first aiders (n=10), c) employees of the organisation where MHFA was introduced (n=8), and d) senior managers (n=1) involved in the implementation of the intervention. Also, four of the five recipients of the intervention interviewed were trained mental health first aiders, which was closely considered during the data analysis by ensuring the experiences they shared were more related to their role as a recipient than being a mental health first aider. As reported in the embedded study section of the methodology chapter, an experiential orientation to data was adopted to highlight the meanings of experiences about MHFA ascribed by participants. This approach was most appropriate as the study aimed to prioritise participants' accounts of their experiences.

In addition, an inductive approach was adopted where coding was data driven. This involved identifying data themes and patterns without preconceived categories or codes. The researcher started by reading and re-reading the data to gain a deep understanding of the context and content. Then, identified patterns, themes, and concepts observed from the data. In this thesis, both levels of coding were adopted. Codes were interpreted based on the semantic meanings attributed by participants, and the researcher then attempted to interpret the latent meanings of the ideas, which involves the interpretation of the semantic surface meanings of the data and examining underlying ideas and conceptualisations. The results of the analysis were presented, interpreted, and discussed in relation to previous studies.

Each participant's transcribed interview was anonymised before analysis, and a reference code using the groups each participant belonged to was used to form the pseudonyms utilised. For example, participants in the recipient's group had a pseudonym that began with the letter R.

This chapter aims to answer the following research questions set out in the methods chapter of this thesis.

1. How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?
2. What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?
3. What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?

Each participant group was asked questions to gain insights into their experience of mental health support in the workplace, particularly their experience using mental health first aid. For example, recipients and employees were asked, "What was your experience of sharing your concerns at work?", "How would you describe the kind of support received in general, including that from the mental health first aider for recipients?". Details of the full interview schedules used by PhD student is in Appendix 6. Employees were asked particularly about the impact of MHFA on workplace relationships and organisational behaviour. Mental health first aid trainees were asked questions about the knowledge, skills and competencies gained following the training. The group were also asked about their perception of any organisational challenges and obstacles in delivering MHFA interventions. They were also asked to share the factors contributing to mental health help-seeking behaviour at work. See figure 6.1 for thematic map.

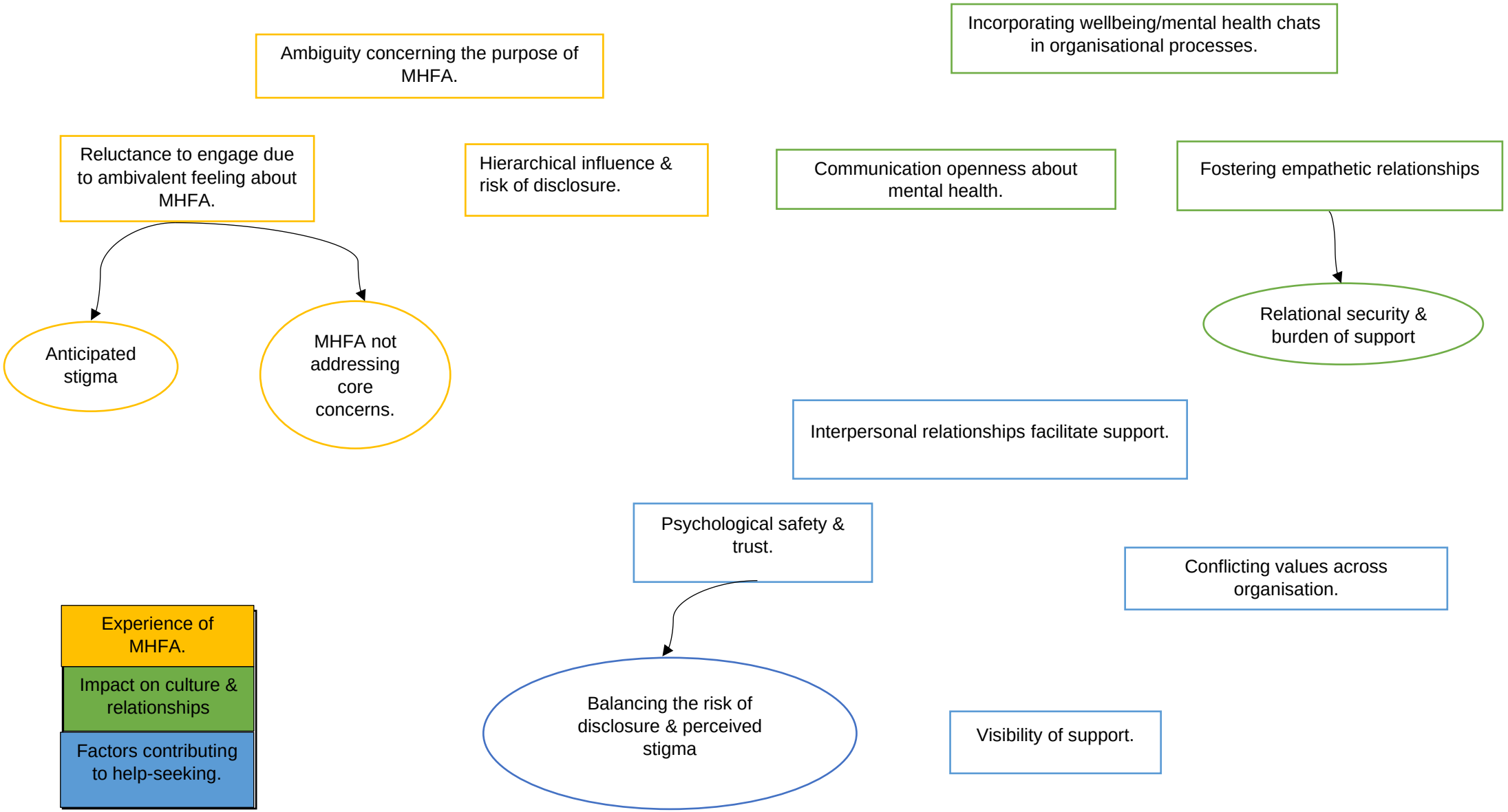

Figure 6. 1: Thematic Map showing all themes and subthemes.

6.2 Themes & Subthemes

This section provides details of the outcomes of a reflexive thematic analysis of the semi-structured interviews. In this section, there are explanations of the themes and sub-themes that have been identified through the Reflexive Thematic Analysis (RTA). These themes will be thoroughly defined, discussed, and analysed with the help of relevant extracts from the data. There are ten themes and four subthemes identified in the reflexive thematic analysis. Each theme is carefully explained to show how they address the any of the research questions that the qualitative aspects of the study was hoping to address.

In exploring the experiences of direct and indirect recipients of MHFA within the workplace, three main themes which includes two subthemes were observed from the analysis. Participants were asked questions to understand their workplace engagement experience with MHFA. For example, recipients were asked, "how would you describe the kind of support you received and has it affected your mental health?" and "What were your thoughts on the help received from a mental health first aider?". Employees were also asked to reflect on "the purpose of MHFA in the workplace?".

Theme: Ambiguity concerning the purpose of MHFA.

Understanding the experience of MHFA within a workplace context was pivotal to the thesis. The analysis showed what appears to be confusion about the overall purpose of MHFA as a mental health initiative in the workplace. Previous studies on mental health and well-being in the workplace have highlighted staff engagement as a significant factor in the success of any mental health and well-being intervention (Joanna et al., 2022; Mellor & Webster, 2013; Quirk et al., 2018). Perceived lack of motivation or personal responsibility has been reported as a potential barrier to staff engagement in workplace well-being initiatives (Quirk et al., 2018).

In this study, as seen in the quotes below, participants discussed the need for more clarity relating to the purpose of MHFA, the roles of the mental health first aiders and the purpose of the initiative as a support tool within the organisation as this was perceived to represent a substantial barrier to engagement.

"I don't know if it provides the level of continuity that people need to have this conversation with the same person." (EMK)

"I guess it was maybe a lack of understanding on my part about the role of the Mental Health First Aider and what support they can give us?" (ECW)

"It sort of feels like to me, they did this initiative because it was, you know, really good at the time, and now they've ticked a box and moved on to the next thing." (ECW)

And I guess for me, this sort of sits in between, certainly has provided a better framework for the conversation rather than I don't know. The employees since moving offsite sort of felt like the response prior to this, was "oh, yeah, we have a helpline for that. Or oh, there's an app download headspace", you know. I think the response from a lot of organizations is, oh, yeah, we have an app for that, as an app can fix your wellbeing. I mean, it's lovely to have a meditation app. And it's lovely to have well-being and yoga sessions, but I'm not really addressing those mental health issues that people have and how that affects them in the workplace. For me, this is, I guess, more meaningful, it feels a little bit like we're having more meaningful conversations about it (RWP).

As participant "RWP" highlighted in the above extract, there appears to be an indication that MHFA should not act like previous mental health initiatives in the workplace that often appears as another tick-box exercise aimed at putting the organisation in a good place to have mental health as a priority from an external perspective. In past mental health support initiatives, some participants have expressed concerns about a lack of consistency and disconnection with the service when they struggle to navigate the system and receive the necessary support.

Similarly, trained mental health first aiders interviewed as part of the study discussed the perception of MHFA as a corporate initiative set aside to make people work more efficiently, rather than improve mental health per se (see extract from participant "MPT" below). A need for clarity of purpose to employees appears to be a key focus for reducing the ambiguity experienced.

"Many people may see this as a corporate initiative rather than a Mental Health First Aid initiative".

“There may be some suspicion on the intent of Mental Health First Aid in a corporate setting. Is it there to make people better workers? Is it there really to support people? Is the company monitoring these conversations? You know, I know it sounds…” (MPT)

According to participants, the perception held about the purpose of MHFA contributes to the lack of engagement with the intervention and this appears to be based on previous experiences with existing mental health initiatives in the workplace. Also, the lack of understanding of the capabilities of the mental health first aiders to address employees’ issues that might be contributing to their mental health difficulties. During discussions about MHFA and mental health initiatives in the workplace, other factors contributing to the reluctance to engage with MHFA have also been brought up.

Theme: Reluctance to engage due to ambivalent feelings about MHFA support.

The uncertainty surrounding the purpose of MHFA in the workplace has contributed to a hesitancy regarding seeking help from mental health first aiders. The first aiders were asked about colleagues seeking support from them, and participants reported the lack of understanding of their roles, amongst other things, as contributing to a lack of engagement.

"But when I was talking to some colleagues in a separate team meeting, and they're asking me about what I do as part of that role, explaining it to them. Nearly all of them were saying, well if we were having a problem, why would we? Why would we talk to somebody at work about it." (TLP)

Personal mental health experiences are often characterised as a concealable stigma as they are not necessarily visible (King et al., 2021). The engagement of mental health support is often masked by many issues reported in previous literature, for example, the fear of discrimination and prospective negative attitudes from colleagues as the significant reason for the lack of non-disclosure of mental health issues at work (Brouwers et al., 2020). Participants' reluctance to engage with MHFA might be linked closely to their colleagues not knowing about their business alongside other social, psychosocial, and demographic factors (Corrigan, 2018). As expressed by a mental health first aid trainee.

"I don't think it's very clear to people that you can disclose what you're suffering with or you're dealing with, , and that you're going through a bit of a rough time, and it might take you a few months to get back up on your feet." (TLP)

and

"A lot of people may see this as a corporate initiative rather than a Mental Health First Aid initiative" (TPP)

It was observed in the analysis that what happens after disclosing a concern from previous experiences relating to negative responses from other employees or their manager contributes to the reluctance to engage. As participant “EIW” highlighted in the extract below, the lack of engagement is fuelled by individuals lack clarity on how problems impacting their mental health might be resolved if they interact with a mental health first aider. The lack of understanding of the “powers” mental health first aiders hold to resolve a problem appears as the key factor here.

"What happens next to kind of resolve this issue? And I think that's the problem. I don't feel like necessarily when people are under pressure that it's necessarily resolved".

"If I'm going through the problem, I still don't have clarity on how that's resolved within the company, I guess" (EIW).

The concept of anticipated stigma emanating from the perceived reactions to disclosing mental health concerns will be discussed as a subtheme.

Subtheme: Anticipated Stigma

Prominent within experiences expressed by participants was their reluctance to engage with MHFA due to anticipated stigma. Anticipated stigma is an expectation of some humiliating experience related to engaging with MHFA. It is defined in literature as the "extent to which individuals are concerned about being the target of stereotyping, prejudice and discrimination" (Fox et al., 2016 p. 883). Research has reported anticipated stigma to be a predictor of people avoiding and underutilising needed care (Quinn et al., 2014). Participants discussed the contribution of anticipated stigma to their reluctance to seek support; this can be linked to perceived public stigma towards mental health difficulties in general.

"I just do still wonder whether there's a bit of a stigma about asking for help internally. And I think that could be a barrier". (ETP)

"And I'd say it's not the lack of the team trying and supporting you, but it's more my mentality that I don't necessarily want people at work to know how unnecessary feeling is to that extent." (EIW)

A constant fear arises whenever participants felt the need to share their mental health difficulty; reactions and anticipated steps taken by a mental health first aider after seeking support appear to contribute to this fear. As reported by participant (TLP):

I think people worry about, well, if I say I've got this, or if work find out that I'm dealing with this right now. Or if work find out that I'm really stressed with a workload and I'm going for this promotion, I'm not going to get that promotion, or they're going to think I'm incapable of doing my job." (TLP).

Participants appear to often hold back on sharing their difficulties if they are applying for promotion or moving jobs/roles within the organisation, and they feel a proposed need for the mental health first aider to bring the concern to the attention of their manager.

"Colleagues say, well, I don't want to talk to the Mental Health First Aid team, because they might say, or they'll probably say, well, we need to talk to your manager about this" (TLP)

Moreover, previous studies have reported a link between the mental health disclosure of workers with stigma-related negative behaviours from managers and colleagues (Brouwers et al., 2016; Corrigan & Matthews, 2003). Interestingly, participants discussed instances where they have thought about disclosing their mental health concerns but have decided against doing so due to anticipated stigma. The risk of disclosure contributes to the reluctance to engage due to various contradictory ideas about the support available.

Subtheme: MHFA not addressing core concerns affecting staff well-being.

Another subtheme emerging from the data analysis related to MHFA is failing to address core concerns contributing to a negative experience of MHFA. This subtheme relates to the main theme, "reluctance to engage due to the ambivalent

feelings about MHFA". From the analysis, participants reported experiences of MHFA's inability to address the core concerns affecting staff well-being, some of the core concerns reported were regarding their workloads. Like a recipient reported,

“This is what I meant earlier on about like his mental health first aid treating stuff symptomatically, the cause hasn't gone away, the mountain of work is still going to be there when you get back. And if that is one of the things that stressing you out, I've turned up and I've got 101 different things to do. The stress is getting to me, it makes me feel anxious and terrible. I need to like control my panic attacks; I need to deal with that kind of thing. I'm going to take the day off, line manager, Mental Health First Aider, cool, good, go for it, look after yourself. You go away, you come back the next day, it's the same, the work hasn't changed” (REB).

There seems to be a disconnect between the support that mental health initiatives like MHFA provide and addressing the core concerns affecting employees' mental health. Regular surveys were highlighted as tools organisations use to flag issues affecting staff members' mental health. However, some of the concerns flagged are not addressed, making employees lose faith in their ability to raise any concerns.

"We like these pulse surveys, so they're anonymous employee surveys, and we've been given feedback through them regularly saying there are problems. And the results will come out, and they'll go, oh, look, there's a problem. And then there's no follow-up, there's nothing done on it until the next survey, and then they're surprised that the problem has not gone away." (EGG)

"If they're really serious about somebody's mental health, it is about making sure that we have that support mechanism of resources around individuals" (EBB).

Interestingly, the above extract has highlighted the importance of organisational culture in the approach to mental health and well-being support of their employees. Results of survey feedback without an action plan to implement changes is perceived to indicate no sign of commitment from the organisation's leadership to effect any changes that ultimately impact the well-being of employees (Björklund et al., 2007). Organisational-level resources that promote autonomy, skills variety, and other factors relating to how work is organised, designed, and managed impact performances and well-being (Nielsen et al., 2017).

Furthermore, several studies have examined the impact of HR practices on organisational performance through their influence on employee well-being (Van De Voorde et al., 2012). The influence is often reported as a form of mutual gain perspective of human resource (HR) management. HR practices play the role of a middleman that benefits both organisations and their employees. However, concerns have been raised in previous literature arguing that HR practices often favour the organisation to the detriment of employee well-being (Ogbonnaya et al., 2017). An employee who works in HR reported the insignificance of the efforts put into improving well-being if the leadership of organisations do not ultimately address the root cause of the problem.

"We're talking about well-being been very important; my team are helping bring in benefits to help support people, like access to headspace meditation apps and all the rest of it. But we're not getting down to the root of the problem, which is just the way our work is organised at the moment and the expectations of everyone that's been placed on teams by the senior management, so there's just not a recognition that there's a problem or that it's their responsibility to address the problem" (EGG)

Common issues affecting employees' well-being and whether the MHFA intervention is developed to address some of these issues include work demands, work-life balance, autonomy, involvement, remunerations, and non-financial recognition (Suff, 2022). In this study, when trained mental health first aiders were asked about the common issues the recipients of the intervention approached them for, they reported.

"Some of the pressures and issues that we have is that we can't deal with face-to-face client. And sometimes if you've got a lot going on with the COVID feeling isolated, and feeling under the pressure, it's had an impact on our staff with, sometimes it's taken us a lot longer to get work completed for the client, because people are working from home, it's taken a lot more time. The clients are frustrated, because they can't just walk in somewhere, they can't get the money, which puts a lot of pressure on their colleagues, due to the fact it's bombarded with telephone calls this needs doing, I can't get hold of this person, it's taking a lot more time" (TAY).

“So, some of those phone calls with my manager would be offloading about my children or arguing about personal life. And she has said to me, you need to take a weekend away for yourself. And I would never have done that before” (TAY).

“It's all very personal stuff that she's got going on around IVF, and relatives been the very poor lady (THE).”

“I would say most of the traffic that comes my way is to do with burnout and work stress (TPT).”

“Relationship issues” (TPT).

The concerns reported by the participants in the above extracts are a mixture of personal and work-related concerns. As reported earlier, regular surveys might often capture some work-related concerns. Still, the reported personal concerns affecting employees' mental health are not often captured in work surveys. Participants appear to be more concerned about the inability of MHFA to address work-related issues affecting someone’s mental health. Reflecting on the MHFA training, first aiders discussed the need for the training to address more of the day-to-day mental health distress people encounter compared to its current focus on mental health crises.

“There's one thing about the course that I thought wasn't, could have been a little bit better. And that was when it was talking about people with severe mental health problems, particularly people in psychotic crises. And I think when it gets to the talking about people who were acutely mentally unwell, that was perhaps not quite enough emphasis on the need to get professional help, in same way, that if you did, in the same way that on a physical health first aid class, there will be a very clear message about what point you need to get an ambulance. I think the Mental Health First Aid course was blurred a little bit because certain presentations are emergencies and urgent, and you must get professional help. And I think that was my only thing that I felt the course didn't say, at this point, you know, you can, it's about managing the emergency and getting help. It's not. It's beyond the point of view of supporting this person, you can keep them calm before they get help. So, I feel that in line with physical health first aid, it should be clear about what an emergency is, and getting help” (TMW).

It's worth noting that the mental health first aiders received training on identifying signs and symptoms of mental health issues in their colleagues. However, people with mental health issues are known to develop a concealable stigmatised identity, which is kept hidden from others and carries social devaluation (Quinn & Chaudoir, 2009). A trained first aider reported this as a difficult aspect of the training.

"And I felt like the training focused a lot on, you know, people's actions, and, you know, things that they might say, but also their behaviour. And obviously, you can't observe any of that behaviour or, you know, to a very limited extent." (TEH)

So, the inability of a trained first aider to spot these signs and symptoms taught in training makes it difficult to identify issues that an employee might be facing, which corroborates the subtheme observed within the data regarding the experiences of direct and indirect recipients relating to MHFA not addressing the core concerns affecting the well-being of staff.

Theme: Hierarchical Influence & Risks of disclosure

Among the intervention's employees and trainees, the risks of disclosure and hierarchical influence were identified as something they consider as contributing to their experiences of MHFA. Some employees have reported that the hesitation in engaging with Mental Health First Aid within a workplace is based on thoughts of the unexpected harm or stigma they might experience due to disclosing their mental health difficulties. Coping with the aftermath of the disclosure was quite prominent, also the idea of feeling ready to bear the consequences of people knowing about their mental health issues.

"I think I could see where there would have been opportunities that I could have shared this, but I think I chose not to, I think, largely because I think with all these sorts of mental health things, you have to feel ready to cope with what comes back, if that might make sense, which would all be very positive, I'm sure and helpful, but I kind of thought about it a number of times, and then just thought, I suppose it really was more down to me not feeling comfortable, or ready to sort of talk about it" (EDC).

"And I was dubious as to what her response would be, which is one of the reasons why I was holding back until it reached a point" (ELG)

“I probably have a bit of a thing where I'm like, I don't want to talk to you about the personal stuff that's going on in my life because I think you're going to perceive me differently.” (EIW).

Some of these experiences might be based on the stigma internalised by individuals relating to stereotypes about sensitive issues like mental ill-health in society. However, previous studies have reported a diverse array of reactions to the disclosure; this includes being treated more positively, reports of discrimination post disclosure and employers holding a negative attitude (Brouwers et al., 2020). The beliefs of negative stereotypes around mental illness strongly predict further psychological distress (Livingston & Boyd, 2010). Also, perceived discrimination significantly heightens stress responses and encourages non-participation in healthy behaviours (Pascoe & Smart Richman, 2009; Toth et al., 2021).

Mental health first aiders in the workplace also reported issues around the risks of disclosure contributing to a lack of engagement with the intervention.

Because I think they would worry that it would get back to their manager. And depending on the relationship they already have with their manager, that could present more of a problem for that individual, then be, then it'd be beneficial. (MLS)

I think there's a stigma. And that I think that centres around my mental health will affect my performance. And I don't want people to know that my performance isn't that good because of my mental health. And I think that's in a corporation; I think that's probably a big barrier. (MPT)

Interestingly, existing relationships with managers appear to be quite prominent in participants reasoning on the disclosure risks. Not surprisingly, a good relationship with the manager has been identified as a primary intrinsic motivating factor for disclosing mental health issues (Dewa et al., 2021). As pointed out by an employee (ECG)

if you've got a really good manager, then you've got a lot more support than somebody who sits right next to you in the office who has got a different manager who isn't supportive and understanding.

From the analysis of the experiences of MHFA, participants also reported the impact of hierarchical structures on the level of engagement with MHFA support.

Participants in this study were recruited from organisations with employees ranging from 10 to 3500. The occupational level of trained first aiders across the organisation influenced employee engagement significantly.

“I do kind of wonder if, you know, hierarchies and inter movement can have a kind of a bit of an impact on people and people worry about how they're perceived or not perceived.” (EBB)

“if someone is having trouble with a manager having trouble with a reportee, that's a direct thing, and they can have impacts on people's mental health, or people can end up fixating on them as a kind of a symptom” (EPP)

Depending on the employees' occupational level, there appears to be a reluctance in how people engage others about their mental health concerns. For example, participants reported that it was inappropriate for senior colleagues to share feelings and mental health concerns or for junior colleagues to share concerns with senior colleagues.

“The idea of someone more senior talking to someone kind of more junior about their mental health feels kind of inappropriate” (EBB)

“We don't really get to know people at senior level very well. So, I guess people are very cautious about what they say publicly within teams”. (ECP)

The above extracts raise the question of the disclosure decision process: who do employees feel comfortable talking to? and what influences the disclosure process undertaken by employees? Interpersonal conditions within the workplace appear pivotal to the disclosure process. This is consistent with a study on disclosure dilemma undertaken by Toth & colleagues (2022), a positive relationship with the supervisor was expressed to have been important to a disclosure process.

Therefore, in implementing MHFA in the workplace, the identification of individuals trained within the organisations must cut across all organisational structure levels to overcome this barrier.

Whilst exploring the direct and indirect impact of MHFA on the work environment, significantly its impact on organisational culture and work relationships. Participants were asked, “Has anything changed for you since you became an MHFAider? For

example, do you feel differently about your relationships with colleagues or the general work culture?" Direct recipients of the intervention were also asked a specific question about the impact of their meeting with the mental health first aider on their work relationship with the first aiders. Three themes and one subtheme were observed from the analysis of the data related to understanding the impact of MHFA on culture and work relationships.

Theme: Incorporating mental health/well-being chats in organisational structures and processes.

This theme captures various experiences shared regarding the impact of incorporating mental health/well-being in an organisational process like yearly appraisals. From a trained mental health first aider who is also a senior manager, the participant reported.

"But when we do our performance review, and asking, what are your objectives for the year? I'm really encouraging my team to sit down and think about the mental health plan. (TWP)"

"So, we talk about people's learning plans, what are you going to learn this year and what's your development plan? Why don't we talk about what helps them with their well-being at work? (TWP)"

A senior manager reflected on the need to encourage colleagues to talk about their mental health in their performance reviews. However, if this is not formalised into the culture of the organisations, the essence of the practice can be lost and considered just 'another informal chat'. Social interaction, a pattern of individual behaviours and values, are informal elements of organisation discussed in organisational psychology (McEvily et al., 2014), whilst the formal elements of an organisation are related to the policies, procedures, and structures within the organisation. The extract below is an example of informal elements in organisation research where participants made mention of the culture of looking after each other.

"We have a fairly strong culture of looking out for each other, certainly in terms of mental and physical health, I suppose. But I suppose more so with mental health because it's less visible. Especially as we've been working at home a lot. So, the company has made an effort to raise awareness and to help each other. Be more connecting (EAR)."

The role of informal and formal elements in voicing concerns have been explored in previous literature. The informal organisation is understood to supplement and compensate for the formal organisation helping employees navigate silences (Wu, A. et al., 2021). They cannot exist independently without the formal elements of rules, procedures and policies for employees to share issues affecting their mental health; the informal organisation elements that include personal relationships with colleagues will not allow employees to voice these concerns. As the senior manager (SMH) reported,

“We've got a continuous conversation process of appraisal system. And as part of that, well-being is something that is mentioned. So that we can be quite proactive in identifying when people are struggling (SMH).”

There is an acknowledgement of the interactions between formal and informal elements of organisational culture. This would motivate behaviours like voicing mental health concerns in a work environment. In ensuring the sustained impact of MHFA on organisational processes, there is a need to ensure that this is achieved by using both formal and informal elements of organisational research.

Creating an environment that allows for shared concerns is paramount to the success of any initiative that supports employees. Openness about mental health has also been observed in the data. It will be discussed in the next theme addressing the research question on the impact of MHFA on organisational culture and work relationships.

Theme: Communication and openness about mental health

This theme focuses on the impact of MHFA on communication and openness about mental health across the organisation. All participants were asked, “What has changed since the introduction of MHFA?”. There has been a noticeable increase in individuals being open about their mental health challenges. There is more communication about mental health to create an atmosphere where employees feel comfortable sharing their struggles with mental health. Commonly featured across the interviews, including from direct recipients and trainees who were also recipients, is the supposed comfort that MHFA brings to the culture around mental health within the workplace.

“So being able to talk to somebody who understands your job, obviously, that helps, it just makes it much easier to have that conversation and feel like oh, I, you know, this thing is really stressing me out as an example. (REB)”

“It's definitely been positive. You know, if people were reluctant before, I mean, I can't say certain people were, it's just good to know that there's a lot more kind of systems in place, and that people are, you know, hearing people talking positively about the work that we're doing on mental health, which is good to know. And just the whole team is aware and more involved has been a real change. (MLE)”

“And I think it's encouraged people to talk about it more. Because before, it was almost a bit of a taboo subject, mental health (ECG).”

From the perspective of a senior manager,

“I think that since we've introduced it, it just helps to break down that stigma that people can't talk about their mental health”. (SEW).

It is interesting to observe the changes resulting from MHFA, described by the participants; the openness to more communication about mental health appears to have emerged from the organisational environment, creating room for people to talk about issues that are often “strange and weird” to share as participant “EDC” highlighted in the extract below. This is closely linked to psychological safety, which is defined as a mutual belief amongst employees that it is safe to engage in interpersonal risk-taking in the workplace (Edmondson & Lei, 2014). Psychological safety is reported to precede engagement in open communication and voicing concerns (Newman et al., 2017). Changes in how mental health topics are discussed also apparent from the data. For example, a mental health first aider said.

“And what we'll find is people are a lot more vocal. Now. So rather than, you know, the sideways coffee machine conversations and they don't want to travel not happy with this, we're finding that; actually, people are more forthcoming with that information which then allows us to manage it a lot better and a lot quicker than necessarily before. (TAT)”

Whilst employee’s perspective:

“As time has gone on, and as the company have kind of talked about mental health a bit more in the last couple of years. And then that meant that I kind of opened up to a couple of colleagues about my previous experiences. (ECG)”

Everything has become much more open; it’s become fine, you know, not at all weird or strange to say, you know, I've been struggling with this. (EDC).

Interestingly, the changes in how employees report mental health in the workplace could influence the perception of psychological safety, which is perceived to stem from the introduction of MHFA in the workplace.

Theme: Fostering empathetic relationships.

This theme reflects participants’ experiences of the impact of MHFA in fostering empathetic relationships between employees within the organisation. Participants were asked questions about the impact of MHFA on workplace relationships with colleagues. There is more awareness about what colleagues might be experiencing and dealing with, which might impact their mental health.

I think it's positively impacted. I think, you know, I'm more aware of what they might be going through. So, we had a situation where one of my colleagues or team member was getting quite anxious about a particular project. It wasn't going very well. Well, I think he felt quite bad, it was causing him a lot of stress. So, I made a point of in messaging him to make sure that he was okay. Making myself available via video call. So yeah, I think it's definitely a positive impact. (THE)

“I think it certainly maybe a lot more kind of aware of how I speak with people I find I use if I know if someone like every morning, we have a check-in with our team particularly because we're working out of the office, away from the office at the moment. And so, we have a check in every morning just to see everyone's getting on. And suppose somebody says, Oh, I'm having a really bad day, so I didn't have a very good weekend. In that case, I find myself asking different questions in different ways, because I'm trying to get more of an insight of is, you know, is there something else that I maybe be aware of here? Or is this person trying to say, I need some support today, but they don't want to ask it directly. And I try and approach the conversation in a different way. (TLS)”

Reflecting on the core aim of MHFA as a mental health literacy intervention, previous studies have reported the changes in attitudes of mental health first aiders following the training (Maslowski et al., 2019). From the above extract, participants have emphasised the changes in how they speak to colleagues following the training. The approach in engaging with colleagues that might be struggling with their mental health also appears to have changed.

Also, interpersonal relationships between colleagues appear strengthened following an interaction with a mental health first aider, as reported by a recipient. This might result from trust developed from having someone willing to listen to their concerns.

"The Mental Health First Aider I approached, like, I've become quite good friends with them (RNM).

Moreover, a previous study on the benefit of workplace disclosure has reported that it enhances a friendly and more inclusive culture (Brouwers et al., 2020). The emergence of an empathetic relationship between mental health first aiders and recipients has created a new concern reported in the experiences shared by the first aiders. This is detailed in the subtheme on relational security and the burden of support.

Subtheme: Relational security and the burden of support.

The concept of relational security and the burden of care was also observed within the remit of the data discussing "fostering the empathetic relationship" between first aiders and recipients. Relational security is a concept used in secure health settings. It is defined as the knowledge and understanding staff have of a patient and their environment, which is then translated into ensuring appropriate care within limits (Department of Health, 2010). Understanding limits and setting boundaries help staff to maintain their integrity and say no when boundaries are being tested. Mental health first aiders had reported some of the stressors experienced following the training even when they have not been approached as first aiders; likened to the concept of relational security, first aiders feel a sense of burden to support colleagues, relating to the concerns shared by recipients who approach them for their support. Translating that knowledge and understanding of what might impact colleagues' mental health is experienced as a burden; some mental health first

aiders have reported their inability to act on some of the concerns shared as it might be beyond their capacity to act.

“Yes, I suppose when I finished the training, I was thinking, oh, my goodness, what happens if somebody does come to me, but I suppose that's petered out a little bit? Because it's just not happened? And I guess the stress there is still, well, you know, am I going to remember what I'm going to do? Because you don't get to practice it. I think that's the stress.” (TEH)

“I haven't experienced any stress; I think if someone came to me, and they were struggling with the answer side because you want to help them in the right way. And that would probably cause me anxiety, a little bit of anxiety, because I wanted to do my best to help them.” (THP).

It is worth noting that previous evaluations of mental health first aid have reported an increase in confidence levels of trained mental health first aiders, but what was observed in the data is the level of anxiety/burden of care the first aiders experience in anticipation of helping behaviour. The burden of care experienced specifically by mental health first-aiders in the work setting arises from not wanting to get things right when they offer support to colleagues.

“When it came to signposting what the options were, you know, you wanted to make sure that you didn't say something wrong, or you certainly think, you know, there was a little bit of stress around being very careful at the end.” (TLE)

“That's probably the biggest stress. You know, giving somebody the wrong advice would be anxiety. And I mean, I've not experienced any real stress from helping.” (TEH)

The complexity of the workplace also complicates the burden of care; this could include issues around navigating the available support to ensure a colleague is in the right place to do their job. However, some of this might clash with the organisation's intent of ensuring employees perform at their best. For example, an employee might feel staggered working time helps with their mental health, but organisations appear focused on fully meeting clients' requirements and might not be able to offer staggered working to their employee. A previous study (Dewa et al., 2021) that explored workers' decisions to disclose their mental health difficulties has highlighted

the negative experience of not receiving the proper support following a disclosure, contributing to the decision not to disclose. Participants referred to being mental health first aiders as a “weight of responsibility.”

“Maybe, just maybe, the title of Mental Health First Aider, but it feels like that comes with a weight of responsibility. But I suppose it's equal to a physical First Aider, but you're there to stop the immediate crisis, aren't you? Yeah, so I suppose it's just an understanding of that, I think as well. Maybe it is so limited in terms of, you know, if everybody were a Mental Health First Aider, that pressure would be removed because everybody would understand the expectations.” (TEH)

“I can't say in any fashion that I've had specific stress around this role. You know, I mean, it's a lot of responsibility is, like, I wouldn't say that I've had too much stress put on me within the role.” (TLE)

The trained first aiders acknowledged the sense of responsibility, emphasising the need to support colleagues who approach them. They appear to be fixers of issues that might be affecting the mental health of their colleagues. If an employee is feeling overwhelmed at work, approaching a mental health first aider for support is expected to make them feel less overwhelmed. As mentioned in a previous discussion, participants noted that MHFA does not always address the core issues impacting their mental health. Trainee (TEH) pointed out that there may be a conflict of interests, as employees seek help from mental health first aiders to address concerns that may not fall within their role's scope.

In addition, relational security highlights the understanding of limits and boundaries that staff need to maintain professional integrity and say no when boundaries are tested. Mental health first aiders have pointed out the importance of ensuring boundaries on the support limit for struggling individuals. Although, this was observed in the interviews with mental health first aiders who also self-identified as recipients of the interventions. There appears to be a need to recognise the impossibility of being there all the time to sort difficulties out, considering that mental health first aiders also hold their primary roles within the organisation. Based on the following extract below, it appears that mental health first aiders often struggle with either delegating the responsibility of supporting a colleague to another person or making time to act as first aiders outside of their regular job duties. Therefore, it is

essential for them to develop resilience to establish boundaries on the amount of support they can provide to their colleagues.

"I've tried to be very strong on, you know, these are the boundaries. You know, I'm not available 24/7 unless, you know, that's impossible. That's too much stress, first of all, I am only a volunteer, but saying that, you know, if anyone was in real dire need, I think, as a human being, I would be available, you know, so I know I have these boundaries, which I tried to set. Realistically, if someone's in trouble, I'm going to try and help them as best they can." (TPT)

"One thing that I always do is again, is you know, the boundaries that you have with your yourself as a mental health first aider, but maybe sometimes if it's getting a little bit complicated with work in general, it's then how you work with our HR counterparts." (TNB)

To understand key elements in a workplace that influence mental health help-seeking behaviour as part of the research aims of this thesis. Participants were asked about the common barriers and facilitators to seeking support for mental health difficulties in a workplace setting. Four themes and two subthemes were observed from the analysis of participants' interviews related to factors that contributes to mental health help-seeking behaviour.

Theme: Interpersonal relationships facilitate support.

This theme features the role of interpersonal relationships in the workplace in creating an atmosphere to seek support for mental health difficulties, this was a common refrain amongst the participants. Some employees have reported the lack of close friendships at work influences their desire to disclose their mental health difficulties. As participants "EAE" and "ECC" stated in the extract below, it seems having colleagues also regarded as friends influences the desire to seek help.

"I don't feel particularly close to anybody at work, like I don't have like a buddy, you know, at work. I get on with people, but I am not very close to any one person. Not having a kind of a close friend at work, I wouldn't necessarily share it with someone at work. (EAE)"

"So, I've spoken to one of my line managers about it, and a couple of people who have become whom I see more friends than just colleagues now " (ECC).

As illustrated in the extract above, having colleagues also regarded as friends influences the desire to seek help. Previous organisational studies have reported that friendships at work impact individual outcomes as its reported that individuals are able to obtain support from others that promote job satisfaction among other organisational outcomes (Balaban & Özsoy, 2016). Moreover, selective disclosure in the workplace is reported to yield a positive outcome (Brouwers et al., 2020).

From the perspective of a mental health first aider, getting closer to colleagues made it easier for them to be approached.

Though I work remotely, I have gotten to know, you know, a good fair few colleagues. And that will make it easier for people to approach me and for me to get to know them and look out for signs that they might be struggling (TWE).

A mental health first aider who is also a senior manager reported that participating in social habits like smoking during breaks and having lunch in a communal area often gives room to strike conversations that most times prompt the need for support for a colleague.

"I am sort of like one of the most senior people on site. But I do feel that maybe it's something I did that the bad my bad thing is that I smoke. So, when I go and smoke, I can smoke with the, you know, the chaps that work in the warehouse. So, you know, you've always strike up a conversation with them. So, I think, you know, they know that I'm somebody that is approachable" (TEW).

One of the few recipients who sought help for their concerns in the workplace also highlighted the role of interpersonal relationships with colleagues in their decision to disclose their concerns to get some much-needed support.

With colleagues, relatively easy because the colleagues I'm talking to I've like made friends with anyway, with the mental health first aider that I buddied up with them basically has also become a friend, very open, not a problem with other Mental Health First Aiders, slightly more difficult, but still, like, I feel relatively comfortable talking to them (RNE).

Good interpersonal relationships not only play a significant role in mental health help-seeking in the workplace, but previous organisational studies have also reported their contribution to other workplace factors like satisfaction, motivation and

productivity (Carvajal-Arango et al., 2021). Interpersonal relationships/work friendships benefit workers' productivity, employee engagement, job satisfaction and performance (Durrah, 2022). Participants have highlighted the need to develop interpersonal relationships amongst colleagues. It often breeds that sense of ease to disclose concerns, trust, and the feeling of psychologically safety in the work setting; psychological safety coupled with trust has been observed in the data and is discussed as the next theme.

Theme: Psychological Safety and Trust

The concept of psychological safety which is defined as a mutual belief amongst employees that it is safe to engage in interpersonal risk-taking in the workplace (Edmondson & Lei, 2014) is shown in the data. The psychological safety discussed here is in the context of factors that facilitates help-seeking behaviour for mental health difficulties in the workplace setting. Participants discussed factors that contribute to mental health help-seeking in the workplace. The idea of not being humiliated or ignored because of opening up about their mental health difficulties in the workplace and the need to trust with whom they share their difficulties was observed in the data and has been critical to help-seeking behaviour in the workplace. Psychological safety has been reported to create an inclusive environment which increases performance, activates innovation, accelerates learning, and challenges the current situation, without the fear of being marginalised, embarrassed, or punished (Clark, 2020).

On one hand, some employees highlighted that colleagues they choose to speak to about their difficulties are the only people they can trust. As participants “ECG”, “TNB” and “TLP” has pointed out in the extracts below, one can understand that interpersonal trust within the workplace contributes to the opportunity to engage in help-seeking behaviour for mental health difficulties in the workplace. This is consistent with previous literature that has drawn a relationship between trust among colleagues and the psychological safety of employees (Atkinson, 2004).

“I kind of opened up to a couple of colleagues about my previous experiences and things like that, in kind of a confidential way, you know, just people that I trust within the organisation (ECG).”

“I don't know if people don't feel comfortable just going and talking to a stranger, and that's where it's difficult because would you talk to a stranger that you work with? Or would you then go and talk to a stranger that is professional help? We all know that you know, professional help is difficult because it's needed by so many people. (TNB)”

“I don't think people feel secure to come and say, hey, you know what, I'm actually struggling with things at home at the moment. And I don't know what to do. I don't think they want to kind of talk to people in a work capacity; they’d rather approach a colleague whom they trust and who they're friends with and talk to them on a friend level rather than a kind of more formal level I think they think what we do is quite official, and we've tried to break that down.” (TLP)

This links with the earlier theme of workplace interpersonal relationships fostering help-seeking. Asides trust, participants have reported how cautious they become regarding speaking about their concerns without the fear of being judged. It seems that when someone shares their difficulties, they often feel uneasy about being judged based on those difficulties in all future actions.

“So, I guess people are very cautious about what they say publicly within teams. Within our team, we have a kind of safe environment and can talk openly, but there have been instances of people speaking out and then soon afterwards leaving the organisation.” (REP)

As reported by the participants, trust in a work setting appears crucial to the well-being of employees. Low-trust environments are reported to affect the mental health and well-being of the workforce (Hungerford & Cleary, 2021). Trust is the foundation upon which all successful relationships are built, and it is particularly important in a work environment where people need to rely on each other to achieve common goals. Edmundson (2011) has drawn connections between trust and psychological safety, such that psychological safety is understood to be experienced on a group level compared to trust which experienced more on an individual level. In addition, trust is understood to be a prerequisite for psychological safety (Vaida & Ardelean, 2019). Some participants feel hesitant to discuss their concerns due to their perception of the potential risks involved in sharing personal information with a colleague in the workplace as identified by participant (REP). The perception about

the consequences of interpersonal risk of sharing mental health concern has been associated with several poor mental health outcomes like burnout, anxiety and depression (Pfeifer & Vessey, 2019).

Subtheme: Balancing the risk of disclosure and perceived stigma.

As an offshoot of the main theme of psychological safety and trust, a subtheme was observed as a key feature of participants discussing factors contributing to mental health help-seeking in the workplace. Participants reported what appears to be an act of balancing the disclosure of mental health difficulties they might be experiencing. Employees and recipients of the intervention described how they sometimes worry about how they communicate their difficulties and whom they speak to about their concerns.

I guess people are very cautious about what they say publicly within teams. Within our team, we have a kind of safe environment and can talk fairly openly, but there have been instances of people speaking out and leaving the organisation soon after. (REC)

"I'd say another sort of barrier as well, it just like I said, it's that I find it difficult communicating to someone over unnecessarily going across how I feel" (SWI)

"It felt a very hard decision at the time to say I need to put work to one side because there's always that part you know the professionalism in me wants to still come into work and deliver good work, but I knew I just couldn't mentally cope with. I couldn't cope with anything more in my head, basically, at that point". (REM).

In the above extracts, it appears that the disclosure process is a thoughtful and intricate consideration that is often influenced by how the intended recipients convey their struggles. This is closely tied to their perception of interpersonal trust, as they must trust that there will be no negative repercussions for being open about their concerns. This is consistent with a previous study that has highlighted the presence of reflexive elements regarding what individuals share and the context in which they disclose their concerns (Toth et al., 2021). Also, as a participant (REM) mentioned, disclosure of mental health concerns is based on the need to access adjustments in

their organisation. Some of these adjustments could relate to start times, taking days off, and flexible work schedules. This is consistent with the approach-focused goals highlighted as part of the disclosure process model developed by (Chaudoir & Fisher, 2010). However, the original model was not especially for mental health conditions; the results were similar when applied to mental health conditions (Toth et al., 2021).

The fear of people knowing about one's mental health status and their reaction to finding out plays on the mind of some participants, so they instead hold on to their concerns.

"Sometimes you worry about the people around you knowing what's going on and thinking that they will never, that they'll judge you but that you know, that it will affect your work and that takes you to know, take up the odour and get that special light or sympathy. Some people struggled with that." (TLE)

"And I was dubious as to what her response would be, which is one of the reasons why I was holding back until it reached a point (ELG)."

As highlighted, participants appear to perceive the workplace environment as an unsafe place to share their mental health concerns due to the negative reaction they might experience from other colleagues or management in terms of questioning their ability to carrying on with their role. This invariably heightens stress responses and reduces healthy behaviours (Pascoe & Smart Richman, 2009) and (Toth et al., 2021).

Internalised stigma was also observed in data where recipient with a lived experience of mental health difficulties narrated their experiences, expressing that disclosure was a sign of weakness.

And I think a lot of us are very reticent because we're concerned that people will start judging us about our performance about things like that. (REB)

"Also, with stigmas, you're worried that it will be viewed as you are being weak." (RWP)

Some participants reported a perceived belief that concerns people might be experiencing should be addressed personally due to the stigma attached to specific

life events that might impact an individual's mental health. Like recipient "RKM" highlighted in the extract below, communicating the issues and the extent of the difficulties experienced by an individual is a thoughtful process that is riddled with the thought of societal stigma attached difficulties they might be experiencing. The stigma attached to communicating mental health difficulties appears not only peculiar to the workplace but also in wider society, as highlighted by participant "EMB" in the extract below. There is a perceived stigma that interplays constantly with the disclosure to close friends outside the workplace.

"I am mindful of the people don't want to hear. Yeah, the whole thing about talking about miscarriages carries a lot of stigma and stuff, and people find it very difficult." (RKM)

I think there was all there was a stigma attached with, you know if you had talked to somebody, even best friends and sort of said, you know, I'm on antidepressants or something like that, I think they would be flummoxed, they wouldn't know what to say in relation to that. (EMB)

Overcoming the hurdle of perceived stigma and the repercussions of disclosing one's mental health difficulties appears to be a significant step in the help-seeking process. However, participants have reported the differences in the way the organisation help reduce this perception are often conflicted. The next theme will discuss this further.

Theme: Conflicting values across organisations (Big values vs small values)

Another theme is the conflict in values representation across regions or teams within organisations. This is related to the concept of ethical culture often explored in studies of organisational behaviour, it is commonly defined as a specific type of organisational culture referred to as a collection of shared values, norms, and beliefs about ethics that are upheld in an organisation and can promote ethical conduct (Treviño et al., 1998). As mentioned in the extract below, it appears that within small teams, openness is sometimes considered different from the organisations. Sometimes, organizations are often located in different regions, which can sometimes affect the willingness of employees to speak up. This is because the culture of line management may view problems differently in each region.

I think getting a sense of the awareness and the understanding of mental health across the global organisation can sometimes be challenging, you know, dealing with teams in India, Sri Lanka, China, New York, Australia and the UK. (REP)

"In a huge organisation where you have 1000s of employees in different countries, and you don't get to see people face to face, and build relationships with them, sometimes. I think it's really valuable" (REP)

The association between ethical cultures in organisations and occupational well-being have been reported that a higher perception of an ethically cultured environment often relates to lower burnout and higher work engagement (Huhtala et al., 2015). The data extracts presented earlier highlight the differences in this ethical culture within teams and the larger organisation. There are differences in the approach taken to support employees within teams instead of the organisation. Often this appears to be down to interpersonal relationships. As highlighted before, it could also be due to the cultural approach to mental health issues for far larger organisations with teams based across various regions of the world.

"In many locations, I think there just might; it might put a barrier up for people in terms of just understandings what well-being and mental health might mean." (REP)

Moreover, various organisational factors have been highlighted in previous literature as contributing to this cultural differentiation, including functional differentiation based on job roles, geographical decentralisation, divisional differences, hierarchical differences and differentiation by market and product (Tierney & Schein, 1986). Participants in regional teams have pointed out the cultural difference and approaches to mental health concerns. Like a participant pointed out,

"In the US, people just don't have the same employment rights. So, if the company doesn't like you, they pay two weeks' notice. And you leave. If you don't like the company, you work on two weeks' notice and leave. It's a very different kind of employment relationship, whereas, for the UK and the rest of Europe, you don't just chop and change jobs so easily. They can't just lose employees so easily. So, I think that has a bit of a dynamic as well; I think what we see in the US team is the people who don't cut it disappear, and suddenly they're not employed by us anymore. So, when work has very much triggered my mental health issues, there is a tendency in this organisation's culture to expect people to be still working." (ELG).

The differences in ethical cultures between teams and the organisation have been identified to breed different organisational-based outcomes (Cabana & Kaptein, 2021); however, this has not been explored in relation to its effects on the mental health and well-being of employees. Participants have discussed approaches within teams to support their mental health and well-being which are often different from what the organisation promotes. This appears to be a contributing factor to mental health help-seeking behaviour in the workplace.

Theme: Visibility of support

Participants reported one of the major hindrances to seeking assistance for mental health concerns in the workplace is the limited information and awareness about available resources. During discussions, participants emphasised the importance of consistently informing employees about the support options and providing guidance on how to access them.

"I don't know if there is support available at work, I like to say is the kind of thing that it might get sent around an email, and I might just delete the email to be honest. So, I don't really know. (EAH)"

"And I suppose for me, one of the barriers that I would find in reaching out to a professional is that I don't know them." (EAR)

One of the components of mental health literacy is the emphasis on the knowledge and beliefs about professional help available and knowledge of how to seek mental health information (Jorm et al., 1997). Participants shared their thoughts on seeking help for mental health concerns, highlighting the importance of being informed about available support and how to access it. A clear understanding of available resources and their functioning appears to play a crucial role in mental health help-seeking in the workplace.

"Because I think that's the other thing, we were hearing a lot about some of the mental health services that are provided, you know, outside of the companies that there are some available, but they're not always available, you know, less unless you have the means to pay for them privately." (RWP)

The visibility of support creates an understanding of a culture open to supporting people with mental health difficulties. As highlighted previously, the sheer complexity

of the social environment of an organisation can make visibility about support and how to go for help quite tricky. Rutherford & Hiseler (2023) highlighted obstacles to help-seeking coming from both organisation and individual levels. Individual levels range from the lack of knowledge about where to seek support to the perception of mental health services available. Organisational levels include differing vested interests amongst active players which often results in tension between health and productivity.

"People can be we like to encourage openness anyway. But just letting people have information as well, sometimes people will just have no idea where to go, who to go to, or how to begin anything." (MLE)

"I think, definitely having more than one person in the organisation that you can go to." (MLE)

As a participant also alluded to, creating visible avenues for colleagues will encourage them to express their difficulties and engage with mental health initiatives within the workplace. It is evident that participants do not want to experience any form of stress when navigating through what support is available and how support is accessed; the stress is understood to compromise the emotional energy required to encourage help-seeking behaviours.

"If there was something in place where you know, it was almost like sick leave, but I guess it's one of those grey areas where it's not a physical illness, but you know, you need to have some time to recover kind of, and you know, feel okay, I guess that I think that would be really helpful was putting that in a place where there is a form I guess, of sick leave that's not kind of physical ailments if that makes sense."(ECG)

This research question exploring the factors that contributes to mental health help-seeking in the workplace has captured several factors that influence mental health help-seeking in the workplace based on the reflection of experiences expressed by participants in this study. The factors that were observed in the data are represented in a visual representation. Fig 6.4 below shows the interactions between three internal elements of risk of disclosure, psychological safety and interpersonal relationship, which is augmented by external considerations of visibility of support across the organisation and the balance in ethical cultures across the organisation.

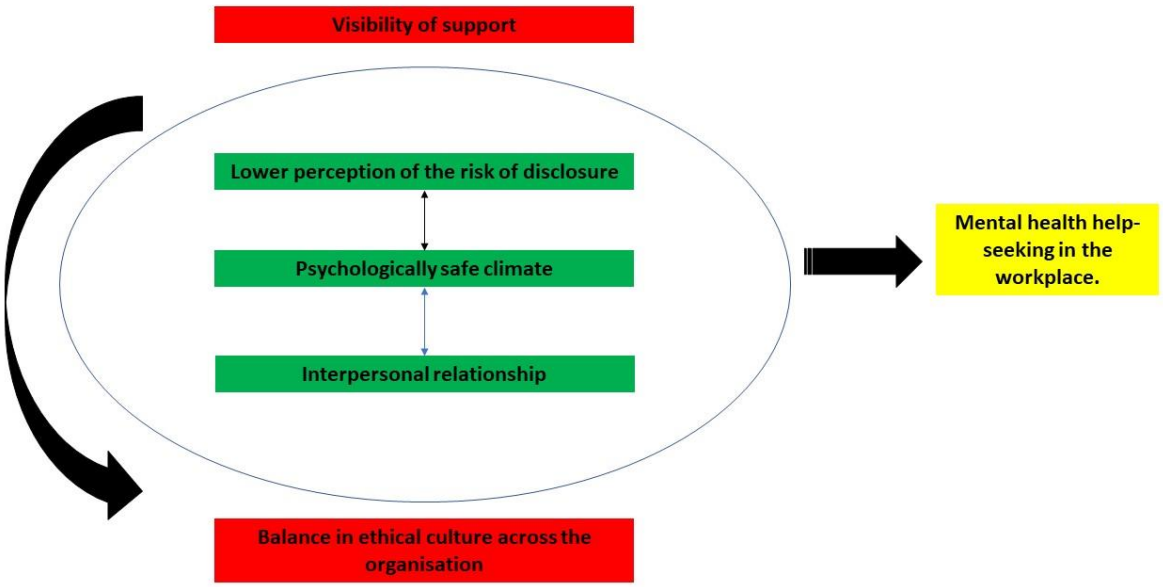

Figure 6. 2: Visual model of factors contributing to mental health help-seeking behaviour in a work setting.

6.3 Summary of chapter

To address the three main research questions posed in the embedded qualitative component of this thesis, several themes and subthemes were observed following an inductive approach to the data analysis.

As discussed in the methods chapter, an experiential orientation to data was adopted to highlight the meanings of participants' experiences with MHFA. Ten main themes and four subthemes were observed within the data.

Participants reported in their experience the confusing state around the purpose of MHFA in a typical work setting. This theme captured the contradictory ideas recipients and employees expressed regarding the support they would receive if they engaged with MHFA. In addition, there was an understanding that MHFA, like every other mental health initiative in the workplace, does not fully address the core concerns affecting employees' mental health. Some of the core concerns participants reported included relationship issues, personal issues like going through an IVF procedure, burnout, and stress due to demanding deadlines at work. Employees were more reticent about discussing their concerns because of the potential repercussion and impact on their progression at work. The workplace was

also considered a complex setting where mental health support sometimes collided with the need for job performance, amongst other internal complexities like hierarchical structures within the organisation.

Furthermore, addressing the research aims exploring the impact of MHFA on organisational culture and work relationships. Participants expressed that the impact of MHFA on organisational structures and processes, including mental health and well-being checks in the yearly appraisal process, was problematic. Also, there had been an openness in communication about mental health, making it less daunting to speak about individuals' mental health concerns, but this still came with some limitations and conscious restraints which prevented disclosure. Mental health first aiders expressed concerns about the stress felt following their training and the need for further support. This stress emanated from the need to provide appropriate support to colleagues and not give the proper support to colleagues.

Four themes and two subthemes were observed from the data analysis that provides an understanding on the factors that contributes to mental health help-seeking in a workplace setting. Participants emphasised the role of existing interpersonal relationships amongst colleagues as an important drive for seeking support. The themes have been represented as a visual model showing the interaction between all factors to ensure mental health help-seeking behaviour in the workplace. Interpersonal relationships are linked to developing trust and a sense of psychological safety about whom employees speak to about their concerns in the workplace. Participants have also highlighted the visibility of support available in the workplace to influence mental health help-seeking.

The next chapter provides the results of the theoretical mapping of MHFA to the Behavioural Change Wheel (BCW). The retrospective mapping provides some understanding about active ingredients and mechanism of actions aimed at promoting mental health help-seeking behaviours.

Chapter 7 - Methodological study to map MHFA intervention to Behavioural Change Wheel (BCW).

7.1 Introduction

This chapter details the outcome of mapping the MHFA intervention to evidence-based behavioural change taxonomies. As shown in the evidence synthesis in Chapter 2, there is little explanation of how MHFA achieves recipients' help-seeking behaviour. The Behaviour Change Wheel (BCW) has been adopted in the development of several behaviours change clinical and non-clinical interventions. The COM-B model and elements of the BCW (i.e., Theoretical Domains Framework (TDF) and Behaviour Change Technique Taxonomy Version 1 (BCTTv1)) have been used to inform intervention design and characterise intervention content and mechanisms of change in existing interventions (i.e. retrospectively) (Bourne et al., 2020; McHugh et al., 2018; Pearson et al., 2020; Powell & Thomas, 2023; Steinmo et al., 2015; Watkins et al., 2016). This chapter a) uses the BCW to report the content of the MHFA intervention and b) characterises its potential theoretical mechanisms of action. This element of the study addresses the question; What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?

7.2 Results

Step 1

Table 7.1 below summarises the overall content of the MHFA intervention utilising the TIDieR framework (Hoffman, 2015). The steps of the ALGEE approach and its rationale were used to summarise the intervention. Other details of the TIDieR framework not detailed in the table include the mode of delivery, which is face-to-face; recipients of the intervention are individuals struggling with mental health difficulties (depression, suicidal crisis, anxiety disorders, eating disorders, personality disorders, self-harm and psychosis were explicitly discussed in training). The frequency of the intervention is based on recipients' undertaking help-seeking behaviour.

Table 7. 1: Summary of the overall content of the MHFA intervention mapped to the TIDieR framework.

TIDieR Checklist	Description
Brief name that describes the intervention	Mental health first aid
Rationale (why)	The intervention was created to improve mental health literacy. It focuses on recognising mental health issues, seeking reliable information, understanding potential causes and risk factors, and learning about self-treatment and professional help options to support individuals experiencing mental health difficulties. By participating in this intervention, individuals can better identify signs of mental ill-health and suggest the necessary support sooner.
Materials	Individuals are trained in a 2-day face-to-face training; they are given a training manual and workbook which includes detailed steps on how to support individuals struggling with specific forms of mental health difficulties. Also, participants are shown a role-playing video during the training on administering the intervention.
What procedure	Mental health first aiders are expected to use five-step action points to support anyone experiencing a mental health crisis. It is called the ALGEE steps, which are. • A – Approach the person, assess, and assist with any crisis. • L – Listen non-judgmentally. • G – Give support and information. • E – Encourage the person to get appropriate professional help. • E – Encourage other supports
When and how often	Intervention is delivered when participants are in a mental health crisis; the end goal is that participants can seek help from a

	professional source to help with their crisis. The frequency of contact with a recipient is not advised during the training.

Steps 2 (Stages 1 & 2)

Nine BCTs and five intervention functions were identified from the MHFA Role-play Video. Five BCTs and three intervention functions were identified from the psychosis section of the training manual. Five BCTs were identified in the interview transcripts where mental health first aiders were asked to narrate instances where they supported someone or when recipients explained their encounter with a mental health first aider. Data extracts linking the BCTs to the interview transcripts are presented in Appendix 12. Details of the identified BCTs across both data sources are presented in Table 7.2. Two BCTs were shared between the two data sources (MHFA role-play video and Training Manual): social support (practical) and focus on past success. Only one BCT was shared amongst all three data sources: social support (practical). Two intervention functions were most identified across the three data sources (persuasion and enablement).

Step 2 (Stage 3)

Table 7. 2: BCTs and Intervention Functions observed in each data source.

BCTs from MHFA Role Play Video	BCTs from Training Manual	BCTs from Interview transcripts of support
Goal setting (behaviour) Problem-solving Action planning Social support (practical) Social comparison Remove aversive stimulus. Future punishment Framing/reframing Focus on past success	Social support (unspecified) Social support (practical) Social Support (Emotional) Information about health consequences	Social Support (Emotional) Social Support (Practical) Action planning Problem-solving Verbal persuasion

	Focus on past success	about capabilities.
Intervention Function MHFA Role Play Video	**Intervention Function Training Manual**	**Intervention Function Interview transcripts**
Enablement Education Persuasion Environmental Restructuring Coercion	Persuasion Education Enablement.	Enablement Persuasion

The intervention functions and BCTs were then mapped to the COM-B model and the TDF to identify possible mechanisms of action (see Table 7.3). The BCTs, alongside their intervention functions, were successfully mapped onto the main components of the COM-B model (Capability, Opportunity, and Motivation). The number of BCTs alongside their intervention functions mapped to the model includes Reflective Motivation (n = 10) and Opportunity Social (n=9), Capability Psychological (n=3) and Opportunity Physical (n=2). The BCTs, alongside their intervention functions, were mapped to seven of 14 TDF domains, with 'social influence' as the most frequent TDF domain (n=8), targeted via the 'enablement' and 'persuasion' functions. The second most common TDF domain contents were mapped onto were 'goals' (n=6), targeted via the 'enablement' function using BCTs goal setting, problem-solving, and action planning approach. Other TDF domains included 'knowledge' (n=1) commonly via the 'education' function using the 'information about health consequences' BCT; 'beliefs about capability'' (n=3) via the 'enablement' and 'persuasion' function using the 'focus on past success' BCT. Other less common mapped TDF domains were 'reinforcement' (n=1) targeted via the 'coercion' using the future punishment BCT and 'beliefs about consequences' (n=1) targeted via the 'persuasion' function using content with the 'framing & reframing' BCT.

Table 7. 3: Characterising intervention content and mechanisms of action using the BCT taxonomy (v1); behaviour change wheel; capability, motivation, behaviour model; and TDF.

	Intervention Content		Mechanisms of action	
	BCTs	**Intervention Functions**	**COM-B**	**TDF**
MHFA Role-play Video • 10.11 seconds: 'Which other options do you want to go with?' 'I guess the crisis team.'	Goal setting (behaviour)	Enablement	Motivation (Reflective)	Goals
• Offering different help-seeking strategies and prompting identification of barriers and options to select.	Problem-solving	Enablement	Motivation (Reflective)	Goals* assuming help-seeking is the goal for the client
• 10.21 seconds 'Would you like me to call them here, and you can	Action planning	Enablement	Motivation (Reflective)	Goals

listen to what I say?' "Yes'.				
• Connecting him to the crisis team (08:18)	Social support (practical)	Enablement	Opportunity (Social)	Social Influences
• Helper asks what he would do if it were the other way around (referring to Peter helping her) wouldn't you want to help me? 9.31	Social comparison	Persuasion	Opportunity (Social)	Social Influences
• 10:00 Threat of calling the police if you don't seek help	Future punishment	Coercion	Motivation (Automatic)	Reinforcement
• The neighbour was reframing his belief about the intentions of the crisis team if they	Framing/reframing	Persuasion	Motivation (Reflective)	Beliefs about consequences

are called to come to his aid. (7:54 – 08:28)				
MHFA Training Manual				
• Page 214 – Try to find out whether the person has a supportive network and, if they do, encourage them to get support from these people. Family and friends will be better able to support their loved ones, such as local carer's groups or online peer support groups (Pg 214).	Social support (unspecified)	Enablement	Opportunity (Social)	Social Influences
• Page 205 - Try to find out if the person has anyone they trust (e.g., close friends, family)		Enablement.	Opportunity (social)	

and try to get them to help. • Page 207 – If the person decides to seek professional help, you should make sure they are supported emotionally and practically in accessing services.				
• Offer the person choices of how you can help them (Pg 207). If the person has an advance directive or mental health crisis card, you should follow those instructions. (These are pre-written plans which allow a person with a	Social support (practical)	Enablement	Opportunity (Social)	Social Influences

diagnosed mental health issue to communicate their preference about future treatment and care in advance) • You should be prepared to call for help from emergency services (Pg 205)				
• Page 207 – If the person decides to seek professional help, you should make sure they are supported emotionally and practically in accessing services. • Reassure them that you are there to help	Social Support (Emotional)	Enablement	Opportunity (Social)	Social Influences

and support them (Pg 207) • Convey a message of hope by assuring them that help is available and that things can get better. (pg. 207)				
• Page 207 – Offer information – give them resources that are accurate and appropriate to their situation.	Information about health consequences	Education	Capability (Psychological)	Knowledge
• Page 207 – You could ask them if they have felt this way before and, if so, what they have done in the past has been helpful.	Focus on past success.	Persuasion; Enablement	Motivation (Reflective)	Beliefs about capabilities
Interview Transcripts				

“And then it was making sure that you know, I'm encouraging them to reach out; it wasn't something too serious, but it was, you know, just making sure that they know, what was going on there.”	Verbal persuasion about capability	Persuasion	Motivation (Reflective)	Beliefs about capabilities
“And seeing how they felt about certain things, including speaking to their manager, including, you know, as I said, you know, what, you can do it on your own or, you know, anyway that you want to do it, or we don't involve them at all, that's fine.	Verbal persuasion about capability	Persuasion	Motivation (Reflective)	Beliefs about capabilities

Making sure that they knew. You know, if they wanted a doctor's appointment, they could go make one; I can go with them if they want to signpost some of the, like the talking, as well.”				
“So, it wasn't really a case of having to offer any particularly practical support. But we did sort of talk it through, you know, it was an opportunity for her to discuss some of her problems.”	Social support (Emotional)	Enablement	Opportunity (Social)	Social Influences

“I provided them with several resources afterwards to say, let these or I talk it through in the meeting. And then followed up with the resources afterwards to what they could; I guess the main resources that I provided were internal resources.”(SKP)	Social support (Practical)	Enablement	Opportunity (Social)	Social Influences
“so, what I have done is pointed them towards some resources, open the door for a chat, if they want to chat, sometimes most of the time, they don't know, they just want to know where the	Social support (Practical)	Enablement	Opportunity (Social)	Social Influences

resources are, because they can't find them on our internal sites. And when people are struggling, they just want answers quickly, sometimes, you know, they're brave enough to reach out. So, it's basically just giving them point them towards the resources, saying I'm there for a chat if they need it." (MPT)				
"The key focus of like the conversation we had, in terms of it was really good opportunity to talk trying to establish if there was anything within the	Problem-solving	Enablement	Motivation (Reflective)	Goals

working environment, which was kind of causing issue there and try and offer some practical who steps in that area in terms of, you know, working with any of her managers and things like that to balance workload or whatever. But in terms of giving advice, it was really on the kind of work front, as I say she was really in touch with her G.P. about it. There wasn't anything she specifically needed from like external support." (MCH)				

“So, getting very upset, you know, not really being able to feel that they could come into work. So I had some discussions with them, talked about what they wanted to do, you know, how to calm them down, sort of saying to them, you know, go out for a walk at lunchtime, or, you know, when you get home in the evenings because it was a summer, you know, go and get some fresh air, try and clear your mind, do some breathing, and then maybe just talk through with her about what her options were about what	Action planning	Enablement	Motivation (Reflective)	Goals

she wanted to do. And I didn't tell her what to do." (MNP)				
"So, it was more kind of assessing what do you need right now? So, yeah, it was useful to like work through the model and listen to what they had to say, give them support and resources in terms of advice of where maybe helpful for them to look at more information on and then encourage sort of the professional help." (SKP)	Problem-solving	Enablement	Motivation (Reflective)	Goals

7.3 Summary of chapter

This chapter of the thesis focused on a retrospective process of undertaking a systematic and theory-based approach to identify the active ingredients and mechanisms of action of MHFA to improve the help-seeking behaviours of recipients of the intervention. Twenty-two BCTs and eleven intervention functions were identified across the data sources. MHFA was seen to target help-seeking behaviour through several mechanisms of action, most significantly ‘social influence’ (social opportunity) achieved by using the ‘enablement’ and ‘persuasion’ functions, and ‘goals’ (reflective motivation) achieved via the ‘enablement’ function. Other mechanisms of action observed include ‘knowledge’ (psychological capability), ‘environmental context and resources' (physical opportunity) and ‘beliefs about capability’ (reflective motivation).

Across the three data sources, at least a social support BCT was identified as a primary active ingredient (i.e., BCT) in MHFA for enabling help-seeking behaviours. The MHFA role-play video identified social support (practical), while the training manual identified social support (unspecified, practical, and emotional). However, emotional, and practical social support were the only types identified in the interview transcripts. A previous study examining the correlation between social support and help-seeking behaviour before deliberate self-harm has reported a significant association between practical social support and the likelihood of help-seeking behaviour (Wu et al., 2011). The study also reported that one’s social network influences reaching out for professional help, although this appears to be intertwined with informal help-seeking.

Furthermore, individuals who have access to more informal sources of assistance may perceive it as adequate and consequently neglect to seek medical attention. However, the study examined the correlation between seeking help and social support before intentional self-harm in an East Asian community, but its generalizability is uncertain. Similarly, a more recent study Wang et al. (2023) showed greater positive social support was associated with an increased likelihood of both formal and informal help-seeking for depression.

Furthermore, various benefits to the retrospective mapping of interventions to the BCW have been reported in previous studies. Steinmo et al. (2015) reported the

opportunity for a sound intervention improvement and replication platform. The exercise helped Watkins et al. (2016) conclude that the intervention content was based on a sound theoretical underpinning. On the other hand, it has also served as an opportunity to identify gaps in intervention content to maximise the effectiveness of an intervention (McHugh et al., 2018). This current study, taking the retrospective approach to identify the active ingredients and mechanisms of action in the MHFA intervention to improve help-seeking behaviours, has enabled an understanding of the active ingredients and the targeted mechanisms of action to support future intervention improvements. My review of the data sources shows some inconsistencies in how the intervention is applied in actual practice, which is important. For example, whilst the first aiders were sharing their accounts of supporting an individual, they were asked which of the steps of the ALGEE approach they found very difficult to apply. The first step (A- approach) was commonly mentioned as very difficult in their context. Unless the person is visibly in a crisis and fits the signs described in the training manual and expressed in the MHFA role-play video, it wasn't easy to understand who needed support from a mental health first aider. The current data derived from the study being reported here can support future intervention improvements by addressing how individuals with concealable identities like mental health difficulties can be supported even when they are not forthcoming in their help-seeking.

Table 7. 4: Mapping of the TDF to the COM-B model (Cane et al., 2012)

COM-B components		**TDF Domains**
Capability	Psychological	Knowledge. Skills. Memory, Attention and Decision Processes. Behavioural Regulation
	Physical	Skills.
Opportunity	Social	Social Influences.
	Physical	Environmental Context and Resources.
Motivation	Reflective	Social/Professional Role & Identity.

		Beliefs about Capabilities Optimism. Beliefs about Consequences. Intentions. Goals.
	Automatic	Social/Professional Role & Identity. Optimism. Reinforcement. Emotion.

Like the earlier point in the previous paragraph, there was no indication of how the actions MHFA's described maps unto the TDF. The TDF has been linked to a simpler model of behaviour like the COM-B model (Cane et al., 2012) which is a component of the BCW adopted in this study. The model is based on the belief that for any behaviour to happen, there is an interaction between capability, opportunity, and motivation. The TDF is understood to provide more granular understanding to the three interacting components of the COM-B model (See Table 7.4 for the map of the TDF to the COM-B). The theoretical domains that is indicative of increasing the capability for intended behavioural change are knowledge, skills, memory, attention and decision processes and behavioural regulation. In the training manual, however, "knowledge" was the only linked domain to the actions described in the manual which involves offering an individual with a mental health difficulty accurate information about support available to promote help-seeking. In the role-play video and interview extracts of mental health first aiders accounts, none of the actions described were linked to any of the theoretical domain's indicative of increasing the capability of an individual to perform help-seeking behaviours as par the COM-B model.

There is room for intervention improvement here to ensure that the MHFA intervention is effectively equipping the first aiders with skills underpinned by theoretical mechanisms indicative of increasing the capability of its recipients' help-

seeking behaviour. Therefore, the ALGEE steps must be reconsidered to ensure that the approach is underpinned by a theoretical mechanism to help achieve its intended outcome of help-seeking behaviour.

Utilising the three data sources provided insights into active ingredients (BCTs) in the MHFA intervention and some theoretical mechanisms to promote help-seeking behaviour. However, the extraction of data from the interview transcripts was limited due to the number of individuals that mental health first aiders reported they had supported post-training. Depending on the content of the training manual might not be substantive enough to extract all active ingredients in the intervention. Observing the intervention in action by watching the role-play video allowed the research team to understand how the intervention promotes help-seeking in a natural setting. In addition, the study gives an insight into the theories driving MHFA by identifying evidence based BCTs and mapping them to elements of the BCW.

The final chapter presented a narrative discussion of the main findings, specifically examined in relation to previous research and existing theories.

Chapter 8 - Discussion & Conclusions

8.1 Introduction

This chapter is a discussion of the findings presented in this thesis. A summary of the main findings is presented and examined in relation to previous research and existing theories. Considering this thesis's embedded mixed method approach, the findings will be presented based on each study design adopted according to the research objectives. These findings will begin with the clustered randomised controlled trial, then the discussion of results for the embedded studies, which includes the qualitative evaluation and the theoretical underpinning of MHFA and its mechanisms of action. As stated earlier in the methods chapter, the embedded studies were proposed to complement the trial results. Therefore, findings from all aspects of the study design will be integrated to address specific research questions. A visual map of the quantitative and qualitative results is presented in Figure 8.1 to guide an understanding of how both studies complement each other. Following this, a discussion of the strengths and limitations of the study is presented. The considerations for the implications for policy, practice and research will be presented to conclude this chapter.

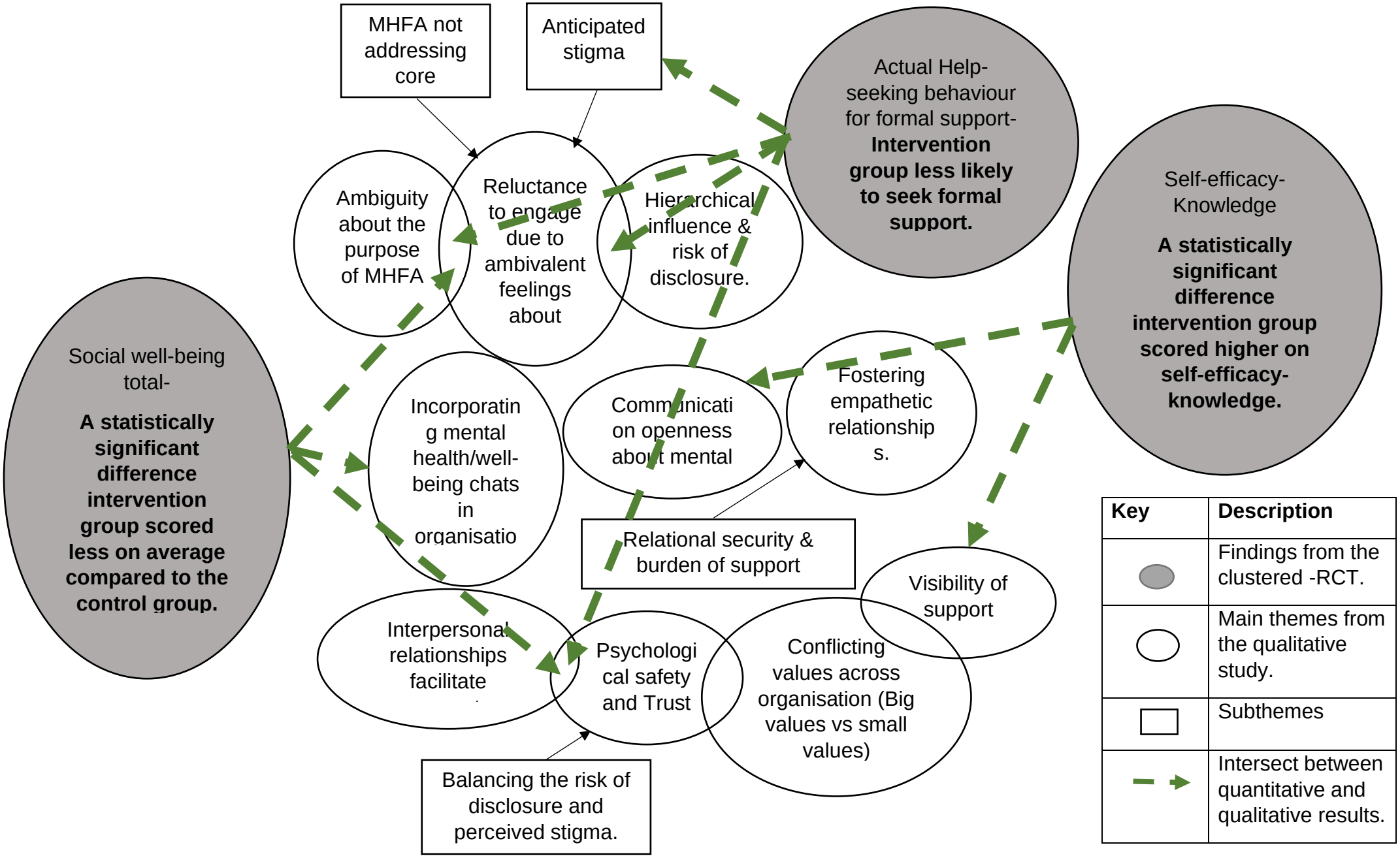

Figure 8. 1: Triangulation Visual Map of Quantitative and Qualitative Results.

8.2 Aims & Objectives of the Study.

The thesis aimed to assess the effectiveness of MHFA in promoting help-seeking behaviour in its recipients. Additionally, it sought to explore the experiences and impact of MHFA on workplace mental health culture and relationships. Lastly, the thesis aimed to identify the active ingredients and mechanisms of action in MHFA that promote help-seeking behaviour.

Objectives

1. To investigate if MHFA improves employees' and recipients' help-seeking behaviour and other outcomes compared with a mental health consultation.
2. To explore employees' experiences of how MHFA and its impact on organisational culture and workplace relationships.
3. To understand the active ingredients and mechanisms of actions in MHFA that improve help-seeking behaviour and other outcomes for mental health distress by retrospectively mapping the intervention using the behavioural change wheel (BCW)

Research Questions

1. Does MHFA, the intervention condition, promote help-seeking behaviour and improve other outcomes amongst recipients compared with a consultation on MHFA in the workplace, the control condition?

2. How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?

3. What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?

4. What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?

5. What are the active ingredients and mechanisms of actions that contributes to for mental health help-seeking behaviours as a MHFA outcome?

8.3 Overview of the main findings

This thesis adopted a pragmatic approach to evaluating mental health first aid. Mental health first aid is a complex intervention commonly influenced by an interplay of several factors. Adopting a combination of methods allowed for a more comprehensive integrated understanding of the intervention within a workplace context.

For this PhD Thesis, a complementarity approach was used in the discussion and analysis of the findings. All the methods employed in the study offered complementary insights into the effectiveness of MHFA from the perspective of end-users in a workplace setting. Firstly, I examined the effectiveness of the intervention in promoting actual help-seeking behaviour using a quantitative approach. Secondly, data gathered from the qualitative evaluation adopted an abridged process evaluation pattern to understand intervention implementations, the mechanisms of impact and the influence of contextual factors which shape the success of the intervention. Thirdly, the content of MHFA intervention and characterising its potential theoretical mechanisms of action using the COM-B model and elements of the BCW (i.e., Theoretical Domains Framework (TDF) and Behaviour Change Technique Taxonomy Version 1 (BCTTv1)) was reported. In the visual representation of Figure 8.1, the results from both the C-RCT and the qualitative evaluation provides a complementary insight to the findings. Additionally, the figure provides a pictorial overview of how the findings of both studies intersect.

In the trial, there was a statistically significant difference between the intervention group and the control about actual help-seeking behaviour for formal support. Participants in the intervention group were significantly less likely to seek formal support. Fourteen (41.2%) participants in the control group have sought formal support for a personal or emotional problem, in contrast to 30 (14.5%) in the intervention group. Whilst exploring the experiences of MHFA using qualitative interviews, several themes were observed in the data to explain further the limited preference to seek formal support within clusters where MHFA has been introduced. In the secondary outcomes, there was only a statistically significant difference in social well-being total; participants in the intervention group scored, on average, 0.21 points less on the SWB scale than the control group. Communication openness

about mental health and increased empathetic relationships were themes observed in the qualitative data, which appears to contradict the lesser average score on social well-being in the intervention group reported in the trial.

Similar results were reported for participants that completed the online survey at both time points asides from the self-efficacy knowledge subscale, where intervention participants scored significantly higher by 1.90 points. This triangulates the communication openness about mental health and the viability of support theme where participants discussed factors that facilitate mental health help-seeking in the workplace.

From the retrospective mapping of three data sources to the behavioural change taxonomy and other elements of the COM-B model. The analysis highlighted that help-seeking behaviour through engagement with a mental health first aider is achieved through the following mechanisms of action, "social influence (social opportunity)", "goals (reflective motivation)", "knowledge (psychological capability)", "environmental context and resources (physical opportunity)" and "beliefs about capability (reflective motivation)". The most identified BCT across the three data sources was social support (practical). The approach element of the ALGEE steps appears to lack theoretical underpinnings; from the analysis of the data sources, listening non-judgementally, giving support and information, encouraging the person to get professional help, and encouraging other forms of support to appear to have active ingredients (BCTs) geared towards the help-seeking behaviour.

8.4 Discussion of Findings

Does MHFA, the intervention condition, promote more help-seeking behaviour and improve other outcomes amongst recipients compared with a consultation on MHFA in the workplace, the control condition?

Evidence from the current study reported that participants in the intervention group were less likely to seek formal help, including mental health first aid, whilst all participants who completed the survey post-intervention reported they had sought help from informal sources. This is the first study that has examined the effect of the introduction of adult MHFA on actual help-seeking behaviours; the effect of MHFA on actual recipients was impossible to explore as only 8 participants reported receiving

MHFA at the post-intervention time point. Previous studies (Jorm et al., 2010; Morgan et al., 2019, 2020) examining the effects of MHFA on recipients have reported low numbers of self-identified recipients in their studies. However, these studies examined the effect of the youth version of the intervention. Regarding help-seeking behaviours for mental health difficulties in this study, findings are consistent with previous findings (Angermeyer et al., 2001; Jorm, 2000), highlighting the preference for informal sources from close peers and family members. Similarly, in a study that examined help-seeking behaviour for mental health problems of employees in the mining industry (Tynan et al., 2016), non-professional contacts were the most identified source of support, namely families and friends.

Furthermore, previous studies (Sayers et al., 2019; Tan et al., 2021; Thomas et al., 2022) that have examined the effect of a workplace mental health initiative on help-seeking behaviour have reported inconsistent results. Moreover, the prevalence of help-seeking behaviour in a workplace context has been reported to be low (Attridge, 2019; Lamontagne et al., 2014).

Findings from the qualitative interviews show participants were uncertain about the purpose of MHFA and were confused about the support that mental health first aiders could provide. The uncertainty also emanated from participants' experiences with previous mental health initiatives and their scepticism that the company introduced mental health first aid to show itself in a positive light.

The uncertainty about the purpose of MHFA might explain the preference of employees to seek help from alternative means. In a previous qualitative study exploring barriers and facilitators to implementing MHFA, the perceived usefulness and impact of MHFA were observed to be discussed as a facilitator to implementation (Narayanasamy et al., 2020). In the current study, participants have discussed the need to clarify the purpose of a new mental health support initiative, as this can be misconstrued as another box-ticking exercise like previous mental health initiatives in the workplace. Organisational efforts to increase the utilisation of mental health initiatives in the workplace, like the employee assistance programme (EAP), have been reported to be marred by the employees' ongoing concerns regarding potential breaches of confidentiality following disclosure (Hennekam et al.,

2021). Previous literature has reported negative consequences such as impeding career advancement due to the disclosure of mental health difficulties.

There is a need for a new approach to tackling misconceptions about the intentions of MHFA in the workplace; this might be down to the approach taken within organisations to ensure the integration of well-being strategies into their organisational procedures for example including discussions around work concerns affecting employee's mental health during performance reviews. Integrating health, safety and well-being strategies into business plans/objectives have been identified as an enabler in implementing employee well-being initiatives such as MHFA (Mellor & Webster, 2013).

This thesis has given us an insight into help-seeking behaviour in the workplace, findings shows that formal help-seeking behaviour was less likely in the intervention group compared to the control group. Preference for informal help-seeking outside of the work setting appears favoured across both study arms. A previous systematic review and meta-analysis examining the effectiveness of mental health related help seeking interventions although reported improvement in attitudes, intentions, and behaviours to seek formal help for mental health problems. While the review, reported increased formal help-seeking behaviour for interventions targeting people with or at risk of mental illness, interventions targeting the general population showed no effect on help-seeking behaviour (Xu et al., 2018).

From a theoretical perspective, help-seeking behaviour has been conceptualised as a long process; that occurs in stages which includes the recognition, readiness, ability, and willingness to seek help for a mental health difficulty (Rickwood & Thomas, 2012). In chapter 3, I discussed the various theories and models have been applied to help-seeking for mental health difficulties, the three main ones included Andersen's behavioural model, theory of planned behaviour and the health belief model. Although the theories have shown how attitudes and beliefs influences intentions to seek help, there is little empirical evidence to support the translation of the intentions to actual behaviour (Tomczyk et al., 2020). At present, there is a limited understanding to how MHFA achieves it intended help-seeking behaviour outcome. This is due to lack of any report of any theoretical basis for the intervention. The development of theory-based interventions requires an

understanding of critical elements of the intervention and mechanisms of actions, for example, understanding the critical elements on which the ALGEE steps was developed is necessary to help understand how MHFA achieves its help-seeking behaviour outcomes.

In this thesis, the author has utilized various components of the Behavioural Change Wheel, developed by Michie and colleagues in 2014. Specifically, they have used the BCTs, COM-B model, and TDF to understand why the MHFA intervention does not promote formal help-seeking behaviour in a workplace environment. BCTs refer to the active ingredients in any intervention that are linked to theoretical constructs of behaviour change. The COM-B model is a psychological model that explains how human behaviour interacts through various mechanisms to achieve its intended outcome, while the TDF provides a theoretical basis for complex intervention and possible influences on behaviour.

Regarding social well-being, the intervention group scored lower than the control group on the social well-being subscale. Keyes (1998) defines social well-being in five dimensions: social integration, social acceptance, social contribution, social actualisation, and social coherence. Social well-being is the ability of an individual to communicate freely and form relationships with others (Carney, 2022). In a workplace setting, it pertains to an employee's capacity to establish and maintain positive relationships, including regular interactions with colleagues (McGann, 2021). Often, this results in a sense of belonging and connection within work communities (Stefania De, 2014). Social well-being is just one aspect of overall employee well-being, alongside physical and psychological well-being, commonly discussed in organisational literature. A possible explanation for the intervention group scoring lower than the control group is the role of employees not feeling comfortable sharing their mental health concerns in the work community. Looking through the social well-being dimensions by Keyes (1998) explained earlier, employees who feel socially integrated within their work community should perceive their colleagues as trustworthy and their workplace safe to accommodate their mental health concerns. Reluctance to engage with MHFA due to uncertain feelings about the intervention providing the support colleagues need for their mental health concerns was expressed in the qualitative interviews. As reiterated by participants, this reluctance appears to stem from perceived anticipated stigma from colleagues. In social well-

being terms, employees with mental health concerns do not feel a part of the work community often due to negative responses from sharing previous experience. Previous studies have highlighted the fear of discrimination and negative attitudes experienced as a reason for the lack of interest in support available in the work setting (Brouwers et al., 2020). Other repercussions associated with disclosure of mental health difficulties in the workplace includes loss of status, identity, social rejection and discrimination (McGrath et al., 2023). The consequence of revealing one's mental health struggles is often more severe due to the greater stigma surrounding mental health compared to other disabling health conditions (White et al., 2023). There have been reports of positive consequences to disclosing mental health difficulties, reasonable adjustments that supports individuals to keep performing their roles (Reavley et al. 2017), improved social supports and improved opportunity to access supports (McGrath et al., 2023).

Berkman et al. (2000) have reported the positive role of a sense of community in increasing social participation within a community context. Sense of community is the perception of the similarity to others, the feeling of belonging to formal and informal communities bounded by location and shared values (Cicognani et al., 2008). This construct has been likened to the social integration constructs of social well-being developed by Keyes; the association has also been reported by Cicognani et al. (2008). Sense of community in the workplace has been conceptualised to include six elements (Burroughs & Eby, 1998); the elements include a sense of belonging which addresses the trust and security component of being a member of an organisation or a team, co-worker support is concerned with the influence of an individual within a group and the opportunities derived from working with others, team orientation is related to social support and involves recognising and valuing the efforts of others, emotional safety is concerned with the quality of the interactions employees have with each other through emotional connections, truth telling is safety for employees to share their concerns and the community showing some form of empathy, understanding and care towards its members. Finally, Spiritual bond is associated with how members embody guiding principles based on ethics and values, which influences their daily activities including work.

The trial results in the current thesis have reported social wellbeing total lesser in the intervention group as compared to the control group. Meaning from a quantitative

perspective, MHFA has no effect in increasing any sense of community that includes all the six elements discussed in the previous paragraph. Trust has been conceptualised as one of the several antecedents to a sense of community, and it is defined as an "essential condition of human society" (Steinacker, 2019 p. 1) that solidifies relationships in families, groups, communities, and countries. Trust in the workplace is regarded as an essential component of teamwork (Hungerford & Cleary, 2021); low-trust organisations are reported to affect the mental health and well-being of employees due to a perception that it is not safe to share their mental health difficulties, predisposing several poor mental health outcomes (Pfeifer & Vessey, 2019). The qualitative interview results suggest, participants' ambivalence about MHFA in supporting the mental health and well-being of employees gives an understanding to the less reported social wellbeing reported in the C-RCT. Interview data identified interpersonal relationships, psychological safety and trust as factors that contributed to participants' mental health help-seeking in the workplace. Trust is therefore an antecedent to a sense of community in the workplace. Unless trust in the organisation is established, employees with mental health difficulties will not feel comfortable disclosing their mental health concerns whether to a mental health first aider, or others.

There is a need for organisations to ensure that more is done beyond just the introduction of MHFA to promote that sense of community in the workplace. Unless issues around trust and psychological safety are addressed, employees will remain reluctant to engage with the intervention.

The study showed a significant difference between intervention and control groups on the self-efficacy knowledge subscale, with the intervention group scoring higher than the control group. The self-efficacy scale includes two distinct components. The first one, self-efficacy knowledge, measures the confidence individuals have in their ability to navigate the healthcare system and access the necessary support for their health needs. The second component, self-efficacy coping, assesses individuals' confidence in their ability to handle the social and interpersonal aspects of seeking care. Studies have shown that having high levels of self-efficacy is linked to better health-related behaviours (Marks et al., 2005). The self-efficacy knowledge constructs can be likened to the knowledge components of mental health literacy. Mental health literacy comprises of six components which includes a) ability to

recognise specific disorders of types of psychological distress; b) knowledge and beliefs about risk factors and causes; c) knowledge and beliefs about self-help interventions; d) knowledge and beliefs about professional help available; e) attitudes which facilitates recognition and appropriate help-seeking; and f) knowledge of how to seek mental health information. Previous research has demonstrated that self-efficacy is related to positive health-related behaviour change; studies evaluating interventions that promote knowledge of mental health difficulties have also reported an increase in people's confidence in their knowledge and coping capacities for their difficulties (Jorm et al., 2006). Previous reviews of MHFA have consistently reported increase in knowledge about mental health concerns and helping behaviour amongst mental health first aiders (Chowdhary et al., 2019; Hadlaczky et al., 2014; Heer et al., 2010; Liang et al., 2021; Maslowski et al., 2019; Morgan et al., 2018). Help-seeking for common mental health difficulties like depression and anxiety is known to be significantly delayed (Wang et al., 2005), hence the significance of addressing self-efficacy for help-seeking.

Although the current study did not examine the association between self-efficacy and mental health help-seeking behaviours, evidence around the relationship between self-efficacy and mental health help-seeking is inconsistent.

Lower levels of self-efficacy have been associated with a higher likelihood of seeking professional help in a community setting (Garrey et al., 2022; Judd et al., 2006). On the contrary, Andersson et al. (2014) have reported lower levels of self-efficacy associated with higher levels of reporting having a mental health concern but with a lower likelihood of help-seeking. Self-efficacy is rooted in social cognitive theory developed by Bandura (1977); it is referred to as individuals' beliefs in their ability and competence to self-reflect and take changes in their life. Individuals are likely to engage in healthy behaviours if they consider their efforts will be successful (Moore et al., 2015). Although the relationships between mental health help-seeking and self-efficacy are under-researched, Rickwood et al. (2005) and Biddle et al. (2007) have reiterated the need for cognitive appraisal in help-seeking behaviour. Help-seeking behaviour needs the emotional skills to recognise the problem and belief in the value of getting help, the cognitive capacity to know where to get the help needed, and the motivation to engage in the appropriate behaviours to get support (Moore et al., 2015).

As earlier discussed, the self-efficacy knowledge subscale captures the confidence of knowing how to interact with the healthcare system. These include accessing healthcare and communicating with professionals within this system (Moore et al. 2015). The study indicates an increase in participants' confidence in engaging with support services available at work or outside work. For example, a recipient from the qualitative interviews mentioned gaining some confidence to talk to their GP about their concerns and the need to review their antidepressants. There appears to be an indirect benefit of MHFA, not just in gaining confidence in accessing healthcare, but also encouraging openness to mental health conversations in the workplace. However, there is a need to capture the factors associated with self-efficacy to seek mental health support.

The first research question aimed to examine the effect of the introduction of MHFA compared to a consultation on mental health in the workplace on actual help-seeking behaviour and other outcomes. On actual help-seeking behaviour, group where MHFA was introduced were less likely to seek formal help. The qualitative interviews gave insights to understanding the quantitative results, it appears that issues around the uncertainty about the purpose of the intervention contributes to individuals' reluctance to engage with formal support in the workplace. Similarly, the group where MHFA was introduced reported less social wellbeing compared to the control group. The role of sense of community was explored which involves that feeling of belonging to formal and informal communities, for example in the workplace. Links have been drawn with the qualitative results that suggests, the mixed feelings expressed by participants regarding the effectiveness of Mental Health First Aid (MHFA) in promoting the mental wellness of employees' sheds light on the underreported social well-being in the C-RCT study. Therefore, unless trust which is an antecedent to sense of community the effect of MHFA on social wellbeing might not be observed. Self-efficacy knowledge was reported higher in the intervention group compared to the control. Self-efficacy knowledge is likened to the knowledge components of mental health literacy and increase in knowledge and helping behaviour has been reported in previous MHFA reviews.

How do direct and indirect end-users perceive their experiences of using Mental Health First Aid (MHFA) in their workplace?

This question explored the experiences of MHFA amongst direct and indirect recipients in the intervention group where the intervention was implemented. The qualitative components of the mixed method study were used to explore this research question; participants were asked questions prompting them to discuss their experiences of MHFA in a workplace context. The analytical themes were identified from the data were a) ambiguity about the purpose of MHFA, b) reluctance to engage due to ambivalent feelings about MHFA support, and c) hierarchical influence and the risk of disclosure.

Overall, participants discussed their doubts about the purpose of MHFA in supporting the mental health concerns of their colleagues. Doubts raised appear to have impacted the engagement levels with the mental health first aiders. They also described some self-perceived concerns about negative reactions that they might encounter after disclosing their mental health concerns. In addition, some participants also referred to hierarchical influence and the risk of disclosing mental health concerns, especially the impact it might have on their career and other job opportunities. Previous studies exploring barriers to implementation of mental health and well-being in the workplace have reported similar findings (Joanna et al., 2022; Mellor & Webster, 2013; Quirk et al., 2018).

Perceived lack of motivation and sense of personal responsibility has been highlighted as a significant barrier to engagement with mental health initiatives in the workplace (Quirk et al. 2018). Also, perception about mental health and well-being programme has been reported to contribute to employee's opinions about their employers. This perceived organisation support suggests that well-being initiatives are effective in an organisation's culture that facilitates employee well-being (Varga et al., 2021). The authenticity of the intentions around the introduction of mental health and well-being initiatives in the workplace has been reported in previous literature, in a qualitative study exploring the experiences of well-being initiatives in a male-dominated organisation reported the need for management's genuine commitment to supporting the mental health and well-being of their employees (Seaton et al., 2018).

Communication of organisations' genuine intentions to support and engage employees in mental health and well-being initiative is critical to the success of any mental health initiatives (Mattke et al., 2020). There is often a need to employ strategic communication promoting mental health initiatives to convey the intentions of the initiatives, to address the perceptions that employees develop that organisations do not take mental health seriously instead, organisations are only putting up a front to appear to position mental health at the top of their agenda (Kent et al., 2016). In addition, some studies have examined how Human Resources (HR) practices influence organisational performance by ensuring employee well-being (Van De Voorde et al., 2012). However, previous literature has argued that HR practices often favour the organisation to the detriment of employee well-being (Ogbonnaya et al., 2017). In a previous study exploring the views of recipients of the introduction of MHFA, the availability of MHFA influenced the perception of participants about the organisation's commitment to employee well-being (Robertson-Hart, 2020).

Furthermore, aside from the doubt surrounding the purpose of mental health first aid in the workplace, the concept of anticipated stigma also emerged in participants' discussions about their experience and reluctance to engage in the intervention. Anticipated stigma is a perceived belief of some humiliating experience related to engaging with MHFA. It is defined as the length to which an individual is concerned about the potential negative attitudes following disclosure of commonly stigmatised identities (Fox et al., 2016). Research has reported anticipated stigma to be a predictor of people avoiding and underutilising needed care (Quinn, 2014). Individuals with probable depression have been reported to be concerned with mental health-related stereotypes and discrimination at work (Fox et al., 2016); the same study also reported a direct relationship between anticipated stigma and work functioning. Also, the concept of anticipated stigma and self-stigma are often studied together as interrelated (Bos et al., 2013). Vogel et al. (2007) reported that self-stigma is fuelled by anticipation, which influences willingness to seek support.

Furthermore, a study that examined whether a psychiatric diagnosis is associated with experienced and anticipated workplace discrimination and concealment have reported that service users with depression, compared to other psychiatric diagnoses like schizophrenia and schizoaffective disorder, are likely to report anticipated

discrimination. People with concealable stigmatised identities are more likely to isolate themselves from others due to anticipated stigma (Earnshaw et al., 2012).

This research question captured the experiences of direct and indirect recipients of the introduction of MHFA, particularly exploring issues contributing the reluctance of participants using MHFA support. The study has identified reasons related to the understanding of the purpose of MHFA, the uncertain feelings about the type of support individuals struggling with a mental health difficulty might get when they engage with a mental health first aider and the perception about the risk of disclosing a mental health difficulty and the influence of organisational hierarchies on help-seeking behaviour.

What is the impact of introducing MHFA on the perceptions of organisational culture and work relationships among employees?

This question explored the impact of MHFA on organisational culture towards mental health difficulties and the impact on work relationships. The qualitative aspect of this mixed method thesis was used to explore this impact. Three themes and one subtheme emerged from the analysis of the interview data from the participants. The themes include a) incorporating mental health/well-being chats in organisational structures and processes, b) communication and openness about mental health, and c) fostering empathetic relationships (Subtheme: Relational security and the burden of support).

Overall, participants discussed observed changes in organisational culture due to the introduction of MHFA. A significant theme was the importance of incorporating mental/well-being chats into organisational structures and processes. Participants gave examples of having well-being chats in meetings, and in official processes such as yearly performance reviews within the organisation. The development of a culture of health to provide a critical foundation for any successful workplace health programme has been reported in previous literature (Kent et al., 2016). The culture of health is defined as a workplace that places worth on the health and well-being of its employees (Flynn et al., 2018). A culture of health in the workplace goes beyond the introduction of health initiatives and includes integrating them into the various components of the organisation's culture, including leadership and management behaviours, official policies, and common practices. Altogether, these components

reflect an organisation's shared values towards developing an environment that supports their employee's mental health (Wu et al., 2021). As reiterated by the participants, implementing mental health and well-being chats in performance appraisals can be attributed to the introduction of MHFA in the organisations. However, some participants pointed out that this is not consistent across the organisation and is not necessarily included as part of a formalised process in the performance review.

The benefits of this practice might be short-lived if mental health chats in appraisal meetings are not formalised as an ingrained culture within an organisation. Informal and formal elements in organisational culture have been explored in previous literature. The informal elements of an organisation are understood to supplement and compensate for the formal elements, which include policies, procedures and structures for helping employees navigate silences (Wu et al., 2021). Both cannot exist independently without the formal elements of rules, procedures, and policies for employees to share concerns that might be affecting their mental health; the informal organisation elements that include social interactions with colleagues will not allow employees to voice these concerns.

Participants also discussed the importance of openness in communicating about mental health amongst colleagues in the workplace. However, this is difficult to link solely to MHFA as some aspect of the study was conducted the pandemic. During the pandemic, there was a rise in discussions regarding the effects on mental health and the efforts made by organisations to support their employees (Hamouche & Saade, 2020). The importance of communication as an antecedent to employee well-being has been examined in previous literature (Kaufman, 2020; Madlock, 2008). Internal communication within an organisation serves as a critical function in influencing employee attitudes; Qin & Men (2022) have examined its influence on employee psychological well-being.

Internal communication is an integrated system that includes formal and informal communication within an organisation. At the same time, formal communication is focused on the organisational-led functions that provide employees with timely messages using various channels. Informal communication is amongst employees. Communication among colleagues is reported to be perceived as the most authentic

and genuine form of communication due to the proximity and interrelationships routinely occurring among colleagues (Robinson & Thelen, 2018). Supportive informal communication between colleagues characterised by empathy, positive feedback, and support for each other, can increase employee psychological well-being and foster social well-being in a team (Qin & Men, 2022). Emotional support from colleagues is reported as a primary function of interpersonal communication in the workplace (Miller et al., 1990), and is reported to have the potential to satisfy employees' psychological needs for a sense of belonging. In the context of this thesis, openness in the communication around mental health due to the introduction of MHFA may have provided employees with a sense of belonging and relatedness because they feel they are not alone.

MHFA was reported to foster empathetic relationships amongst colleagues, and this links favourably with our discussions in the previous section that addressed the benefits of openness in communication around mental health. This result is also consistent with previous studies that have reported changes in the attitudes of mental health first-aiders following MHFA training (Chowdhary et al., 2019; Hadlaczky et al., 2014; Heer et al., 2010; Liang et al., 2021; Maslowski et al., 2019; Morgan et al., 2018). The change in attitudes includes increased tolerance and increased helping behaviour amongst mental health first aiders following the training.

However, trained mental health first aiders also discussed the burden of care resulting from supposed empathic relationship with colleagues. This burden of care is associated with the concept of relational security used in secure settings, defined as the knowledge and understanding staff have of a patient and their environment, which translates to the need to ensure care within limits (Department of Health, 2010). Issues around establishing boundaries were raised in a previous feasibility qualitative study exploring the barriers and facilitators to implementing mental health first in the workplace (Narayanasamy et al., 2018; Narayanasamy et al., 2020). Participants in these studies discussed the need to raise awareness about their role as mental health first aiders, such as keeping the role within their confines of working hours. Similarly, issues around boundary setting have also been raised in previous research that explored the relationship between recipients and providers of MHFA (Robertson-Hart, 2020). Robertson-Hart's participants described their encounter with a mental health first aider as ongoing support rather than an initial point of support

for further help-seeking, as stated in the training manual. Although this was also captured in the current study, MHFAiders also mentioned stress emanating from referring colleagues needing support to the right support needed at the time. However, mental health first aiders might have limited avenues to support colleagues best, especially if their mental health concerns were due to work designs or structures.

Asides the experiences been explored, the impact of MHFA on organisation's mental health approach and work relationships were explored in this question. Positive impact on organisational procedures like incorporating mental health/wellbeing chats in appraisal process were identified in participants discussions. Also, communication openness about mental health and better empathetic relationships were also discussed. Although the empathetic relationships discussed comes with a cost of burden of support experienced by the mental health first aiders to ensure that colleagues are adequately supported.

What are the experiences and perspectives of employees regarding the factors that facilitate or hinder help-seeking behaviours for mental health difficulties in a workplace context?

The qualitative element of the study explored these factors. Some of the analytical themes and subthemes observed in the data that highlights the factors that contributes to mental health help-seeking in the workplace include a) Interpersonal relationships facilitate support, b) Psychological safety and trust (Subtheme- Balancing the risk of disclosure and perceived stigma), c) Conflicting values across the organisation, and d) Visibility of support.

The interviews highlighted the importance of having strong interpersonal relationships with colleagues as crucial in seeking help for mental health in the workplace. Social and interpersonal dynamics is understood to play a role in an individual's decision to seek help (Lee, 2002). However, the nature of interpersonal dynamics in mental health help-seeking in the workplace remains largely unexplored. Dutton (2003) reported that having high-quality relationships with colleagues helps in perceiving and understanding the suffering of others. Moreover, strong interpersonal relationships can foster emotional attachment, encouraging colleagues to provide support and compassion to those who need it (Chu, 2017).

Additionally, interpersonal relationships are essential in creating a psychologically safe work environment (Durrah, 2022). A mutual relationship exists between psychological safety and interpersonal relationships, as employees are more likely to seek support and form positive relationships in an environment where they feel safe (Newman et al., 2017).

Earlier, the impact of psychological safety and interpersonal relationships on mental health help-seeking was discussed. Participants in the interviews identified trust and feeling psychologically safe in the workplace as significant factors contributing to seeking mental health support. "Psychological safety" is a term that refers to the notion that team members can take interpersonal risks without facing negative consequences (Edmondson, 1999). Ensuring that individuals feel comfortable and safe to express their thoughts and opinions without fear of ridicule or consequences is crucial. This allows for an open and honest exchange of ideas and encourages constructive feedback. As Clark (2020) argues, psychological safety creates an environment that promotes inclusion and enhances performance, innovation, and learning. It also allows individuals to question the status quo without fear of being ostracised, humiliated, or punished. Atkinson's (2004) study also reported that psychological safety within a team fosters trust and collaboration. This highlights the importance of creating a work environment where employees feel safe to share their thoughts and ideas without fear of negative consequences, improving team performance and overall job satisfaction (Frazier et al., 2017). The importance of mental health support in the workplace cannot be overstated (Edmondson, 2019). Employees spend a significant amount of time at their jobs, so creating an environment that promotes their overall well-being is critical. Trust and psychological safety are essential components of a healthy workplace culture. Research has shown that psychologically safe teams are more likely to engage in innovative thinking and make informed decisions (Edmondson, 2019).

Furthermore, trust-building is vital for developing strong colleague relationships and improving productivity (Dirks & Ferrin, 2002). When employees trust their leaders and co-workers, they are more likely to communicate openly and honestly, leading to better problem-solving and decision-making (Dirks & Ferrin, 2002).

According to Edmondson (2019) organisations must establish an environment where employees feel safe to express their thoughts and concerns without fear of judgment or retaliation. Prioritising trust and psychological safety can help organisations foster a culture of transparency and collaboration that benefits employees mental/social well-being (Edmondson, 2019). The research highlights that it is crucial that employees feel supported and valued in their workplace, and by fostering an environment of trust and psychological safety companies can achieve just that. According to Hungerford & Cleary's (2021) research, working in low-trust environments can severely impact employees' mental health and well-being. A review by Costa et al. (2018) reported that employees who experienced high levels of trust within their workplace reported greater job satisfaction and overall well-being. Furthermore, Dirks & Ferrin's (2002) research demonstrated that trust within a team can lead to increased productivity and job performance. Therefore, employers must prioritise cultivating a culture of trust within their organisations to promote the mental health and well-being of their employees.

Furthermore, in line with feeling psychologically safe and trust amongst colleagues and towards an organisation. Participants have also discussed a balancing act between whether to disclose their mental health concerns and the perceived stigma that might arise from sharing. When discussing mental health concerns, it is essential to approach the topic with sensitivity and care (Pinto et al., 2021). Recent research indicates that individuals consider the context and reflective elements of their disclosure, considering how the intended recipient of their concerns might react to hearing about their difficulties (Toth et al., 2021). Sharing one's mental health status is often necessary in obtaining workplace accommodations, such as flexible schedules, days off, or adjusted start times, which align with approach-focused goals (Chaudoir & Fisher, 2010). These findings also apply to other health-related disclosures (Toth et al., 2021).

During the interviews, participants highlighted how societal stereotypes around mental health issues have led to individuals internalising stigmas, which affects their willingness to seek help. Research has shown that this internalised stigma can lead to increased psychological distress (Livingston & Boyd, 2010), resulting in unhealthy behaviour patterns (Pascoe & Smart Richman, 2009; Toth et al., 2021).

Conflicting values across teams and regions within an organisation also emerged in participants discussions around the factors that contribute to their mental health help-seeking in the workplace. This is related to the concept of ethical culture, is often defined by the shared beliefs, values, and norms related to ethics within an organisation. Within small teams, openness is sometimes considered different from the organisations. Robertson-Hart (2020) also reported participant's reflecting on a mismatch between what organisations offer in terms of support and what teams within these organisations portray. Often, companies have offices in various locations, which can hinder staff from expressing themselves fully due to differences in management styles and cultural norms. Studies have shown a correlation between ethical cultures within organisations and occupational well-being. Specifically, individuals who perceive a higher ethical culture tend to experience less burnout and greater work engagement (Huhtala et al., 2015).

According to Tierney & Schein (1986), several organisational factors can lead to cultural differentiation. These factors include functional differentiation based on job roles, geographical decentralisation, divisional differences, hierarchical differences, and differentiation by market and product. Moreover, other studies have highlighted additional factors that can contribute to cultural differentiation, such as organisational size, age, and complexity (Fondas & Denison, 1991; Kotter, 2008). Also, the introduction of different working styles like remote and hybrid working has been reported to impact on the sense of shared purpose and culture in work settings (Chafi et al., 2022). Studies have shown that discrepancies in ethical cultures within teams and companies can result in various organisational consequences, such as increased employee turnover rates, decreased productivity, and negative publicity (Cabana & Kaptein, 2021). Yet, the effects of these disparities on the psychological health and overall well-being of employees remain unexplored.

The visibility of support available for mental health was identified as a crucial factor in participants' mental health help-seeking in the workplace. In today's workplace, it's important to promote a culture open to supporting those dealing with mental health challenges (Wu et al., 2021). However, navigating the complex social environment of a company can make it difficult for individuals to know where to turn for help. According to Rutherford & Hiseler (2023), various obstacles to help-seeking arises from both individual and organisational levels. These obstacles range from a lack of

knowledge about available resources to differing interests among stakeholders, resulting in conflicts between prioritising health and productivity. It is important to note that minority groups such as BAME individuals, those with lower social status, minority sexualities, and disabilities may be at a higher risk for mental health challenges due to the lack of visibility and support within the organisation.

What are the active ingredients and mechanisms of actions that contribute to mental health help-seeking behaviour as a MHFA outcomes?

This research question was aimed at understanding the intervention contents and mechanisms of actions in MHFA to achieve recipients' help-seeking behaviour. This approach utilised the Behavioural Change Wheel (BCW) and its associated elements (i.e., COM-B, Theoretical Domains Framework (TDF) and Behaviour Change Technique Taxonomies retrospectively to map the MHFA intervention, i.e., the ALGEE stages. Various BCTs were identified across the data sources; whilst all the various versions of social support (emotional, practical, and unspecified) on the taxonomy were evident as an active ingredient in the intervention, there were other BCTs identified across the data sources. Problem-solving and action planning were identified in both the role-play video and interview transcripts, where participants described the support rendered and received.

Problem-solving elements in interventions aim to change individuals' beliefs from a negative orientation regarding a problem to a more positive outlook to addressing the problem at hand. An example of this is the transformation of negative attitudes that individuals with mental health issues may have towards seeking help into a more optimistic perspective. Also, this approach involves teaching an individual adaptive skill that assist in defining and resolving problems effectively (Michelson et al., 2022). Problem-solving interventions have not been used exclusively or in combination with other interventions to address help-seeking for mental health issues. However, problem-solving is commonly employed as a component in various behavioural health programme that target youth sexual health, violence prevention, and substance use (Michelson et al., 2022). Problem-solving and action planning are two key components of health behaviour change. By identifying and addressing obstacles to behaviour change and creating concrete plans for implementing new behaviours, individuals are better equipped to achieve their health goals. According

to Bandura's social cognitive theory, problem-solving allows individuals to identify and overcome obstacles to change (Bandura, 1978), while action planning involves setting specific and achievable goals for behaviour change (Gollwitzer, 1999).

Research has shown that problem-solving and action planning can effectively promote health behaviour change. A study by Schwarzer and colleagues (2011) found that action planning was an effective strategy for increasing physical activity among sedentary individuals.

In the role-play video, goal setting was also identified as a BCT. According to Bandura's self-efficacy theory, setting goals and developing a plan of action increases one's belief in their ability to achieve a desired outcome (Bandura, 1997). This, in turn, can promote motivation and persistence in seeking help when faced with a problem or challenge.

Furthermore, research has shown that individuals who set specific and challenging goals are more likely to engage in help-seeking behaviours (Ryan & Deci, 2000). By setting specific goals and developing a plan of action, individuals can increase their self-efficacy and motivation to seek support when faced with challenges or problems.

Regarding health behaviour change, framing and reframing are essential concepts that can play a crucial role in the process. This was also an identified BCT used in the role play video. Gallagher and colleagues (2012) explained the essence of framing the desired behaviour in a positive light to increase motivation and engagement in that behaviour. Additionally, reframing negative behaviours in a more positive light can help individuals overcome any barriers that may have previously prevented them from engaging in those behaviours.

These concepts are particularly relevant regarding help-seeking behaviour for mental health difficulties. Many individuals may feel shame or stigma surrounding mental health difficulties, preventing them from seeking help when needed. By reframing mental health as a normal and common aspect of life, individuals may feel more empowered to seek help when needed. According to Vogel et al. (2007), reframing mental health issues in a more positive light can lead to increased help-seeking behaviour. The study found that individuals presented with positive messages about mental health were more likely to seek help for their mental health issues.

As mentioned previously, social support was the most identified BCT across the three data sources. Research has consistently shown that social support is critical in promoting help-seeking behaviour for mental health issues. A study by Bretherton (2022) found that social support was positively associated with changes in help-seeking attitudes which in turn increasing use of mental health services for psychological distress among. Similarly, a more recent study by Wang et al. (2023) showed greater positive social support was associated with increased likelihood of both formal and informal help-seeking for depression.

The MHFA intervention aimed at promoting help-seeking behaviours was achieved using behaviour change techniques (BCTs) through various mechanisms of action by utilising different intervention functions. Specifically, the enablement and persuasion functions achieved significant mechanisms of action, such as social influence and goals. Other mechanisms of action observed in the retrospective review include "knowledge", "environmental context and resources", and "beliefs about capabilities".

Retrospectively identifying behaviour change techniques and mechanisms of action for healthy behaviours has many benefits. Identifying these techniques and mechanisms can help researchers to develop more effective strategies for achieving health goals. As highlighted by Abraham and Michie (2008), understanding the mechanisms of action can aid in developing more effective interventions. By identifying what works and what doesn't, researchers can fine-tune their approach and increase their chances of achieving intended outcomes.

Regarding MHFA, during our analysis of the data sources, I discovered inconsistencies in the practical application of the intervention, which is a crucial finding. For instance, when the first aiders shared their experiences of aiding someone, they were asked about the challenging aspects of the ALGEE approach. Most of them found the initial step (A- approach) very difficult to implement in their context. Identifying someone who needs mental health support is not always straightforward, especially when the individual does not exhibit any visible signs or symptoms described in the training manual or MHFA simulation video. The current study's data can help improve future interventions by exploring ways to support people with hidden mental health issues who may not seek help voluntarily.

Additionally, as discussed in chapter 7, it was unclear how the actions described by MHFA align with the TDF. The TDF is connected to a simpler behaviour model known as the COM-B model (Cane et al., 2012), which is part of the BCW used in this study. To improve an individual's ability to make intentional behavioural changes, there are various theoretical domains that come into play, such as knowledge, skills, memory, attention, decision processes, and behavioural regulation. However, in the training manual, only the "knowledge" domain was linked to the actions described, which primarily involved providing accurate information to those with mental health difficulties to encourage them to seek help. Interestingly, in the mental health first aiders' role-play videos and interviews, none of the actions described were associated with any of the theoretical domains that could increase an individual's capability to seek help, as outlined by the COM-B model.

Improvement in intervention is needed to ensure that the MHFA training effectively equips first aiders with skills based on theoretical mechanisms that promote help-seeking behaviour. As such, it is important to reconsider the ALGEE steps and ensure that the approach is grounded in a theoretical mechanism that can help achieve its intended outcome.

The study highlights the importance of effective intervention in promoting help-seeking behaviour for mental health issues. Key components of health behaviour change, such as problem-solving, action planning, and social support, were identified as critical in this process. However, the study also revealed inconsistencies in the practical application of the MHFA intervention, indicating the need for improvement to ensure that first aiders are equipped with the necessary skills to promote help-seeking behaviour.

8.5 Strengths and limitations

Overall strengths

The study is a pioneer in comparing the effectiveness of mental health first aid with a control comparator investigating the effectiveness of MHFA to improve employees' help-seeking behaviour. Additionally, it is the first study to evaluate the effectiveness of MHFA from the perspective of its recipients. The study employed a mixed method approach that included a clustered randomised controlled trial (RCT), qualitative

evaluation, and a methodological study that mapped the MHFA (ALGEE) intervention to a widely recognised, empirically developed theoretical domains framework. This multi-method investigation of MHFA is such a study. The study employed a clustered RCT design to determine the effectiveness of the intervention. This is considered the gold standard in research methodology for testing effectiveness, as it allows for randomising groups rather than individuals. This approach seeks to ensure that any observed differences between the groups are due to the intervention being tested. The pragmatic philosophy underpinning this research methodology also ensures that the results obtained are applicable in real-world settings.

Clustered randomised controlled trials are particularly useful when evaluating interventions delivered at the group level, such as in schools or communities (Dron et al., 2021). Additionally, using a pragmatic approach in randomised controlled trials leads to more relevant and valuable results that can be more easily applied in practice (Campbell et al., 2000). They also reflect more accurately how interventions are used at scale. People within clusters also tend to have more common characteristics, and this shown in our data.

The qualitative components of the study involved a semi-structured interview of participants in the clusters recruited into the study. The semi-structured nature of the interviews allowed for specific topics to be explored (barriers and facilitators to implementing the intervention). Through this approach, participants could openly express their experiences and perspectives on the interventions. The interviewees comprised individuals from four distinct demographic stakeholder groups, namely recipients, mental health first aid trainees within the clusters, employees who indirectly benefit from the interventions, and senior managers who oversaw the implementation of the interventions within the clusters. Gathering information from the different groups was a strength of this study. The research gained a more comprehensive understanding of the topic by interviewing people with different backgrounds, perspectives, and experiences.

The researcher uncovered valuable patterns and themes that may have gone unnoticed had only one group been studied. For instance, interviewing only the recipients would have overlooked valuable insights from the employees and mental

health first aiders. Additionally, some participants were part of multiple groups. Only six participants identified themselves as intervention recipients, but five were successfully interviewed. Interestingly, four of these recipients were trained mental health first aiders. The small number of recipients limited the study, emphasising the importance of interviewing other groups.

The methodological mapping of the MHFA intervention unto the BCW to understand the theoretical underpinnings of the intervention was the first of its kind. The main strength of this component is that an established framework was used to categorise and describe the practical and theoretical mechanisms of actions and change to understand how a MHFA intervention achieves its intended outcome, help-seeking behaviour. As per the growing need for incorporating theoretical frameworks in developing effective interventions, this approach marks a significant stride towards progress (Graham et al., 2019; Proctor et al., 2011). Including relevant theories can aid in comprehending the underlying mechanisms, identifying the key determinants, and tailoring the intervention approach accordingly (Graham et al., 2019). Therefore, it is imperative to integrate theory into intervention design to ensure the effectiveness and sustainability of the intervention. This approach aligns with the current trend towards evidence-based practice, emphasising the need for a theoretical foundation to guide the intervention design (Skivington et al., 2021).

Overall limitations.

In total, nine clusters were recruited into the study, with six successfully randomised into the intervention group and three to the control group. The study may not have sufficient power to detect the difference it was designed to find, based on the sample size calculation. This lack of power was due to the withdrawal of funding. MHFA England had initially provided funding for the study, but it was discontinued because of the pandemic. Additionally, the study had to be paused for six months when some organisations initially signed up to participate withdrew their interest. This was mainly because their employees were on furlough, or they were not fully operational and were not well resourced to remain part of the study. In clustered trials, follow-up rates can be challenging due to the nature of the study design.

Despite its usefulness, there were some limitations regarding this approach. The analysis of the intervention contents was primarily based on reviewing the training

manual and a role-play video demonstrating how a mental health first aider should approach someone experiencing a mental health crisis. Additionally, accounts from mental health first aiders and recipients were used to describe their experiences with administering or receiving the intervention. Although the training manual and role-play video clarified how first aiders should administer the intervention, they may not provide an exact representation of how the intervention is carried out. Additionally, the interviews with first aiders and recipients were limited in their ability to fully explore the topic, as the number of first aiders who had put their training into practice was limited, and many of the recipients were also trained mental health first aiders, which added complexity to the process. I took a practical approach to ensure the intervention was properly broken down and aligned with the BCW.

While clustered randomised control trials are a valuable tool for evaluating interventions, it is important to acknowledge their limitations. One major limitation is that these trials require a large sample size to achieve adequate statistical power, and underpowered trials may fail to detect significant effects (Dron et al., 2021). Furthermore, follow-up rates can be challenging in clustered trials, mainly when the cluster size is small (Campbell et al., 2000). With clustered trials, participants are grouped together based on certain characteristics, such as location or other shared factors. This can make it difficult to track individuals over time, as they may move or drop out of the study for various reasons. Additionally, there may be logistical challenges in reaching out to participants and ensuring that they are willing and able to continue participating in the study. This can lead to bias in the analysis and reduce the generalizability of the findings. This lack of power may be due to the withdrawal of recruitment funding. The funders had initially provided funding for the study, but it was discontinued because of the Covid-19 pandemic. Additionally, the study had to be paused for six months when some organisations initially signed up to participate withdrew their interest. This was largely due to their employees being furloughed.

Furthermore, attrition in the current sample was relatively high (48.5% throughout the study. In workplace settings, attrition can be a significant challenge for researchers. This is because it can be difficult to gather comprehensive data and draw accurate conclusions when participants drop out of the study before it is completed. In this study, participants were contacted through a lead contact that sends an email containing the online survey link to employees about the study which could have

contributed to the low response rate. Post-intervention surveys were also administered at 6-months post intervention period, although not explored this might have contributed to the lack of response as employees might have changed jobs and left the organisation. This can lead to biased results and reduced statistical power. Spector & Brannick (2011) found that attrition rates in workplace research can be as high as 50%. To combat this issue, a few measures were used to reduce attrition. Reminders to complete the online survey at follow-up points were sent out for 6 weeks; employees also had the opportunity to complete them after the six weeks.

Other limitations of this research are that the findings were not widely generalisable to other populations due to the disparity in the sample within some clusters compared to others. Simply, sizes of some of the clusters were significantly higher than others which affects the reliability and validity of the results. The research might only apply to larger sized organisations as compared to the smaller sized organisations. Also, self-reporting measure were used in the quantitative aspect of the study. One of the main limitations of self-reporting is that it relies on the accuracy and honesty of the participants. Participants may not always remember events accurately, may not feel comfortable disclosing certain information, or may be influenced by social desirability bias, where they provide answers that they think will be perceived positively by the researcher. This can result in inaccurate or incomplete data, which can compromise the validity of the research findings. Participants may not accurately recall who they have discussed their concerns within recent months. To address this issue, conducting qualitative interviews to explore their help-seeking experiences can provide insight into the facilitators and barriers to seeking help. Further research will need to consider this disparity in workplaces to ensure more generalisable results. Finally, an important limitation was the lack of employees who used the MHFA intervention, so called recipients. While I have shown above that the introduction of MHFA into workplaces is perceived as beneficial for all employees, the effectiveness of any intervention, in this case MHFA, can only be effectively tested on those who received it.

8.6 Implication of findings

The thesis was focused on evaluating the effectiveness of MHFA within a workplace context. Participants in organisations that were randomised to the MHFA training

group were less likely to seek formal support than the control group. However, the current study was unable to examine the effect of MHFA on direct recipients due to the limited number of recipients of mental health first aid. The study was able to explore the effect of MHFA within a workplace context, and the qualitative interviews were helpful in exploring the experience of MHFA in a workplace context and understanding factors contributing to the preference for informal support compared to formal support, which includes mental health first aid. It was evident that organisations need to consider strategic ways of communicating the intentions of introducing mental health first aid to promote better engagement and eliminate any uncertainty.

The study also identified a considerable number of factors that contribute to mental health help-seeking in the workplace setting; participants reported the importance of good interpersonal relationships between colleagues, psychological safety and trust, consistency in the culture towards mental health across the organisation and within teams and the visibility of support. This has implications for organisations, as it seems that without addressing these factors, there will always be a reluctance to engage with mental health initiatives like mental health first aid in the workplace.

The burden of support experienced by mental health first aiders following the training was a further significant factor mentioned in the interviews conducted with trained mental health first aiders. Participants mentioned the importance of increasing awareness regarding their responsibility as mental health first aiders. This includes ensuring that the role is strictly confined to their work hours. Participants were also worried about not being equipped or in a position to change work processes that might impact their colleagues' mental health and well-being. Although previous studies have highlighted the need to tailor training content to more workplace context, the current study also recommends the need for organisations to ensure individuals that are trained to become first aiders are equipped with ways they can support a colleague’s mental health difficulty if it is work-related. This could include suggesting workplace accommodations they can explore, initiating conversations with the colleagues’ line managers. Also, the present study did not analyse how being a mental health first aider affects one's own mental health, and it is worth noting that many mental health first aiders also recognised themselves as recipients in this current study, which raises concerns about the possible indirect impact of

becoming a mental health first aider on increasing one's own ability to acknowledge mental health challenges. Finally, MHFA training makes individuals more self-conscious about signs and symptoms that may be everyday human experiences and as such there have been criticisms that MHFA may lead to an over-medicalising of these experiences (DeFehr, 2016).

In addition, the mapping of the MHFA intervention onto the Behavioural Change Wheel (BCW) and its associated element (TDF, COM-B and BCT) has given a glimpse to the theoretical foundation that guided its development for achieving help-seeking behavioural outcomes. The study identified some issues with how the MHFA intervention is applied in practice, highlighting the importance of improving it to ensure that first aiders have the necessary skills to encourage people to seek help. According to Powell & Thomas (2023), interventions are more effective when developed per behaviour change theory. By understanding the underlying factors that drive a particular behaviour, ways to modify it effectively can be identified. This approach can lead to more sustainable changes and better outcomes for individuals and communities alike. The retrospective mapping has identified various active ingredients, also known as behaviour change techniques (BCTs), with social support being the most common across the three data sources. The mapping also highlighted different mechanisms of action to achieve help-seeking behaviour. Although the retrospective mapping identified some BCTs and mechanisms of action, this was only evident in two data sources (Training manual and Role play video). The application of MHFA in practice appears to differ from the expected ALGEE approach. Trained mental health first aiders in the current study, when asked to describe instances when they have applied the ALGEE approach reiterated the non-existence of the approach element as, most times, recipients approached them instead. It is necessary to explore this further by observing a MHFA session in person or recording first aiders while administering a mental health first aid session.

Implications for future research

The primary objective of the present study was to investigate the impact of Mental Health First Aid (MHFA) on the individuals who directly receive it. However, it proved to be a daunting task to accurately identify the actual recipients of MHFA. In this study, participants were requested to self-identify if they had received MHFA

recently. It may be necessary to establish a clear definition of an MHFA recipient for future research.

Furthermore, to examine the effectiveness of MHFA on recipients there is a need for RCTs where participants are allocated directly to MHFA vs an active control and/ no intervention. This might be not easy to achieve in a workplace setting because there are several avenues that employees can access if they need any form of mental health support.

It will also be essential to test the factors identified in this study that contribute to mental help-seeking in the workplace setting to understand how engagement with mental health initiatives in the workplace like MHFA can be maximised, which could also contribute to the understanding of the value of MHFA to its recipients.

To enhance the effectiveness of MHFA intervention, it is recommended that future research adopts a consensus approach that incorporates Behaviour Change Techniques (BCTs) which are specifically targeted towards promoting actual help-seeking behaviour. Additionally, utilizing the COM-B model and TDF in future studies can help identify the changes required in an individual or their environment to facilitate actual help-seeking behaviour in the workplace, thus ensuring that MHFA is developed to achieve its intended outcome.

8.7 Conclusions

This study has provided valuable insights into Mental Health First Aid (MHFA) workplace practices and helped fill existing knowledge gaps. The study highlighted the impact of MHFA on help-seeking behaviour and secondary outcomes. The findings provide recommendations for researchers, organisations, and MHFA England and lay the groundwork for further discussion in this under-researched area. This study is one of the first to explore the effectiveness of Mental Health First Aid (MHFA) from the perspectives of both direct and indirect recipients. The findings suggest that MHFA does not encourage formal help-seeking behaviour, and the study identifies contributing factors to this lack of engagement with formal support. To better understand the benefits of MHFA, further research is necessary to examine its impact on direct recipients. Additionally, there is a need to investigate the factors

that influence mental health help-seeking in the workplace to create tailored MHFA training for mental health first aiders based in a workplace setting.

This research adds significant value to the existing evidence on the effectiveness of Mental Health First Aid (MHFA), both generally and within a workplace context. It also sheds light on the intricacies involved in implementing the intervention in this specific setting, as well as the theoretical mechanisms through which MHFA achieves its intended outcomes. More research is needed to determine the effectiveness of Mental Health First Aid (MHFA) interventions. Specifically, high-quality trials that directly compare MHFA to standard treatment are necessary to confirm its efficacy for recipients.

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Appendices

1. **Trial Outcome Measures**
2. **Email draft to company contact.**
3. **Company Information Sheet**
4. **Employee Information Sheet**
5. **Debrief Sheet**
6. **Interview Schedules.**
7. **Qualitative Information Sheet**
8. **Consent form for Qualitative interviews**
9. **Qualitative Debrief Sheet.**
10. **Ethic Approval from Haplo.**
11. **Initial coding for qualitative analysis.**
12. **Clustering table with interview extracts for qualitative and theoretical study.**

Appendix 1 – Trial Outcome Measure

INTRODUCTION

Thank you for being willing to fill in this questionnaire. All responses are valuable, and we greatly appreciate your help.

Please complete the different measures in whatever order you wish. It would be helpful if you could complete all the measures, but if there are any questions, you feel uncomfortable with; it is fine to leave them out.

Actual Help-Seeking Questionnaire

Below is a list of people who you might seek help or advice from if you were experiencing a personal or emotional problem.

Tick any of these who you have gone to for advice or help in the past 2 weeks for a personal or Emotional problem and briefly describe the type of problem you went to them

	YES	Briefly describe the type of problem
a) Partner (e.g., significant, Boyfriend or girlfriend)*		
b) Friend (not related to you) *		
c) Parent *		
d) Other relative / family member *		
e) Mental health professional (e.g., school counsellor, psychologist, psychiatrist) *		
f) Phone help line (e.g., Lifeline, Kids Help Line) *		
g) Family doctor / GP *		
h) Teacher (year advisor, classroom teacher) *		
i) Someone else not listed above (please describe who this was) _____*		
j) I have not sought help from anyone for my problem.		

SF-12®

This information will help understand how you feel and how well you are able to do your usual activities following a contact with a mental health first aider. Answer every question by ticking the box in front of the appropriate answer.

If you are unsure about how to answer a question, please give the best answer you can and make a written comment beside your answer.

1. In general, would you say your health is:

- ☐ **Excellent (1)**
- ☐ **Very Good (2)**
- ☐ **Good (3)**
- ☐ **Fair (4)**
- ☐ **Poor (5)**

The following two questions are about activities you might do during a typical day. Does YOUR HEALTH NOW LIMIT YOU in these activities? If so, how much?

2. MODERATE ACTIVITIES, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf:

- ☐ **Yes, Limited A Lot (1)**
- ☐ **Yes, Limited A Little (2)**
- ☐ **No, Not Limited At All (3)**

3. Climbing SEVERAL flights of stairs:

- ☐ **Yes, Limited A Lot (1)**
- ☐ **Yes, Limited A Little (2)**
- ☐ **No, Not Limited At All (3)**

During the PAST 4 WEEKS, have you had any of the following problems with your work or other regular activities AS A RESULT OF YOUR PHYSICAL HEALTH?

4. ACCOMPLISHED LESS than you would like:

- ☐ **Yes (1)**
- ☐ **No (2)**

5. Were limited in the KIND of work or other activities:

- ☐ **Yes (1)**
- ☐ **No (2)**

During the PAST 4 WEEKS, were you limited in the kind of work you do or other regular activities AS A RESULT OF ANY EMOTIONAL PROBLEMS (such as feeling depressed or anxious)?

6. ACCOMPLISHED LESS than you would like:

- ☐ **Yes (1)**
- ☐ **No (2)**

7. Didn't do work or other activities as CAREFULLY as usual:

- ☐ **Yes (1)**
- ☐ **No (2)**

8. **During the PAST 4 WEEKS, how much did PAIN interfere with your normal work (including both work outside the home and housework)?**

- ☐ Not At All (1)
- ☐ A Little Bit (2)
- ☐ Moderately (3)
- ☐ Quite A Bit (4)
- ☐ Extremely (5)

The next three questions are about how you feel and how things have been DURING THE PAST 4 WEEKS. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the PAST 4 WEEKS –

9. **Have you felt calm and peaceful?**

- ☐ All of the Time (1)
- ☐ Most of the Time (2)
- ☐ A Good Bit of the Time (3)
- ☐ Some of the Time (4)
- ☐ A Little of the Time (5)
- ☐ None of the Time (6)

10. **Did you have a lot of energy?**

- ☐ All of the Time (1)
- ☐ Most of the Time (2)
- ☐ A Good Bit of the Time (3)
- ☐ Some of the Time (4)
- ☐ A Little of the Time (5)
- ☐ None of the Time (6)

11. **Have you felt downhearted and blue?**

- ☐ All of the Time (1)
- ☐ Most of the Time (2)
- ☐ A Good Bit of the Time (3)
- ☐ Some of the Time (4)
- ☐ A Little of the Time (5)
- ☐ None of the Time (6)

12. During the PAST 4 WEEKS, how much of the time has your PHYSICAL HEALTH OR EMOTIONAL PROBLEMS interfered with your social activities (like visiting with friends, relatives, etc.)?

- ☐ All of the Time (1)
- ☐ Most of the Time (2)
- ☐ A Good Bit of the Time (3)
- ☐ Some of the Time (4)
- ☐ A Little of the Time (5)
- ☐ None of the Time (6)

CLIENT SERVICE RECEIPT INVENTORY (CSRI)

Client ☐☐☐ **Time period** ☐ **Date of interview** ☐☐/☐☐/☐☐
dd m m yy

1. SOCIODEMOGRAPHIC INFORMATION

1.1	Date of birth		☐☐/☐☐/☐☐ dd m m yy
1.2	Sex	1 Female	☐
		2 Male	☐
1.3	Marital status	1 Single/unmarried	☐
	(from a legal perspective)	2 Married	☐
		3 Separated	☐
		4 Divorced	☐
		5 Widow/widower	☐
		9 Not known	☐
1.4	What is your ethnic group?		

		Ethnic group _____
1.5	Country of birth *(Refer to coding sheet)*	Country _____
1.6	Mother tongue	
	1 ☐ National language	
	2 ☐ Other language (but having good knowledge of national language)	
	3 ☐ Other language (and having poor or no knowledge of national language)	

1.7	Number of years of schooling in general education	Number of years schooling	☐☐
1.8	Highest completed level of education	1 Primary education or less 2 Secondary education 3 Tertiary / further education 4 Other general education	
		9 Not known	☐
1.9	What further education or vocational training have you completed or are doing now? *(Tick all boxes that apply)*	Specific vocational training (< 1 year)	☐
		Specific vocational training (> 1 year)	☐
		Tertiary level qualification /diploma	☐
		University degree (undergraduate)	☐

	University higher degree (postgraduate)	☐

1.10 What is the client's diagnosis? _____

1.11 What is the client's current legal status? _____

1.12 How much time, in total, has the client spent in long-stay hospitals?	☐☐ / ☐☐ years / months

2. USUAL LIVING SITUATION

2.1	What is your usual/normal living situation now?	1 Living alone (+/- children)	☐
		2 Living with husband/wife (+/- children)	☐
		3 Living together as a couple	☐
		4 Living with parents	☐
		5 Living with other relatives	☐
		6 Living with others	☐
		9 Not known	☐

2.2 What kind of accommodation is it?

(Refer to manual for definitions)

Domestic / family	1 Owner occupied flat or house.
	2 Privately rented flat or house
	3 Rented from local authority. or housing association/co-operative
Community (non-hospital)	4 Residential or nursing home
	5 Hostel
	6 Sheltered housing
	7 Staffed group home
	8 Unstaffed group home
	9 Foster care
	10 Supported lodging
	11 Independent living

Hospital	1 2 Acute psychiatric ward	
	1 3 Rehabilitation psychiatric ward	
	1 4 Long-stay psychiatric ward	
	15 General medical ward	
	1 6 Homeless / roofless	
	1 7 Other _____	

2.3 ***If client lives in domestic accommodation:*** ☐☐

How many rooms are in this accommodation?

Number of adults

Number of children

How many of these rooms are bedrooms? ☐☐

Yes = 1; No = 2

How many adults live there? ☐☐

(over the age of 18)

Accommodation type *(see Q. 2.2 for code)* ☐☐

And how many children?

(under the age of 18)

☐

2.4 Have s/he lived anywhere else.

in the last 3 months?

If yes: please complete table

EQ5DL

Under each heading, please tick the ONE box that best describes your health TODAY.

MOBILITY	
I have no problems in walking about	☐
I have slight problems in walking about	☐
I have moderate problems in walking about I have severe problems in walking about I am unable to walk about	☐
SELF-CARE	
I have no problems washing or dressing myself	☐
I have slight problems washing or dressing myself	☐
I have moderate problems washing or dressing myself	☐
I have severe problems washing or dressing myself	☐
I am unable to wash or dress myself	☐
USUAL ACTIVITIES (e.g., work, study, housework, family or leisure activities)	
I have no problems doing my usual activities	☐
I have slight problems doing my usual activities	☐
I have moderate problems doing my usual activities	☐
I have severe problems doing my usual activities	☐
I am unable to do my usual activities	☐
PAIN / DISCOMFORT	
I have no pain or discomfort	☐

I have slight pain or discomfort	☐
I have moderate pain or discomfort	☐
I have severe pain or discomfort	☐
I have extreme pain or discomfort	☐
ANXIETY / DEPRESSION	
I am not anxious or depressed	☐
I am slightly anxious or depressed	☐
I am moderately anxious or depressed	☐
I am severely anxious or depressed	☐
I am extremely anxious or depressed	☐

- We would like to know how good or bad your health is TODAY.

- This scale is numbered from 0 to 100.

- 100 means the best health you can imagine.
  0 means the worst health you can imagine.

- Mark an X on the scale to indicate how your health is TODAY.

- Now, please write the number you marked on the scale in the box below.

SOCIAL WELLBEING SCALE (SWBS)

	ITEM	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	The world is becoming a better place for everyone							
2	I believe that people are kind							
3	My community is a source of comfort							
4	I cannot make sense of what's going on in the world							
5	I find it easy to predict what will happen next in the society							
6	I feel close to other people in my community							
7	I have something valuable to give to the world							
8	The world is too complex for me							
9	I have nothing important to contribute to society							

10	I don’t feel I belong to anything I’d call a community							
11	Society has stopped making progress							
12	People who do a favour expect nothing in return							
13	My daily activities do not produce anything worthwhile for my community.							
14	Society isn’t improving for people like me							
15	Most cultures are so strange that you cannot understand them							

GENERAL HELP-SEEKING QUESTIONNAIRE – Original Version (GHSQ)

If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?

Please indicate your response by putting a line through the number that best

1 = Extremely Unlikely 3 = Unlikely 5 = Likely 7 = Extremely Likely

a)	Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	1	2	3	4	5	6	7
b)	Friend (not related to you)	1	2	3	4	5	6	7
c)	Parent	1	2	3	4	5	6	7
d)	Other relative/family member	1	2	3	4	5	6	7
e)	Mental health professional (e.g., psychologist, social worker, counsellor)	1	2	3	4	5	6	7
f)	Phone Helpline (e.g., lifeline)	1	2	3	4	5	6	7
g)	Doctor/GP	1	2	3	4	5	6	7
h)	Minister or religious leader (e.g., Priest, Rabbi, Chaplain)	1	2	3	4	5	6	7
i)	I would not seek help from anyone.	1	2	3	4	5	6	7
		1	2	3	4	5	6	7

j)	I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)_____							

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

Below are some statements about feelings and thoughts.

Please tick the box that best describes your experience of each over the last 2 weeks.

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future					
I've been feeling useful					
I've been feeling relaxed					
I've been feeling interested in other people					
I've had energy to spare					
I've been dealing with problems well					
I've been thinking clearly					
I've been feeling good about myself					
I've been feeling close to other people					
I've been feeling confident					
I've been able to make up my own mind about things					
I've been feeling loved					

I've been interested in new things					
I've been feeling cheerful					

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

Mental Health Literacy Scale

The purpose of these questions is to gain an understanding of your knowledge of various aspects to do with mental health. When responding, we are interested in your degree of knowledge. Therefore, when choosing your response, consider that:

Very unlikely = I am certain that it is NOT likely

Unlikely = I think it is unlikely but am not certain

Likely = I think it is likely but am not certain

Very Likely = I am certain that it IS very likely

1. If someone became extremely nervous or anxious in one or more situations with other people (e.g., a party) or performance situations (e.g., presenting at a meeting) in which they were afraid of being evaluated by others and that they would act in a way that was humiliating or feel embarrassed, then to what extent do you think it is likely they have **Social Phobia**

   ☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

2. If someone experienced excessive worry about a number of events or activities where this level of concern was not warranted, had difficulty controlling this worry and had physical symptoms such as having tense muscles and feeling fatigued

then to what extent do you think it is likely they have **Generalised Anxiety Disorder**

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

3. If someone experienced a low mood for two or more weeks, had a loss of pleasure or interest in their normal activities and experienced changes in their appetite and sleep then to what extent do you think it is likely they have **Major Depressive Disorder**

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

4. To what extent do you think it is likely that **Personality Disorders** are a category of mental illness?

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

5. To what extent do you think it is likely that **Dysthymia** is a disorder

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

6. To what extent do you think it is likely that the diagnosis of **Agoraphobia** includes anxiety about situations where escape may be difficult or embarrassing?

☒Very unlikely ☐Unlikely ☐Likely ☐Very Likely

7. To what extent do you think it is likely that the diagnosis of **Bipolar Disorder** includes experiencing periods of elevated (i.e., high) and periods of depressed (i.e., low) mood?

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

8. To what extent do you think it is likely that the diagnosis of **Drug Dependence** includes physical and psychological tolerance of the drug (i.e., require more of the drug to get the same effect)

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

9. To what extent do you think it is likely that in general in the UK, **women are MORE likely to**

   experience a mental illness of any kind compared to men.

   ☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

10. To what extent do you think it is likely that in general, in the UK**, men are MORE likely to**

    experience an anxiety disorder compared to women.

    ☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

When choosing your response, consider that:

- Very Unhelpful = I am certain that it is NOT helpful
- Unhelpful = I think it is unhelpful but am not certain
- Helpful = I think it is helpful but am not certain
- Very Helpful = I am certain that it IS very helpful

11. To what extent do you think it would be helpful for someone to **improve their quality of sleep** if they were having difficulties managing their emotions (e.g., becoming very anxious or depressed)

    ☐Very unhelpful ☐Unhelpful ☐Helpful ☐Very helpful

12. To what extent do you think it would be helpful for someone to **avoid all activities or situations that made them feel anxious** if they were having difficulties managing their emotions?

☐Very unhelpful ☐Unhelpful ☐Helpful ☐Very helpful

When choosing your response, consider that:

- Very unlikely = I am certain that it is NOT likely
- Unlikely = I think it is unlikely but am not certain
- Likely = I think it is likely but am not certain
- Very Likely = I am certain that it IS very likely

13. To what extent do you think it is likely that **Cognitive Behaviour Therapy (CBT)** is a therapy based on challenging negative thoughts and increasing helpful behaviours?

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

14. Mental health professionals are bound by confidentiality; however, there are certain conditions under which this does not apply. To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

If you are at immediate risk of harm to yourself or others

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

15. Mental health professionals are bound by confidentiality; however, there are certain conditions under which this does not apply. To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

If your problem is not life, threatening and they want to assist others to better support you.

☐Very unlikely ☐Unlikely ☐Likely ☐Very Likely

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
16. I am confident that I know where to seek information about mental illness					
17. I am confident using the computer or telephone to seek information about mental illness.					
18. I am confident attending face to face appointments to seek information about mental illness (e.g., seeing the GP)					
19. I am confident I have access to resources (e.g., GP, Internet, friends) that I can use to seek information about mental illness					
20. People with a mental illness could snap out if it if they wanted.					
21. A mental illness is a sign of personal weakness					
22. A mental illness is not a real medical illness					
23. People with Mental illness are dangerous					
24. It is best to avoid people with a mental illness so that you don't develop this problem					
25. If I had a mental illness, I would not tell anybody					

26. Seeing a mental health professional means you are not strong enough to manage your own difficulties					
27. If I had a mental illness, I would not seek help from mental health professional.					
28. I believe treatment for a mental illness, provided by a mental health professional, would not be effective					

Please indicate to what extent you agree with the following statements:

	Definitely unwilling	Probably unwilling	Neither unwilling or willing	Probably willing	Definitely willing
29. How willing would you be to move next door to someone with a mental illness?					
30. How willing would you be to spend an evening socialising with someone with a mental illness?					
31. How willing would you be to make friends with someone with a mental illness?					
32. How willing would you be to have someone with a mental illness start working closely with you on a job?					
33. How willing would you be to have someone with a mental illness marry into your family?					
34. How willing would you be to vote for a politician if you knew. they had suffered a mental illness?					
35. How willing would you be to employ someone if you knew they had a mental illness?					

SELF-EFFICACY FOR SEEKING MENTAL HEALTH CARE (SF-SMHC)

If you need mental health care, I feel confident in my ability to:	Low Confidence	High Confidence
1. Knowledge		
Find a place to get mental health treatment	☐	☐
Get transport to mental care service	☐	☐
Pay for the transportation to mental health care service, if there is one	☐	☐
Clearly tell the staff what is troubling me	☐	☐
Understand the information given to me by the staff	☐	☐
Be able to follow the recommendations made by the staff	☐	☐
2. Coping		
Cope well with the consequences of seeking care	☐	☐
Cope well with family or friends' reactions to me seeking mental health treatment	☐	☐
Cope well with the attitudes that the staff may have towards me	☐	☐
Overcome any embarrassment I may have about seeking mental health treatment.	☐	☐

DEMOGRAPHICS (Questions about you)

1. Please State the name of the company where you work? _____
2. If appropriate, please state your division/department? _____
3. What is your gender? ☐ Male ☐ Female ☐ Transgender Female ☐ Transgender Male ☐ Gender Variant/Non- Conforming ☐ Not listed (please state) _____ ☐Prefer not to answer.
4. What is your age? _____ Years
5. What is your ethnic group?

   ☐ Indian, ☐ Pakistani, ☐ Chinese, ☐ Bangladeshi, ☐ Asian (other), ☐ Black – African, ☐ Black – Caribbean, ☐ Black – Other, ☐Mixed race, ☐White – UK or Irish, ☐ White – Other European, ☐ White – other, ☐ Other.

6. What has been your highest educational qualification?

   ☐ GCSE, CSE or equivalent, ☐ A Level, ☐ Vocational Qualification (e.g., NVQ), ☐ Degree (BA, BSc), ☐Postgraduate degree (MSc, Ph.D.), ☐Other (please state) _____

7. Occupation (current or last occupation)? _____
8. What is your marital status?

   ☐ Single ☐ Married ☐ Divorced or separated ☐ living with partner ☐ Widowed.

9. Have you ever been diagnosed with a mental illness? Yes or No?
10. Please state your diagnosis. ----------
11. Have you ever experienced any form of mental health distress as a result of work or otherwise?
12. Have you attended work when you have been unwell? ----------
13. Please state the number of times in the last 12 months when you have attended work whilst you have been unwell. ----------
14. Does your organization have any current mental health initiative? ☐ Yes ☐ No
15. Have you had any support from any mental health initiative in your current workplace? ----------
16. Kindly indicate the type of support.
    - Mental Health First Aid
    - Mindfulness
    - Others ----------
17. Have you been a recipient of an intervention from a Mental health first Aider in your workplace? ☐ Yes ☐ No
18. How many times have you have a session with the named Mental Health First Aider? _____

Appendix 2: Email draft to company contact.

Dear (Person's name)

Thank you for agreeing to participate in the EMPOWER Research study on Mental Health First Aid. We would like your help launching the survey element with everyone who works at [name of company]. We would be grateful if you could circulate the wording below by email or letter to all employees. This explains what the project is about and how they can join in.

'Dear Colleagues

[Company name] is interested in supporting everyone's mental wellbeing at [company name], and this will involve getting some people trained in Mental Health First Aid. We are also taking part in a research project evaluating the impact of what we are doing, including Mental Health First Aid, in the workplace.

Mental Health First Aid (MHFA) teaches people how to identify, understand and help someone who may be experiencing a mental health issue. It is designed to teach people to listen, reassure and respond, even in a mental health crisis – and potentially stop a crisis from happening. There is a detailed information sheet about this research project in the link below.

As part of our involvement, the research team are seeking information about your mental health and wellbeing through a confidential online survey. The survey takes about 30-45 minutes to complete. Completing the survey is easy: just click on the link below or copy & paste the link in your internet browser field to begin the survey.

https://lsbupsychology.qualtrics.com/jfe/form/SV_5cYC8r3VxKybADb

Thank you for your time: Please be assured that all responses to the survey will be treated confidentially (we will never see your survey forms) and will be available only to the research team'.

Appendix 3: Company Information Sheet

Thank you for agreeing to take part in the pilot part of the research study.

This is some short guidance as to what the research will involve for you and your employees. Please take time to read the following information carefully.

Please do contact us if there is anything that is not clear or if you would like more information. Contact details can be found below.

What will your company's participation entail?

- Companies are either grouped into the intervention arm (those companies receiving MHFA training as soon as possible) or into the control arm (Those companies not receiving MHFA training straightaway).
- Around the time, you agree to be part of the research we will ask you to send an email to all your employees. A copy of the wording of this email is attached with this guidance. The email tells your employees how they can take part in the research.
- Your employees will be asked to complete various measures of mental health and well-being via an online survey, at several time-points at the very start and then again, 6-8weeks after mental health first aiders have been trained. The survey should take no longer than 30 minutes to complete.
- Each time we want the survey completed we will email you twice, one-week apart, asking you to send a gentle email reminder to employees to complete the survey.
- Between the two times, we ask employees to complete the online survey. We will arrange with you to come and visit your workplace and interview some employee (these will have volunteered to be interviewed), this will include some of those trained in MHFA. The interviews will last 60-90 minutes and will only take place once in this pilot part of the research.
- Around the time you sign the MOU agreeing to participate in the study, we will ask you to complete a form providing brief details about your company. The information we will ask for will include: the total number of employees, location(s), start of employment dates and finish dates for all employees employed at the start of the study and for the previous 12 months; days absent due to sickness for all employees for the past 12 months (this data will be anonymized as we will not want employee names) and finally we will ask you to advise us of the best measure of productivity and we will ask you to supply this for a similar period to the above data.

- **What will happen to the data provided?**
  Your data will be transcribed onto an electronic spreadsheet. This spreadsheet will not contain your name or other details, which make you or anyone in your company personally identifiable. All information received from your organization or employees will be handled in a confidential manner. Electronic data will be held on a password-protected server and will be stored securely at London South Bank University.

- **If there are any concerns?**

  If you have a concern about any aspect of this study, you should ask to speak with the researcher who will do their best to answer your questions. The lead investigator for this project is Prof. Patrick Callaghan, (callagp3@lsbu.ac.uk 0207 815 7603). Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the London South Bank University Research Ethics Committee (sasethics@lsbu.ac.uk). You can also contact Dr Graham Durcan, the research project manager (mhfaproject@centreformentalhealth.org.uk) 07957595593

  Other members of the research team are:

- Opeyemi Atanda (PhD/Research Assistant) – atandao2@lsbu.ac.uk 07459870906.
- Dr. Kerry Wood (Senior Research Fellow) - woodk6@lsbu.ac.uk 02078155466.

Appendix 4: Employee Information Sheet

Evaluation of Mental Health First Aid from the Perspective of Workplace End users (EMPOWER)

Participant Information Sheet

You are being invited to take part in a research study. Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part and contact us if you have any questions (contact details below). If you would like independent advice on whether you should take part in this study, we advise you speak to (Senior Manager- Contact Person at the organization).

Why is this study being conducted? Mental Health First Aid (MHFA) is a mental health literacy intervention that teaches people how to identify, understand and help someone who may be experiencing a mental health issue. It is designed to teach people to listen, reassure and respond, even in a crisis – and potentially stop a crisis from happening. However, there has been no investigation of the impact of MHFA on recipients of the intervention and the companies that provide MHFA. This study aims to evaluate the effectiveness of MHFA.

Why have I been invited to take part? You have been invited to participate because you work for an organization that has signified an interest in incorporating MHFA.

Who is eligible to take part? Employees within the organizations who have signified interest in MHFA intervention and met other inclusion criteria are eligible to take part. The study would exclude employees of organizations that have already introduced MHFA; organizations who have declined to participate in adopting MHFA training, and organizations that are unable to provide data on staff absenteeism, presentism and other productivity data. <u>If these criteria exclude you from the study or you think your organization fits the exclusion criteria, please contact the research team (on the details below) for further clarifications.</u>

It is up to you to decide whether to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw anytime up to the submission of the findings of the study for publication. To do this, simply email the research team (see below) stating the participant number you have been given (or your name if this is not available) and your request to withdraw.

What will happen if I take part? If you are willing to participate, you will be asked to give us some information about your experience either as a participant of the intervention (i.e.,

A Mental health first aider) or as a recipient of MHFA and/or an employee of the organization where the intervention has. Your organization must have been allocated randomly to one of two intervention arms. One consists of organizations that participated in MHFA training and intend to implement the intervention. The other comprises employees of organizations that have not yet implemented MHFA. In both arms, participants will be asked to complete various measures at several time-points. After the intervention has been given, some people will be approached as either participants (i.e., mental health first aiders) or recipient of the intervention if they are willing to discuss the impact of the MHFA through semi-structured interviews.

Are there any advantages or risks to taking part? It is not anticipated that you will be at any disadvantage or suffer any risk from this study. MHFA England will administer the intervention and two independent researchers will closely observe this. More broadly, the findings of the study may be used to support efforts to improve mental health in the UK workplace.

Can I withdraw once I have consented to take part? As we outline above, you are free to withdraw from the study and not have your information included at any time up to when the research is submitted for publication. However, after that time, it would be impossible for the researcher to comply.

What will happen to data I provide? Your data will be transcribed from the paper copies onto an electronic spreadsheet. This spreadsheet will not contain your name or other details, which make you personally identifiable. All information received from you will be handled in a confidential manner – outcome measures will be stored in a locked filing cabinet in an environment locked when not occupied. Electronic data will be held on a password-protected server. Your consent form and hard copies of the data you provide will be held until five years after the results have been published. Anonymous data from the study may be held securely for an indefinite period in electronic format and may be lodged with a data repository service so other interested parties can examine it. We will use the data to explore the impact of MHFA Intervention, and the results will be published in a peer review journal.

Who is funding this study? This study is being funded by Mental Health First Aid England. Full details can be found (Registry number for trial).

Who has reviewed this study? This study has been reviewed and given favourable opinion by London South Bank University –Research Ethics Committee.

What if I have concerns? If you have a concern about any aspect of this study, you should ask to speak with the researcher who will do their best to answer your questions. The Researcher responsible for the day-to-day operation of the study is Ope Atanda, (atandao2@lsbu.ac.uk). The Senior Research Fellow for this project is Dr Kerry Wood, (woodk6@lsbu.ac.uk, 02078155466). The lead investigator for this project is Prof. Patrick Callaghan, (callagp3@lsbu.ac.uk, 02078157603). Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the University Research Ethics Committee (sasethics@lsbu.ac.uk

Appendix 5: Debrief Sheet

Evaluation of Mental Health First Aid from the Perspective of Workplace End users (EMPOWER)

Thank you very much for your participation in this research.
Below you will find details about the study, for your information; including details of how to make contact with the research team should you have any questions/concerns.

The objective of the research was to evaluate the effectiveness and cost-effectiveness of MHFA from a workplace end users' perspective.

You are free to withdraw at any time during the actual study period (Until Feb 2022); participation would no longer be required following this time. To do this, simply email the research team (atandao2@lsbu.ac.uk) stating the participant number you have been given (or your name if this is not available) and your request to withdraw. You do not have to give a reason for your withdrawal.

If you develop, any distress during your time of participation, kindly feel free to contact www.mind.org.uk or www.samaritans.org for further support and guidance.

If you have any other concerns about any aspect of this study, you should ask to speak with the researcher who will do their best to answer your questions. The Researcher responsible for the day-to-day operation of the study is Opeyemi Atanda (atandao2@lsbu.ac.uk). The Senior Research Fellow for this project is Dr. Kerry Wood (Wood6@lsbu.ac.uk) while the lead investigator is Prof. Patrick Callaghan, (callagp3@lsbu.ac.uk. Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the University Research Ethics Committee (sasethics@lsbu.ac.uk).

Appendix 6: Interview Schedules

Mental Health First Aiders

- Thank you for agreeing to speak to me.
- Introduce yourself.
- Briefly talk about the Project and what we hope to get out of the interviews today. Share the Participants information sheets and consent form with the participants for signatures.
- Get the participants to introduce themselves and ask them how they would like to be addressed)
- Reassure participants about confidentiality, encouraging them to speak about their experiences freely in their own words. (Mention that any discussions that might signify any threat of danger to the participants or others would be shared with a designated member of the research as a risk management measure)
- Start with the questions.

S/N	Questions	Prompts	Objectives Covered
1	**What made you sign up to the MHFA training? (askFocus them to describe their motives in detail) What was the experience of participating in the Online MHFA training?** How has the experience shaped your understanding of mental health crisis in general?	• Explore their previous knowledge and experience of mental health. • Encourage them to share key learnings from the training. • Ask them to give examples of ways they have support someone following the training. • Explore any further areas they feel the training could have addressed but did not. • Explore how issues around mental health were handled at work before attending the training. Try to understand that this might not relate to them directly so ask them to share any experience that might come to mind. • Focus on how they applied the ALGEE 'model', ask for examples of how they have gone through each stage of the model: Approach the	The perceived development of their knowledge, skills and competencies in addressing mental health issues in the workplace and beyond.

		person, assist with crises; Listen non-judgmentally; Give support and information; Encourage the person to seek professional help and encourage them to seek other forms of support.	
2	**How has settling back into work been after the training? How have you found your new role? Has it changed anything? (in terms of acceptance, implementation, and visibility?)**	**Implementation** • Explore how they have implemented their learning. • Explore practical measures taken to implement learning after training. • Explore the support mechanisms that were in place to support the implementation of learning. **Visibility** • Explore what they have done to ensure visibility? (Note that this might not be within their jurisdictions, so you can ask what the organization has done instead). • Explore the support from the organization/senior management to ensure visibility. • Explore the different working situation and how it has affected ensuring visibility. **Acceptance** • Explore issues around the acceptance of this form of support by their colleagues.	Their perceptions of any organizational challenges and obstacles of mental health first-aiders in delivering MHFA interventions and the perceived impact on company culture
3	**Let us talk about instances where you have applied your MHFA skills. Could you provide any examples of when you were able to help someone?**	• Explore any issues around hierarchy that made sessions difficult. • Encourage them to give examples of any difficulty experienced. • Explore how helpful the sessions with recipients have been.	The perceived efficacy of MHFA in their workplace

4	**Has anything changed for you since you became an MHFA? For example, do you feel differently about your relationships with your colleagues, or about the general work culture?**	• Explore what the atmosphere was like beforehand. • Explore what has contributed to the positive or negative atmosphere in the workplace. • Explore any form of stresses associated with playing their role as an MHF-Aider. • Explore with them changes attitudes within the organization, amongst staff members, across hierarchy (Encourage them to give examples)	• Their relationships with colleagues, including management of stress and emotions in managing their own and colleagues' mental health issues
5	**Before we roundup, let's talk about *presenteeism*. What is your understanding of presenteeism? That is people being at work despite not feeling their best or not feeling able to work.** **(Encourage them to give examples of instances where they have attended work whilst feeling unwell)**	• Explore if their state of being unwell was mental health or physical health related. • Explore the reasons for carrying on with work. • Explore how they feel about carrying on with work despite being unwell. • Explore the potential contributory factors to carrying on with work. • Explore how the difficulty experienced when trying to be open impact on carrying on with work.	
6	**Is there anything you were expecting to be discussed we didn't talk about? (Use this opportunity to touch on the questions that**		

	were not properly explored)		

• Conclude the interview by explaining to the participant that quotes from the interviews could appear in publications but would not be identifiable.

• Thank you for your time.

Employee Interview Questions

- Thank you for agreeing to speak to me.
- Introduce yourself.
- Briefly talk about the Project and what we hope to get out of the interviews today. Share the Participants information sheets and consent form with the participants for signatures.
- Get the participants to introduce themselves and ask them how they would like to be addressed.
- Reassure participants about confidentiality, encouraging them to speak about their experiences freely in their own words. (Mention that any discussions that might signify any threat of danger to the participants or others would be shared with a designated member of the research as a risk management measure)
- Start with the questions.

S/N	**Questions**	**Prompts**	**Objectives covered**
1	**Let us start off with what it is like sharing your concerns/experiences at work?**	• Explore the sort of difficult experiences that they would have loved to share with someone at work. • Explore how they felt about these experiences and how they managed their feelings. • Explore the barriers to sharing their concerns/experiences at work.	• Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence.

			• Any perceived changes in relationships at work because of their mental health challenge, as well as the support they have received from the MHFA trained staff. This would include relations across the spectrum, such as relations with line managers as well as relations with equal level colleagues
2	**Following the concerns discussed earlier, do you consider these concerns linked to your mental health? If so, what is your understanding of how they are linked?**	• Explore their understanding of mental health. • Explore whether they think the mental health issues are due to long standing issues and/or life-events or are more specifically related to work stresses. • Do they think their 'well-being' is compromised by work issues? • How do they think about mental health issues? As an illness or a response to events that have occurred…? Or both…? • Were there any barriers in being able to talk about any of these concerns?	Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence.
3	**You talked about the way you felt about this concerns earlier, how did you manage those feelings and the other support you explored?** **(Note to researcher: With regards to daily**	• Explore the support available both at work & outside work. • Ask them about any other forms of support they received (At work or Outside work) (Formal or Informal) • Explore the impact of the pandemic on the sort of support	The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the

	work? Community? Family?) **(Encourage them to give examples)**	that was available. (At work or outside work) • Find out how helpful the support they explored. (Encourage them to give examples). • Explore the impact of the pandemic on how they manage their feelings.	help received, as well as more generic aspects of their experience, such as warmth, empathy etc.
4	**Reflecting on the introduction of MHFA in your organization, what is the purpose of MHFA?**	• Explore what has changed since the introduction. • Explore how visible are the opportunities to get help from a trained MHF-Aiders. • Explore any impact on current work climate. • Explore room for improvements in the implementation of this new initiative.	The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received, as well as more generic aspects of their experience, such as warmth, empathy etc.
5	**Before we roundup, lets talk about presenteeism. What is your understanding of presenteeism?** **(Encourage them to give examples of instances where they have attended work whilst feeling unwell)**	• Explore if their state of being unwell was mental health or physical health related. • Explore the reasons for carrying on with work. • Explore how they feel about carrying on with work despite being unwell. • Explore the potential contributory factors to carrying on with work. • Explore how the difficulty experienced when trying to be open impact on carrying on with work.	• Any significant changes to workplace relations and organizational behavior because of seeking help for mental health challenges. • Their perceptions of relations outside of work, including an improvement in being able to discuss mental health with others. • Exploration of recipients' perceptions of the

		• In your view, is there any benefit from presenteeism (to the individual to the organisation)?	social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence.
6	**Is there anything you were expecting to be discussed that was not discussed during the interview? (Use this opportunity to touch on the questions that were not properly explored)**		

• **Conclude the interview by explaining to the participant that quotes from the interviews could appear in publications but would not be identifiable.**

• **Thank you for your time**.

Recipients Interview Questions

- Thank you for agreeing to speak to me.

- Introduce yourself.

- Briefly talk about the Project and what we hope to get out of the interviews today.

- Share the Participants information sheets and consent form with the participants for signatures.

- Icebreaker (Get the participants to introduce themselves and ask them how they would like to be addressed)

- Reassure participants about confidentiality, encouraging them to speak about their experiences freely in their own words. (Mention that any discussions that might signify any threat of danger to the participants or others would be shared with a designated member of the research as a risk management measure)

S/N	Questions	Prompts	Objectives Covered
1.	**Can you tell me a little about the background to the issues that you shared with the mental health first aider?**	• When did they first arise? • How did they develop over time? • What led to their decision to share at work? • What led to the decision to the approach MHFA more specifically?	• Any perceived changes in relationships at work because of their mental health challenge, as well as the support they have received from the MHFA trained staff. This would include relations across the spectrum, such as relations with line managers as well as relations with equal level colleagues
2.	**After you made the decision to approach the MHFA, what was your experience of sharing your concerns at work?**	• Explore what sort of experiences they have shared with someone at work. • Ask them who they shared their experiences with? i.e., did they share with a colleague and then an MHFA or did they go straight to the MHFA?	• Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social

		• Explore how they felt about these experiences and how they managed their feelings. • Explore the barriers to sharing their concerns/experiences at work.	actualization, and social coherence.
3.	**Following the concerns discussed earlier, do you consider these issues to be linked to your mental health? If so, what is your understanding of how they are linked?**	• Explore their understanding of mental health. • Explore whether they think the mental health issues are due to long standing issues and/or life-events or are more specifically related to work stresses. • Do they think their 'well-being' is compromised by work issues? • How do they think about mental health issues? As an illness or a response to events that have occurred…? Or both…? • Were there any barriers in being able to talk about any of these concerns?	• Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence. • The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received, as well as more generic aspects of their experience, such as warmth, empathy etc.
4.	**After you had spoken to the MHFA, how would you describe the kind of support you received and the ways in which it affected your feelings and your mental health?**	• Explore the support available both at work & outside work. • Ask them to describe what specific qualities the MHFA was able to deliver – this should be quite detailed, so ask for examples and particular incidences of positive and/or negative. • Ask them about any other forms of support they received (in addition to	•The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received, as well as more generic

	(Note to researcher: With regards to daily work? Community? Family?) **(Encourage them to give examples)**	the MHFA). (At work or Outside work) (Formal or Informal) • Explore the impact of the pandemic on the sort of support that was available. (At work or outside work) • Find out how helpful the support they explored. (Encourage them to give examples). • Explore the impact of the pandemic on how they manage their feelings.	aspects of their experience, such as warmth, empathy etc.
5.	**Let us talk about your encounter with your MHF-Aider, what are your thoughts on the help you received?** **How did the opportunity come about?** **What do you think is the purpose of MHFA?**	• Explore how helpful MHFA was. • Explore how they felt about their encounter with the MHF-Aider. (Safety, warmth, confidentiality) • Explore the impact of the help received from the MHF-Aider on their concerns raised earlier. • Explore further the impact on relationships at work?	•The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received, as well as more generic aspects of their experience, such as warmth, empathy etc.
6.	**Before we roundup, let's talk about *presenteeism*. What is your understanding of presenteeism? That is people being at work despite not feeling their best or not feeling able to work.**	• Explore if their state of being unwell was mental health or physical health related. • Explore the reasons for carrying on with work. • Explore how they feel about carrying on with work despite being unwell. • Explore the potential contributory factors to carrying on with work.	• Any significant changes to workplace relations and organizational behavior because of seeking help for mental health challenges. • Their perceptions of relations outside of work, including an improvement in being able to discuss mental health with others.

	(Encourage them to give examples of instances where they have attended work whilst feeling unwell)	• Explore how the difficulty experienced when trying to be open impact on carrying on with work. • In your view, is there any benefit from presenteeism (to the individual to the organisation)?	• Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence.
7.	**Is there anything you were expecting to discuss that we didn't talk about? (Use this opportunity to touch on the questions that were not properly explored)**		

• **Conclude the interview by explaining to the participant that quotes from the interviews could appear in publications but would not be identifiable.**

• **Thank you for your time**.

Senior Manager's Interview Questions

- Thank you for agreeing to speak to me.
- Introduce yourself.
- Briefly talk about the Project and what we hope to get out of the interviews today. Share the Participants information sheets and consent form with the participants for signatures.
- Icebreaker (Get the participants to introduce themselves and ask them how they would like to be addressed)
- Reassure participants about confidentiality, encouraging them to speak about their experiences freely in their own words. (Mention that any discussions that might signify any threat of danger to the participants or others would be shared with a designated member of the research as a risk management measure)
- Start with the questions.

S/N	Questions	Prompts	Objectives covered
1.	**Can you tell me a bit about how MHFA was introduced in your organisation?**	• **How did you hear about it?** • **Did you understand who it was for? And what it was for?** • Explore what has changed since the introduction. • Explore how visible are the opportunities to get help from a trained MHF-Aiders. • Explore any impact on current work climate. • Explore room for improvements in the implementation of this new initiative.	The perceived quality of support for mental health challenges from the MHFA trained staff – here, we would explore with the participant in-depth the nature and quality of the help received, as well as more generic aspects of their experience, such as warmth, empathy etc.
2.	**Considering your role as a senior manager, can you share some thoughts on the implementation of MHFA in your workplace?**	• Explore the challenges faced whilst trying to implement MHFA. • Explore the recruited and selection strategy adopted in getting employees trained. • Explore the support given to the first aiders following the training.	Any significant changes to workplace relations and organizational behaviour because of seeking help for mental health challenges.

		• Explore the impact of the intervention on the culture within the workplace. • Explore any challenges currently been faced in the implementation of MHFA. • Explore other areas they would like to see changes to augment the current effort in implementing MHFA	
3.	**Before we roundup, let's talk about *presenteeism*. What is your understanding of presenteeism?** **(Encourage them to give examples of instances where they have attended work whilst feeling unwell)**	• Explore if their state of being unwell was mental health or physical health related. • Explore the reasons for carrying on with work. • Explore how they feel about carrying on with work despite being unwell. • Explore the potential contributory factors to carrying on with work. • Explore how the difficulty experienced when trying to be open impact on carrying on with work. • In your view, is there any benefit from presenteeism (to the individual to the organisation)?	• Any significant changes to workplace relations and organizational behavior because of seeking help for mental health challenges. • Their perceptions of relations outside of work, including an improvement in being able to discuss mental health with others. • Exploration of recipients' perceptions of the social impact through the lens of their social well-being: social integration, social acceptability, social contribution, social actualization, and social coherence.
4.	**Is there anything you were expecting to be discussed that we did not talk about? (Use this opportunity to touch on the questions that were**		

	not properly explored)		

- **Conclude the interview by explaining to the participant that quotes from the interviews could appear in publications but would not be identifiable.**

- **Thank you for your time**.

Appendix 7: Qualitative Study Information Sheet.

Evaluation of Mental Health First Aid from the Perspective Of Workplace End UseRs – EMPOWER

PARTICIPANT INFORMATION SHEET

Thank you for indicating an interest in participating in this study.

You are being invited to take part in a research study. Before you decide whether to take part, it is important for you to understand, why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part and contact us if you have any questions (contact details below). If you would like independent advice on whether you should take part in this study, we advise you speak to (Contact Person at your organization).

Why is this study being conducted? Mental Health First Aid (MHFA) is a mental health literacy intervention that teaches people how to identify, understand and help someone who may be experiencing a mental health issue. It is designed to teach people to listen, reassure and respond, even in a crisis – and potentially stop a crisis from happening. However, there has been no investigation of the impact of MHFA on recipients of the intervention and the companies that provide MHFA. This study aims to evaluate the effectiveness of MHFA.

Why have I been invited to take part? You have been invited to participate because you work for an organization that has signified an interest in incorporating MHFA.

Who is eligible to take part? Employees within the organizations who have signified an interest in MHFA intervention are eligible to take part. The study would exclude employees of organizations that have already introduced MHFA; organizations who have declined to participate in adopting MHFA training, and organizations that are unable to provide data on overall staff absenteeism, presenteeism and other productivity data. There are no set exclusion criteria for employees themselves. If these criteria exclude you from the study or you think your organization fits the exclusion criteria, please contact the research team (on the details below) for further clarifications.

It is up to you to decide whether to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw anytime during the actual study period (Until Feb 2022); participation would no longer be required

following this time. To do this, simply email the research team (see below) stating the participant number you have been given (or your name if this is not available) and your request to withdraw.

What will happen if I take part? If you are willing to participate, you will be asked to give us some information about your experience either as an employee of the organization where an intervention has been given, as an employee of the organization where an intervention has not yet been given or as

trained mental health first aider. Your organization must have been allocated randomly to one of two arms of the study. One arm involves organizations that participated in the active intervention arm that has been trained on MHFA. The other arm comprises organizations that have been offered a brief consultancy on promoting mental health & well-being in the workplace. Employees of both treatment arms would also be approached. In both arms, participants will be asked to complete various measures, relating to mental health and well-being, at several time-points (3-Month Post Intervention, 6-Months, 1-year, 2-years Post-Intervention). As part of the survey, you will be asked for your date of birth which would be used as log in pin for future follow-up measures. Kindly be assured that your contact details would be treated with the utmost confidentiality. The survey at this time-points should take no longer than 20 minutes to complete. After the intervention has been given, some individuals will be contacted and asked if they are willing to discuss the impact of the MHFA through semi-structured interviews.

Are there any advantages or risks to taking part? It is not anticipated that you will be at any disadvantage or suffer any risk from this study. MHFA England

will administer the intervention and two independent researchers will closely observe this. More broadly, the findings of the study may be used to support efforts to improve mental health in the UK workplace.

Can I withdraw once I have consented to take part? As we outline above, you are free to withdraw from the study and not have your information included at any time up to when the research is submitted for publication. However, after that time, it would be impossible for the researcher to comply.

What will happen to the data I provide? Your data will be transcribed from the paper copies onto an electronic spreadsheet. This spreadsheet will not contain your name or other details, which make you personally identifiable. All information received from you will be handled in a confidential manner – outcome measures will be stored in a locked filing cabinet in an environment locked when not occupied. Electronic data will be held on a password-protected server. Your consent form and hard copies of the data you provide will be held until five years after the results have been published. Anonymous data from the study may be held securely for an indefinite period in electronic format and may be lodged with a data repository service so other interested parties can examine it. We will use the data to explore the impact of MHFA Intervention, and the results will be published in a peer-review journal.

Who is funding this study? This study is being partly funded by Mental Health First Aid England. Full details can be found **(Clinicaltrials.gov - NCT04311203)**.

Who has reviewed this study? This study has been reviewed and given favourable opinion by London South Bank University –Research Ethics Committee.

What if I have concerns? If you have a concern about any aspect of this study, you should ask to speak with the researcher who will do their best to answer your questions. The lead investigator for this project is **Prof. Patrick Callaghan, (callagp3@lsbu.ac.uk, 02078157603).** Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the University Research Ethics Committee (sasethics@lsbu.ac.uk).

Kindly confirm your interest to being interview with a reply to this email to arrange a time.

Appendix 8: Consent Form for Qualitative Interviews

Research Project Consent Form

Evaluation of Mental Health First Aid from the Perspective of Workplace End users (EMPOWER) Ethics approval registration Number: ETH2021-0068 Name: Opeyemi Atanda

Researcher Position: Lead researcher

Contact details of Researcher: atandao2@lsbu.ac.uk

Taking part (please tick the box that applies)	Yes	No
I confirm that I have read and understood the information sheet. I have had the opportunity to ask questions.	☐	☐
I understand that my participation is voluntary and that I am free to withdraw at any time during the period of the study (Until Feb 2022), without providing a reason.	☐	☐
I agree to take part in the above study.	☐	☐
I agree to be contacted again if required to participate in any other part of this study.	☐	☐

Use of my information (please tick the box that applies)	Yes	No
I understand my personal details such as phone number and address will not be revealed to people outside the project.	☐	☐
I understand that my data may be quoted in publications, reports, posters, web pages, and other research outputs.	☐	☐
I agree for the data I provide to be stored (after it has been anonymised) in a specialist data centre and I understand it may be used for future research.	☐	☐
I agree to the interviews being audio recorded.	☐	☐

_____	_____	_____
Name of Participant	Date	Signature
	_____	_____
_____		
Name of Researcher	Date	Signature

On completion, please keep one copy for yourself and return the other to the research team in the SAE provided.

If you wish to speak to someone not directly related to the research, please contact the Chair, London South Bank University Research Ethics Committee sasethics@lsbu.ac.uk.

Appendix 9: Qualitative Debrief Sheet

Evaluation of Mental Health First Aid from the Perspective of Workplace End users (EMPOWER)

Thank you very much for your participation in this research.
Below you will find details about the study, for your information; including details of how to contact the research team should you have any questions/concerns.

The objective of the research was to evaluate the effectiveness and cost-effectiveness of MHFA from a workplace end users' perspective.

You are free to withdraw at any time during the actual study period (Until Feb 2022); participation would no longer be required following this time. To do this, simply email the research team (atandao2@lsbu.ac.uk) stating the participant number you have been given (or your name if this is not available) and your request to withdraw. You do not have to give a reason for your withdrawal.

If you develop, any distress during your time of participation, kindly feel free to contact www.mind.org.uk or www.samaritans.org for further support and guidance.

If you have any other concerns about any aspect of this study, you should ask to speak with the researcher who will do their best to answer your questions. The Researcher responsible for the day-to-day operation of the study is Opeyemi Atanda (atandao2@lsbu.ac.uk). The Senior Research Fellow for this project is Dr. Kerry Wood (Wood6@lsbu.ac.uk) while the lead investigator is Prof. Patrick Callaghan, (callagp3@lsbu.ac.uk. Finally, if you remain unhappy and wish to complain formally, you can contact the Chair of the University Research Ethics Committee (sasethics@lsbu.ac.uk).

Appendix 10: Ethics approval letter

Dear Opeyemi Olusegun

Application ID: ETH1819-0122

Project title: Doctoral Research Project

Lead researcher: Mr Opeyemi Olusegun Atanda

Researcher: Professor Patrick Callaghan

Researcher: Dr Kerry Wood

Researcher: Professor Paula Reavey

Researcher: Dr Eleni Vangeli

Thank you for submitting your proposal for ethical review.

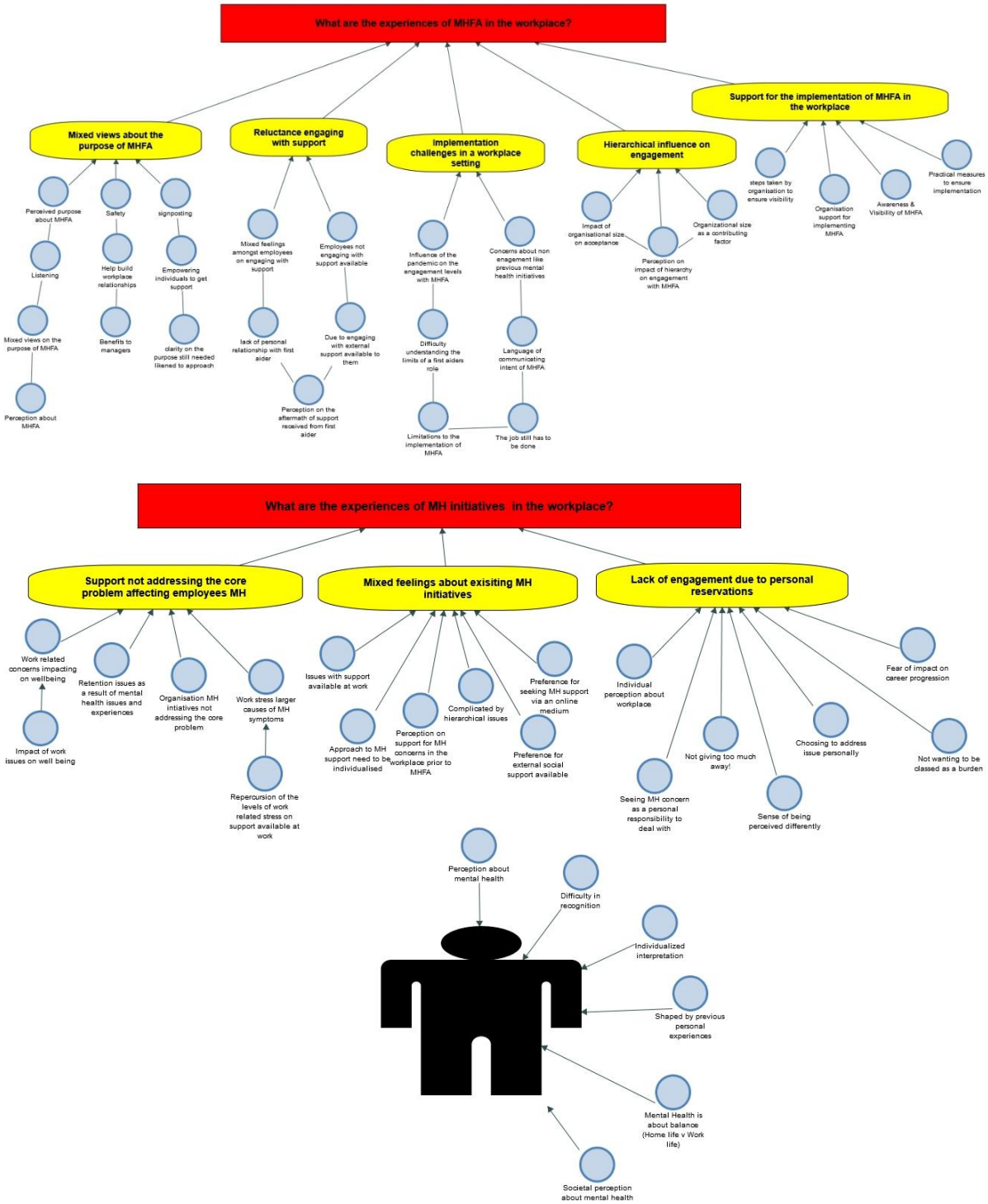
I am writing to inform you that your application has been approved.

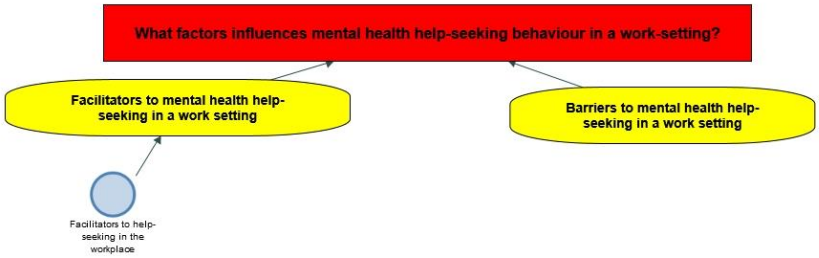
Your project has received ethical approval from the date of this notification until 16th July 2023.

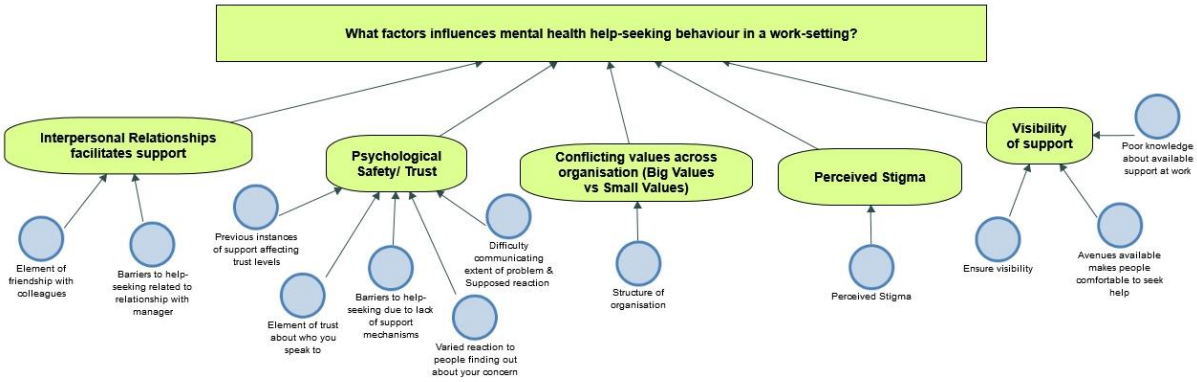
Yours

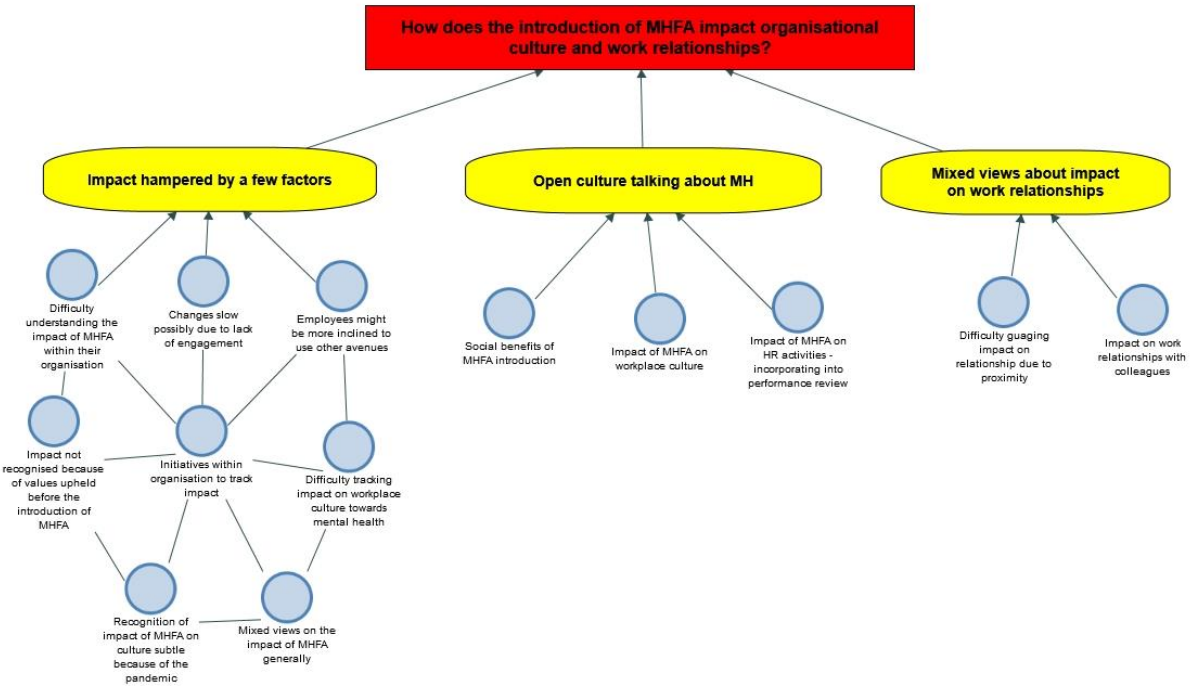
Rita De Oliveira

Appendix 11: Initial coding clusters for qualitative analysis




What factors influences mental health help-seeking behaviour in a work-setting?
Facilitators to mental health help-seeking in a work setting
Barriers to mental health help-seeking in a work setting
Facilitators to help-seeking in the workplace


What factors influences mental health help-seeking behaviour in a work-setting?
Interpersonal Relationships facilitates support
Psychological Safety/ Trust
Conflicting values across organisation (Big Values vs Small Values)
Perceived Stigma
Visibility of support
Element of friendship with colleagues
Barriers to help-seeking related to relationship with manager
Previous instances of support affecting trust levels
Element of trust about who you speak to
Barriers to help-seeking due to lack of support mechanisms
Difficulty communicating extent of problem & Supposed reaction
Varied reaction to people finding out about your concern
Structure of organisation
Perceived Stigma
Ensure visibility
Poor knowledge about available support at work
Avenues available makes people comfortable to seek help


How does the introduction of MHFA impact organisational culture and work relationships?
Impact hampered by a few factors
Open culture talking about MH
Mixed views about impact on work relationships
Difficulty understanding the impact of MHFA within their organisation
Changes slow possibly due to lack of engagement
Employees might be more inclined to use other avenues
Impact not recognised because of values upheld before the introduction of MHFA
Initiatives within organisation to track impact
Difficulty tracking impact on workplace culture towards mental health
Recognition of impact of MHFA on culture subtle because of the pandemic
Mixed views on the impact of MHFA generally
Social benefits of MHFA introduction
Impact of MHFA on workplace culture
Impact of MHFA on HR activities - incorporating into performance review
Difficulty guaging impact on relationship due to proximity
Impact on work relationships with colleagues

Appendix 12: Clustering table with interview extracts for qualitative and theoretical study.

RQ	Themes	Quotes
How does MHFA promote help-seeking?	Providing practical and emotional support.	“I think it was just nice to have someone, I mean, first of all, just to have someone to turn to talk to and to be, and also to talk to without the kind of without kind of the reciprocal pressure that might sound a bit strange” (REP) “She did come to me for a conversation around, you know, I'm not feeling very great now, I'm struggling to cope with getting my work done. But equally, it was something like when I explored it with her that she was used to handling her own mental health problems in the past, and very much knew how to look after herself, and to go to the doctor, and she had this, you know, she hasn't grown conversations with a therapist. So, it wasn't really a case of having to offer any particularly practical support. But we did sort of talk it through, you know, it was an opportunity for her to discuss some of her problems”. “so, what I have done is pointed them towards some resources, open the door for a chat, if they want to chat, sometimes most of the time, they don't know,

		they just want to know where the resources are because they can't find them on our internal sites." "if they wanted a doctor's appointment, they can go make one, I can go with them, if they want to signpost some of the, like the talking, as well. So, make sure that we have some information on sort of the local offers that we have."
	Empowering psychological & physical capabilities	"you know, and then that discussion, we were kind of like, or maybe it's time to kind of basically talk to the doctor, and that just kind of gave you that extra little push to, you know, talk to my GP, and kind of get antidepressants." "And I actually have another doctor's appointment next week to discuss that. And, you know, I didn't feel the need to kind of talk back to the Mental Health First Aider and have serious trauma in a serious way." "The key focus of like the conversation we had, in terms of it was really good opportunity to talk trying to establish if there was anything within the working environment, which was kind of causing issue there

		and try and offer some practical who steps in that area in terms of, you know, working with any of her managers and things like that to balance workload or whatever." "it was useful to like work through the model and listen to what they had to say, give them support and resources in terms of advice of where maybe helpful for them to look at more information on and then encourage sort of the professional help." "Subsequently, yes, gone and got some further support. So, I did use some of the signposting although like I found my own signposting afterwards."
	Enabling culture to support MH concerns	"I guess part of it is just having someone listen. And maybe not always provide feedback, but just the listening process in another itself is a helpful intervention." "Someone listening to me and telling me, you know, I don't know, it's that thing about having a having an ear." "We work in a company that is basically healthcare professionals, we all work with the NHS, I think there

		is probably quite a high level of awareness of mental health. And I mean not expert, but I think there is no resistance at all to talking about issues around health, I think that's got better over the years as well." "if there was something in place where you know, it was almost like sick leave, but I guess it's one of those grey areas where it's not a physical illness, but you know, you need to have some time to kind of recover and you know, feel okay, I guess that I think that would be really helpful was putting that in a place where there is a form I guess, of sick leave that's not kind of physical ailments if that makes sense." "People can be we like to encourage openness anyway. But just kind of letting people have information as well, sometimes people will just have no idea where to go or who to go to or how to begin anything."
What are the experiences of MHFA in the workplace?	**Ambiguity about the purpose of MHFA**	"I think the overall purpose is to provide people with a safe space where they can go to talk about things that affect them" (REC)

		“And that's where the role of mental health first aider comes to play really, also to raise awareness of how serious some of these issues are, that affect people” (REC) “That there is somebody that you can go to in the workplace and talk about what's mentally going on for you and then for them to be able to signpost you tell you what's available.” (EDW) “Ideally, to improve employee well-being.” (RWD) “I guess I see it as maybe a place you could go to where if you didn't feel comfortable talking to your direct team or manager. And if you didn't feel comfortable talking to HR, where you could go to sort of still be able to get some help and support in a sort of work setting.” “I think it's particularly important for people who may be like the, you know, potential anonymousness of you know, some unnamed person that they don't come across with at work, who's going to be confidential and all the rest of it, particularly if they don't have the support mechanism in their personal life” (ELW)

		“I'm assuming it’s mental health in its broadest sense, in that, you know, you might be having financial difficulties, which is impinging on your mental health because you're getting anxious, so they can point you in the right direction.” (EMK) <u>Clarity about purpose</u> “I don't know if it provides the level of continuity that people need to have this conversation with the same person.” “Whether they could approach that person, but that's quite difficult because they're not trained, counsellor. You know, how do you do that?” (EMK) “I guess it was maybe a kind of a lack of understanding for my part about the role of the Mental Health First Aider and what support they can give us?” (ECW) “It sort of feels like to me, they did this initiative because it was, you know, really good at the time, and now they've ticked a box and moved on to the next thing.” (ECW) “So, you then just wonder how much of this is then

		just kind of ticking the boxes of looking at all these wonderful things we do for people but are they actually taking it seriously"? "It's not a formal thing, you can just come and have a chat. I don't think that's been clear enough. So, people are thinking, Oh, well, I don't want people thinking I've got x, y and Zed wrong with me. I'm just a bit stressed at the moment." (MPT)
	Ambivalent feelings about MHFA support	"But when I was talking to some, some colleagues in a separate team meeting, and they're asking me about what it actually is that I do as part of that role, sort of explaining it to them. Nearly all of them were saying, well, if we were having a problem, why would we? Why would we talk to somebody at work about it." (TLP) "I don't think it's very clear to people that you can, you can disclose that you're suffering with or you're dealing with, you know, a particular issue or that you have a particular condition

		that you live with, and you know that you're going through a bit of a rough time, and it might take you a few months to get back up on your feet." (TLP) "I think the negative could be some people just go, Oh, I just got these groups of people don't really know, you know, what they're doing" (TNB) "A lot of people may see this as a corporate initiative rather than a Mental Health First Aid initiative" (TPP) "what happens next to kind of resolve this issue? And I think that's the problem. I don't feel like necessarily when, in fact, things or felt like they are under pressure that it's necessarily resolved" "if I'm going through the problem, I still don't have clarity on how that's resolved within the company, I guess" (EIW).
	Anticipated Stigma (Subtheme)	

		I think people worry about, well, if I say I've got this, or if work find out that I'm dealing with this right now. Or if work find out that I'm really stressed with a workload and I'm going for this promotion, I'm not going to get that promotion, or they're going to think I'm not capable of doing my job." (TLP) "perhaps not knowing that mhfa First Aiders personally there may be sort of apprehension there, too (TPT)" "I just do still wonder whether there's a bit of a stigma about asking for help internally. And I think that could be a barrier". (PTP) "I would have a certain I'd be a little bit apprehensive about reaching out to someone in the company, I'd rather reach out to someone outside of the company." (TPP) "And I'd say it's not the lack of the team trying and supporting you, but it's more my mentality that I don't necessarily want people at work to know how unnecessary feeling is to that extent." (EIW)

	MHFA not addressing core concern affecting wellbeing (Subtheme)	“we're talking about wellbeing very important; my team are helping bring in benefits to help support people like access to headspace meditation apps and all the rest of it. But we're not getting down to the, the sort of the root of the problem, which is just the way our work is organized at the moment and the expectations of everyone that's been placed on teams by the senior management, so there's just not a recognition that there's a problem or that it's their responsibility to address the problem” (ELG) “we do like these pulse surveys, so they're anonymous employee surveys, and we've been given feedback through them on a really regular basis saying there is problems. And the results will come out and they'll go oh, look, there's a problem. And then there's no follow up, there's nothing done on it until the next survey, and then they're surprised that the problem has not gone away.” (ELG) “if they're really serious about somebody's mental health, it is about making sure that we have that support mechanism of resources around individuals” (EMB)

	Risk of disclosure (Subtheme)	“I think I could see where there would have been opportunities that I could have shared this, but I think I chose not to, I think, largely because I think with all these sorts of mental health things, you have to feel ready to cope with what comes back, if that might make sense, which would all be very positive, I'm sure and helpful, but I kind of thought about it a number of times, and then just thought, I suppose it really was more down to me not feeling comfortable, or ready to sort of talk about it” (EDC) “And I was dubious as to what her response would be, which is one of the reasons why I was holding back until it reached a point” (ELG) “it might be because they don't know what to do with that information. You know, if you've got something physically wrong with you, you know, like, when I broke my leg, it's like, well, if there's anything I can do, you want me to go shopping for you want me to give you a lift, there's something they can do. But with mental health, I

		suppose it's like, well, I don't know what I can do."(EMB) "I probably have a bit of a thing where I'm like, I don't want to talk to you about the personal stuff that's going on in my life because I think you're going to perceive me differently." (EIW) I think it's the confidence to know how to communicate it without saying too much, you know, how to filter the information that you're telling people about yourself. (REP) I do feel like I can speak to my manager about it. But I think I'm always very conscious about how hard-working she is how much she's got on her plate as well. (EIW) And I've always erred on the side of caution, really, especially in the workplace, about how much I give away my life outside of work. (REP) Because I think they would worry that it would get back to their manager. And depending on the relationship they already have with their manager, that could present more of a problem for that individual, then be, then it'd be beneficial. (MLS)

		I think there's a stigma. And that I think that centres around my mental health will could affect my performance. And I don't want people to know that my performance isn't that good because of my mental health. And I think that's in a corporation; I think that's probably a big barrier. (MPT)
	Workplace as a complex setting	“It's a really hard one to gauge because I get the sense that in this business, everyone suffers from communication overload. So, I think sort of the well-being initiatives that we had in the past, I think, were not well received as well, because of the way messaging was done. And I think we might be guilty of the same thing. I think

		what's different with this, is that there are actual sort of physical people that are representing MHFA. Whereas the other initiatives were kind of done. They seemed like corporate initiatives of well-being." (MPT) I think the difficulties are often the boundary. So, the boundary of knowing where to stop to support that colleague, so how many kind of how many times do they come back to you, when they've got a concern? (SKW) The difficulty is what happens when someone comes to you. And it's just like the thing, the thing that I need in terms of help is not triaging, because I have triaged this over and over again, what happened in that person comes back three times in the space of a month, four times in like the space of six months, that kind of thing with the same problem. (RNM) I think getting a sense of the awareness and the understanding of mental health across global organization can sometimes be challenging, you know, you know, dealing with teams in India, Sri Lanka, China, New York, Australia and the UK

	Shifting Boundaries in responsibilities (Investment in support vs Need for performance)	“Well, I suppose the main one that comes to mind is their availability, because we're already busy. So, I can't imagine they stay at home waiting for people to call them I suppose we're all also cognizant of that we all understand that we're all busy.” (EAR) “That's the stress with which I will go to a mental health first aider and say, can I talk this out? I'm really tired. I am struggling a lot. Because of this. I've talked to my manager asked for this done this. There's not really any sense of doing that. Because the answer is always well, you know, we still have to meet this target.” (RNM) “For me, myself, personally, very hard, very hard. And, and we've had monthly meetings with the Mental Health First Aiders, and they're sharing similar feedback, I think that's one of probably one of the toughest pieces is actually sparing that time because you know how important it is and you know that you want to give that immediate support.” (SKW)

	Hierarchical Influence on engagement	We don't really get to know, people that senior level very well. So, I guess people are very cautious about what they say publicly within teams. (ECP) I do kind of wonder if you know, hierarchies and kind of that that inter movement can have a kind of a bit of an impact on people and people worry about how they're perceived or not perceived. (EBP) the idea of someone more senior, talking to someone kind of more junior about their mental health feels kind of inappropriate (EBP) if someone is having trouble with a manager, having trouble with a reportee, that's a direct thing, and they can have impacts on people's mental health, or people can end up fixating on them as a kind of a symptom (EBP) “I would say yes. And I'd say a lot of it is down to the stigma, which is why I said one of my key motivations is to reduce that stigma, and perception and whether it comes and also, I'm not sure it's necessarily down to our senior leaders, as opposed to people's perception, which is down to their own. I guess, thoughts on hierarchy, leadership, etc. But yes, I do. I don't think you'll find

		anyone who thinks that hierarchy is not an issue because of various things.”
What factors influences mental health help-seeking behaviour in a work setting?	**Interpersonal Relationships facilitate support.**	“So, I've spoken to one of my line managers about it, and a couple of people who have become who I see more friends rather than just colleagues now.” (ECG) Though I work remotely, I have gotten to know, you know, a good fair few colleagues. And that will make it easier for people to approach me and for me to get to know them and look out for signs that they might be struggling. (MHE) I guess that could be a real barrier for somebody, you know, if they have to go through their manager, then they might not have as much as support as somebody else. (ECG)
	Psychological Safety/Trust	I would certainly in this company, I would not talk to them about it again, I'd rather leave the business than talk to them about it.(ELG) So, I've got a couple of colleagues where they've

		had problems as well. And we talk about it generally amongst ourselves, but I wouldn't trust the management team to talk to them about anything like this, because I've I felt they've used it as a weapon against me. (ELG) I kind of opened up to a couple of colleagues about my previous experiences and things like that, in kind of a confidential way, you know, just people that I trust within the organization (ECG) I don't know if people don't feel comfortable just going and talking to a stranger and that's where it's difficult because would you talk to a stranger that you work with? Or would you then go and talk to a stranger that is a professional help, and we all know that, you know, professional help really difficult, because it's needed by so many people. (MNB) I think I could see where there would have been opportunities that I could have shared this, but I think I chose not to, I think, largely because I think with all these sorts of mental health things, you have to feel ready to cope with what comes back, if that might make sense, which would all be very positive, I'm sure and helpful, but I kind of thought about it a

		number of times, and then just thought, I suppose it really was more down to me not feeling comfortable, or ready to sort of talk about it, sort of, once you share it, you've kind of it's out there for other people to refer to you know, and as I say, they would mean in a positive way (EDC) I was quite anxious just about that, you know, because it's quite a big thing to share (ECG) “I don't think people feel secure, to, to come and say, hey, you know what, I'm actually, I'm really struggling with things at home at the moment. And I don't know what to do. I don't think they want to kind of talk to people in a work capacity, they'd rather approach a colleague who they trust who they're friends with, and talk to them on a friend level, rather than a kind of more formal level, I think they think what we do is quite official, and we've tried to break that down.” (TLP)

	Balancing the risk of disclosure (Subtheme)	So, I guess people are very cautious about what they say publicly within teams. Within our own team, we have a kind of safe environment and can talk fairly openly but there have been instances of people speaking out, and then soon afterwards leaving the organization. (REC) And I was dubious as to what her response would be, which is one of the reasons why I was holding back until it reached a point (ELG) working in a small team, sometimes you worry about the people around you knowing what's going on and thinking that they will never, that they'll judge you but that you know, that it will affect your work and that take you know, take up the odour and get that special light or sympathy. Some people really struggled with that. (MLE) I would always feel uncomfortable still do if I want to talk to my boss about any mental health things, because I think the stigma people have with mental health is that, you know, if I go and tell my boss, I'm feeling a bit stressed or a bit anxious, they'll then think, well, maybe they're not, you

		know, up to the job anymore. It's those sorts of attitudes, isn't it? But yeah, that I think people have in their heads. (MNB) *"it felt a very hard decision at the time to say I need to put work to one side because there's always that part you know the professionalism in me wants to still come into work and deliver good work, but I knew I just couldn't mentally cope with. I couldn't cope with anything more in my head basically, at that point".(REM)*
	Conflicting values across organisations (Big values vs small values)	I think getting a sense of the awareness and the understanding of mental health across global organization can sometimes be challenging, you know, you know, dealing with teams in India, Sri Lanka, China, New York, Australia and the UK. (RWP)
	Perceived Stigma	I think there was all there was a stigma attached with you know, if you had talked to somebody, even best friends and sort of said you know, I'm on antidepressants or something like that, I think they would be flummoxed, they wouldn't know what to

		say in relation to that. (EMB) it felt a very hard decision at the time to say I need to put work to one side because there's always that part you know the professionalism in me wants to still come into work and deliver good work, but I knew I just couldn't mentally cope with. I couldn't cope with anything more in my head basically, at that point. (RKM) And I think a lot of us are very reticent, because we're concerned that then people will kind of start making judgments about us about our performance about things like that. (REB)
	Visibility of support.	People can be we like to encourage openness anyway. But just kind of letting people have information as well, sometimes people will just have no idea where to go or who to go to or how to begin anything.
What is the impact of MHFA on organisational culture and work relationships?	**Incorporating mental health/wellbeing chats in organisational structures and processes.**	But when we do our performance review, and I are planning like, What are your objectives for the year? I'm really encouraging my team to sit

		down and think about the mental health plan. (RWP) So, we talk about people's learning plans, and what are you going to learn this year and what's your development plan? Well, why don't we talk about what helps them with their well-being at work? (RWP) we have a fairly strong culture of looking out for each other, certainly in terms of mental and physical health, I suppose. But I suppose more so with mental health because it's less visible. Especially as we've been working at home a lot. So, the company has made an effort to raise awareness and to help each other. Be more connecting (EAR) we've got a continuous conversation process of appraisal system. And as part of that well-being is something that is mentioned. So that we can actually be quite proactive in identifying when people are, are struggling (MMH)
	Communication openness about mental health.	So being able to talk to kind of somebody who has that understanding already

		of kind of the industry of your job, obviously, that helps, it just makes it much easier to have that conversation and feel like oh, I, you know, this thing is really stressing me out as an example. (REB) I think just a more openness, and then that is kind of been resulted in kind of having kind of the Mental Health First Aider and trying to also inform people about what is available. (REB) And I do think that it's encouraged people to talk about it more. Because before, it was almost a bit of a taboo subject, mental health (ECG) I do think that since we've introduced it, it just helps to break down that stigma that people can't talk about their mental health. (SKW) it's definitely been positive. You know, if people were reluctant before, I mean, I can't say certain people were, it's just good to know that there's a lot more kind of systems in place, and that people are, you know, hearing people talking positively about the work that we're doing on mental health, which is good to know. And just the whole team kind of being aware and being more involved

		has been a real change. (MLE)
	Changes in the way MH is talked about overtime (Subtheme)	Everything has become much more open, it's become much more fine, you know, not at all weird or strange to say, you know, I've been really struggling with this. (EDC) as time has gone on, and as the company have kind of talked about mental health a bit more in the last couple of years. And then that meant that I kind of opened up to a couple of colleagues about my previous experiences.(ECG) And what we'll find is people are a lot more vocal. Now. So rather than, you know, the sideways coffee machine conversations and they don't want to travel not really happy with this, we're finding that actually people are more forthcoming with that information which then

		allows us to manage it a lot better and a lot quicker than necessarily before. (MAT)
	Fostering empathetic relationships	I think it's positively impacted. I think, you know, I'm more aware of what they might be going through. So, we had a situation where one of my colleagues or team member was getting quite anxious about a particular project. It wasn't going very well. Well, I think he felt quite bad, it was causing him a lot of stress. So, I made a point of in messaging him to make sure that he was okay. Making myself available via video call. So yeah, I think it's definitely a positive impact. (MHE) I think it certainly maybe a lot more kind of aware of how I speak with people I find I use if I know if someone like every morning, we have a check in with our team particularly because we're working out of the office, away from the office at the moment. And so, we have a check in every morning just to see everyone's getting on. And if somebody says, Oh, I'm having a really bad day, so I didn't have a very good weekend, I find myself asking different questions in different ways, because

		I'm trying to get more of an insight of is, you know, is there something else that I maybe be aware of here? Or is this person trying to say, I need some support today, but they don't want to ask it directly. And I try and approach the conversation in a different way. (MLS)