*Who stays in addiction treatment groups? Anxiety and avoidant attachment styles predict treatment retention and relapse.*

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*Abstract*

Attachment styles have been shown to be an important predictor of relationship quality and well-being. They have also been linked with ability to function well in groups. Insecure attachment styles are thought to be an underlying cause of addiction and represent a target for change in one-to-one therapy. How attachment styles themselves affect group therapy for addiction is understudied. The current study addresses this gap by examining the effects of attachment styles on relapse and treatment retention amongst a population of people attending addiction therapy groups. Fifty-eight individuals in such groups completed measures of attachment anxiety and avoidance. Participants were followed up four weeks later and their continued treatment attendance and relapse status were recorded. In terms of treatment retention, high anxiety / high avoidant participants had the highest retention. In terms of relapse, low anxiety / high avoidant participants had the lowest rates. These results are discussed in terms of the potentially protective effects of avoidant attachment styles during group therapy, and the role of anxiety attachment in the continued maintenance of both protective and risky personal relationships.

Keywords: treatment retention, addiction, group therapy, anxious, avoidant, attachment

*Who stays in addiction treatment groups? Anxiety and avoidant attachment styles predict treatment retention and relapse in a sample of addicts.*

Membership of self-help groups (such as Alcoholics Anonymous, AA) has been shown to be a powerful mechanism with which addicts can achieve and maintain cessation. Typically, research shows group membership is a highly valuable part of the treatment process (see e.g. Kelly, Stout, Magill, Tonigan, & Pagano, 2010; Gossop et al., 2003). The social support elements of such treatment programmes seem to be one of the ‘active ingredients’ of effective recovery (see Brown, Tracy, Jun, Park & Min, 2014; Dobkin, De Civita, Paraherakis & Gill, 2002; Frings & Albery 2015; 2016; Moos, 2007). Participation in such groups is also prevalent. Dawson, Grant, Stinson and Chou (2006) estimate that 80% of people in the US who are seeking to abstain from problematic alcohol consumption will attend AA at some point. Formal group therapy is also a popular treatment modality in both in-patient and out-patient treatment plans. However, despite the potential effectiveness of such groups, they are not a panacea to the extent that treatment attrition is common and members often relapse whilst attending groups. For instance, Monras and Gual (2000) report 6-month retention amongst people attending group treatment for alcoholism at 61%, dropping to 37% at the 24-month point. Group treatment has also been linked to higher attrition than other modes of treatment in some studies (see Brorson, Arnevik, Rand-Henderiksen and Duckert, 2013). Attrition is important as various meta-analyses have supported the premise that treatment retention is an important predictor of later recovery outcomes (see e.g. Brewer, Catalano, Haggerty, Gainey & Fleming, 1998; Prendergast, Podus, Chnag, & Urada, 2002). Given the importance of these factors, the current research investigates the role of two particular individual difference factors (attachment anxiety and avoidance) as possible predictors of treatment retention and relapse amongst a sample of people recovering from addiction problems.

## Attachment anxiety and avoidance.

Ainsworth, Blehar, Water and Wall (1978) proposed three childhood attachment styles (secure, anxious-ambivalent and avoidant) which correspond with how an infant responds to brief separation from their primary caregiver. Evidence suggests that securely attached children are distressed when left and easily reassured by the return of the parent, ambivalent children are distressed by absence and inconsolable by the return, and avoidant children show no distress at separation and no desire to make contact on return (Flores, 2004). These attachment styles appear to remain consistent into adulthood, are related to how romantic love is experienced, with insecure attachment being associated with higher trait loneliness (Hazan & Shaver, 1987). Secure attachment in adulthood relates to comfort in romantic relationships without fear of rejection. In contrast, anxious-ambivalent attachment (as they described the adult style) has been shown to be linked with neediness and fear of rejection (Smith, Murphy and Coates, 1999). Smith et al., (1999) also suggest that avoidant individuals avoid closeness due to either an autonomous self-view or feeling undeserving of closeness.

Secure, anxious and avoidant attachment types have been incorporated into two *basic* attachment trait dimensions, attachment avoidance and attachment anxiety (Brennan, Clark, & Shaver, 1998; Rom & Mikulincer, 2003). These traits appear to have significant impact on both self-representation and interpersonal relationships. For instance, higher attachment anxiety scores are associated with negative representations of the self, which trigger hyperactivation of the attachment system and heightened hypervigilance. Alternatively, high avoidance scores are associated with negative representations of others triggering deactivation of the attachment system and distance from those who may cause distress (Shaver & Mikulincer, 2002). Individuals high in attachment anxiety have been shown to experience increased loneliness mediated by poor self-efficacy in social situations, whereas avoidant individuals have been shown to experience loneliness through fear of disclosure (Wei, Russell, & Zakalik, 2005). Similarly, Dewitte, De Houwer, and Buysse (2008) showed that attachment anxiety, and not avoidance, was related to lower implicit relational self-esteem. Although adult attachment styles are stable over time (Dykas & Cassidy, 2011) negative (or traumatic) experiences may create an insecure attachment style in previously secure individuals (Winham et al., 2015). With this is mind it has been suggested that therapeutic intervention may support anxiously attached or avoidantly attached individuals to improve attachment security (e.g. Kinley & Rayno, 2013; Marmarosh, 2014).

## Attachment and addiction

The role of adult attachment styles in underlying addictive processes has been the subject of recent debate (see e.g. Fletcher, Nutton & Brend, 2015). It has been argued that that some individuals turn to substances rather than relationships as an attachment alternative (Höfler & Kooyman, 1996) to the extent that addiction has been articulated as an attachment disorder (Flores, 2004). This suggests that people who are unable to form and maintain the attachment relationships necessary to regulate affect are more prone to substitute emotional intimacy with substances and addictive behaviours. Schindler, Thomasius, Sack, Gemeinhardt, Kűstner and Eckhert (2005) observed that using a drug can emulate the feeling of a secure base, thus motivating addicts to use substances in an attempt to self-repair. As such the lack of emotional closeness experienced by those with an insecure attachment style can predict compensation for feelings of emptiness through addictive behaviours. Khantzian (1982; in Flores, 2004) found that rather than pleasure seeking, addicts appeared to be using substances to regulate emotion (see e.g. Koob & Le Moal, 1997). This finding suggests that attachment-based research is important in understanding the development of addictions, as affect regulation is central to the theory (e.g. Mikulincer, Shaver, & Pereg, 2003). Similarly, Schore & Schore (2008) posited that the importance of attachment interactions in the development of right brain neurobiological systems, for processing emotions and developing self-regulation, shows attachment theory to primarily be a theory of regulation.

The prevalence of insecure attachment style in addicted patients is striking. In one study, 53% of alcoholic inpatients showed extremely impaired attachment systems, 34.5% moderately impaired systems, and only 13.5% well established and secure attachment systems (De Rick, Vanheule, & Verhaeghe, 2009). This high rate of insecure attachment style, compared with secure attachment, in alcoholic patients has been observed in many other studies (e.g. Vungkhanching, Sher, Jackson, & Parra, 2004; Brennan & Shaver, 1998; see also, Wedekind, Bandelow, Heitmann, Havemann-Reinecke, Engel, & Huether, 2013). Evidence has also shown that attachment anxiety is positively associated with drinking-to-cope as a form of emotional regulation (e.g. Kassel, Wardle, & Roberts, 2007). For example, Zapf, Greiner, and Carroll (2008) showed that compared with those without sex addictions, male sex addicts exhibited higher attachment anxiety and attachment avoidance in their romantic relationships. Other work has found that insecure attachment is related to developing dysfunctional social behaviours which in turn may promote the development of personality disorders, and that such disorders are associated with higher prevalence of substance misuse (e.g. Brennan & Shaver, 1998; Havassi, Alvidrez, & Owen, 2004). Links between attachment anxiety and relapse have also been observed in a sample of women addicted to prescription medicine (Wong, 2015). To the extent that anxiety and avoidance are linked with increased addictive behaviour, and anxiety to relapse specifically, the current study predicts that higher levels of these attachment styles will be linked to greater levels of relapse for those in treatment. Attachment style may have significant implications for both membership of groups generally, and for group therapy specifically.

## Attachment style and group membership

Individuals experiencing high levels of attachment anxiety and avoidance can find participating in groups (in all forms, i.e. not just treatment groups) to be extremely challenging. Research investigating attachment theory and group identification was initially related to findings in social groups of undergraduates. Smith et al., (1999) report that those individuals with high attachment anxiety scores often experience themselves as undeserving of being group members and fearful of rejection, whereas those with low attachment anxiety expect to be accepted. Thus, high anxiety individuals may try to ‘people-please’ the group, working hard to fit in. Conversely, those scoring high on avoidance generally perceive the group as pointless and unwanted, exhibiting a sense of ‘better-than’ to other group members to avoid feelings of closeness or dependence. Those low in avoidance should encourage intimacy and dependence, perceiving groups as positive and useful. Similarly, scoring high in attachment anxiety on close relationship attachment measures has been linked to holding a negative self-image as a group member, appraisal of the group as threatening, and a chronic search for support and comfort from others (Rom & Mikulincer 2003). In an addiction context both the group members (addicts and/or those recovering from addiction) and the group context (therapy/self-help groups) are very different to the extent that other effects may be observed. Despite this, one set of predictions is that people high in anxiety and / or avoidance in addiction treatment groups should experience lower levels of treatment retention and higher rates of relapse.   
*Attachment and group therapy*

Whilst it has been observed that much work has been done on the application of attachment theory to individual therapeutic treatment (see Marmarosh, 2014), a few studies have focused on applying attachment-based models to group therapy. Tasca, Taylor, Bissada, Ritchie, and Balfour (2004), for example, found that those experiencing high levels of attachment anxiety required a stronger treatment alliance with therapy groups as they continued their treatment, to avoid an increased sense of abandonment if they began to feel rejected (leading to subsequent attrition/lower retention). Tasca et al (2004) also found that those with greater attachment avoidance were less likely to remain in group-based treatment suggesting a reduced alliance with the therapy group and emotional distancing. In line with this, those high in avoidance have been shown to exhibit significantly less disclosure and increased negative beliefs about other group members (Schetman & Dvir, 2006). In terms of attachment anxiety, Harel, Shechtman and Cutrona (2011) observed that individuals with high attachment anxiety perceived the climate of the group as being more conflictual and being more avoidant of interpersonal closeness. In contrast, Schetman and Dvir (2006) showed that anxious members benefit more from disclosure in group.

Recently two models developed for understanding the role of social identity mechanisms in addictive behaviour change have argued that social connections with others are vital in supporting cessation and that group therapy may be a key way in which new protective identities can be generated (Frings & Albery, 2015; 2016; Best et al., 2016). However, neither model considers the role of attachment style on such social processes. This move to consider the potentially powerful effects of group involvement is important because those with addiction issues experience an impoverished sense of self, leading to poor self-esteem and a lack of meaningful and trusting connections to others (Khantzian, 2013). Groups can offer a transition mechanism from the counter-dependency and lack of mutuality often exhibited by addicts in relationships, to an understanding that the essence of being human is social, not individual. Indeed, attachment-focused therapy for addictions may provide support to develop the capacity for healthy relationships (Flores, 2004).

## Current study

Attachment anxiety and avoidance have been shown to be critical individual differences in the management of relationships with others at an individual and group level. They have been linked to both the aetiology and maintenance of addictive behaviours, and may also affect the outcomes of those in treatment. The present study sought to examine the effects of levels of anxiety and avoidant attachment styles amongst a group of individuals seeking group therapy treatment from addiction, and linking these prospectively to treatment retention and relapse rates. Given the extant research, a clear hypothesis can be around the relationship between anxiety and attachment styles and relapse – with greater levels of either attachment type being linked to higher levels of relapse. Given the paucity (and occasionally contradictory nature) of evidence around group therapy and attachment, a more exploratory, non-directional, hypotheses - that these styles will affect retention - is made. These hypotheses were tested in the present study by measuring levels of anxiety and avoidant attachment styles amongst a group of individuals seeking group therapy treatment from addiction, and linking these prospectively to treatment retention and relapse rates.

# Method

## Participants

Fifty-eight participants[[1]](#footnote-1) (20 female, 37 male, 1 other[[2]](#footnote-2)) were recruited from public funded drug and alcohol treatment services in the London, UK, area (30 were recruited from abstinence-based programmes, and 28 were from harm reduction groups). All participants had been assessed as experiencing alcohol or drug dependency. Participants were aged 25-68 years (*M* = 45.19, *SD* = 10.73) and were from a variety of cultural and educational backgrounds. 38 identified as British/White British/English, 3 identified as Caribbean/African Caribbean, 3 identified as Black British, 3 identified as White European, 2 identified as Irish/White Irish, 1 identified as Somalian, 1 identified as Guyanese, 1 identified as Asian, 2 identified as British Asian, 1 identified as British Irish, 1 identified as Black, 1 identified as Other White, and 1 identified as Indian. Within this sample, 32 also attended 12 step fellowship meetings (e.g. AA or NA), 10 attended SMART Recovery meetings, 5 used online support groups and 10 attended “other” support groups. Amongst the sample, 34 individuals were also receiving individual counselling. Participants had previously been in treatment between 0 and 20 times (*M*=1.48, *SD*=3.09).

## Design.

## A cross-sectional prospective design was employed. In the first phase avoidance and attachment styles were measured alongside a number of demographic variables (see materials).

## Materials and Procedure

*Attachment Anxiety and Avoidance.* Initiallyattachment anxiety and avoidance were measured using the Experiences in Close Relationships-Revised (ECR-R) Questionnaire (see Fraley, Waller, & Brennan, 2000; Sibley, Fischer, & Liu, 2005) . The ECR-R comprises 18 items for measuring attachment anxiety (e.g. “I worry a lot about my relationships”) and 18 items measuring avoidance (e.g. “I am nervous when partners get too close to me”`). All items were rated from 1 (*strongly disagree*) to 7 (*strongly agree*) using a Likert-type scale, and participants were asked to relate their answers to their current or most recent romantic relationship. Items were reversed as required such that higher scores were indicative of greater levels of anxiety and avoidance. Statements were presented in a randomised sequence. Cronbach’s α across the anxiety items was α = .91 and for avoidance items it was α = .89.

*Demographics:* Following theECR-R age, gender, previous number of treatment / quit attempts, years of use and time since last quit attempts were measured.

*Treatment retention.* Four weeks after phase 1 the researcher returned to the location in which initial recruitment had taken place to ascertain treatment retention/attrition. This was secured by either (i) speaking directly to the participant or, if they were not present that day, (ii) consulting the participant’s group leader as to whether the participant was still attending group sessions (i.e. had that day or had that week). This dual verification was used as participants could attend meetings on various days, and it was not possible for the researcher to attend all centres across all possible days. Retention was coded as 0 (attrition from treatment at follow-up) and 1 (remaining in treatment at follow-up).

*Relapse.* The same methods (self-report or via group leader) was used to determine if participants had relapsed (defined as a return to normal ‘using’ behaviour). In general, group leaders were in touch with individuals who had left the group in their other aspects of their care role, so could report accurately on this. Relapse was coded as 0 (no relapse at follow-up) and 1 (relapse at follow-up).

# Results

Retention and relapse rates. Of the 58 individuals who completed the initial measures, 50 were still in group one month later and 20 were classified as having experienced a relapse in that period. Table 1 shows the frequency of those who did/did not remain in group by the frequency of those who did/did not relapse. A significant Chi-squared test (*x*2(1) = 6.74, p = .009)[[3]](#footnote-3) revealed this distribution varied from expected values suggesting that relapse in the past month was associated with leaving the group by the census point.

*Treatment retention.*To test for relationships between anxious and avoidant attachment on treatment retention logistical regression was undertaken. Anxiety, avoidance and the interaction term between the two were entered as predictors (see Table 1 for full statistics for individual predictors for this and subsequent analyses). Retention was entered as the criterion variable (coded as above).Upper and lower 95% confidence intervals are reported for odds ratios. The overall model explained 23% of the variance in retention (Nagelkerke *R*2 = .23), was statistically significant (*x*2(5) = 7.83, *p* = .05) and accurately predicted 87.9% of cases. The odds ratio for anxiety as a predictor did not approach significance (OR = 2.31, CIs = [0.68, 7.84]). The odds ratio for avoidance was significant (OR= 11.79, CIs = [1.45, 96.02]). The interaction term was also a significant predictor (OR= .625, CIs [0.41, 0.95]). In summary, a participant’s attachment anxiety level had no main effect on retention. More avoidant participants generally had higher retention rates than did less avoidant ones and this effect was moderated by anxiety such that higher levels of anxiety led to a greater effect on the avoidance-retention link.

### Relapse. To test for relationships between anxious and avoidant attachment on relapse logistical regression was undertaken. Anxiety, avoidance and the interaction term between the two were entered as predictors. Relapse was entered as the criterion variable (coded as above). Upper and lower 95% percent confidence intervals are reported for odds ratios. The overall model explained 14% of the variance in relapse rates (Nagelkerke R2 = .19), was statistically significant (x2 (5) = 8.76, p = .033) and accurately predicted 70.7% of cases. Confidence intervals for the odds ratio for anxiety as a predictor indicated marginal statistical significance (OR = 4.55 CIs = [0.93, 22.28]) and the odds ratios for avoidance was not significant (OR= 2.70, CIs = [0.48, 15.21]). The interaction term also approached significance, (OR= 0.63, CIs = .38, 1.06). This interaction suggests that as the level of avoidance increases the size of the positive relationship between anxiety and relapse decreases. In summary, there is evidence that higher levels of anxiety are linked to greater relapse but that this effect is less pronounced for those high in avoidance.

*Moderating effects of other treatment attendance*

To see if these effects were moderated by simultaneous attendance at other forms of treatment, we first conducted t-tests to see if people attending (or not) (i) fellowships, (ii) SMART, (iii) online support, (iv) individual counselling and (iii) other support differed on our dependent variable. Of these, no other support treatment types had an effect on retention (*p*s >. 29). For relapse, only fellowship attendance had a significant effect *t*(56) = 3.67, *p* = .001. People attending had a higher proportion of relapse rates (*M* = .16, SD = .37) than those that did not (*M* = .57, SD = .50). As such, we re-ran our logistic regression for relapse, including fellowship attendance as an additional predictor. In this analysis, the overall model explained 27% of the variance in relapse rates (Nagelkerke R2 = .38), was statistically significant (*x*2 (4) = 18.49, *p* < .001) and accurately predicted 75.9% of cases. The covariate was significant, (OR= .14. CIs = [0.36, 5.12]). The main effects of anxiety (OR = 3.53) and avoidance (OR = 2.67, CIs = [4.36, 16.56]) did not reach significance, and the interaction term became more marginal in significance (OR = 0.65, CIs = [0.38, 1.11]).

*Discussion*

Attachment styles have been shown to be an important predictor of relationship quality and well-being. They have also been linked with ability to function well in groups. In the field of addiction attachment styles are thought to be an underlying cause of addiction and are a target for change in one-to-one therapy. However, how attachment styles affect group therapy for addiction is understudied. The current study addresses this gap by examining the effects of attachment styles on both relapse and treatment retention amongst a population of people attending group therapy. High levels of both anxiety and avoidance have been linked to greater relapse and this pattern was expected in the current study. As high-anxiety individuals tend to oscillate between seeking closeness and fearing rejection from others and high avoidant people avoid the intimacy and social connection required for good group interactions, we predicted those high in these traits would also experience lower treatment retention. These hypotheses were *only* supported partially.

In line with previous work, having a high anxiety attachment style was linked to higher relapse. Despite the presence of large odds ratios, no statistically significant direct link between avoidance and relapse was observed. However, high avoidance appeared to dampen the effects of anxiety. The inclusion of fellowship attendance reduced further the significance of this interaction. Unexpectedly, attachment anxiety levels had no direct relationship with treatment retention and more avoidant participants generally had better retention rates than did less avoidant ones. This effect was moderated by anxiety such that higher levels of anxiety increased the avoidance / retention link- high anxiety / high avoidant participants had the best retention outcomes. In terms of relapse, in line with predictions, the highest levels of relapse were observed in more anxiously attached individuals. However, this effect interacted with avoidance such that this effect was most strong when avoidance was low – low anxiety/high avoidant participants had the best outcomes.

For the current sample these findings suggest that high avoidant participants had the most favourable outcomes in terms of both treatment retention and relapse rates. Why might this be? One explanation is that avoidant people can buffer the effects of anxiety by ‘looking down on’ or degrading other group members (i.e. making a positive downwards comparison). In contrast, those high in anxiety and low in avoidance do not have access to this tool as a buffer. Anxious attachment may be protective if it motivates people to remain in groups. However, in terms of relapse, the same anxious attachment style could be a risk factor for relapse because high anxiety people are likely to seek (or are unable to break off) problematic relationships when stressed to a greater extent than low anxiety, or high anxiety/high avoidant individuals (see e.g. Slotter & Finkle, 2009). As separating oneself from other problematic social networks is a vital part of recovery (see Best et al., 2016 for a review) these continued connections to problematic relationships may be a meditator of the attachment-relapse link. These hypotheses are, however, speculative and require further empirical work to test predictions. In particular, it was difficult to disentangle the effects of fellowship attendance and anxiety/avoidance on relapse. A future study focusing on attachment and retention / relapse amongst fellowship members may address this issue.

The current research has a number of implications for both theory and practice. The finding that the experience of group therapy had differential effects for those low and high in anxiety and avoidant styles has implications for theories exploring the role of identity and social capital in recovery (e.g. the social identity model of cessation maintenance (Frings & Albery, 2105, 2016) and social identity model of recovery (Best et al., 2016) by explicitly highlighting that not all individuals will find making new social links easy (or desirable). This variability should be incorporated in future iterations of these models as potential individual difference-based qualifiers. From a practitioner point of view, an understanding of how people are likely to do in groups may facilitate better treatment or better preparation for treatment. For example, a client high in anxiety may benefit from an intervention designed to help people build social ties such as a group-based model designed to enable people to develop the skills to make connections more confidently (e.g. Groups 4 Health, Haslam, Cruwys, Haslam, Dingle & Chang, 2016) to compliment other group work. Equally, it is possible that for some individuals, addiction treatment group is simply not a viable treatment choice without preparatory work on attachment issues. In the current sample, actual treatment retention rates four weeks after baseline were quite high (86%) and there was a strong link between treatment attrition and relapse. Although this sample is small, this finding does suggest that addiction treatment groups remains an effective intervention, both in terms of retention and outcomes.

The current work comes with a number of limitations which suggest directions for future work. The sample is small, and this may limit generalizability. However, the study was sufficiently powered to detect positive effects of clinical significance. One limitation of a small sample is that it could not test for whether the observed effects held for different group interventions (e.g. harm reduction vs. abstinence based or AA vs. SMART, etc.). It could be predicted that the effects of avoidance and anxiety attachment increase as do the level of *required* participation in the group. This is an important area of further study to the extent it will help those involved in delivering these specific interventions. A second limitation is that whilst effects of attachment anxiety and avoidance are observed, it is unclear what processes mediate this effect. Work identifying these factors may help identify targets for the preparatory work outlined above.

In conclusion, this exploratory research suggests that high and low attachment anxiety and avoidance can have a significant impact on the success of addiction therapy group attendees in terms of treatment retention and continued abstinence. Contrary to expectations, the best outcomes appear to be associated with people with low anxiety/high avoidant attachment styles. The mechanisms which under such styles operate is unclear, and warrant further investigation.

*References*

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment:* *A psychological study of the strange situation. Hillsdale, NY: Erlbaum*.

Best, D., Beckwith, M., Haslam, C., Haslam, A.S., Jetten, J., Mawson, E., & Lubman, D. I. (2016). Overcoming alcohol and other drug addiction as a process of social identity transition: The Social Identity Model of Recovery (SIMOR). *Addiction Research & Theory*, *24*, 111-123.

Brennan, K. A., & Shaver, P. R. (1998). Attachment styles and personality disorders: Their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. *Journal of Personality*, *66*, 835-878.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J.A Simpson, Jeffry A and W.S. Rholes (Eds). *Attachment theory and close relationships,* (pp. 46-76). New York, NY, US: Guilford Press.

Brewer, D. D., Catalano, R. F., Haggerty, K., Gainey, R. R., & Fleming, C. B. (1998). A meta‐analysis of predictors of continued drug use during and after treatment for opiate addiction. *Addiction, 93*, 73-92.

Brorson, H. H., Arnevik, E. A., Rand-Hendriksen, K., & Duckert, F. (2013). Drop-out from addiction treatment: a systematic review of risk factors. *Clinical Psychology Review*, *33*(8), 1010-1024.

Brown, S., Tracy, E. M., Jun, M., Park, H., & Min, M. O. (2015). Personal network recovery enablers and relapse risks for women with substance dependence. *Qualitative Health Research*, *25*, 371-385.

Dawson, D. A., Grant, B. F., Stinson, F. S., & Chou, P. S. (2006). Estimating the effect of help‐seeking on achieving recovery from alcohol dependence. *Addiction*, *101*, 824-834.

De Ricke, A., Vanheule, S., & Verhaeghe, P. (2009). Alcohol addiction and the attachment system: an empirical study of attachment style, alexithymia, and psychiatric disorders in alcoholic inpatients. *Substance Use & Misuse, 44*, 99-114.

Dewitte, M., De Houwer, J., & Buysse, A. (2008). On the role of the implicit self-concept in adult attachment. *European Journal of Psychological Assessment, 24*, 282-289.

Dobkin, P. L., Civita, M. D., Paraherakis, A., & Gill, K. (2002). The role of functional social support in treatment retention and outcomes among outpatient adult substance abusers. *Addiction*, *97*, 347-356.

Dykas, M.J., & Cassidy, J. (2011). Attachment and the processing of social information across the life span: theory and evidence. *Psychological Bulletin, 137*, 19-46.

Fletcher, K., Nutton, J., & Brend, D. (2015). Attachment, a matter of substance: The potential of attachment theory in the treatment of addictions. *Clinical Social Work Journal, 43*, 109-117.

Flores, P.J. (2004). *Addiction as an Attachment Disorder.* Plymouth: The Rowman & Littlefield Publishing Group, Inc.

Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology, 78*, 350-365.

Frings, D., & Albery, I. P. (2015). The social identity model of cessation maintenance: Formulation and initial evidence. *Addictive Behaviors*, *44*, 35-42.

Frings, D., & Albery, I.P.(2016). The Social Identity Model of Cessation Maintenance. In S.A. Buckingham & D. Best (Eds). *Addiction, behavioural change and social identity*. (pp. 116-136) London: Routledge.

Gossop, M., Harris, J., Best, D., Man, L. H., Manning, V., Marshall, J., & Strang, J. (2003). Is attendance at Alcoholics Anonymous meetings after inpatient treatment related to improved outcomes? A 6-month follow-up study. *Alcohol and Alcoholism*, *38*, 421-426.

Harel, Y., Shechtman, Z., & Cutrona, C. (2011). Individual and group process variables that affect social support in counseling groups. *Group Dynamics: Theory, Research, and Practice*, *15*, 297.

Haslam, C., Cruwys, T., Haslam, S.A., Dingle, G.A., & Chang, M.X-L. (2016). Groups 4 Health: Evidence that a social-identity intervention that builds and strengthens social group membership improves health. *Journal of Affective Disorders, 194, 188-195.*

Havassy, B. E., Alvidrez, J., & Owen, K. K. (2004). Comparisons of patients with comorbid psychiatric and substance use disorders: implications for treatment and service delivery. *American Journal of Psychiatry*, *161*, 139-145.

Hazan, C., & Shaver, P. (1987). Romantic Love Conceptualised as an Attachment Process. *Journal of Personality and Social Psychology, 52*, 511-524.

Höfler, D. Z., & Kooyman, M. (1996). Attachment transition, addiction and therapeutic bonding—An integrative approach. *Journal of Substance Abuse Treatment, 13*, 511-519.

Kassel, J. D., Wardle, M., & Roberts, J. E. (2007). Adult attachment security and college student substance use. *Addictive Behaviors*, *32*, 1164-1176.

Kelly, J. F., Stout, R. L., Magill, M., Tonigan, J. S., & Pagano, M. E. (2010). Mechanisms of behavior change in alcoholics anonymous: does Alcoholics Anonymous lead to better alcohol use outcomes by reducing depression symptoms? *Addiction*, *105,* 626-636.

Khantzian, E. J. (2013). Addiction as a self‐regulation disorder and the role of self‐medication. *Addiction*, *108*, 668-669.

Kinley, J. L., & Rayno, S. M. (2013). Attachment style changes following intensive short-term group psychotherapy. *International Journal of Group Psychotherapy, 63,* 53–75.

Koob, G. F., & Le Moal, M. (1997). Drug abuse: hedonic homeostatic dysregulation. *Science, 278*, 52-58.

Marmarosh, C.L. (2014). Empirical research on attachment in group psychotherapy: moving the field forward. *Psychotherapy, 51*, 88-92.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, *27*, 77-102.

Monras, M., Freixa, N., Ortega, L., Lligoña, A., Mondón, S., & Gual, A. (2000). Efficacy of group therapy of alcoholics. Results of a controlled clinical trial. *Medicina Clinica*, *115*, 126-131.

Moos, R. H. (2007). Theory-based processes that promote the remission of substance use disorders. *Clinical Psychology Review*, *27*, 537-551.

Prendergast, M. L., Podus, D., Chang, E., & Urada, D. (2002). The effectiveness of drug abuse treatment: a meta-analysis of comparison group studies. *Drug & Alcohol Dependence, 67*, 53-72.

Rom, E., & Mikulincer, M. (2003). Attachment theory and group processes: The Association between attachment style and group-related representations, goals, memories, and functioning. *Journal of Personality and Social Psychology, 84*, 1220-1235.

Schindler, A., Thomasius, R., Sack, P. M., Gemeinhardt, B., Küstner, U., & Eckert, J. (2005). Attachment and substance use disorders: A review of the literature and a study in drug dependent adolescents. *Attachment & Human Development*, *7*, 207-228.

Schore, J. R., & Schore, A. N. (2008). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal*, *36*, 9-20.

Shaver, P.R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment and Human Development, 4*, 133-161.

Shechtman, Z., & Dvir, V. (2006). Attachment style as a predictor of behavior in group counseling with preadolescents. *Group Dynamics: Theory, Research, and Practice*, *10*, 29-42.

Sibley, C. G., Fischer, R., & Liu, J. H. (2005). Reliability and validity of the revised experiences in close relationships (ECR-R) self-report measure of adult romantic attachment. Personality and Social Psychology *Bulletin*, 31, 1524-1536.

Slotter, E. B., & Finkel, E. J. (2009). The strange case of sustained dedication to an unfulfilling relationship: Predicting commitment and breakup from attachment anxiety and need fulfillment within relationships. *Personality and Social Psychology Bulletin*, *35*, 85-100.

Smith, E.R., Murphy, J, & Coats, S. (1999). Attachment to groups: Theory and measurement. *Journal of Personality and Social Psychology, 77*, 94-110.

Tasca, G. A., Taylor, D., Ritchie, K., & Balfour, L. (2004). Attachment predicts treatment completion in an eating disorders partial hospital program among women with anorexia nervosa. *Journal of Personality Assessment*, *83*, 201-212.

Vungkhanching, M., Sher, K. J., Jackson, K. M., & Parra, G. R. (2004). Relation of attachment style to family history of alcoholism and alcohol use disorders in early adulthood. *Drug and Alcohol Dependence*, *75*, 47-53.

Wedekind, D., Bandelow, B., Heitmann, S., Havemann-Reinecke, U., Engel, K.R., & Huether, G. (2013). Attachment style, anxiety coping and personality-styles in withdrawn alcohol addicted patients. *Substance Abuse Treatment, Prevention, and Policy, 8*, 1-7.

Wei, M., Russell, D.W., & Zakalik, R.A. (2005). Adult attachment, social self-efficacy, self-disclosure, loneliness, and subsequent depression for freshman college students: A longitudinal study. *Journal of Counselling Psychology, 52*, 602-614.

Winham, K.M., Engstrom, M., Golder, S., Renn, T., Higgins, G.E., & Logan, T.K. (2015). Childhood victimisation, attachment, psychological distress, and substance misuse among women on probation and parole. *American Journal of Orthopsychiatry, 85*,145-158.

Wong, J.L. (2015). *Social support as a mediator between attachment and relapse in women.* Doctoral thesis completed at Walden University retrieved 7th April 2017 from URL http://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=2973&context=dissertations.

Zapf, J. L., Greiner, J., & Carroll, J. (2008). Attachment styles and male sex addiction. *Sexual Addiction & Compulsivity, 15*, 158-175.

Table 1: Number of participants classed by treatment retention and relapse rates

|  |  |  |  |
| --- | --- | --- | --- |
|  | *Group attendance code* | |  |
| *Relapse Code* | Attrition | Retention | Row Total |
| No relapse | 2 (5.2) | 36 (32.8) | 38 |
| Relapse | 6 (2.8) | 14 (17.2) | 20 |
| Column total | 8 | 50 | 58 |

*Note: Expected frequencies in parenthesis.*

*Table 2: Logistic regression predictor statistics*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *DV* | *Predictor* | *B* | *Wald (1)* | *p* | *OR* | *95% CIs* |
| Retention | Anxiety | 0.84 | 1.80 | .179 | 2.31 | 0.68, 7.84 |
|  | Avoidance | 2.47 | 5.32 | .021 | 11.79 | 1.45, 96.02 |
|  | Anxiety X Avoidance | -0.47 | 4.79 | .029 | 0.63 | 0.41, 0.95 |
| Relapse | Anxiety | 1.52 | 3.50 | .062 | 4.55 | 0.93, 22.28 |
|  | Avoidance | 0.99 | 1.27 | .260 | 2.70 | 0.48, 15.21 |
|  | Anxiety X Avoidance | -0.46 | 3.03 | .082 | 0.63 | 0.78, 1.06 |
| Relapse | Anxiety | 1.26 | 2.18 | .140 | 3.53 | 0.66, 18.79 |
| (inc. fellowship covariate) | Avoidance | 0.99 | 1.13 | .287 | 2.67 | 0.44, 16.56 |
|  | Fellowship attendance | -2.00 | 8.67 | .003 | 0.14 | 0.036, 0.51 |
|  | Anxiety X Avoidance | -0.43 | 2.45 | .118 | 0.65 | 0.38, 1.11 |

*Key Practitioner Message*

* Practitioners should be aware that risk of addiction relapse and attrition from group therapy are linked to attachment styles.
* In terms of treatment retention, the current study observed that those with high anxiety / high avoidant attachment styles had the highest retention. In terms of relapse, low anxiety/high avoidant participants had the lowest rates.
* High anxiety attachment styles may lead to a desire to maintain both protective (i.e. group therapy) but also risky social relationships (i.e. previous using acquaintances). High avoidant styles may provide protective defence mechanisms in group therapy contexts.

1. Sufficient to detect an odds ratio of 0.25 with an α of 0.05 and power =0.95. [↑](#footnote-ref-1)
2. There were no significant differences in anxiety or avoidance for gender, nor significant relationships with age. Logistical regression using the same model as described below showed no main or interactive effects of age or gender on relapse or retention. [↑](#footnote-ref-2)
3. The same effect was observed undertaking a Fisher exact, to account for small cell sizes, *p* = .016. [↑](#footnote-ref-3)