**Gender and health literacy: men’s health beliefs and behavior in Trinidad**

**Abstract**

**Background:** Gender variations in health literacy have implications for engagement in preventive behaviours and the uptake of health services, especially in areas such as the Caribbean where there are marked disparities in life expectancy and health service utilisation.

**Methods:** A self-reported questionnaire was used to examine men’s concepts of health, their help-seeking behaviours and their functional and interactive health literacy. 248 men across the life course participated at three sites in Trinidad. Data were analysed using descriptive statistics, with free-text responses analysed thematically.

**Results:** Men were concerned about, and accepted responsibility for their own health but social norms concerning sickness and masculinity were barriers to accessing health services. Almost one-third (31.5%) sought advice from a health care service when they were last sick because they were prompted to do so by their wife/partner or family. Levels of functional and interactive health literacy were not high among older men, who were reliant on health care professionals to communicate health messages. There was an age divide in e-health literacy.

**Conclusion:** There is little published evidence on men’s health literacy, particularly from Caribbean countries such as Trinidad and Tobago. This study highlights the importance of the design and implementation of specific policies focusing on men’s health. A major challenge is to engage with men who do not access health services. (217 words)

**Key words:** health literacy; interactive health literacy; men’s health; Caribbean; Trinidad and Tobago; health promotion

**Background**

Gender differences in health outcomes exist in many countries and marked disparities in life expectancy and use of services have prompted attention to men’s health (Baker, 2016). Several factors influence men’s survival rates, including behaviours associated with male norms of risk-taking and adventure and health behaviour paradigms related to masculinity (Hawkes and Buse, 2013; Lim *et al.*, 2012). Men are more inclined to participate in risky behaviors, less likely to visit a doctor when they are ill and when they do see a doctor, are less likely to disclose the symptoms of disease or illness (Lim *et al.*, 2012; UCL Institute of Health Equity, 2013). Alongside differences in disease prevalence, there are also gender differences in the utilization of preventive health services and the adoption of health promotion messages (Robertson *et al.*, 2014; Robertson *et al.*, 2008; Yousaf *et al.*, 2015) as well as in perceptions of health and the body more generally.

Functional and interactive health literacy are two domains of the broader concept of health literacy (Nutbeam 2000). Functional health literacy represents the basic skills sufficient for individuals to obtain and apply relevant health information and its association with health outcomes has been well researched. Interactive health literacy is less well-explored, and describes the literacy, cognitive and social skills required by individuals to extract health information, derive meaning from different forms of health communication and apply this to changing circumstances (Nutbeam, 2000). This becomes the capacity to interact more confidently with information providers and importantly with health care professionals. Health literacy has been recognised as a determinant of health where low literacy levels are associated with less healthy choices, riskier behavior, worse health, less self-management and greater hospitalization (Kickbusch *et al.*, 2013). Health literacy varies across contexts, cultures and settings, and research has concentrated on the implications for particular population groups, specifically by age, ethnicity and disease type. However, little attention has been given to gender and very few studies explore male health literacy. Studies of men’s knowledge and awareness of health suggest that men’s health literacy is directly related to their help-seeking and adoption of protective behaviours (Robertson, 2007). However, there has been little focus on the relationship between men’s health literacy and health outcomes (Peerson and Saunders, 2011). A better understanding of this important determinant as it relates to men’s health can contribute to health promotion strategies that better target men’s health experiences by examining language usage, settings and delivery context (Davey *et al.*, 2015).

This paper investigates the role health literacy plays in the help-seeking behaviour of men in Trinidad and Tobago, a country experiencing major changes in gender roles due to a shift to tourism and service economy (Lewis, 2002), but where there is little evidence about men’s health status (Ocho and Green, 2013) although there are marked gender disparities and an increasing gap in life expectancy between men (68 years) and women (75 years) (Wang *et al.*, 2016). Limited previous research suggests that Trinidadian men are less compliant with treatment than women and less satisfied when they attend health services (Babwah *et al.*, 2006). The draft national policy on gender and equality (Office of the Prime Minister, 2018: 69) refers to:

“The acceptance of illness and disease by males is often viewed as a sign of weakness, and men are reluctant to seek preventative testing or monitoring of health conditions particularly in areas related to male reproductive organs and sexual and reproductive health. Male resistance to prostate cancer screening is one of the serious male health seeking behaviours that need to be addressed. The high incidence of male morbidity and mortality due to knife and gun violence, motor vehicle accidents, drowning and homicide establishes male risk-taking behaviours as a critical issue to be addressed.”

Gendered approaches to health improvement in policymaking tend to focus primarily or exclusively on women rather than both genders. For example, the UN Women ‘He for She’ campaign aims to achieve equality by encouraging men as agents of change against inequalities faced by women and is a position also adopted by most national governments. Only Australia, Brazil and Ireland have attempted to address men’s burden of ill health through the adoption of national male-centred strategies, such as the “Men’s Sheds” movement, which provide safe and inclusive spaces for men to gather or engage in meaningful projects with other men (Keenaghan, 2015). The focus in Trinidad and Tobago is to address men’s health needs. Although an existing body of research has interrogated masculinities in the Caribbean (Case and Gordon, 2016; Reddock, 2004), it is not known how masculinities are shaped by relational perceptions (men’s development and change in relation to women’s empowerment in occupational and domestic arenas). Within a postcolonial context of the Caribbean, ‘history’ and ‘place’ are central to shaping men’s social identities (Moolman, 2013), such as the different and historical masculinities of both slavery and the indentured servitude of Indian males in Trinidad and Tobago.

**Methods**

The challenges of recruiting men for research on health are well documented including lack of time and concerns about knowledge deficits and reluctance to self-disclose (Laws and Drummond, 2002). To this end, the study chose to recruit men outside of clinical or service settings in neutral public spaces where the focus could be on everyday behavior rather than illness experiences (Oliffe, 2010). In Trinidad, men are most likely to congregate at sports events, barbers, rum shops and informal camaraderie settings such as the “liming” on street corners (Linnan *et al.*, 2014) but access to these venues would be difficult for the women researchers. The study took place on International Men’s Day which is widely promoted in Trinidad and Tobago on 19th November each year and when men might be receptive to questions about their health which is a focus of the event. Men were recruited through advertisements in the local press, radio stations and social media for the project as a men’s health project for International Men’s Day with the incentive of refreshments. Men were conveniently recruited based on their attendance and participation and the channel through which they heard about the activities was not used as a proxy for determining inclusion in the research project. Data were collected at three different locations over a two day period as part of the schedule of activities. The first was at an event that targeted young people and adult males with an emphasis on father/son relationships at a tertiary education Institution in the north central region of Trinidad. The second was, at a mobile health clinic in southern Trinidad where respondents completed the survey whilst they awaited health monitoring activities, some of whom required the survey be read out to them. The third, in the evening at a library, opposite the street market in Port of Spain.

As men’s health is a poorly understood and rarely addressed issue in the Caribbean, a purposeful focus group was held to inform the development of the data collection tool with 17 health professionals (15 nurses and 2 administrators) to obtain their perspectives on how men discuss health issues. One moderator led the discussion and one moderator took notes. This highlighted that any background data should include ethnicity as the focus group suggested a difference between East Indian and African views and that socio-economic information would not be answered but occupation could be used as a proxy. The focus group described a dominant construct of masculinity as strength and invincibility in relation to health and a parallel performative expectation of men as providers. The phrases used in the focus group helped to inform the cultural sensitivity of the language of the subsequent instrument for data collection. The focus group also informed the specific health-related items about the issues for which men might seek advice or support from a health facility. The value of the focus group in the formative stage of the research was also shown in the highlighting of trust and credibility as an issue for health information in the Caribbean where there is widespread use of what is termed “bush medicine”.

An 18-item self-reported questionnaire was developed following the focus group that was low cost, able to be administered quickly and could either be hosted on a tablet or administered as a hard copy (Paulhus and Vazire, 2007). It focused on three core constructs: concepts of health, help-seeking behaviours, and understanding and access to health information. Two questions were asked using the same wording as the Health Survey for England regarding assessment of health and prevalence of any long-standing conditions. Following the focus group, the instrument included an open question which was introduced to capture perceptions about health: “what is a healthy man?”. Informed by literature on men’s health and the unwillingness of men to seek help and the statistics on male morbidity, questions were asked about when and for what issue a man might seek help including blood in faeces, feeling down and impotence and the prompts and barriers to accessing health care. A section on understanding and access to health information investigated access to sources of information including digital access, levels of understanding including the ability to read instructions and communication with health care professionals. The questionnaire combined multiple choice and free text responses. Questions were pilot tested for accessibility and construct validity. The questionnaire was explained to respondents with assurance of anonymity and an information sheet was also provided. Respondents provided oral consent before completing the survey. Data were anonymised at the analysis stage. Ethical approval was obtained from the University of West Indies (Ref CEC418/01/18).

Data were inputted by the researchers and analysed using SPSS version 21 to calculate descriptive statistics and frequencies and statistical tests using Pearson’s correlation were carried out. The qualitative free text responses were analysed using thematic analysis (Braun and Clarke, 2006).

**Results**

There was a 100% response rate for the questionnaires since they were administered and returned during the period of activities although not all questions were completed. The sample comprised 248 men with ages ranging from 16-80 years, from all ethnic groups with Africans as the most dominant (49.6% n=123) and different occupational backgrounds with professionals (28% n=69) the most dominant occupational group as shown in Table 1.

[insert Table 1 Demographic Profile of Respondents]

No significant associations were found across ethnicity or occupation and some weak relationships were found with age. Men of all age groups regarded their health as an very important priority (68.2% n=168) with 81.9% (77 of 94) of men in the older age groups (47 years and over) more likely to see health as a very important priority in life compared to those under 47 years (56.6% (81 of 143) (r-0.148:p<0.05). All of the young men aged 25 and under thought it acceptable for men to take responsibility for their own health compared to 82% (n=60) of those aged 47-66 years (r0.134: p<0.05). In general, men were of the view that it is acceptable to indicate that they are ill (75.4% n=166). The majority of respondents (63.3% n=157) believed that behavioural factors such as information and encouragement to lead a healthy lifestyle are more important to health than structural factors such as decent housing, education and jobs (34.2% n=85).

When asked to describe “What is a healthy man?” free text responses showed a range of narratives. The most frequent response related to emotional health e.g. ‘happy’ (9.3% n=23); physical health explained as being ‘strong’ (8.4% n=21); and economic health being ‘wealthy’ (8.9% n=22).

Notwithstanding the high number of men who accessed services within the last year (67.3% n=169), a number of barriers to help-seeking were identified. These included personal e.g. time (22.2% n=55); emotional e.g. fear/worry (15.7% n=39); perceived ability to cope or resilience (11.3% n=28); and a perception that help seeking suggests weakness (9.7% n=24). Younger individuals were more likely to seek help if recommended by friends/peers/family while older individuals were more likely to do so based on the symptoms they were experiencing. There were clear differences in how men viewed health conditions and their severity which affected their response to health seeking as shown in fig 1.

[insert Figure 1 Timeliness and reasons for seeking help]

Men would seek immediate help if there was blood in the faeces (64.1% n=129), palpitations (62.9% n=124) or if they experienced impotence (53% n=104). Help was sought after a few weeks if they had experienced a persistent cough (32.8% n=67) or back pains (29.5% n=62). Men would seek help only if told by a significant other to do so for excessive drinking (14.7% n=28) or violent behaviour (11.9% n=24) although a greater number said they would never seek help for these issues (27.9% and 19.3% respectively) . Similarly, whilst 20% of men (n=41) would seek help if they were feeling down, 28.5% (n=57) reported that they would never seek help for feeling down (28.5% n=57).

Men’s self-reported ability to find and use health information varied across the life course as most men indicated that their first action if they were concerned about their health would be to speak with a health care professional (30.7% n=77) followed by searching the Internet (24.3% n=61).

[insert Figure 2 Respondents’ first action if concerned about their health]

Men under 46 years of age (24.6% n=61) were more likely to use the Internet for health information but it was only trusted ‘a lot’ by 18.5% of all respondents (n=46). Social media was not trusted at all by 23.8% (n=59) of respondents, while a similar number would trust their friends and families 25.8% (n=64). By contrast, health care professionals were widely trusted and found to be easy to talk to 70.1% (n=174). Although most men claimed to read instructions about medication (64.1% n=156), there were varying levels of functional literacy across the age groups. A total of 15.3% (n=38) of men “often” and 22.7% (n=56) “sometimes” need someone to help them when given information to read by a doctor, nurse or pharmacist and 9.3% (n=23) often need help filling in official documents. Men with higher levels of functional literacy who would read instructions for new medication were also more likely to find it easy to speak to a health professional (r0.245, p<0.05). Further analysis showed a weak correlation between the need for help to fill out official documents and professional status (r0.303; p<0.01).

**Discussion**

Health literacy has been analysed with respect to specific illnesses, age groups and settings. While gender effects have been noted in some studies (Clouston *et al.*, 2016) very little research has examined how gender may contribute to health literacy. This study has shown that a health literacy lens needs to be applied to men’s health that goes beyond simply investigating men’s access to health information (Peerson and Saunders, 2009). In this study, perceptions about masculinities were explored by questions on the men’s concept of health and the acceptability of help-seeking. Contrary to previous studies of masculinities and health (O’Brien *et al.*, 2005; Sloan *et al.*, 2010) men in this study were concerned about health matters and did not accept that men should not or do not have responsibility for their own health. Three narratives are however evident. Firstly, that health means being wealthy with 11.5% of men (n=22) reporting this. Brown and Chevannes (2001) refer to Trinidadian men as breadwinner where men need to have a good income and self-worth is dependent on being a provider. The second narrative is that of the stalwart, which encourages men to be physically and mentally strong, to be emotionally inhibited, and to avoid displaying signs of weakness such as saying one is sick or depressed (Case and Gordon, 2016, p.187). This narrative reflects the machismo image and portrayal of masculinity consistent with cultural norms and expectations of men in general (Crawshaw, 2007) as well in the Caribbean context (Lewis 2003). This may account for the respondents’ willingness to seek immediate assistance for health-related issues that may be construed to impact negatively on their physical health or sexual health as in the example of impotence. The third narrative is that of a healthy man being “happy”, a depiction in common with a holistic view of health but which is in contrast to a study of self-reported health status in Jamaica in which respondents clearly distinguished between health as physical health and quality of life (Bourne et al, 2010)

This study in Trinidad and Tobago shows a reluctance to seek help particularly in relation to mental or emotional health including substance use, which may be perceived as incompatible with masculine norms by many men of all ages (Galdas, 2013) and where, in a social environment, men are expected to be carefree and enjoy life and show little or no concern for their health. In common with other studies, Trinidadian men require strategies to legitimise engaging in protective behaviours and accessing health services (O’Brien *et al.*, 2005). This study shows that partners and family can be crucial not only in encouraging men to go and seek help but also so that men fulfil their perceived role as family providers and stay healthy.

Health literacy capabilities are a key social determinant of health (Kickbush et al., 2013). Functional health literacy depends on the levels of basic literacy in the population. In this study, 15% of men often need help reading and 9% need help filling in official documents. Although 2015 UNESCO estimates show that literacy amongst men in Trinidad and Tobago is recorded as over 99% (EFA Global Monitoring Report Team, 2015), demographically representative National Literacy Surveys in the 1990s showed 22% of adults were unable to cope with everyday reading and writing, which was defined as being unable to read well enough to read labels and fill out forms (Adult Literacy Tutors Association, 1994). Multi-dimensional assessments of health literacy such as the Health Literacy Questionnaire (HLQ; Osborne *et al.*, 2013) include questions around understanding of medication dose and frequency, which a significant proportion of our respondents would not be able to answer. Health literacy interacts with other variables such as age and the older respondents in this study relied on health care professionals to communicate health messages. Cost and access acted as barriers resulting in far fewer opportunities to access health care. With a growing number of older people living with chronic conditions such as diabetes and heart disease in Trinidad (Institute for Health Metrics and Evaluation, 2015), there is a need for older adults to fully engage with all aspects of health care.

This study explored men’s willingness and abilities to engage with health care professionals and health services. Although there was a reluctance to seek help for some issues and a view that men should manage their health without seeking help except from partners, men reported a willingness to ask questions of health care professionals who were the first point of contact and widely trusted although concerns about the encounter and ‘what the health professional would say’ were also identified as a barrier to accessing services. Health literacy is relational and depends upon both the individual’s competencies and the complexity of the context in which they operate. In Trinidad and Tobago, a lack of insurance and cost of health care and use of folk medicine inhibited help-seeking. There was little evidence of men seeking health information independently and only limited use of digital health via the Internet, social media and resources from health care organisations. Digital capabilities in Trinidad and Tobago may contribute to a widening social gradient in literacy across the lifecourse as older men were far less likely to use the internet for information.

Age is of course, not the only variable that impacts on notions of health, but that the younger men in this study were less likely to adopt stereotypical views on masculinity about ‘being in control’ on issues such as depression is an encouraging finding. Educational settings are key to challenging such views and encouraging help-seeking behaviours (Robertson, 2007)

**Limitations**

This study took place in the context of policy development on gender equality. Its purpose was to illuminate how services could be developed to reduce the gender-based inequalities in health care utilization and outcomes. The recruitment of the sample was limited to a brief time period around International Men’s Day and although the sample is representative across age range and ethnicities in Trinidad and Tobago, there is some selection bias of more urban dwellers. Data on occupation and the socio-economic profile may not be reliable as respondents may have interpreted their occupational classification based on their perspectives e. g. a boatman described himself as skilled.

The survey instrument needed to be brief and able to be hosted on tablet and paper for administration in environments where data were collected opportunistically. The items drew upon current understandings of a multi-dimensional construct of health literacy with a subjective format and addressed numerous domains of health literacy such as the patient-provider encounter; interaction with the health care system; rights and responsibilities; health information-seeking; understanding, processing, and using healthcare information as well as communication with healthcare professionals. Due to limited time, it was decided not to assess health literacy and so none of the validated tools were used.

Although the sample size is fairly large for a convenience sample of men reporting on health issues and is representative of different ethnic groups and age distribution according to the Trinidad and Tobago census, it may not be representative of other sub population groups such as men of different sexualities or those living with morbidities. Although the survey collected employment status information, the census does not record comparable data and uses only the International Standard Industrial Classification (ISIC) which records only type of employment and sectors. The sample had insufficient power to identify differences of significance in the different population groups.

**Conclusion**

Given the gendered nature of health outcomes and the implications of poor health literacy for chronic diseases and their risk factors, this study contributes towards evidence-based decision-making to show that there is a need for a specific policy focus on men’s health through a health literacy lens. Innovative approaches are needed to better engage with men and to understand how men access health services and where they wish to access health information. This may be especially important for those who may be at risk of poorer health outcomes such as those from lower socioeconomic groups and older people. The current study points to the importance of developing capacity among healthcare professionals to respond in a gender-sensitive way to the challenges of men’s low health literacy through professional education. Improving men’s health in Trinidad represents a challenge but one with the potential to impact not just men but the whole of society.

Table 1: Demographic profile of respondents

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Demographic category** | **Description** | **Frequency (N)** | **Percentage (%)** | **Trinidad and Tobago (CSO 2011)** |
| **Age Group** | Under 25 | 78 | 31.5 | 31.1% |
| 26-46 | 76 | 30.6 | 45.56% [to 54] |
| 47-66 | 73 | 29.4 |  |
| 67+ | 21 | 8.5 | 10.65% |
| **Ethnicity** | African | 123 | 49.6 | 34.2% |
| East Indian | 60 | 24.2 | 35.4% |
| Mixed | 53 | 21.4 | 23.0% |
| Other | 12 | 4.8 | 1.3% |
| **Occupation** | Professional worker | 69 | 27.8 | Not available for Trinidad and Tobago |
| Managerial worker | 19 | 7.7 | N/A |
| Manual worker | 17 | 6.9 | N/A |
| Skilled worker | 45 | 18.1 | N/A |
| Unemployed | 8 | 3.2 | N/A |
| Retired | 34 | 13.7 | N/A |
| Student | 54 | 21.8 | N/A |
| Not given | 2 | 0.8 | N/A |

**References**

Adult Literacy Tutors Association (1994) *Literacy in Trinidad and Tobago: ALTA national literacy survey*.

Babwah, F., Baksh, S., Blake, L., Cupid-Thuesday, J., Hosein, I., Sookhai, A., Poon-King, C. and Hutchinson, G. (2006) The role of gender in compliance and attendance at an outpatient clinic for type 2 diabetes mellitus in Trinidad., *Revista Panamericana de Salud Publica = Pan American Journal of Public Health*, 19 (2), pp. 79–84.

Baker, P. (2016) Men’s health: an overlooked inequality, *British Journal of Nursing*, 25 (19), pp. 1054–1057. DOI:10.12968/bjon.2016.25.19.1054.

Bourne, P., McGrowder, D., Charles, C. and Francis, C. (2010) The image ofhealth status and quality of life in a Caribbean Society in *North American Journal of Medical Studies,* 2 (4), pp. 196-201.

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3 (2), pp. 77–101. DOI:10.1191/1478088706qp063oa.

Brown, J. and Chevannes, B. (2001) Redefining fatherhood: A report from the Caribbean, *Early Childhood Matters*, 97, pp. 25–37.

Case, A. D. and Gordon, D. M. (2016) Contextualizing the health behavior of Caribbean men, in: Roopnarine, J. and Chadee, D. (eds.) *Caribbean psychology: Indigenous contributions to a global discipline.* Washington: American Psychological Association, pp. 171–203.

Central Statistical Office (2011) Trinidad and Tobago 2011 Population and Housing Census. Available at

http://www.tt.undp.org/content/dam/trinidad\_tobago/docs/DemocraticGovernance/Publications/TandT\_Demographic\_Report\_2011.pdf

Chinn, D. and McCarthy, C. (2013) All Aspects of Health Literacy Scale (AAHLS): Developing a tool to measure functional, communicative and critical health literacy in primary healthcare settings, *Patient Education and Counseling*, 90 (2), pp. 247–253. DOI:10.1016/j.pec.2012.10.019.

Clouston, S. A. P., Manganello, J. A. and Richards, M. (2016) A life course approach to health literacy: the role of gender, educational attainment and lifetime cognitive capability, *Age and Ageing*. DOI:10.1093/ageing/afw229.

Crawshaw, P. (2007) Governing the healthy male citizen: Men, masculinity and popular health in Men's Health magazine, *Social Science & Medicine,*65 (8), pp. 1606-1618. DOI: //doi.org/10.1016/j.socscimed.2007.05.026.

Davey, J., Holden, C. A. and Smith, B. J. (2015) The correlates of chronic disease-related health literacy and its components among men: a systematic review, *BMC Public Health*, 15 (1), pp. 589. DOI:10.1186/s12889-015-1900-5.

EFA Global Monitoring Report Team (2015) *Education for All 2000-2015: Achievements and Challenges*. Paris, France.

Galdas, P. (2013) Man up: engaging men in primary care, *Practice Nursing*, 23 (10).

Hawkes, S. and Buse, K. (2013) Gender and global health: evidence, policy, and inconvenient truths, *The Lancet*, 381 (9879), pp. 1783–1787. DOI:10.1016/S0140-6736(13)60253-6.

Keenaghan, C. (2015) *How Men’s Sheds work. Report on the development of quality assessment and outcomes framework for Men’s Sheds in Ireland*. Sligo, Ireland.

Kickbusch, I., Pelikan, J., Apfel, F. and Tsouros, A. (2013) *Health literacy: the solid facts*. Geneva, Switzerland.

Laws, T. and Murray, J. (2002) The complexities of interviewing Italo-Australian men about sensitive health issues.” *Contemporary nurse* 12 (2) pp. 144-54.

Lewis, L. (2002) Envisioning a Politics of Change within Caribbean Gender Relations. Mohammed*,* P. (Eds) *Gendered Realities: Essays in Caribbean Feminist Thought*, Kingston,: University 19 of the West Indies Press and The Centre for Gender and Development Studies.

Lim, S. S., Vos, T., Flaxman, A. D., Danaei, G., Shibuya, K., Adair-Rohani, H., *et al.* (2012) A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010, *The Lancet*, 380 (9859), pp. 2224–2260. DOI:10.1016/S0140-6736(12)61766-8.

Linnan, L. A., D’Angelo, H. and Harrington, C. B. (2014) A Literature Synthesis of Health Promotion Research in Salons and Barbershops, *American Journal of Preventive Medicine*, 47 (1), pp. 77–85. DOI:10.1016/j.amepre.2014.02.007.

Moolman, B. (2013) Rethinking ‘masculinities in transition’ in South Africa considering the ‘intersectionality’ of race, class, and sexuality with gender, *African Identities*, 11 (1), pp. 93–105. DOI:10.1080/14725843.2013.775843.

Nutbeam, D. (2000) Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century, in: *Health Promotion International*.15, pp. 259–267.

O’Brien, R., Hunt, K. and Hart, G. (2005) ‘It’s caveman stuff, but that is to a certain extent how guys still operate’: men’s accounts of masculinity and help seeking, *Social Science & Medicine*, 61 (3), pp. 503–516. DOI:10.1016/j.socscimed.2004.12.008.

Ocho, O. and Green, J. (2013) Perception of Prostate Screening Services among Men in Trinidad and Tobago, *Sexuality Research & Social Policy*, 10 (3), pp. 186–192.

Office of the Prime Minister (2018) National Policy on Gender and Development of the Republic of Trinidad and Tobago: a green paper.

Oliffe, J. (2010). Bugging the cone of silence with men's health interviews. Dans B. Gough & S. Robertson (Eds.), *Men, Masculinities and Health: Critical perspectives* (pp. 67-90). New York, NY: Palgrave MacMillan

Osborne, R. H., Batterham, R. W., Elsworth, G. R., Hawkins, M. and Buchbinder, R. (2013) The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ), *BMC Public Health*, 13 (1), pp. 658. DOI:10.1186/1471-2458-13-658.

Paulhus, D. and Vazire, S. (2007) The self-report method, in: Robins, R., Fraley, R., and Krueger, R. (eds.) *Handbook of research methods in personality*. London, UK: Guilford Press, pp. 334–239.

Peerson, A. and Saunders, M. (2009) Men’s health literacy: advancing evidence and priorities, *Critical Public Health*, 19 (3–4), pp. 441–456. DOI:10.1080/09581590902906229.

Peerson, A. and Saunders, M. (2011) Men’s Health Literacy in Australia: In Search of a Gender Lens, *International Journal of Men’s Health*, 10 (2), pp. 111–135. DOI:10.3149/jmh.1002.111.

Reddock, R. (2004) *Interrogating Caribbean masculinities: Theoretical and empirical analyses*. University of West Indies Press.

Robertson, C., Archibald, D., Avenell, A., Douglas, F., Hoddinott, P., van Teijlingen, E., *et al.* (2014) Systematic reviews of and integrated report on the quantitative, qualitative and economic evidence base for the management of obesity in men., *Health Technology Assessment*, 18 (8), pp. 1–424. DOI:10.3310/hta18350.

Robertson, L. M., Douglas, F., Ludbrook, A., Reid, G. and van Teijlingen, E. (2008) What works with men? A systematic review of health promoting interventions targeting men, *BMC Health Services Research*, 8 (1), pp. 141. DOI:10.1186/1472-6963-8-141.

Robertson, S. (2007) *Understanding men and health: masculinities, identity and well-being*. London, UK: Open University Press.

Robertson, C., Archibald, D., Avenell, A., Douglas, F., Hoddinott, P., van Teijlingen, E., *et al.* (2014) Systematic reviews of and integrated report on the quantitative, qualitative and economic evidence base for the management of obesity in men., *Health Technology Assessment*, 18 (8), pp. 1–424. DOI:10.3310/hta18350.

Rubin, D. L., Parmer, J., Freimuth, V., Kaley, T. and Okundaye, M. (2011) Associations Between Older Adults’ Spoken Interactive Health Literacy and Selected Health Care and Health Communication Outcomes, *Journal of Health Communication*, 16 (sup3), pp. 191–204. DOI:10.1080/10810730.2011.604380.

Sheridan, S. L., Halpern, D. J., Viera, A. J., Berkman, N. D., Donahue, K. E. and Crotty, K. (2011) Interventions for Individuals with Low Health Literacy: A Systematic Review, *Journal of Health Communication*, 16 (sup3), pp. 30–54. DOI:10.1080/10810730.2011.604391.

Sloan, C., Gough, B. and Conner, M. (2010) Healthy masculinities? How ostensibly healthy men talk about lifestyle, health and gender, *Psychology & Health*, 25 (7), pp. 783–803. DOI:10.1080/08870440902883204.

UCL Institute of Health Equity (2013) *Review of social determinants and the health divide in the WHO European Region: final report*. Copenhagen.

Wang, H., Naghavi, M., Allen, C., Barber, R. M., Bhutta, Z. A., Carter, A., *et al.* (2016) Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015, *The Lancet*, 388 (10053), pp. 1459–1544. DOI:10.1016/S0140-6736(16)31012-1.

Yousaf, O., Grunfeld, E. A. and Hunter, M. S. (2015) A systematic review of the factors associated with delays in medical and psychological help-seeking among men, *Health Psychology Review*, 9 (2), pp. 264–276. DOI:10.1080/17437199.2013.840954.