PROFESSIONAL DOCTORATES

A Contextual Behavioural Perspective on Substance Use Disorder

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A Contextual Behavioural Perspective on Substance Use Disorder

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BANGOR
UNIVERSITY

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Thesis Abstract

The first chapter consists of a systematic review of the literature concerning the construct of Experiential Avoidance in relation to Substance Use Disorder. A comprehensive database search was conducted which resulted in 16 studies then included in the review. Positive findings supported the role of Experiential Avoidance in various aspects of Substance Use Disorder including risk factors, comorbidity with other mental health problems such as post-traumatic stress disorder, success in treatment and abstinence. However, there were also many inconsistent and contradictory findings. Several limitations with the literature were found including an over-reliance on cross-sectional designs and self-report measures. Issues surrounding the measurement of Experiential Avoidance are also outlined. Due to these inconsistencies and issues with the research, it was not possible to draw firm conclusions. Implications for future research are discussed.

The second chapter is a qualitative exploration of Moving On In My Recovery: a new, Acceptance and Commitment Therapy (ACT) based group intervention for Substance Use Disorder. Grounded theory was used to build a model of the process of change towards recovery in the group, grounded in the participants' experiences. Ten participants were interviewed, who were abstinent from substances following engagement in the group. The model that emerged depicted a chronological series of processes centring around the core category of reinforcement from engaging with the group and recovery-consistent behaviours. Other processes reflected group-based factors which contributed to sense of safety, and individual factors such as investment in recovery, which supported engagement with core ACT therapeutic processes. Clinical implications and suggestions for future research are discussed.

The final paper provides discussion of the implications for theory development, future research and clinical practice arising from both the literature review and research papers. The thesis ends with a reflective commentary on the research process.

Chapter 1: Literature Review

Experiential Avoidance and Substance Use Disorder: A Systematic Literature Review

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Abstract

Contextual behavioural therapies, including Acceptance and Commitment Therapy, consider Experiential Avoidance (EA) to be central to an understanding of Substance Use Disorder (SUD). This paper aimed to systematically review, synthesise, and evaluate the evidence of EA in relation to SUD. Following a comprehensive database search and screening of titles and abstracts for eligibility according to inclusion criteria, the search resulted in sixteen studies which were included for review. Positive findings suggested that EA is implicated in various aspects of SUD including risk factors, comorbidity with other mental health problems, treatment success and abstinence. However, there were also several inconsistent and contradictory findings. Several limitations were identified including a reliance on cross-sectional designs and self-report measures. Additionally, issues were identified with the measures used, including poor construct validity. Therefore, it is not possible to draw firm conclusions. Implications for future research are discussed.

Keywords

Experiential Avoidance; Substance Use Disorder; Acceptance and Commitment Therapy; Systematic Review.

Introduction

Experiential Avoidance (EA) is defined as the "phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences (e.g. bodily sensations, thoughts, memories) and take steps to alter the form or frequency of these experiences" (Hayes et al., 2004, p. 554). EA is a construct that has been recognised and targeted within many therapeutic approaches. The construct has received an increased amount of attention over the last two decades due to the increase in empirical evidence supporting contextual behaviour therapies, including Acceptance and Commitment Therapy (ACT). EA is a targeted mechanism of change within ACT (Ii et al., 2019) and other third wave behaviour therapies including Dialectical Behaviour Therapy (Linehan, 1993) and Mindfulness-Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002).

EA and Psychological Flexibility are considered as two ends of a continuum (Luoma, Drake, Kohlenberg, & Hayes, 2011). Psychological flexibility refers to an individual's capacity to maintain awareness and acceptance of their present state, without attempts to control or avoid unpleasant or aversive internal experiences (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). It is suggested that being open and accepting of internal experiences in this way and willing to persist with difficult behaviours in the direction of values allows the pursuit of a meaningful and rich life (Kashdan & Rottenberg, 2010). On the converse, EA is seen as what ultimately leads to, or exacerbates, suffering (Hayes et al., 2006).

It is important to note that various terms (psychological flexibility/ inflexibility and experiential avoidance) have been used interchangeably within the literature to describe the same, or stages on a continuum of the same construct (Rochefort, Baldwin, & Chmielewski, 2018). Therefore, throughout this review, the term Experiential Avoidance (EA) will be used to refer to this construct.

EA is correlated with many psychological disorders (Hayes et al., 2004; Kashdan & Rottenberg, 2010). One such example in which EA is particularly pertinent is Substance Use Disorder (SUD; Luoma, Drake, Kohlenberg, & Hayes, 2011). SUD is defined as the continued use of drugs and/ or alcohol despite significant problematic psychological, physiological and environmental consequences such as addiction, poor mental and physical health, relationship breakdowns or financial difficulty (American Psychiatric Association, 2013). EA is posited to contribute to the development, maintenance and exacerbation of SUD (Levin et al., 2012). Additionally, it is thought that EA functions as a core psychological process which contributes to comorbidity between SUD and mental health problems including Post Traumatic Stress Disorder (PTSD), anxiety and depression (Chawla & Ostafin, 2007; Kingston, Clarke, & Remington, 2010). Within SUD, the use of drugs and/ or alcohol often serves the function of controlling, suppressing or eliminating unpleasant thoughts, feelings or physiological sensations (Wilson, Hayes, & Byrd, 2000). Although this may be an effective strategy in the short term, using substances to avoid internal experiences in the long term is associated with various detrimental outcomes such as a diminished capacity for valued living (Hayes et al., 2006), and this paradoxically increases unpleasant internal experiences (Serowik & Orsillo, 2019).

Various self-report measures of EA have been used within SUD. The first of these is the Acceptance and Action Questionnaire (AAQ: Hayes, 1996). This was later updated with the AAQ-II (Bond et al., 2011). In addition, a version developed for EA specific to SUD is the AAQ-SA (Luoma et al., 2011). The Multidimensional Experiential Avoidance Questionnaire (MEAQ; Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011) is another widely used measure of EA. The MEAQ yields a total score for EA, and six sub-facet scores which are: behavioural avoidance, distress aversion, repression/denial, distraction/suppression, procrastination, and distress endurance. A brief version also exists;

the BEAQ (Gámez et al., 2014). Lastly, there is the Avoidance and Inflexibility Scale (AIS; Gifford et al., 2011), this scale was originally developed in relation to smoking behaviour, and has often been adapted for various SUD populations (e.g. Stotts et al., 2015).

ACT and other third-wave and contextual behaviour therapies consider EA to be central to an understanding of SUD, and accordingly, target treatment interventions around a reduction in EA. However, despite this, there has been no systematic review of the role of EA in SUD. The current review aims to address this gap in the current knowledge by reviewing the literature which examines EA in relation to SUD.

Method

Search strategy

Three electronic databases were searched (PsycInfo, Web of Science and PubMed) with no date restrictions applied. Restrictions placed upon the search criteria included English language and peer-reviewed publications. The search terms were as follows: (alcohol AND related AND disorder* OR alcohol AND addiction OR alcohol AND use AND disorder* OR alcohol AND abuse OR alcohol AND dependenc* OR problem AND drinking OR problematic AND alcohol AND use) OR (drug AND related AND disorder* OR drug AND addiction OR drug AND addiction OR drug AND abuse OR drug AND dependenc* OR substance AND related AND disorder OR substance AND addiction OR substance AND use AND disorder OR substance AND abuse OR substance AND dependenc* OR prescription AND drug AND addiction OR prescription AND drug AND abuse OR prescription AND drug AND dependenc*) OR (marijuana AND related AND disorder* OR marijuana AND addiction OR marijuana AND use AND disorder* OR marijuana AND abuse OR marijuana AND dependenc* OR marihuana AND related AND disorder* OR marihuana AND addiction OR marihuana AND use AND disorder* OR marihuana AND abuse OR marihuana

AND dependenc* OR cannabis AND related AND disorder* OR cannabis AND addiction OR cannabis AND use AND disorder* OR cannabis AND abuse OR cannabis AND dependenc*) OR (cocaine AND related AND disorder* OR cocaine AND addiction OR cocaine AND use AND disorder* OR cocaine AND abuse OR cocaine AND dependenc* OR crack AND cocaine AND related AND disorder* OR crack AND cocaine AND addiction OR crack AND cocaine AND use AND disorder* OR crack AND cocaine AND abuse OR crack AND cocaine AND dependenc*) OR (heroin AND related AND disorder* OR heroin AND addiction OR heroin AND use AND disorder* OR heroin AND abuse OR heroin AND dependenc*) OR (opioid AND related AND disorder* OR opioid AND addiction OR opioid AND use AND disorder* OR opioid AND use AND disorder* OR opioid AND abuse OR opioid AND dependenc* OR opiate AND related AND disorder* OR opiate AND addiction OR opiate AND use AND disorder* OR opiate AND abuse OR opiate AND dependenc*) OR (amphetamine AND related AND disorder* OR amphetamine AND addiction OR amphetamine AND use AND disorder* OR amphetamine AND abuse OR amphetamine AND dependenc*) OR (psychedelic* AND drug AND abuse OR hallucinogenic AND drug* AND abuse OR psychotomimetic AND agent AND abuse) OR (MDMA and abuse OR ecstasy AND abuse) AND (“psychological flexibility” OR “psychological inflexibility” OR “experiential avoidance” OR “cognitive fusion” OR “distraction” OR “thought suppression” OR “cognitive suppression” OR “committed action” OR “awareness of values” OR “values avoidance”).

Eligibility criteria: inclusion/ exclusion

Studies were included based on the following criteria: [1] validated measures of EA were employed; [2] the study considered EA in relation to SUD; [3] the study employed quantitative methodology. Exclusion criteria included: [1] main focus on another topic asides

from SUD; [2] studies assessing personality styles or other cognitive or affective constructs, asides from EA; [3] non-primary evidence (e.g., review articles).

Results

The search resulted in 633 publications before duplicates.

Data extraction

Titles and abstracts of the articles were examined for relevance according to the inclusion criteria. In cases of uncertainty, full texts were reviewed for relevance. Hand searching of articles and citations of included papers was also conducted, with no further publications included. The Preferred Reporting for Systematic Reviews and Meta-analyses guidelines (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009) process was used to select publications for inclusion within the review; see Figure 1 for a flow diagram depicting this process.

Inter-rater agreement

Screening was conducted by the first author. However, a proportion of article titles and abstracts were independently reviewed by the second and third authors according to the inclusion and exclusion criteria. No cases of dispute were raised.

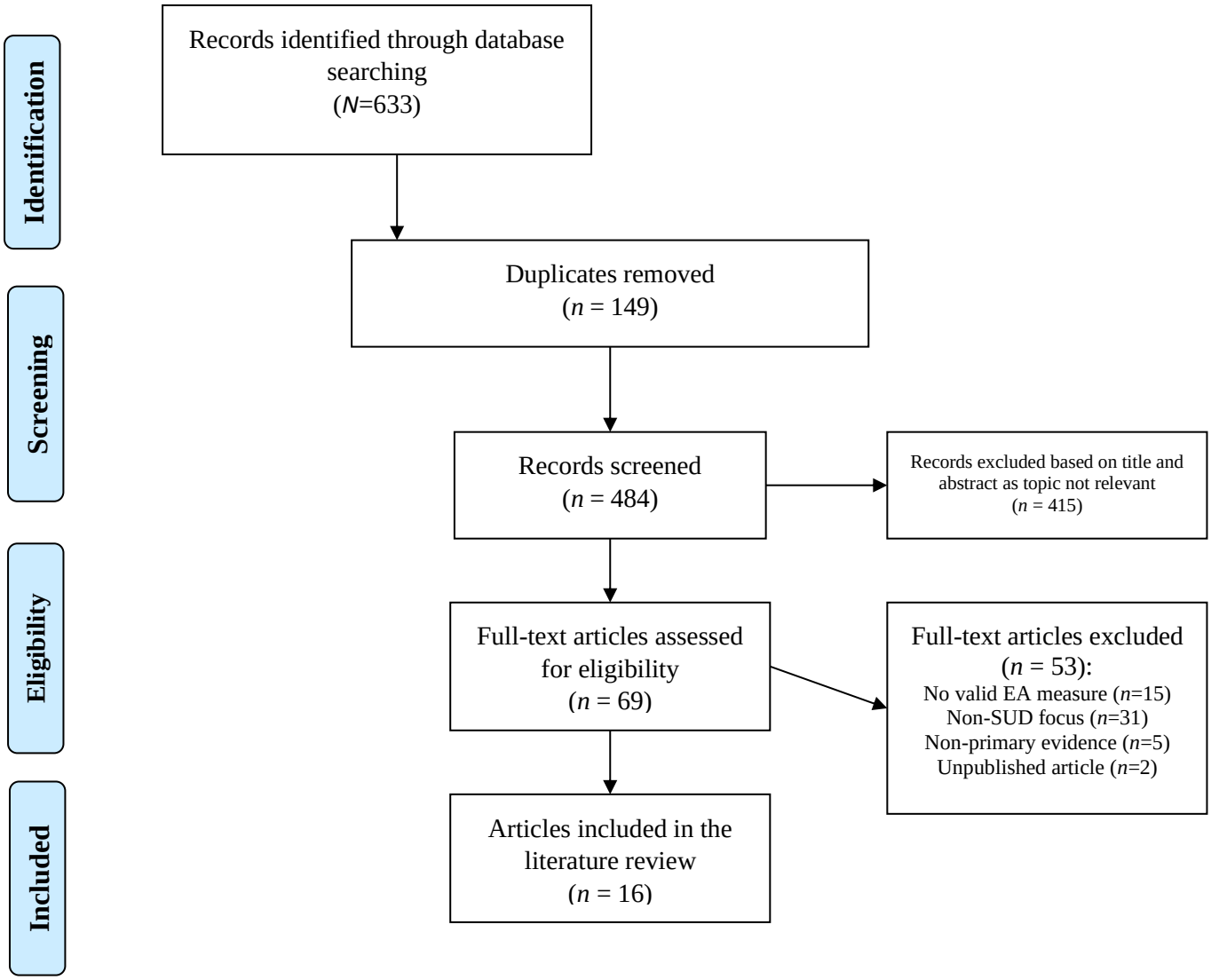

Figure 1: *PRISMA flow diagram showing the literature search and screening process*

The search process identified 16 studies. Data relevant to the review question was extracted (see Table 1). Findings were then organised into over-arching themes that emerged from the data-extraction process; a narrative synthesis of the review findings will be presented in each of the following sub-sections.

Table 1. *Demographics and key findings of the reviewed studies*

Citation & Country	Study Design	Sample size & clinical characteristics	Experiential Avoidance Measure	Key Findings
Bordieri, Tull, McDermott & Gratz (2014) **USA**	Cross-sectional	SUD patients in residential treatment: *N*=123 (62 female), M_{age}= 35.7, with co-occurring PTSD symptoms.	AAQ	EA moderated PTSD and cannabis dependence; a significant relationship was found between PTSD symptom severity and current cannabis dependence only when experiential avoidance was average or higher.
Buckner, Zvolensky, Farris & Hogan (2014) **USA**	Cross-sectional	Cannabis-using adults: *N*=103 (33 female), M_{age}=21.	MEAQ	Higher levels of EA were positively related to both social anxiety and coping-motivated cannabis use. The MEAQ sub-facet behavioural avoidance mediated the relationship between social anxiety and coping-motivated cannabis use, whereas other sub-facets did not.
Dvorak et al. (2013) **USA**	Cross-sectional	University students: *N*=313 (168 female), M_{age}=20, with experience of one or more traumatic life events.	MEAQ	EA sub facets differentiated alcohol-related outcomes between those with high and low PTSD symptomology. The EA sub-facet distress endurance was significantly associated with alcohol-related outcomes among those with high levels of PTSD symptoms.
Forsyth, Parker & Finlay (2003) **USA**	Within groups	Veterans in residential SUD treatment (fully detoxified), *N*=90 (4 female), M_{age}=44.	AAQ	EA decreased from pre to post treatment for alcohol user, comorbid alcohol/ psychiatric diagnosis, and polysubstance use groups. There was no effect seen in the polysubstance use and psychiatric diagnosis group. There was no relationship between EA and drug of choice, and EA did not moderate relationship between drug of choice and anxiety sensitivity.
Greene, Hasking & Boyes (2019) **Australia**	Cross-sectional	University students: *N*=778 (599 female), M_{age}=22	BEAQ	EA was not associated with problematic alcohol use. Females who reported a combination of high levels of externally orientated thinking, but low levels of EA were more likely to have engaged in risky drinking.
Kingston, Clarke & Remington (2010) **UK**	Cross-sectional	Opportunity sample: *N*=290 (249 female), M_{age}=26, who reported having received professional clinical treatment for psychological disorders.	AAQ	EA was associated with alcohol and/ or drug use, and fully mediated the relationship between risk factors (negative affect intensity and childhood trauma) and tendency towards alcohol and/ or drug use (among other problem behaviours).
Levin et al. (2012) **USA**	Cross sectional	University students: *N*=240 (154 female), M_{age}=18	AAQ-II	EA was associated with an increased rate of alcohol-related problems (after controlling for gender and psychological distress). Participants with lifetime history of alcohol abuse/ dependence reported higher levels of EA. EA mediated the relationship between psychological distress and alcohol-related problems (after controlling for gender).
Levin et al. (2014)	Cross-sectional	University students: *N*=972 (606 female), M_{age}=18.2.	AAQ-II	EA was not associated with current SUD relative to a non-SUD control group. EA was higher for participants with a lifetime history of SUD

USA				(small to medium effects) relative to a non-SUD sample. EA was related to comorbidity between depressive, anxiety **or** substance use disorders but did not distinguish between depressive/ anxiety disorders **and** comorbid SUD specifically.
Luoma, Drake, Kohlenberg & Hayes (2011) **USA**	Cross-sectional	Patients in SUD treatment: *N*=352 (141 female), M_{age}=31.	AAQ AAQ-SA	Lower EA levels were found among patients reporting no SUD use within last 30 days relative to those reporting SUD use. Higher levels of EA were found among those with more severe and persistent histories of SUD.
Polusny, Rosenthal, Aban & Follette (2004) **USA**	Cross-sectional	University students: *N*=304 (304 female), M_{age}=19	AAQ	EA was associated with alcohol abuse, although did not significantly mediate the relationship between risk factor (sexual victimisation) and problem drinking.
Ruisoto, Cacho, López-Goni, Vaca & Jiménez (2016) **Ecuador & Spain**	Cross-sectional	University students: *N*=3,232 (1710 female), M_{age}=21.2.	AAQ-II (Spanish version)	High levels of EA were associated with use of alcohol to cope with stress among females. No effect was seen in males.
Ruisoto, Vaca, Lopez-Goni, Cacho & Fernandez-Suarez (2017) **Ecuador & Spain**	Cross-sectional	University professors: *N*=360 (177 female), M_{age}=39.	AAQ-II (Spanish version)	High levels of EA, combined with low job satisfaction, were associated with problematic alcohol consumption in females. No effect was seen in males.
Serowik & Orsillo (2019) **USA**	Cross-sectional	University students: *N*=233 (173 female), M_{age}=20 years.	MEAQ	EA was associated with severity of alcohol use problems, but not frequency of use or presence of alcohol problems. EA was not associated with drug use.
Shorey et al. (2017) **USA**	Cross-sectional	SUD patients in residential treatment: *N*=117 (30 female), M_{age}=41	AAQ-SA	EA, along with distress tolerance were negatively and significantly associated with alcohol and drug cravings. EA was negatively and significantly associated with drug and alcohol cravings after controlling for age, drug/ alcohol problems and distress tolerance.
Stewart, Zvolensky & Eifert (2002) **USA**	Cross-sectional	University students: *N*=182 (109 female), M_{age}=22, who classified themselves as "drinkers"	Experiential avoidance scale (early AAQ version; Hayes et al., 1996)	EA was associated with coping and enhancement-motivated alcohol use.

Stotts et al. (2015) **USA**	Cross-sectional	Treatment seeking cocaine-dependent adults: *N*=99 (17 female), M_{age}= 42.9, defined as responders (those who responded to treatment program) (*n* = 39) and non-responders (*n*=60).	AIS	EA levels were significantly higher among those who did not respond to the treatment. EA was the only significant difference between responders and non-responders; there were no significant differences in negative affect, impulsivity or craving.

EA and SUD within non-clinical samples

A study by Levin et al. (2012) used the AAQ-II to examine group differences in EA within a sample of university students (*N* =240) with and without alcohol problems. A significant difference was found in that students with a history of alcohol problems reported higher levels of EA, with a medium effect size (Cohen's *d* =.46). This effect remained significant after controlling for the effects of age and gender. Similarly, a study by Stewart, Zvolensky and Eifert (2002), used the EAS along with anxiety sensitivity and alexithymia in a regression model to explain alcohol use in a sample (*N* = 109) of university students who classed themselves as regular alcohol-drinkers. EA was the only variable associated with alcohol use for coping and enhancement-reasons. This effect was seen over and above the other variables. Additionally, EA was found to mediate the relationship between anxiety sensitivity and coping-related alcohol use. Kingston et al. (2010) used the AAQ within a structural equation model. In line with the previously reported findings, this study found that alcohol (β = .55) and drug use (β = .64) significantly loaded onto a model of EA within a sample (*N* = 290; predominantly female) who reported experience of mental health problems.

The studies outlined above are limited by their non-representative samples of university students or predominantly female participants, along with reliance on cross-sectional designs which limit their ability to determine temporal relations between variables. That said, the studies do appear to suggest a relatively consistent association between EA and problematic alcohol and/ or drug use among non-clinical populations. However, three studies identified during the search process have found contrasting results.

Using the AAQ-II, Levin et al. (2014), found that EA was not associated with substance abuse relative to a non-substance abusing group among a sample (*N* = 972) of university students. A small to medium effect was seen in that higher levels of EA were

found among university students with long-term substance use, relative to a non-substance use sample. A recent study by Serowik and Orsillo (2019) used the MEAQ to examine EA and alcohol/ drug-related problems among university students (*N* = 233). EA was associated with severity among students with existing alcohol-related problems, however, it did not predict the presence of alcohol-related problems or frequency of alcohol use. Additionally, this study found that EA did not explain any dimension of drug use or dependence. Similarly, a study by Greene, Hasking and Boyes (2019) used the BEAQ to examine the relationship between EA and alcohol-related problems (along with other alexithymia and non-suicidal self-injury) and found that EA did not explain alcohol-related problems.

Due to inconsistencies in findings, it remains to be seen whether EA is reliably associated with problematic alcohol and/ or drug use within non-clinical samples. Some inconsistency between findings could be attributed to the use of different EA measures, such as the MEAQ used by Serowic and Osillo (2019), and the AAQ-II used by Levin et al. (2012). However, inconsistency remains between studies using the same measure: both the studies by Levin et al. (2012) and Levin et al. (2014) used the AAQ-II with contrasting results. Further studies should make use of a consistent measure of EA within a longitudinal design to determine whether EA is associated with problematic alcohol and/ or drug use.

EA, SUD, and gender

Three studies have focussed on gender differences in the association between EA and alcohol-related problems. A study by Ruisoto, Cacho, Lopez-Goni, Vaca and Jimenez (2016), using the AAQ-II (Spanish version), examined the profile of problematic alcohol use among a sample (*N* = 3,232) of university students. The results indicated that females with mid to high levels of EA, along with high levels of perceived stress, had higher levels of alcohol consumption than those with lower levels of EA. Thus, it appeared that there was a

relationship between EA and problematic alcohol-use to cope with stress. However, due to the cross-sectional design it is not possible to fully infer directionality in this relationship. Interestingly, this relationship was not seen within males. Similarly, a study by Ruisoto, Vaca, Lopez-Goni, Cacho and Fernandez-Suarez (2017), using the AAQ-II (Spanish version), examined problematic alcohol consumption among a sample (N = 360) of university professors. The results indicated that high levels of EA were associated with problematic alcohol consumption when combined with low job satisfaction in female participants. Again, this effect was not seen in men.

The studies outlined above have employed large sample sizes, and thus, their finding that high levels of EA are more strongly associated with coping-related alcohol consumption in females would appear relatively robust. The studies are, however, limited by their non-representative samples and cross-sectional designs.

A recent study by Greene et al. (2019) found different results. In this study, problematic alcohol consumption was associated with *low* levels of EA (measured by the BEAQ), combined with high levels of externally oriented thinking styles in female university students, with no significant associations seen in men. The latter study also employed a large sample size (N = 778).

Overall, it seems there are differences between genders regarding the relationship between EA and alcohol-related problems. However, due to the conflicting findings between studies, it is not possible to clearly state the nature of these gender differences. The contrasting results between studies are likely to be attributable to the diverging measures of EA. Future research is required employing more representative samples and a consistent measure of EA.

EA as a mediator of risk factors and SUD

Two studies have examined EA as a mediator between risk factors and problematic alcohol and/ or drug use. In both studies, high levels of EA were found amongst individuals with experience of childhood trauma. Kingston, Clarke, and Remington (2010) employed a Structural Equation Modelling within a cross-sectional design, using data from a sample of participants (N = 290) who reported experiencing mental health problems. EA, measured by the AAQ, was found to fully mediate the relationship between risk factors (negative affect intensity and childhood trauma) and problematic alcohol and/ or drug use (along with other "problem behaviours" such as excessive exercise, deliberate self-harm, binge eating and aggression). Additionally, EA was found to contribute to covariance in problem behaviours, supporting the original postulation by Hayes et al. (1996) that problematic alcohol and/ or drug use along with other problem behaviours share the common function of EA.

The study by Polusny, Rosenthal, Aban and Follette (2004) revealed a different picture. EA (measured by the AAQ) was found to act as a mediator between childhood sexual victimisation and psychological distress. However, EA did not mediate the relationship between childhood sexual victimisation and problematic alcohol use among a sample of female university students (N = 304). Instead, this study suggested EA may contribute to increased psychological distress, which may in turn be related to problematic alcohol use.

In summary, although there is some variation in findings, there is evidence that EA either directly or indirectly (through psychological distress) mediates the relationship between risk factors and problematic drug and/ or alcohol use.

EA, PTSD and SUD

PTSD is particularly associated with the development of SUD (Chilcoat & Menard, 2003), and EA has been posited as a factor which can support an understanding of this association.

Two studies investigated EA in relation to SUD in PTSD samples. Bordieri, Tull, McDermott and Gratz (2014) used the AAQ to examine the association between EA and cannabis dependence among a sample (*N* = 123) in residential SUD treatment with PTSD symptoms. This study found that increased likelihood of cannabis dependence was dependent on both a high severity of PTSD symptoms and average or high levels of EA. Another study by Dvorak, Arens, Kuvaas, Williams and Kilwein (2013) used the MEAQ to examine the relationship between EA and alcohol related problems among students (*N* = 313) with histories of traumatic experiences. The study found that the sub-facet of EA, behavioural avoidance, was associated with alcohol-related problems among participants with a high level of PTSD symptoms.

Overall, there is preliminary evidence that EA is an important construct to consider in understanding the association between PTSD and SUD. However, the insufficient number of studies and reliance on cross-sectional designs mean that firm conclusions cannot be drawn regarding the role of EA in this relationship.

EA and Comorbidity

Three studies examined EA in relation to comorbidity between drug and/ or alcohol related problems and mental health problems. Levin et al. (2012) examined EA (using the AAQ-II), mental health problems and alcohol-related problems among a sample of university students (*N* = 240). The study found that EA fully mediated the relationship between mental health and alcohol-related problems. In a study examining the role of EA as a transdiagnostic process among a sample of university students (*N* = 972*)*, Levin et al. (2014) found higher levels of EA (measured using the AAQ-II) among participants with comorbid anxiety, depression or drug and/ or alcohol related problems. However, EA scores did not distinguish comorbidity specifically between alcohol/ drug-related problems and depression/ anxiety.

Buckner, Zvolensky, Farris, & Hogan (2014) used the MEAQ to examine the relationship between EA, social anxiety and coping-related cannabis use among cannabis-using adults (*N* = 103; predominantly university students). The study found a positive relationship between EA, social anxiety and coping-related cannabis use. However, in the mediational analysis only the behavioural avoidance sub-facet of the MEAQ (overt avoidance of distress, e.g. "I go out of my way to avoid uncomfortable situations") mediated the relationship between social anxiety and coping-related cannabis use. It was interesting that other MEAQ sub-facets such as distraction and suppression (attempts to regulate distressing thoughts and feelings such as "I work hard to keep out upsetting feelings") and distress endurance (e.g., "When working on something important, I won't quit even if things get difficult") did not mediate the relationship.

Overall, it appears that EA, or at least some facets of EA, are involved in the relationship between mental health and drug and/or alcohol related problems. The use of different measures of EA across studies makes it difficult to draw clear conclusions, particularly as the MEAQ allows for the construct of EA to be broken down into sub-facets whilst the AAQ-II does not. The over-reliance on university student samples mean that results may not be representative of the general population. Additionally, this resulted in underpowered analyses in two studies (Levin et al. 2012; Levin et al. 2014) due to a low prevalence of drug and/ or alcohol-related problems among the samples.

EA and SUD aetiology

A study by Luoma et al. (2011) investigated EA, using the AAQ-SA, among a treatment-seeking SUD sample (*N* = 352). The results indicated higher levels of EA among participants with greater severity of, and longer lasting, SUDs. Lower levels of EA were found among participants who reported no substance use prior to the study, relative to those who had

continued to use substances. A study by Forsyth, Parker and Finlay (2003) used the AAQ to investigate EA among a sample (*N*=90) of veterans in residential SUD treatment. Similarly to the study by Luoma et al. (2011), this study found that EA decreased from pre to post treatment across most addiction groups within the sample. However, this was not seen among the group with polysubstance addiction and comorbid mental health problems. This study found no reliable variation in EA according to drug of choice. Additionally, this study found that when EA was entered into a model with other psychological variables such as anxiety sensitivity or depression, it failed to predict addiction severity.

Overall, it appears that EA decreases following abstinence among SUD populations, supporting the role of high levels of EA in the maintenance of SUD. However, due to a lack of consistent findings across studies, it is not possible to draw clear conclusions regarding the role of EA in any other dimension of SUD aetiology. It is likely that these different findings could again be an artefact of the use of different measures employed across studies. The AAQ used by Forsyth et al. (2003) has not performed well with SUD samples (Luoma et al., 2011), which decreases the reliability of these findings. Future research should employ a consistent measure of EA, validated for use with SUD samples, to clarify the relationship between EA and the various dimensions of SUD aetiology (e.g. drug of choice and severity).

EA and abstinence success

Two studies were found which investigated EA in relation to success in SUD treatment and/or abstinence success following SUD treatment. Using the AIS, Stotts et al. (2015) examined EA, along with negative affect and impulsivity among a sample of cocaine-dependent adults engaging in a contingency management treatment program. The study found that EA was the only measure which significantly differed between those who responded and those who did not respond to the treatment. Shorey et al. (2017) used the AAQ-SA to

examine EA, along with distress tolerance, in relation to cravings for drugs and/or alcohol (robust risk factors for relapse) among patients in residential SUD treatment (N = 117). High levels of EA and low levels of distress tolerance were both associated with cravings after controlling for age, gender, and addiction severity. Additionally, the association between EA and cravings remained significant after controlling for distress tolerance, whereas the reverse did not.

Overall, there are broadly consistent findings that lower levels of EA are associated with increased likelihood of abstinence. However, the cross-sectional designs limit the possibility to infer causality from the findings. Additionally, it is important to note that the studies have employed inconsistent measures of EA, which makes it difficult to draw clear conclusions.

Discussion

The aim of this review was to provide a comprehensive review of studies that have investigated EA within SUD. Accordingly, a systematic search of this topic was conducted using PRISMA guidelines (Moher et al., 2009), and a narrative synthesis provided which summarised the key findings of the identified studies. The review found inconsistent findings regarding the association between EA and SUD among non-clinical populations. There was some evidence that EA mediates the relationship between risk factors and SUD and is implicated in the relationship between mental health difficulties (including PTSD) and SUD. It appeared that there are gender differences in the relationship between EA and SUD. Due to inconsistency in the literature, the nature of these gender differences remains unclear. EA appeared to be implicated in treatment success and abstinence among clinical populations. These findings should be considered in the light of the numerous limitations of the studies.

Firstly, almost all studies, with only one exception, used cross-sectional designs. Cross-sectional designs cannot address the issue of causation. Therefore, the mechanisms of causality and directionality in the associations between EA and SUD remain to be seen. Longitudinal research has found a clear effect of EA within anxiety and depression (Spinhoven, Drost, de Rooij, van Hemert, & Penninx, 2014). For firm conclusions to be made regarding the direction, there is a need for similar studies with longitudinal designs to be used within the study of EA and SUD.

Most studies employed sample sizes of around 100 or more participants, with some studies employing large sample sizes of over 3,000 participants. This was a strength of the studies. However, many studies relied on samples of university students, meaning that findings are not representative of wider populations. Among these samples, there was often a low prevalence of SUD, which resulted in underpowered analyses. Only six studies used clinical SUD samples, such as those in residential detoxification treatment. Within these studies, there was a lack of control groups to allow for comparison. Future studies should consider the inclusion of both a clinical SUD group, with a non-SUD control group. This would strengthen the conclusions made. All studies were undertaken in Western societies. Additionally, the samples consisted largely of White/ Caucasian participants. These factors further limit the generalisability of the findings and, as result, it is not clear whether there are differences between cultures and ethnic groups in the association between EA and SUD.

All 16 studies used self-report measures of EA. The limitations of self-report measures are well-established, such as response bias and a potential lack of introspection, which limit the reliability of the findings. Laboratory based behavioural measures have shown promise as measures of EA, such as the Computerised Paced Auditory Serial Addition Task (e.g. Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006). Measures such as this one should be considered for use in future research.

Studies used vastly inconsistent measures of EA. In addition, there have been several issues identified within the measures. For example, the AAQ was found to perform poorly among numerous samples, such as among those with a relatively low level of education (Bond et al., 2011) and among SUD populations (Luoma et al., 2011). Thus, it is likely that the findings of studies which used the AAQ lack reliability. The AAQ was later updated with the AAQ-II (Bond et al., 2011); a more psychometrically sound measure of EA. Furthermore, the AAQ-SA is a SUD-specific variant of the AAQ, which has shown good internal consistency and construct validity for measuring EA within SUD samples (Luoma et al., 2011). However, despite this, only two studies identified in this review used this measure.

Attention has been raised to the lack of clarity regarding the way that EA has been operationalised, and the boundaries between EA and other related constructs such as distress tolerance, thought suppression and avoidance coping (see Chawla & Ostafin, 2007). Gámez et al. (2011) attempted to delineate the relationships between these constructs, which were laid out in their development of the MEAQ. In a recent examination into the construct validity of both the AAQ-II and the MEAQ, Rochefort, Baldwin and Chmielewski (2018) concluded that the AAQ-II has low construct validity and functions as a measure of neuroticism/ negative affect, rather than a measure of EA. This study concluded that the MEAQ is a more reliable indicator of EA, and recommended use of this measure in further research. However, it should be noted that this study consisted of a non-SUD sample. Although the MEAQ has been used to investigate EA among SUD populations, there are currently no studies which have validated the measure for use among this population. A helpful way to progress the literature would be to address the latter point, and, following this to compare construct validity between the MEAQ, the AAQ-SA and other measures such as the AIS. Following the identification of a measure with good construct validity for measuring EA within SUD, it is recommended that future research consistently adopts this measure. It is

also recommended that future studies address the over-reliance on self-report measures and consider employing laboratory based behavioural measures in addition to, or in the place of, self-report measures.

This review was limited by the inclusion of only published articles. Although this increased the chances of including high-quality studies, as it meant that all studies had been peer reviewed, it heightened the risk of publication bias. Further research in the area may have been identified through the inclusion of both published and unpublished literature during the search process.

Conclusion

Overall, there are several positive findings which support the association between EA and various aspects of SUD including risk factors, comorbidity, treatment success and abstinence. However, due to the lack of consistency in the measurement of EA and low construct validity of some measures used it is likely that studies have not measured the same construct. As a result, it is not possible to draw firm conclusions. In order to progress the literature, it is important to establish a valid measure of EA for SUD population and for future research to consistently adopt this measure, along with alternative measures of EA such as laboratory based behavioural measures.

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Conflict of interest

The authors declare that they have no conflict of interest.

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Chapter 2: Empirical Study

A Qualitative Exploration of the Process and Experience of Change in 'Moving On In My Recovery': An Acceptance and Commitment Therapy Based Recovery Group for Substance Use Disorder

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Abstract

Moving On In My Recovery (MOIMR) is a new, Acceptance and Commitment Therapy based group intervention to promote recovery from Substance Use Disorder. When evaluating interventions, it is important to consider how they work for individuals. Therefore, this study used grounded theory to develop a model of the process of change in MOIMR. Ten individuals who were abstinent from substances following MOIMR were interviewed. The model that emerged depicted a chronological series of processes which centred around a core category - reinforcement from engaging with MOIMR. Suffering from substance use supported initial engagement. Key initial processes were group safety which involved connection, normalisation, and cohesion, combined with coming to understand substance use. Later processes reflected core ACT mechanisms including value-guided action and acceptance of difficult internal experiences. Later processes took time, with participants often completing MOIMR more than once. Limitations, along with implications for clinical practice and future research are discussed.

Keywords

Substance Use Disorder, Acceptance and Commitment Therapy, group therapy, recovery, change process, qualitative, grounded theory

Introduction

Substance Use Disorder (SUD) is characterized as the habitual, compulsive and continued use of alcohol and/ or drugs despite problematic cognitive, behavioural and/or physiological consequences (American Psychiatric Association, 2013). SUD is a serious widespread concern; government statistics suggested that close to 300,000 people were in contact with substance misuse services in the UK between 2018-2019, a figure which increased by 4% from the previous year (Office of National Statistics, 2019). Common sequalae of SUD include significant distress, impaired functioning (Mueller, Degen, Petitjean, Wiesbeck, & Walter, 2009) and unemployment (Henkel, 2011). Importantly, SUD is a leading cause of premature mortality (Degenhardt et al., 2013). Office for National Statistics (2020) data showed that SUD-related deaths accounted for 10% of all preventable deaths in the UK in 2018. This was the fourth highest cause of preventable deaths after cancer (35%) and diseases of the circulatory (27%) and respiratory (14%) systems.

SUDs are often chronic in nature and frequently associated with comorbid mental health problems (Kessler, Chiu, Demler, & Walters, 2005). There is a long history of psychological intervention within SUD, with approaches drawn from a variety of traditions (Byrne et al., 2019). Approaches which have been applied include contingency management, cognitive behavioural therapy, motivational interviewing and couples and family therapies (Carroll & Onken, 2005). Reviews of these approaches (e.g. Prendergast, Podus, Chang, & Urada, 2002) have suggested that abstinence rates tend to be low and short lived. Furthermore, there is a lack of empirical evidence for approaches which effectively address comorbidity between SUD and mental health problems (Johnson, Elsegood, & Lennox, 2019).

Group based interventions are recommended for promoting recovery from SUD (Department of Health, 2011). Examples of widespread recovery groups include the Twelve-Step Fellowships (Alcoholics Anonymous & Narcotic Anonymous; Wilson, 1955) and SMART recovery (Horvath & Velten, 2000). However, evidence has suggested that rates of recovery success following these interventions tend to be low. Therefore, arguments have been made for a new, effective group approach to the treatment of SUD (Moos & Moos, 2006).

With the above points in mind, it is timely to investigate new group based psychological interventions for SUD. Over the last decade, increasing attention has been given to the application of third wave and contextual behaviour therapies in the treatment of SUD. These approaches focus on the use of mindfulness and acceptance strategies to reduce the likelihood that internal experiences (such as thoughts and emotions) will lead to substance use (Lee, An, Levin, & Twohig, 2015). The main difference from traditional cognitive behavioural therapies is the emphasis on the context and function of internal experiences, rather than on the content (Stotts & Northrup, 2015). Contextual behaviour therapies, including Acceptance and Commitment Therapy (ACT), have gathered interest over recent years as approaches for effectively addressing comorbidity between SUD and mental health problems (see Bowen et al., 2009; Witkiewitz, Bowen, Douglas, & Hsu, 2013). Within the ACT framework, substance use is seen as a form of ‘experiential avoidance’ (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996), whereby individuals use substances to avoid unwanted thoughts, feelings and physiological experiences. ACT focusses on approaching these internal experiences with awareness and acceptance, rather than avoidance. Emphasis is also placed upon identifying personal values and supporting individuals to build a meaningful life aligned with these values (Hayes, Stosahl, & Wilson, 2012). The evidence base for the use of ACT in the treatment of SUD is growing. A recent meta-analysis by Lee et al. (2015) found a

significant small to medium effect favouring ACT over treatment comparisons. Additionally, a recent systematic review by Byrne et al. (2019) found that ACT is useful in treating comorbid SUD and mental health problems.

Coproduction has been found to be a vital component of psychological interventions within SUD (Park, 2020). Combining coproduction with evidence based approaches, Moving On In My Recovery (MOIMR; Hogan, 2016) is a new group based intervention for SUD. MOIMR draws on ACT to address SUD and mental health problems and support the transition out of substance misuse services. MOIMR was developed following consultation with people with lived experience of recovery and professionals working in the area, around what was most helpful in the recovery process. It aims to bridge the gap between formal treatment provision and mutual aid by combining ACT with space for group cohesion and support. Sessions are co-facilitated by professionals and graduates of the programme and typically held within substance misuse service settings. The programme is aimed at individuals who are considering transitioning out of treatment services.

MOIMR consists of twelve weekly, two-hour sessions. Topics covered include moving forwards, dealing with anxiety and low mood, building/rebuilding relationships, relapse, grief and loss, identity, shame, stigma and moving on, all of which are delivered from an ACT-based perspective. Each session begins with a ‘check-in’, where group members discuss how they have applied MOIMR throughout the past week and ends with a ‘check-out’ where group members agree how they will apply learning throughout the next week. The check-in and check-out also give group members opportunity to offer support and share experiences. Challenges are set each week, which encourages commitment and making change. An initial feasibility study found promising results including sustained abstinence at three month follow up, increase in psychological flexibility, improved social

functioning and decreases in depression and anxiety (Hogan, Cox, Bagheri, & Rettie, 2020). Plans are underway for a larger randomised control trial.

Research in to psychological interventions in SUD (including ACT based interventions) has largely focussed on quantitative measures (Johnson et al., 2019; Neale, Allen, & Coombes, 2005). However, it is recognized that this type of research does not uncover the deeper dimensions involved in the process of recovery, and fails to explore mechanisms for change (Russell-Mayhew, Von Ranson, & Masson, 2010). It has been proposed that future research should place a larger focus on understanding the change processes involved within recovery (Orford, 2008). Thus, when evaluating therapeutic approaches it is important to investigate not only whether or not an approach works, but also *how* it works for individuals (Mason & Hargreaves, 2001).

A literature review found only one published study employing qualitative methodology to explore the application of ACT within an SUD population (Johnson, Elsegood, & Lennox, 2019). No studies were found which pertained to the processes of change during an ACT based intervention for SUD. Grounded theory methodology (Strauss & Corbin, 2015) was selected for the present study due to the emphasis this approach places upon developing a model grounded in the experiences of participants. Grounded theory is appropriate when little is known about a phenomenon, and allows uncovering of the processes inherent to the area of inquiry (Birks & Mills, 2015), such as the process of change through engagement with a recovery group. Grounded theory has been applied to understanding the processes involved in therapeutic groups including mindfulness-based approaches for depression (Mason & Hargreaves, 2001) and distressing voice hearing (McHale, Hayward, & Jones, 2018). The present study aimed to develop an explanatory model of the process of change in MOIMR, grounded in participants' experiences.

Method

Design

Grounded theory methodology, following the procedures outlined by Strauss and Corbin (2015), was used to generate and analyse data. A semi-structured interview schedule was used to gather data (see Appendix A for a copy of the initial interview schedule). The schedule was drawn up by the research group, and feedback was sought regarding the appropriateness of the questions from a MOIMR graduate and group facilitator. As per grounded theory methodology, the interview schedule evolved throughout the data collection process. However, general topics included life before MOIMR, experience of the group process, what was learnt through MOIMR and what aspects were helpful and unhelpful. The interviews were conducted in a participant-centred manner, with open questions and follow up questions and prompts where appropriate.

Procedure

- *Participant recruitment*

Participants were recruited through NHS substance misuse service staff within Betsi Cadwaladr University Health Board in North Wales. These staff members provided information about the study to all of those who met the recruitment criteria. Participants were given an information sheet about the study (see Appendix B) and were asked to complete and return a form (see Appendix C) to state they were interested in taking part and willing to be contacted. The first author contacted participants over the phone, answered any questions about the research and arranged to carry out face to face interviews. Informed consent was obtained immediately prior to the interview taking place (see Appendix D for a copy of the consent form).

- *Inclusion/ exclusion criteria*

Participants were eligible if they had completed MOIMR within the past 12 months and attended a minimum of 9 out of the 12 group sessions. In order to take part, participants must have been in recovery and abstinent from substances for a minimum of three months after completing MOIMR. Individuals who had dropped out of the group or who were still using substances were not eligible for the study.

- *Participant characteristics*

Ten participants took part in the research. In line with previous research, this sample size is typically adequate when investigating experiences among a sample of people who are homogenous on the variable of interest (Guest, Bunce, & Johnson, 2006). The sample consisted of two female participants and eight male participants. The age of participants ranged from 36 to 64 years (*M*=52.9). Participants were previously addicted to alcohol, heroin, crack cocaine, amphetamines or multiple substances. All participants reported long histories of addiction ranging from 15 to 35 years. Length of time in recovery at the point of interview ranged from six months to two years.

- *Data generation*

Ten interviews were conducted over four months between November 2019 and February 2020. The interviews were carried out in three stages. During the first stage open questions were asked, to allow initial ideas to emerge. In keeping with theoretical sampling (Strauss & Corbin, 2015), the interview schedule was revised after each interview and evolved throughout the data collection process, as categories and subcategories began to become clear. Thus, during the second stage, questions were more focussed around the emerging categories. The final stage was used to confirm hypotheses and strengthen the validity of the model. Data collection ceased when the research team were reasonably confident that

saturation had been reached; no new concepts were emerging from the data. Interviews lasted between 20 and 80 minutes (*M*=48 minutes) and were transcribed by the first author within one week of each interview.

- *Data analysis*

All analysis was carried out by hand by the first author. In keeping with grounded theory method, analysis was carried out throughout the study, and was used to shape the data collection process. Open coding, using line by line analysis, was carried out initially to generate concepts (see Appendix E). These concepts were transferred to cards, which were sorted and grouped around higher order categories as the analysis took shape (see Appendix F). Properties and dimensions of the categories were identified, and axial coding was used to clarify relationships between the categories. As the core category emerged, selective coding was employed which involved re-visiting the categories and delineating their relation to the core category. Constant comparison and memoing were used throughout (see Appendix G) to ask whether a concept had been seen before, to note ideas and reflections and use diagrams to support the development of the model (see Appendix H).

Ethical considerations

Ethical approval for this study was granted by Bangor University School of Psychology in July 2019 (see Appendix I), and from NHS Wales Research Ethics Committee in September 2019 (REC reference: 19/WA/0220; see Appendices J and K). The study was also registered with the local NHS Research & Development department (see Appendix L). Capacity to consent was assessed by asking participants to talk through their understanding of the benefits and potential risks of taking part in the research. The first author, who completed the interviews and analysis, was not involved in any aspect of the participants' care within substance misuse services.

Quality assurance methods

The first author made use of theoretical memoing to note personal perspectives on the data and any emotional reactions to the data generated, with the intention of maintaining awareness of her perspective. Additionally, a coded transcript was audited by the second and third authors, to ensure credibility within the coding and category generation.

Epistemological Approach

A critical realist epistemological stance was adopted in the planning of the research and in the analysis. From this stance, it was assumed that participants were creating a narrative which corresponded to reality. Thus, participants' social or personal characteristics (e.g. gender, race, religion) were not considered in the analysis. This was appropriate for the study as the main aim was to understand the process and experience of change specifically through engaging with MOIMR. Although these characteristics undoubtedly influenced participants' interview responses and experience of MOIMR, an in-depth exploration of this was outside of the scope of this study. The analysis was conducted at a semantic level; aspects such as the tone or intonation of what was said were not considered.

Author Reflexive Statement

The author is a white, female trainee clinical psychologist with no personal experience of SUD or substance misuse services. Additionally, she has no professional experience of delivering groups to support recovery from SUD. That said, the author has professional experience of using ACT to support individuals presenting with various mental health problems. She holds the belief that ACT is an effective and helpful therapeutic approach.

The author was led by the data during the analysis. However, her lack of personal and professional experience of SUD could potentially have limited her ability to fully identify concepts which related to this. In order to account for this, the third author, who is a clinical

psychologist with extensive experience of working with individuals with SUD, oversaw the analysis process. It is also worth noting that the third author was responsible for the development of MOIMR. Therefore, it is acknowledged that the emerging categories may have been influenced by the author's professional experience of and belief in the benefits of ACT and the third author's vested interest in MOIMR as an effective intervention. Efforts were made to account for this by intentionally searching for negative incidences, sorting codes according to those that were and were not in line with ACT, and actively encouraging participants to discuss any unhelpful aspects of MOIMR. Additionally, the second author was not involved with MOIMR and had less experience of using ACT. Therefore, the second author supported the first and third authors to recognise and look beyond biases during the analysis process.

Results

Overview of the Model

Figure 1 is a model of the process of change made throughout MOIMR. Categories and subcategories are represented in Table 1 and highlighted in the text in bold. The model depicts the change processes that occurred through participants' engagement with MOIMR, grounded in the descriptions of participants' experiences. The model begins prior to MOIMR with suffering resulting from substance use, timing factors, and reaching a turning point of deciding to make changes. Positive preconceptions supported initial engagement with MOIMR. Feeling safe in the group setting and beginning to understand substance use from a psychological perspective were the first stages that occurred for participants, which were necessary for further changes to be made. Investment in to MOIMR and recovery followed. The MOIMR focus on identifying what is important in life (values) supported participants to take behavioural action that was consistent with this. Positive outcomes began to be seen

following these stages, which had a bi-directional relationship with the processes, strengthening the likelihood of their continuation. Time was taken to reach the final stages of acceptance of emotions and making space for difficulty, which often involved completing MOIMR more than once.

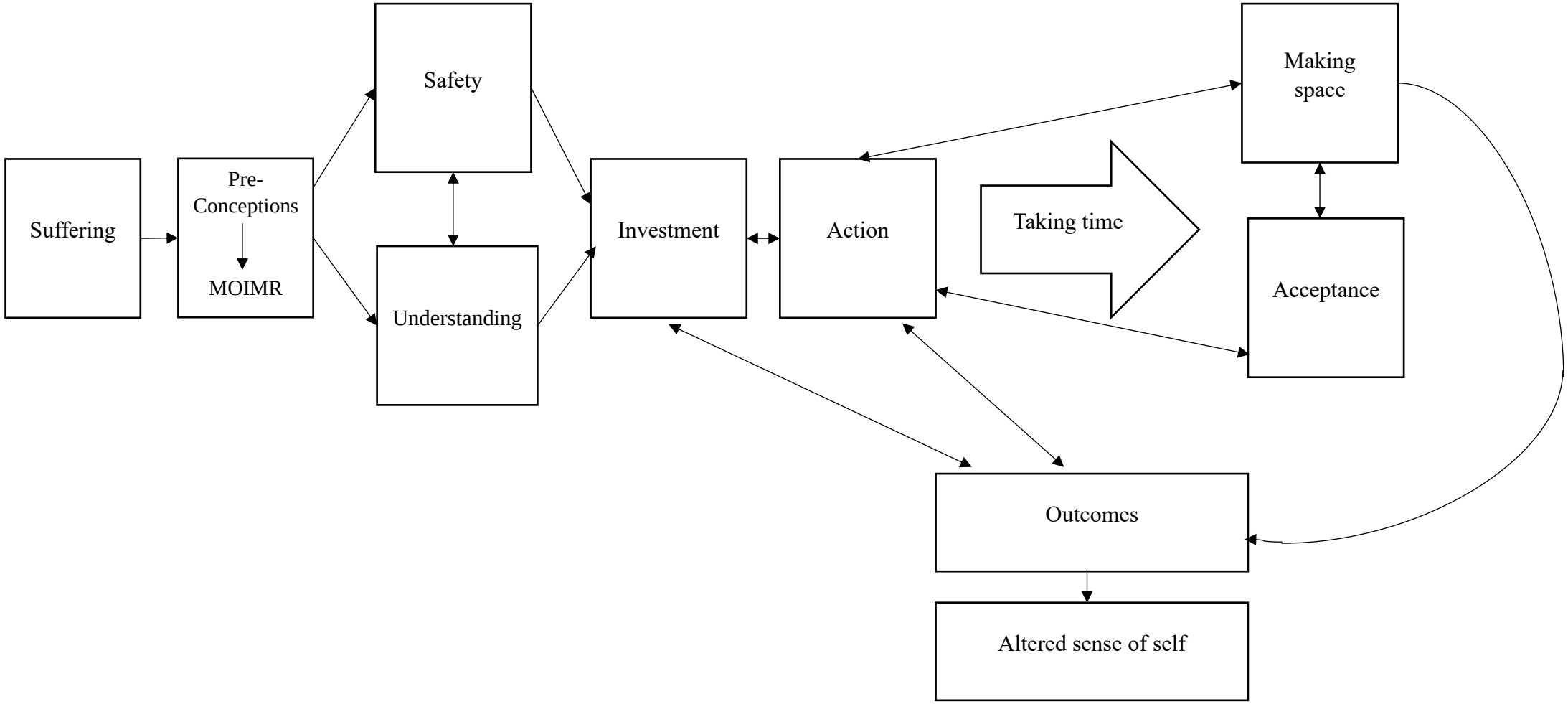

Figure 1*: Model of the process of change through MOIMR*

Table 1: *Categories and Subcategories*

Categories	Subcategories
A. Suffering	Detrimental impacts of addictive behaviours
	Feeling stuck
	Seeking help
	Timing factors
	Pre-conceptions
B. Safety	Scary at first
	"We were all in the same boat"
	Connection
	Shared journey
	Facilitation style
C. Understanding	Resonant
	"Puts in layman's terms"
	Balanced structure
D. Investment	Motivation
	Hearing the stories of others
	Seeing the benefits
	Snowballing effect
	Making changes in other areas
E. Action	Meaning
	Focus point
	Value-guided action
	Placing priority in recovery
F. Taking time	Completing MOIMR more than once
G. Making space for difficulty and discomfort	Understanding of maladaptive coping strategies
	"Leaning In"
	Making space for emotions
	Getting in touch with loss
	Mindfulness
H. Acceptance	"Letting Go"
	Gaining distance from thoughts
I. Outcomes	Integration
	De-stigmatised
	Achievement
	Confidence
	Improvements in relationships
	Enrichment
	Altruism
J. Altered sense of self	Opening to the possibility of a different life
	Reduced self-stigma
	New self

Core Category

The core category that emerged from the analysis and could be seen to some degree within all other categories, was the *reinforcement of engaging in MOIMR and with recovery consistent behaviours*. Given the group nature of MOIMR, this reinforcement involved a strong social component.

For all participants, there was a great degree of suffering which had resulted from substance use prior to engaging with MOIMR. Thus, the reinforcement that was gained from engaging with recovery consistent behaviours through MOIMR in terms of social connection and improvements in daily life, was sufficient to support participants to overcome barriers including fear of being in a group setting, motivation and the difficulty of getting in touch with some painful experiences. Engaging in recovery consistent behaviours began to hold an increasingly greater degree of reward than engaging in substance use.

Category A: Suffering

This category represents the large degree of suffering that participants were experiencing prior to engaging with substance misuse services, and prior to MOIMR. Participants explained that there had been several **detrimental impacts** resulting from their substance use, including within their families, relationships and work, for example:

P4: *"and cos I wasn't seeing my daughter I was drinking more and more and more and then I lost me job as well… and it went downhill from there really…"*

Participants described **feeling stuck**, with a lack of meaning and a general dissatisfaction with life. This had resulted in **seeking help** from substance misuse services, however, many participants described that they had been with these services for many years and had not made any significant changes in their substance use. Various **timing factors** were described

by participants prior to MOIMR; physical and/ or mental health problems were often mentioned. For example:

P5: *"I felt so low and got to such a low place… I was both physically and mentally drained… literally drained… and you know I felt there was only one way I could only go up here cos you know that was really how bad it was"*

Due to the culmination of these factors, all participants explained that they had reached a **turning point** where a decision had been made to take steps towards recovery. For all participants, this occurred prior to MOIMR:

P7: *"it was my time you know to turn it around… I just couldn't carry on like that… I'd had enough you know it wasn't just the drugs it was all the crap that went with it I couldn't do it anymore mentally I felt like I was gonna have a nervous breakdown… I was on the edge"*

Many participants described **positive pre-conceptions** of MOIMR which they had developed through hearing of the benefits others had experienced. Others described positive experiences of other ACT based recovery they had taken part in groups prior to MOIMR. These had led participants to want to take part in MOIMR.

Category B: Safety

This category represents the first process that occurred when participants began MOIMR. Participants described that entering a social setting, after what had often been an extended period of isolation due to substance use, was **scary at first.**

P6: *"yeah anxiety ridden… I was really bad I didn't live in the toilet but I spent a tiny bit longer than I should have done there… I'd been out of the world for so long and then coming back it was a real shock"*

This was alleviated through the creation of a non-judgemental environment; participants described the feeling that **"We were all in the same boat".** This process was enabled via warmth, genuineness, and openness on the part of the group facilitators. Group members began to feel safe to share experiences, of which they may have felt highly ashamed and kept hidden for many years. Hearing that others in the group had had similar experiences was de-stigmatising and normalising:

P3: *"it was good… open friendly people and it was very erm warm and welcoming… it was nice because people have been in your situation you know and you can tell that about the group… whereas you get a lot of judgemental people you know stigma and that… there's no feeling of that no stigmatism or anything it's just normal people who've had a bad time"*

P8: *"you speak about things and you think I was the only one who's been there sort of thing and it sort of opens doors and you think Christ we're all in the same boat here… it is good to hear I'm not the only one… I'm not a freak"*

Participants described a strong **connection** with other groups members; many participants formed strong bonds and friendships. These positive relationships were important as participants often described having to separate themselves from existing friends and relationships which may have perpetuated substance use:

P8: *"at the start of the programme I was quite nervous thinking oh do I want to talk about that should I mention this but eventually I'd open up… and being able to open up and offload that in front of people who understood that helped in a big way"*

P1: *"I made two very good friends out of it you know and that's been missing… that's been missing in my life… I hadn't made new friends for 20 years while I was on the drink"*

The connection evolved into a sense of a **shared journey towards recovery**:

P6: *"I think there's this thing with being in a group… even if it's not spoken it's an incentive purpose"*

The group employed a flattened hierarchy approach where the **facilitation style** involved a degree of self-disclosure and participation in weekly challenges etc. This contributed to the overall feeling of safety.

Category C: Understanding

Participants described beginning to develop an understanding of their substance use; all explained that the content of the programme was extremely **resonant** with their own experiences:

P8*: "it was almost as though I wrote the bleeding thing… thinking oh he's [facilitator] got it all on paper what I've got in here [points to own head]"*

The material was accessible, using everyday language to explain ACT ideas and psychoeducation. Participants explained that having this understanding meant they felt able to begin to take steps to change their addictive behaviours:

P7: *"it **puts in layman's terms** what's going on mentally you know"*

P7: *"to understand what was going on and take it instead of getting all these emotions and not knowing like I had done before… to be able to break it down and understand and how to deal with cravings as well…"*

Participants appreciated the **balanced structure** which allowed opportunity for openness and sharing as well as covering structured topics each week. For example:

P3: *"there's like a topic in them [group sessions] and stuff it was like keeping my mind awake and focussed… I've been to other groups and that's more like people just go there to have a chat really"*

Category D: Investment

Some participants described an initial lack of **motivation** to the group and a lack of, or only partial investment in recovery. A sense of scepticism around the benefits of MOIMR was described, along with a reluctance to engage in group discussions and complete tasks set within the group:

P6: *"should I go home should I not you know I just didn't really wanna engage"*

Participants described that motivation began to build through **hearing the stories of others** who had recovered through the group, through the peer facilitators:

P2: *"seeing the positivity of those people who'd done it I'd say in my case that gave me the will to do it"*

Participants described beginning to tentatively try things out and beginning to **see the benefits:**

P4: *"I sort of did start applying things and you know like more motivation came and I was like doing things more"*

Motivation continued to grow throughout the group, comparable to a **snowballing effect**:

P1: *"[we] set a challenge each week… for the first few weeks I never did one… but by the end of it I was doing every one"*

Participants described that they began to develop motivation to make **changes in other areas of their lives**, outside of their recovery:

P7: *"it starts definitely with Moving On… like coming here volunteering…it led to all of this for me you know… I think if it weren't for that I'd probably have started using again"*

Category E: Action

This category refers to participants taking action to implement changes in their lives through changes in their behaviour. Participants described a lack of **meaning** prior to MOIMR:

P1: *"empty I suppose is the word that strikes to mind… there was just nothing in my life no structure"*

Weekly attendance at MOIMR provided a **focus point** in the lives of participants. Engaging with the weekly challenges was described as giving participants a way of spending their time which felt productive, and supported participants to begin to implement structure into their lives.

P2*: "it made me realise I had other things I wanted to do… I'd been through a phase of purposeless like I've got nothing to do well there's no point doing that…"*

P6: *"It's good cos in the chaos of the addiction I just lurched from one situation to another and everything was so up in the air"*

The idea of **considering one's values and using these to guide action** was emphasised in MOIMR with the metaphor of "anchor points"; for most participants this meant using activities which were related to their values to guide them when difficulty arose. This gave participants a way of considering alternatives to their substance use which connected them with what was important to them.

P1: *"If I start feeling down with the depression I don't think now right I'm gonna go and get a drink… what I do now us use me anchor points which is music, fishing, decorating… I've*

got quite a few anchor points… erm reading books… the things I never ever did before I went to the group"

Participants described a process of placing **priority in recovery** and building a substance free life. This was a difficult process, for many participants it meant ending relationships and friendships that perpetuated addictive behaviours.

P7: *"my partner did still use so I just always got dragged back in to it… so I had to get rid of him to stop so that was a big thing you know… cos we were together 20 years"*

Category F: Taking time

Several participants had **completed MOIMR more than once** and emphasised that without this they would have struggled to make considerable changes:

P6: *"if anything I'd say it doesn't all sink it at once… it took me doing it twice to really absorb it"*

Those that had only completed the group once discussed wanting to do it again, suggested they felt the group should be longer or that there should be a follow-on group. Some participants explained that some of the processes (see Categories H & I) took a long time to grasp and explained that without completing the group more than once they would have struggled to apply them.

Category G: Moving from a place of avoidance to making space for difficulty and discomfort

Participants described a long history of substance use as a means of avoiding uncomfortable emotions and a lifestyle which involved avoidance of numerous situations:

P1: *"I just hid behind the bottle"*

MOIMR supported participants to **understand the consequences of maladaptive coping styles** (typically using substances to manage uncomfortable thoughts or emotions):

P7: *"I'd of just wanted a hit I wouldn't have even… even just simple things like paying bills… learning if there's a problem dealing with it straight away cos if you bury your head in the sand they just get worse"*

The term **"lean in"** is used within MOIMR which refers to moving towards, rather than avoiding difficulties that arise. This was typically used to refer to internal experiences including thoughts and memories, and situations that arose in life. Although all participants described some aspect of this, this idea was more apparent in the descriptions of participants who had completed MOIMR more than once. For example, this quote is from a participant who had completed MOIMR three times:

P4: *"you sort of turn to that fear and just like do it… it's been really hard but now I see the benefits are brilliant"*

Participants were able to describe how they had applied this to their day to day lives, for example one participant described a recent experience of losing a loved one:

P8: *"I think the whole family was expecting me to crash you know to go back down the bad line but what I did instead of that I sort of threw myself in to everything I organised the burial the funeral everything… I knew through the programme like dwelling on things and just thinking well one bag will switch it off for today it's not gonna stop it's gonna carry on I knew that"*

Participants also described learning to **make space for emotions**, both pleasant and unpleasant, and the idea of a valued life being one that involves the experience of some unpleasant emotions. This was also apparent to a greater degree within the descriptions of participants who had completed MOIMR more than once.

P9: *"I'm gonna get peaks and troughs as you do that's life not an excuse to use... that's how it was before you know"*

Participants described beginning to acknowledge thoughts rather than pushing them away:

P10: *"I think I'd learned to lock them away [thoughts] and yeah by doing that they're just gonna keep coming back and you'll have to deal with it"*

MOIMR supported participants to **get in touch with losses**. Loss was very evident in the lives of participants, for whom their addictive behaviours may have been a means of blocking out the pain associated with loss. Loss was also a common consequence of substance use. For others, loss was relevant to the drugs themselves. All participants explained that through MOIMR they got in touch with their losses, all explained that this was the most difficult part of the group and their overall experience of recovery.

P7: *"facing that loss without drugs learning that cos you're sedated for so long all your emotions are sedated as well… so facing that having to think about that instead of just pushing it to the back of my mind… that was the hardest thing"*

Mindfulness strategies were described by some participants as a means of allowing space for and coping with intensity of emotions:

P7: *"If I have a craving it's ok don't panic…I breathe do my mindfulness… it helped me not to react to my emotions mindfulness did"*

Although mindfulness concepts are relevant to many of the processes (e.g. the mindfulness concept of observing thoughts), using mindfulness as an explicit strategy was not discussed at all by some participants, suggesting that it was not something that everyone took on board.

Category H: Acceptance

This category reflects another process which was more apparent within the descriptions of participants who had completed MOIMR more than once. The idea of **"letting go"** is emphasised within MOIMR. For all participants, this referred to trying to let go of regrets about their past behaviour and their past selves, such as years spent with little focus in life other than seeking substances, or the impact of substance use on relationships. Some participants described fully applying this idea, whereas some were clear that there were some things they did not feel they could let go of.

P8: *"I've carried a rucksack full of problems my whole life… I try to let it go now what's done is done"*

P10: *"I've let go of feelings about my addiction… there's still a few things that I have a lot of problems about letting go mainly with family"*

These contrasting responses indicate for some, there was an element of remaining struggle with their past selves and past behaviour towards others.

Some participants described the process of learning to gain **distance from thoughts.** This involved the application of mindfulness principles and learning to take an "observer" perspective on one's thoughts in relation to addiction. For example:

P7: *"before I was like no no no don't don't don't… and you're mentally at war with yourself… but understanding ok I'm just craving… accepting that I'm craving and then saying no thank you… I'm not doing it today"*

This captures the process of moving from a place of being "at war" with one's mind to being "at peace".

Category I: Outcomes

Integration of MOIMR into the lives of participants was facilitated via the check-in process at the start of each group. Participants explained that hearing from others about how they had applied the group principles helped them to think about how they could apply it to their own lives:

P2: *"I picked up on it so much more because other people had brought it up in their check in… so it's reiterating an important point of the course so that checking in process is great"*

All participants described a gradual process of integrating learning from MOIMR, which led to positive outcomes. These outcomes had a bi-directional relationship with the learning, whereby they strengthened the value of integrating this and therefore, supported participants to continue to do so, which in turn led to further positive outcomes.

Participants described feeling **de-stigmatised** and having an increased sense of self-worth

P8: *"I don't feel as little anymore… as much of a waste of space… more of an equal you know"*

A sense of **achievement** from the acknowledgement of their success in recovery by self and others was described:

P7: *"it's little steps and every time I feel proud and a little rewarded"*

A number of participants found that by engaging with others in the group, by carrying out weekly challenges and moving towards difficulty that this gave an increased sense of **confidence:**

P5: *"I've been very much more confident I can take things in my stride without erm panicking oh what am I going to do I must have a drink"*

Though mentalising, being able to see others' perspectives and without the strain that substance use placed on relationships, several participants spoke about **improvements in their relationships with others.**

Participants described an overall **enrichment** of their lives:

P9: *"I've learnt to go and appreciate the outdoor walks and mountains… go swimming with my son I enjoy things like that now they're not a chore I love doing them… I'm in touch with that side of me now"*

All participants spoke about wanting to **altruistically** use their own experience of recovery to help others. Most participants described wanting to stay involved with MOIMR groups as facilitators and many also described aspirations towards careers in recovery work:

P3: *"That's what I'm perusing now… going into you know helping people… caring and stuff maybe… becoming like a keyworker myself or helping people"*

This final subcategory reflected an investment in the identity as someone in recovery.

Category J: Altered sense of self

This category refers to the process of altered perspectives participants held on themselves and their lives, which was apparent as a later process in all participants' experiences of MOIMR and recovery in general.

Participants spoke about beginning to **open to the possibility of a different life** outside of one dominated by substance use:

P1: *"It just made you realise that alcohol wasn't your life whereas before it was I was always thinking right where's the next drink coming from… before the group I didn't like me I didn't like the world… and now I'm slowly but surely getting to like myself again"*

MOIMR addresses the ideas of both stigma and **self-stigma**. Participants described realising that a lot of the perceived stigma they felt was internally generated, and that their assumptions of how they were viewed by others were not necessarily accurate:

P7: *"you don't know what other people are thinking you know you're just presuming cos you're judging people by your own standards so you just put yourself down mentally so you think everyone else is thinking the same but they don't…"*

P8: *"I've always had this fear that it's written all over me you know druggie and all this sort of thing but it wasn't so"*

Finally, a sense of **new self** was reflected in the way participants spoke about their past selves and their past addictive behaviour.

Discussion

This study is the first attempt to build a model of the process of change throughout an ACT-based group therapy for recovery from SUD. The study's finding will now be considered in the context of existing literature and established theory. Clinical implications, suggestions for future research and the limitations of the study will also be outlined.

Links with extant literature

The core category that emerged from the analysis was the reinforcement that came from engaging with MOIMR and with recovery-consistent behaviours. All participants described suffering which resulted from their substance use. Participants described that this suffering outweighed the rewards of substance use, thus, the substance use was no longer positively reinforced. The detrimental impacts which resulted from substance use had increased to the point whereby substance use for experiential avoidance (negative reinforcement) was no

longer effective. This is consistent with reinforcement theories of addiction (for a recent review see Wise & Koob, 2014), and with the ACT based explanation of addiction (Hayes et al., 1996). The social support, connection and identification that resulted from engaging with MOIMR was highly positively reinforcing, and thus supported the continuation of recovery-consistent behaviours and was sufficient to support participants to overcome barriers. This is consistent with the 'differential reinforcement of other behaviours' strategy (e.g. Higgins et al., 1991), often used within SUD treatments such as contingency management. Through an incremental process of applying MOIMR to daily life, benefits were experienced. These improvements in daily life served as various forms of positive reinforcement, which began to far outweigh any reinforcement from substance use. Participants described that life was so drastically improved, that they would never go back to substance use. This is largely consistent with behavioural economics theory (Bickel & Vuchinich, 2000).

Consistent with existing literature (e.g. dos Santos & van Staden, 2008; McIntosh & McKeganey, 2001), participants described turning points prior to MOIMR, which included rock bottom experiences and being ready to make changes in their addictive behaviour. This, combined with positive pre-conceptions from peers, supported the initial engagement with MOIMR.

Upon engagement with MOMIR, two important initial processes occurred, which laid the groundwork for later processes. The first of these is represented by the 'safety' category. Entering a group setting after often long periods of social isolation was an intimidating experience for participants. The non-judgemental and warm atmosphere of the group setting was essential in alleviating this initial discomfort. Participants began to feel safe to share experiences and described that hearing similar experiences from others in the group was extremely normalising and de-stigmatising. This supported an ongoing sense of connection and identification with the group and led to the development of a shared purpose within the

group in terms of a movement towards recovery. Elements of this category are related to social support, which is a well-established component of successful recovery groups (Kaskutas, Bond, & Humphreys, 2002). Additionally, participants described the group as providing warmth, acceptance and stability, which resonates with attachment theory (Bowlby, 1969). This is consistent with previous research (e.g. Smith & Tonigan, 2009) which has suggested that successful recovery groups provide a secure attachment base from which steps towards recovery can be taken. In addition, participants' descriptions of a sense of belonging and shared purpose were consistent with the components of a psychological sense of community (McMillan & Chavis, 1986). These findings were in line with previous qualitative studies, such DeLucia, Bergman, Formoso and Weinberg (2015) who investigated the successful components of recovery groups from a 12-steps perspective.

Developing an understanding of substance use from a psychological perspective was the other initial process which was key in order to support further changes to be made. This is consistent with previous qualitative research, such as Rodriguez-Morales (2017). Participants' descriptions of the group content as highly resonant with their own experience and easy to understand was reflective of the co-produced manner by which MOIMR was developed. The balance of structured content and group discussion supported this process to occur. Many elements of the two categories discussed here are consistent with Yalom and Leszcz's (2008) theorising of the 11 primary factors of group based therapy. The components which were most apparent within MOIMR were universality, interpersonal learning and group cohesiveness.

Investment was supported by hearing from peer facilitators who had recovered through MOIMR, who demonstrated that recovery was obtainable and provided guidance from their own experience. The importance of peer role models such as these has been recognised in the literature (Turpin & Shier, 2017), and identified in other qualitative

accounts of recovery (e.g. Best, Gow, Taylor, Knox, & White, 2011). This category, which reflected an initial scepticism and ambivalence, followed by increased commitment, and then taking action towards change is consistent with the contemplation – preparation – action process depicted by Prochaska and DiClemente's (1982) Stages of Change Model.

The remaining categories reflect application of the ACT core therapeutic processes, which were clearly being understood and incorporated into the lives of participants. There was considerable evidence that participants had reflected on their values, which supported them to make changes and cope with difficulty without the use of substances. There was also evidence from participants' accounts of an altered relationship with internal experiences such as thoughts and emotions. The categories 'making space' and 'acceptance' reflected an understanding that acknowledging and accepting, rather than avoiding or struggling with, internal experiences was necessary in the pursuit of a valued and meaningful life. This is in line with 'psychological flexibility', the targeted mechanism of change within ACT. These findings hold some similarities with a thematic analysis of an ACT group for SUD within a secure psychiatric setting (Johnson et al., 2019), along with other qualitative analyses of ACT within eating disorders (Fogelkvist, Parling, Kjellin, & Gustafsson, 2016) and psychosis (Bacon, Farhall, & Fossey, 2014). The findings of the current study contrasted slightly in that some of the therapeutic processes took longer to achieve than others, and it often took completing the group more than once for the processes to be fully understood and applied. Additionally, the use of mindfulness as a strategy, such as for coping with overwhelming emotions, was not described by all participants. Thus, regular mindfulness practice was not essential for therapeutic success.

All participants identified that the hardest aspect of MOIMR was getting in touch with loss, for many this took completing the group more than once. It is possible that this aspect may explain some variation in therapeutic success. It would be interesting to interview those

who had dropped out of, or not benefited from MOIMR, to further examine whether a reluctance to make space for the pain associated with loss was more or less apparent within their accounts.

Clinical recommendations

Together with the findings of the feasibility study (Hogan et al., 2020), the current study supports the benefits of MOIMR as an intervention to promote recovery from SUD. Participants were asked whether there was anything that was unhelpful, or that they would change about MOIMR. Participants suggested that the group should be longer, or that they would appreciate a follow-on group. These recommendations will be addressed. It is important to note that it took time for changes to be made, thus it is a recommendation for substance misuse services to consider consistently offering service users the opportunity to complete MOIMR more than once.

The structure of MOIMR, particularly the check-in was especially helpful, and appeared to be key to several of the categories, including group cohesion, increased sense of safety, understanding and application of group learning into daily life. Weekly challenges were also important to support application of group learning and strengthen commitment. The coproduced element of MOIMR was reflected in participants' accounts. Consulting with those with experience of recovery from SUD in the development of MOIMR meant that the group closely resonated with participants' own experiences. Additionally, hearing from peer facilitators who had graduated from MOIMR, and who had made considerable changes as a result, was extremely helpful. These points hold implications for the development and delivery of psychological group therapy in general, both within substance misuse services and across mental health services more widely.

Limitations and suggestions for future research

An important limitation of the current study was the focus on participants who had benefited from MOIMR. Although this allowed a greater focus on change processes towards recovery, it limited the model's ability to account for those who did not achieve change. It would be beneficial for future research to test the validity of and develop the current model by recruiting participants who did not benefit from, or who dropped out of MOIMR. It would be helpful to examine whether variation in the categories of the current model can account for both change and lack of change. Additionally, it would be helpful for future research to consider including substance misuse service staff with experience of delivering MOIMR, to examine whether the model is consistent with their observations of change processes within service users.

Input was sought from a graduate of MOIMR in the design of the study and development of the interview schedule. However, it may have been helpful to draw further on this input during the coding process, given the author's lack of personal experience of addiction. Lastly, the current study recruited a relatively small, entirely Caucasian and majority male sample of low to middle socioeconomic status. This is fairly representative of the population who typically access substance misuse services in North Wales, where the majority of MOIMR groups are offered. However, this sample limits the explanatory power of the model. If MOIMR were to become available more widely, it would be beneficial to test the model within more diverse samples.

Conclusion

Overall, this study adds to our understanding of recovery from SUD and how ACT can support this process. Using grounded theory methodology, a model was developed to explain the process of change through an ACT based recovery group. The model depicts the core

processes involved in this change, which follow a chronological order, centred around a core category which is the reinforcement obtained from engaging with the group and recovery-consistent behaviours. Core ACT therapeutic processes were reflected in the categories, along with group processes such as connection and identification. The study identified factors which, from participants' experience, have implications for the design and delivery of psychological groups both within substance misuse services and more widely.

Declaration of Conflicting Interests

It should be noted that the third author was responsible for the development of the recovery groups which this research pertains to. See 'Author Reflexive Statement' for a description of the efforts made to account for this in the research process.

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Chapter 3: Discussion Paper

Contributions to Theory and Clinical Practice

Contextual behaviour therapies, such as Acceptance and Commitment Therapy (ACT), place emphasis on developing methods for approaching unwanted or uncomfortable internal experiences, such as thoughts, memories, emotions or physiological sensations (Stotts & Northrup, 2015). The current literature review focused on the ACT construct of 'experiential avoidance': the tendency to avoid, attempt to alter or control internal experiences within Substance Use Disorder (SUD). The empirical paper examined the process of change throughout an ACT-based recovery group for SUD. This discussion paper aims to consider the findings of both the literature review and empirical paper in terms of their implications for clinical practice and contributions to theory and future research.

Theory Development and Implications for Future Research

Literature Review Paper

From an ACT perspective, psychopathology, including SUD, results from 'psychological inflexibility' and the processes that contribute to it. The psychological inflexibility model (often referred to as the 'Hexaflex') is represented in Figure 1, taken from the Hayes, Luoma, Bond, Masuda, & Lillis (2006) theoretical paper. This model postulates that psychological inflexibility consists of six processes. The first of these is experiential avoidance (EA), defined as the "phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences (e.g. bodily sensations, thoughts, memories) and take steps to alter the form or frequency of these experiences" (Hayes et al., 2004, p. 554). Next is cognitive fusion, referring to the tendency to become caught up with the literal meaning of thoughts, and being unaware of the process of thinking (Luoma, Drake, Kohlenberg, & Hayes, 2011). Other processes include a lack of contact with the present moment, an

attachment to the conceptualised self (strongly held “I am”, narratives such as “I am weak”), a lack of contact with or awareness of values and a lack of persistence towards valued ends (Hayes et al., 2006).

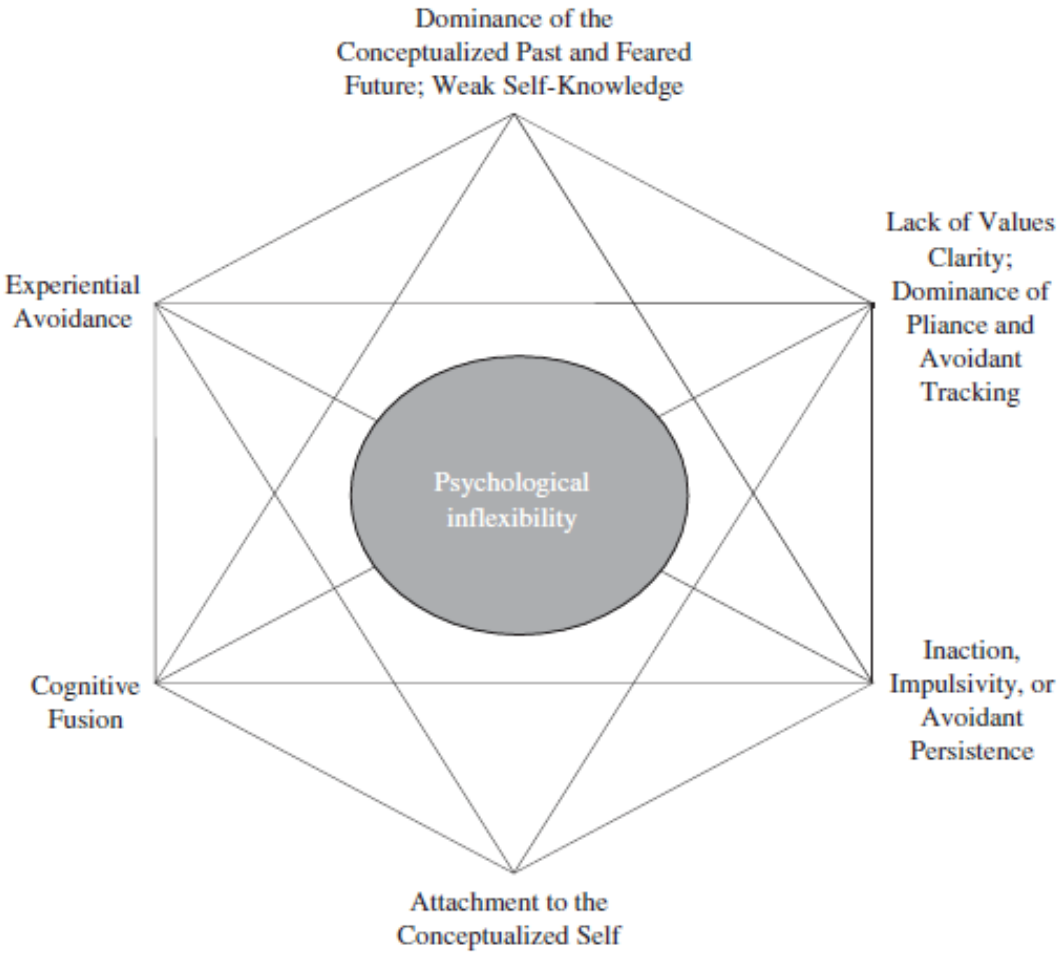

Figure 1: *The Psychological Inflexibility Model* (Hayes et al., 2006)

Research into this model within SUD has largely focused on the construct of EA, where drugs and/ or alcohol are thought to serve the function of controlling, suppressing or eliminating unwanted or unpleasant thoughts, feelings or physiological sensations (Wilson, Hayes, & Byrd, 2000). The literature review paper found several studies that support this

idea. However, the review also found a great deal of inconsistency and issues regarding the way in which EA was operationalised and measured.

Perhaps the most important issue is the poor construct validity of the commonly used Acceptance and Action Questionnaire-II (AAQ-II), as outlined by Rochefort, Baldwin and Chmielewski (2018). The Multidimensional Experiential Avoidance Questionnaire (MEAQ) appears to offer a more valid measurement of EA. Future research is required to examine the construct validity of the MEAQ among SUD populations, and then to compare with other measures of EA including the Substance Abuse variant of the AAQ (the AAQ-SA) and Avoidance and Inflexibility Scale (AIS).

Another important limitation to be addressed is the over-reliance on self-report measures. It would be helpful for future research to consider using behavioural based laboratory measures alongside, or in the place of, self-report measures.

Once the above limitations have been addressed, and there is a valid measure of EA for SUD populations that can be used alongside laboratory-based behavioural measures, EA is a construct that holds significant potential for future research and theory development. Application of the construct in longitudinal research, may inform theory regarding who is at an elevated risk of developing SUD, and who is more likely to recover. This may support future research to focus on preventative, as well as reactive treatment interventions for SUD.

Empirical Study

The empirical paper represented a model of the process of change towards recovery throughout Moving On In My Recovery (MOIMR), an ACT-based group intervention for SUD. It would appear that MOIMR operates in line with many of the theory-based effective ingredients of treatments for SUDs as outlined by Moos (2007). This includes aspects of social learning theory (Bandura, 1977; Maisto, Carey, & Bradizza, 1999), behavioural

economics theory (Bickel & Vuchinich, 2000) and the stress and coping theory (Kaplan, 1996). In addition, elements of MOIMR reflected several of Yalom & Leszcz's (2008) theorising of the primary factors of group-based psychotherapy.

The empirical paper makes a novel contribution by applying grounded theory methodology to the exploration of ACT in the treatment of SUD. A literature review found few published studies pertaining to the application of qualitative methodology to ACT-based treatments in general, and only one relating to SUD (Johnson, Elsegood, & Lennox, 2019). When evaluating interventions, it is important that we do not focus solely on whether or not these interventions are effective, but that we also consider *how* interventions work for individuals (Mason & Hargreaves, 2001; Orford, 2008). Qualitative methodology allows us to achieve this through focusing on change mechanisms, giving us the opportunity to examine whether interventions are working in the intended way. In this sense, it was interesting to see that the intended core therapeutic processes of ACT were very much reflected within the current model. However, it appeared that the application of these processes depended on group-based and other individual factors. It is also important to recognise that the application of some ACT processes, such as acceptance of uncomfortable emotions and being able to step back from thoughts, took time to achieve and as such, were reflected to a greater degree within the accounts of participants who had completed MOIMR more than once.

In order to expand the current model, one of the most important areas for future research is to include those who did not benefit, or who dropped out of MOIMR. Where psychological intervention is concerned, change is best understood by incorporating the perspectives of not only those who achieve it, but also those who do not (McHale, Hayward, & Jones, 2018). By recruiting those who did not benefit, or who dropped out of MOIMR, it would be possible to study whether variance on the same categories within the current model can account for both change as well as lack of change. This could potentially progress the

literature, as it would allow examination of the factors which lead to difficulty in applying ACT-based principles.

Considering implications of both papers together

According to the ACT model, substance use, along with other problematic behaviours such as avoidance of social situations, deliberate self-harm and disordered eating, share the common function of EA (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Existing studies have supported this hypothesis (e.g., Kingston, Clarke, & Remington, 2010). However, given the reliance on the AAQ-II within existing studies, future research is warranted to test this hypothesis using a more valid measure of EA.

If the above hypothesis is supported by future research, and it is seen that many problematic behaviours share the same underlying factors, this may justify an intervention which focuses on a reduction in EA to be delivered widely across substance misuse and mental health services. There have already been numerous calls for collaboration between mental health and substance misuse services, due to the tendency for both mental health and substance misuse problems to co-occur (e.g., Public Health England, 2017). MOIMR, which focuses on mental health in addition to substance use, may be one option for consideration. Therefore, future research could examine the possible application and effectiveness of MOIMR delivered within a mental health service population.

Considering both the literature review and empirical paper together, the ACT model of SUD is heavily based on EA. Within the recovery accounts given by participants, it was clear that many had reduced EA by learning to get in touch with and allow space for difficult internal experiences, rather than, as they described, pushing them away using substances. However, problems with the way that this construct has been operationalised and measured has led to issues with the findings, and therefore, theory regarding EA and SUD. Contextual

behavioural theory and therapies represent relatively new approaches. It is hoped that the suggestions outlined in the literature review paper will be addressed by future research to support the development of SUD and contextual behavioural theory, and the continued development and delivery of effective interventions.

Implications for Clinical Practice

Literature review

The literature review brings attention to the need to be mindful in selecting means of measuring outcomes in clinical practice. In line with the suggestions of Rochefort et al. (2018), it is important to be clear about the treatment targets and outcomes, and select measures accordingly. Thus, if targeting a reduction in EA, as clinicians often are when using contextual behaviour therapies such as ACT in clinical practice, the literature review would suggest that the MEAQ, or the brief version (BEAQ), would be the most valid and appropriate measures to select.

Empirical Paper

The empirical paper made the novel contribution of understanding how ACT can support the process of recovery from SUD. These findings support the development of MOIMR, and sit well alongside the promising findings from the initial feasibility study (Hogan, Cox, Bagheri, & Rettie, 2020), which will be published later this year. The current study, along with the feasibility study, will hopefully support the development of a randomised control trial. This could lead to MOIMR becoming more widely available across the UK, ultimately providing an evidence-based and effective intervention.

The findings also support clinicians working within substance misuse services, particularly those involved in delivering MOIMR, to understand how the groups work for those who take part. The pre-group factors, which were depicted in the 'Suffering' category may also have helpful clinical implications in supporting substance misuse service staff to determine which individuals may most benefit from engaging with a group such as MOIMR.

When considering clinical implications of the current research, it appears relevant to consider these implications in the light of the current circumstances surrounding the outbreak of COVID-19. Stress arising from uncertainty around the current situation, social isolation, unemployment and reduced means of personal and community support have been suggested as factors which are likely to contribute to a steep increase in development of SUDs (Clay & Parker, 2020; Sederer, 2020). Due to this expected increase in SUDs, it is important that effective interventions are available. As the current paper, along with the initial feasibility study, supports MOIMR as an effective intervention to promote recovery from SUD, it is important to consider how it can continue to be delivered.

As we face uncertainty regarding the amount of time that social distancing measures will remain in place, it is important to consider how MOIMR may need to be adapted accordingly. Many UK mental health and substance misuse services have shifted to online or telephone delivery models. Platforms such as 'Zoom' have been utilised for online delivery of group-based interventions. The current research highlighted the importance of achieving group safety, as an initial process, to support further change processes to occur. This safety was achieved through connection, cohesion, and identification with other group members. If online delivery was to be adopted for MOIMR, it would be important for facilitators to remain attentive to these processes, which are needed perhaps even more so at this time when many individuals face high levels of stress and extensive social isolation.

Reflective Commentary

Completing this research project involved numerous new experiences for me. Firstly, this research project was the first time I have professionally encountered individuals who have recovered from such extensive histories of SUD. Hearing participants' stories was fascinating. After each interview I was left with a mix of emotions, typically admiration and inspiration, often combined with sadness. Upon setting out on my first interviews I naively believed I could briefly ask participants to describe their lives prior to MOIMR. I quickly learned this was not a short question, actually one that would take up a large proportion of the interview, and that it was extremely important to ask about this in order to understand recovery. Themes of trauma and loss were extremely prominent in participants' stories of their lives prior to MOIMR. I often reflected on how it was unsurprising that these individuals had begun to use substances given the experiences they had encountered. This strengthened my commitment to promote a psychological understanding of the factors that can lead to, and perpetuate, SUD and challenge some of the unhelpful and stigmatising narratives that often exist within our society. It was inspiring to hear stories of recovery success. However, this also led me to consider how my experience of the research process may have been different if I had spoken to those who had not made changes towards recovery.

This was also the first time I have completed qualitative research. Initially, I spent several weeks grappling with developing an understanding of the differing approaches to grounded theory, each with their own epistemologies and terminologies, and felt somewhat overwhelmed by the complex task ahead of me. After settling on an approach and beginning the research, I began to really enjoy the process. I particularly enjoyed getting to know the data through listening intently to the recordings whilst transcribing, and then reading closely over the transcripts whilst coding. Throughout the category generation process, I found

supervision and memoing invaluable to help me recognise my own influences. As I have mentioned in my empirical paper, I had extensive experience of using ACT within my clinical practice, as did one of my supervisors. Supervision sessions between myself and both supervisors (two of us with extensive, and one with less ACT experience) were very helpful and important in order to recognise and acknowledge the times when my analysis seemed to be highly influenced by ACT theory. It can be seen in the diagrams in Appendix H that an early version of my model very closely represented the ACT 'Hexaflex' (Hayes et al., 2012) itself, which discredited other key processes which were essential in explaining the change process.

The idea for this research was borne out of one of my supervisors' experience of developing and facilitating MOIMR and observing individuals making huge changes towards recovery, which left him often pondering "*How* are they doing this?". This was a question that quantitative methodology just could not address, and existing literature could not explain. It was important to keep going back to this question, to consider *how* change happened through MOIMR. However, it was also important through supervision and memoing to ensure that this focus did not lead to an exclusion of information about other factors outside of MOIMR, or those MOIMR factors that were not 'intended'. It was also important to consider how out-of-MOIMR factors interacted with within-MOIMR factors to promote recovery-success.

The circumstances during which the final stages of the thesis were completed were far from what I expected would be the case. Writing this now, in May 2020, daily life and, seemingly, the world has changed drastically in a short space of time. Due to the outbreak of COVID-19, we have been advised to stay at home and distance ourselves from others who do not live in our household. Many of us have been instructed to work from home, with others finding themselves unemployed or in periods of paid absence. Uncertainty and unease seem

to be the flavours of the moment, as the nation seeks, and seemingly does not find, reassurance throughout this strange time. As well as considering the implications of my research in the context of COVID-19 (as above), it also felt appropriate to reflect on the experience of completing the project during this time. COVID-19 restrictions have had an impact on each and every one of us, and I have certainly been no exception. The term "we are all in the same boat", which was a common code from my transcripts, and is often cited within ACT texts (e.g., Bach, Moran, & Hayes, 2008) was highly relevant. Not being able to spend time with friends and family, and not being able to engage with many valued activities has been very difficult. The uncertainty resulting from the situation frequently resulted in anxiety and left me struggling to concentrate, during what would always have been a stressful period. This experience has been, and continues to be, challenging. However, it has given me an interesting insight in to applying ACT to myself. Particularly, by noticing my own tendency towards experiential avoidance, and working instead on acceptance of uncertainty, and using my values as a focus to remind me of how completing this project serves valued ends.

Overall, the research process has taught me a great deal about recognising my own influences and biases, and how this can shape how I make sense of information. The research process has been highly interesting and rewarding and piqued an interest in qualitative research which I hope to fulfil in my future career.

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Appendices

Appendix A: Initial Interview Schedule

Age:

Gender:

Substance/s previous issues with:

Questions about the experience and process of moving towards recovery:

1. Could you describe your life before attending MOIMR

2. Could you tell me about the person you are now?
    a. What positive changes have occurred in your life since MOIMR?
    b. Could you tell me about how your coping strategies have changed since attending MOIMR?
    c. Tell me about the strengths that you discovered and developed through attending MOIMR.

Questions about MOIMR groups:

1. Could you tell me what made you decide to take part in MOIMR?

2. Could I ask you to describe the most important things you have learnt through attending MOIMR?

    a. Are there any particular sessions or moments that stand out in your mind?

3. Which parts of MOIMR did you find most helpful?

4. What has been unhelpful/ what could have been different about MOIMR?

Questions about the future/ maintaining recovery:

1. What do you think are the most important ways to maintain recovery?
2. Where do you see yourself in two years? Describe the person you hope to be then.

Final questions:

1. Is there anything you might not have thought about before that occurred to you during this interview?
2. Is there something else you think I should know to better understand how MOIMR helps people to change?

Appendix B: Participant Information Sheet

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

North Wales Clinical Psychology
Programme/Rhaglen Seicoleg Clinigol
Gogledd Cymru
Room 246, Brigantia Building
School of Psychology/Ysgol Seicoleg
Bangor University/Prifysgol Bangor
Bangor, Gwynedd, LL57 2AS
Telephone: 01248 382205

BANGOR

PARTICIPANT INFORMATION LEAFLET

Study Title: Exploring the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

Researchers: Emma Shepley - Trainee Clinical Psychologist
Dr Lee Hogan - Clinical Psychologist
Dr Mike Jackson – Clinical Psychologist

We would like to invite you to take part in a research study to help us find out more about your experience of Moving On In My Recovery, and how this helped you to move towards recovery from addiction. This leaflet gives you more information about the study. Please read it carefully before deciding whether you would like to take part.

If, after reading this leaflet, you decide you would like to participate, please complete and return the Initial Contact Form using the freepost addressed envelope provided or, alternatively, you can let your group facilitator or Substance Misuse Service (SMS) worker know that you would like to take part and pass on your contact details. The Lead Researcher, Emma, will then contact you to answer any questions you have and to arrange a convenient time to meet with you.

This project is a student study which is sponsored by Bangor University. The project has been approved by the Psychology Research Ethics Committee and the NHS Research Ethics Committee.

What is the purpose of the study?

The purpose of this study is to explore the experiences of people who have made changes in their lives towards recovery from drug and/or alcohol addiction after, or whilst attending Moving On in my Recovery ('Moving on') Groups. We would like to understand which aspects of the Moving on Groups help people to make these changes. This study will add valuable insight into the process of recovery from drug and/or alcohol addiction, which will help with the development of Moving On groups. This is an important time to do this research, as we are hoping to expand Moving On Groups so that they are available more widely across the UK.

Who is carrying out this research?

Emma Shepley is a Trainee Clinical Psychologist on the North Wales Clinical Psychology Programme (NWCPP) and is carrying out this research as part of her training at Bangor University. Emma is the researcher who will meet with you if you agree to take part and can answer any of your questions about this. Other people who are involved in the research are: Dr Lee Hogan (Clinical Psychologist in Drug & Alcohol Services) and Dr Mike Jackson (Clinical Psychologist and NWCPP Research Director). Dr Lee Hogan and Dr Mike Jackson are Emma's supervisors.

Why have I been invited?
You have been invited to take part in this study because you recently took part in a Moving On group and the group leader/ your SMS worker identified that you made changes towards recovery from addiction.

Do I have to take part?
No. It is up to you if you decide whether or not to take part.

Before you decide, we ask you to read this information leaflet. If there is anything that is not clear or if you would like more information, please ask the researcher, Emma, or contact the research staff (contact details given at the end of this leaflet). If you decide not to take part, ***you do not need to give a reason and it will not affect the services you receive from SMS.***

What will happen if I decide to take part?
If you decide to take part in the research study, you will be asked to come and meet the researcher at your closest SMS. If it is difficult to travel, alternative locations can be discussed (e.g. your GP surgery or your home). You will be asked to sign and date a 'Consent Form', which is your written agreement to take part in the research. You will receive a copy of the form, to keep for your records. You will meet with Emma, and you will be asked to take part in a face-to-face interview:

- The only people present for the interview will be you and Emma
- The interview will be recorded on an audio device (see below on data storage and confidentiality)
- The interview will be 'semi-structured': this means Emma will have some questions she asks everyone taking part, but you are also free to talk about what matters to you

The interview will take around 60 minutes. You will be able to take a short break at any time if you like. The researcher will only need to meet with you on one occasion to conduct the interview.

Will my treatment with SMS be affected?
No, you will continue to receive the same service whether or not you decide to participate in the study. You can decide to withdraw from the study at any time, without your support from SMS being affected in any way.

What are the possible benefits of taking part?

If you decide to take part in the study, you will receive a voucher worth £10 for your time. You will have an opportunity to share and reflect on your experiences which you may find helpful. This may also help to improve the groups and ultimately help other people recover from addiction.

What are the possible disadvantages of taking part?
This study does not involve any direct risks. You will spend approximately one hour discussing your experiences, as well as the time getting to and from the interview location.

Will my information be kept confidential?
Yes. The interview will be recorded on an audio device, which will always be kept in a locked cabinet. What you say will then be typed up into a Word document, with all identifying information removed; the recording will then be deleted. The Word Document will be kept on a password-protected computer. We will identify any information about you by giving it a "study number", known only to the research team.
All information gathered will be retained by the research team for 5 years, after which they will be safely and securely disposed of, in line with NHS policies.

What will happen to the results of the study?
The information collected from you and other participants will be used for academic research into drug and/or alcohol addiction, and the results may be published in journal articles and presentations at conferences. Your information will be anonymized; information that identifies you (such as your name) will not be written in any research publications.

The data collected will be published in the form of themes that have emerged across all the interviews. There may be some direct quotations, but we will ensure there is nothing that identifies you in these. If you decide to participate, after the research is complete you can ask to meet with one of the researchers to explain the results to you or ask for a brief report of the main results.

Who will have access to this information about me?
Your personal details will remain strictly confidential. Your name is only recorded for consent purposes and so that the research team can contact you. Your name will be removed from records of the information you share in the interview. Your consent form and paper copies of interview transcripts will be stored in a locked filing cabinet. Any computer data will be stored on a password-protected computer, based at Bangor University.

What if I want to withdraw from the study?
You can withdraw from the study at any time, and you do not need to give an explanation. You also do not have to answer questions that you do not want to answer

What if something goes wrong?
If you have any concerns, you can contact any member of the research team, using the contact details at the bottom of the information sheet. If the researcher becomes concerned about your

mental wellbeing during the course of the study, she will seek permission to contact your SMS worker. In the unlikely event that there is a serious concern about an issue of risk, she would have a duty to inform your SMS worker. If you remain unhappy about the research, the response to any concerns you may have raised, and/or wish to raise a complaint about any aspect of the research, please contact **Huw Ellis, Psychology Manager on 01248 38 3229.**

How do I volunteer to take part in the research study?

If you would like to take part, please complete the Initial Contact Form in this Information Pack and post the form to Emma using the pre-stamped and addressed envelope provided. Or you can let your group facilitator or SMS worker know you would like to be contacted about the research and they will pass your contact details on to Emma. After receiving this, Emma will get in touch with you to answer any of your questions and arrange a convenient time to meet for the interview. If you would like to take part, you will need to sign and date two copies of the 'Consent Form', one of which will be given to you to keep for your records.

For further information, please contact:

Name	Address	Phone	Email
Emma Shepley Trainee Clinical Psychologist	North Wales Clinical Psychology Programme (NWCPP) School of Psychology, Brigantia Building, Bangor University, Bangor, Gwynedd, North Wales LL57 2DG	01248 388059	sepa88@bangor.ac.uk
Dr. Lee Hogan	School of Psychology, Brigantia Building, Bangor University, Bangor, Gwynedd, North Wales LL57 2DG	01248 388276	lee.hogan@bangor.ac.uk

Dr Mike Jackson	North Wales Clinical Psychology Programme (NWCPP) School of Psychology, Brigantia Building, Bangor University, Bangor, Gwynedd, North Wales LL57 2DG	01248 388059	mike.jackson@bangor.ac.uk

Bangor University is the sponsor for this study based in Wales. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information at URL:

https://www.bangor.ac.uk/governance-and-compliance/dataprotection/documents/Data%20Protection%20Policy%20final%20July%202018%20v6.pdf or by contacting: Governance and Compliance, Bangor University, Bangor, Gwynedd, LL57 2DG.
Phone: (01248) 382043

Bangor University will collect information from you for this research study in accordance with our instructions.

Bangor University will keep your name and contact details and any other identifiers such as job role confidential and will not pass this information to the NHS. Bangor University will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Certain individuals from Bangor University and regulatory organisations may look at your research records to check the accuracy of the research study. Bangor University will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details.

Bangor University will keep identifiable information about you from this study until the study has finished, after which time it will be destroyed securely.

Thank you for taking the time to read this information leaflet. We hope you feel able to take part and look forward to hearing from you.

Appendix C: Participant initial contact form

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

North Wales Clinical Psychology Programme/Rhaglen Seicoleg Clinigol Gogledd Cymru
Room 246, Brigantia Building
School of Psychology/Ysgol Seicoleg
Bangor University/Prifysgol Bangor
Bangor, Gwynedd
LL57 2AS
Telephone: 01248 382205

BANGOR UNIVERSITY

INITIAL CONTACT FORM

Study Title: Exploring the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

Name of researcher: Emma Shepley (Trainee Clinical Psychologist, North Wales Clinical Psychology Programme (NWCPP), Bangor University).

Supervised by: Dr.Lee Hogan (Clinical Psychologist in Addiction Services) and Dr Mike Jackson (Clinical Psychologist and NWCPP Research Director).

If you are interested in participating in our research, **please complete this form and return to Emma Shepley using the stamped and addressed envelope provided.** Emma will then contact you to discuss the research further and arrange to meet with you if you decide to participate.

Please put your initials in the box:

I agree to be contacted to discuss the research study ☐

Your name *(please print)*:

_____

Your signature:

_____

Your contact address and postcode:

_____

_____

_____

The best telephone number to contact you on:

_____

Thank you for considering participating in this research study. I look forward to speaking with you in the near future.

Version 1.
07/06/2019 IRAS number: 265252

Appendix D: Consent form

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

BANGOR UNIVERSITY

North Wales Clinical Psychology Programme/Rhaglen Seicoleg Clinigol Gogledd Cymru
Room 246, Brigantia Building
School of Psychology/Ysgol Seicoleg
Bangor University/Prifysgol Bangor
Bangor
Gwynedd
LL57 2AS
Telephone: 01248 382205

PARTICIPANT CONSENT FORM

Study Title: Exploring the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

Please initial each box if you agree with the statement

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, and without my legal rights or my medical care being affected. ☐
3. I understand that my SMS worker will be informed of my participation in this study if the research team become concerned about my emotional wellbeing. ☐
4. I understand that the interview will be audio recorded. ☐
5. I understand that data collected about me during this study will be anonymised before it is submitted and/or included in any publications arising from the study. ☐
6. I agree to take part in this study. ☐

.....	.....	.....
Name of participant	**Date**	**Signature**
.....	.....	.....
Researcher	**Date**	**Signature**

Version 2.
03/09/2019 IRAS number: 265252

Appendix E: Excerpt of a coded transcript

you know he's been there a couple of weeks so he's over the worst of it so hopefully he'll do it (.) me kids are so supportive now they're so proud of me especially me daughter she's grown up and got a son now (.) she's just so supportive I mean when I was coming off my methadone I was a bit nervous and she bought [music artist] tickets and said you know when you're off your methadone we'll go and celebrate you know and go to [music artist] (.) so I was like brilliant but it weren't only the fact she did that the fact she trusted me cos she actually bought them and I had to do it then so that was just like the help I needed and me son (.) I've got a son with [neurodevelopmental disorder] he's just he says it all the time you've smashed it mum and he's not a touchy feely person but he'll pat me on the back and stuff like that (.) me youngest is [teen age] and seeing the difference in them and how they behave and their respect towards me its like earning that trust back was the biggest thing (.) because they was out of control [son] I even went to prison you know he did [length of time] and [other son] was going down the same road but now they've just turned it around there's no trouble anymore you know it's so much easier and then seeing them and their dad using and how they were with him (.) helped me to remember do you know what I was like that (.) and I still feel like I'm finding myself and [agency] has been amazing we've been on trips and stuff like that it takes you out of your comfort zone I mean I got my [boat] driving licence and sailing and everything (.) so that's good and making new friends cos I had to get rid of everybody I knew really you know cos it was just the temptation was horrible but then cravings (.) they come further apart now maybe a couple a year (.) but at first it was like constantly all the time I was at war with myself do it don't do it do it don't do it (.) but now it's like you know (.) from Moving On I've got the skills in place so if I do have a craving or something like that I know how to deal with it you know coping mechanisms (.) I'll just run me get away from it come here [support centre] and it passes (.) at one time I wouldn't have understood that you know taking the steps and avoiding triggers and understanding urges and all that came from Moving On brilliant

I: Can you tell me a bit more about that about what it was that you really learned from that and how you've applied it

P7: Erm (.) well yeah it puts everything (.) instead of just being a group you know where you sit around and chat cos you do that with the introduction (.) it's like it puts in layman's terms what's going on mentally you know it's like the mental side of things (.) so understand like the physical signs (.) I had a panic attack once in erm

(19) Achievement acknowledgement by others
(20) support network
(22) Trusted by others
(3) Impact of addiction on parenting
(23) Positive impact on others of recovery
(24) Improved relationship
(25) Altered perspective
(26) New friendships
(21) Getting out of comfort zone
(5) Major life transitions - ending of relationships around addiction
(27) cravings
(28) "at war with myself"
(29) Coping mechanism
(30) Psycho-education component of MOIMR
(31) Generalising what was learnt
(32) "puts in layman's terms" - understanding addiction

3

[town] bus station and there was no reason I should have a panic attack [...] heart started beating and it put me on the floor I couldn't breathe and I understood what helped me come out the panic attack cos I was on my own was oh I'm having a physical craving I know what I'm doing you know (.) and understanding that instead of just panicking and going to score you know (.) it helped that it's like that fight or flight you know even on the session when they talk about winning a erm safari trip to Africa and with the lion (.) you know so I understand that I'm having a panic attack and I'm just craving you know so my mind is tricking me kind of thing so it helped me bring it out of it you know to understand what was going on and to take it instead of getting all these feelings all these emotions and not knowing like I had done before (.) to be able to break it down and understand and how to deal with cravings as well like the salesman (.) you know let him and say it's ok but no you know (.) so instead of being at war constantly with yourself it really did it changed my life you know it was really good (.) but I think it took me a couple of times I think at first once I'd done it I was still coming out of it and I think it was after I'd done all 3 that I started to come to understanding and put it in to practice you know I mean I did it before but it was just like now I know (.) it took a couple of times I think yeah

I: So you alluded before to like the salesman knocking on your door (.) letting him in (.) what's that kind of meant to you

P7: Well before I was just like no no no don't don't don't (.) and you're mentally at war with yourself but my understanding ok (.) I'm just craving (.) accepting that I'm craving and then saying no thank you (.) you know I'm not doing it today (.) it's like a weight of the world off your shoulders (.) it's not like that good angel and little devil on your shoulders that do it don't do it (.) you just accept it and it just helps you mentally (.) cos my mental health weren't great after all that you know and I was going through a hard time and a break up with [ex-partner's name] so yeah it just really really did help so yeah definitely

I: And is there anything else that you've really picked up from the group that's really stuck really stayed with you

P7: Erm (..) I think unintentionally I think I put it in erm words but me own words you know like helping other people like me being a volunteer and not only me but like I said [partner]'s in rehab so and he's having a really hard time well at the beginning he was and I found myself using Moving On you know erm to try but breaking it

(31) Generalising

(33) Understanding allows to make for uncomfortable sensations

(34) "my mind is tricking me" → dejusion → distan from thoughts

(35) Making space for discomfort ↓ opposite to

(36) Overwhelmed by emotions / desire to avoid

* (37) instead of "being at war with self"

(38) Took doing the group x3 to fully apply → understand

(39) Accepting → relief

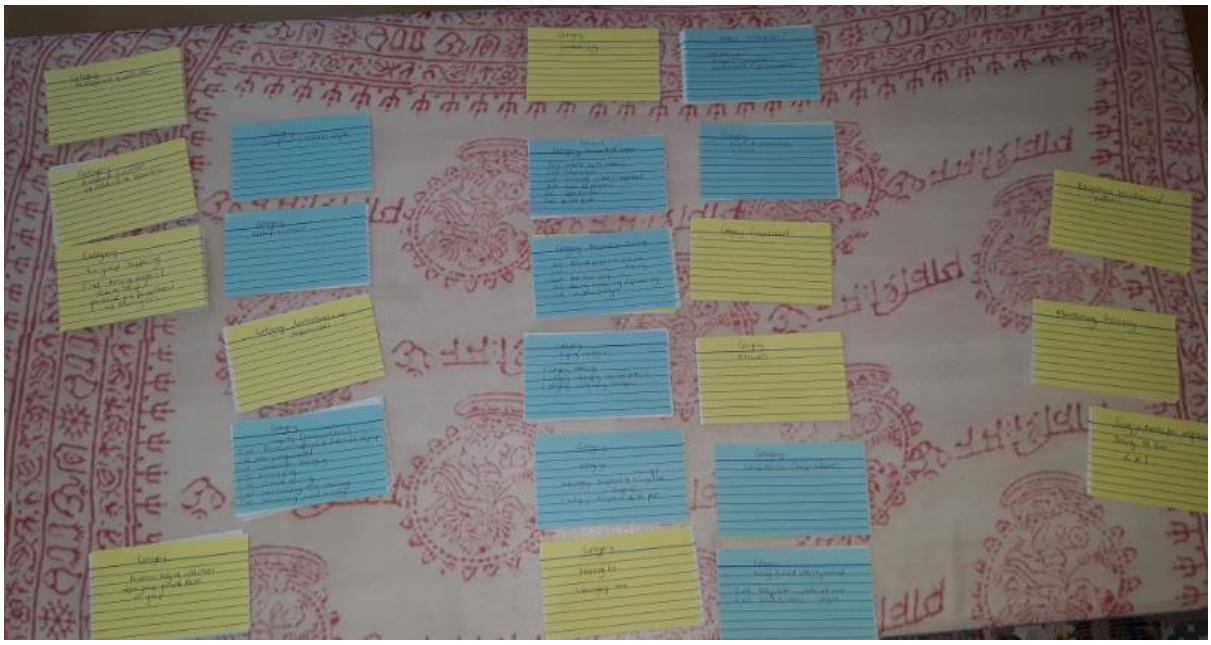
(40) Not being ruled by thoughts cravings → distance

(41) Relief

(42) Using own learning to help others

4

Appendix F: Category Generation



Appendix G: Memo excerpt

14/02/2020: memoing on p9 transcript

P9 talks about the difficulty of some of the processes – acceptance of addiction, refers to it as a "big hurdle", and that movement from shame/ wanting to hide addiction to acceptance of it (page 10)…. This emphases the difficulty of applying these constructs. He also discusses earlier in the transcript how it took him completing the group three times before he began to feel able to accept the addiction and what others thought of him.

P9 talks about the stigma session, shifting from a life of an addict and the identity of an addict, but then also discusses the fear of who he is without drugs, and how the content of that session seemed to have given him the "tools" (in his words) to build a new life. This, combined with the positive relationships formed in the group, supported the process of developing a new identity as someone in recovery.

15/02/2020: memoing on p10 transcript

P10 discusses the role of the group community, this makes me think about the attachment/ sense of family/ belonging that was clearly missing in P9's life that this provided.

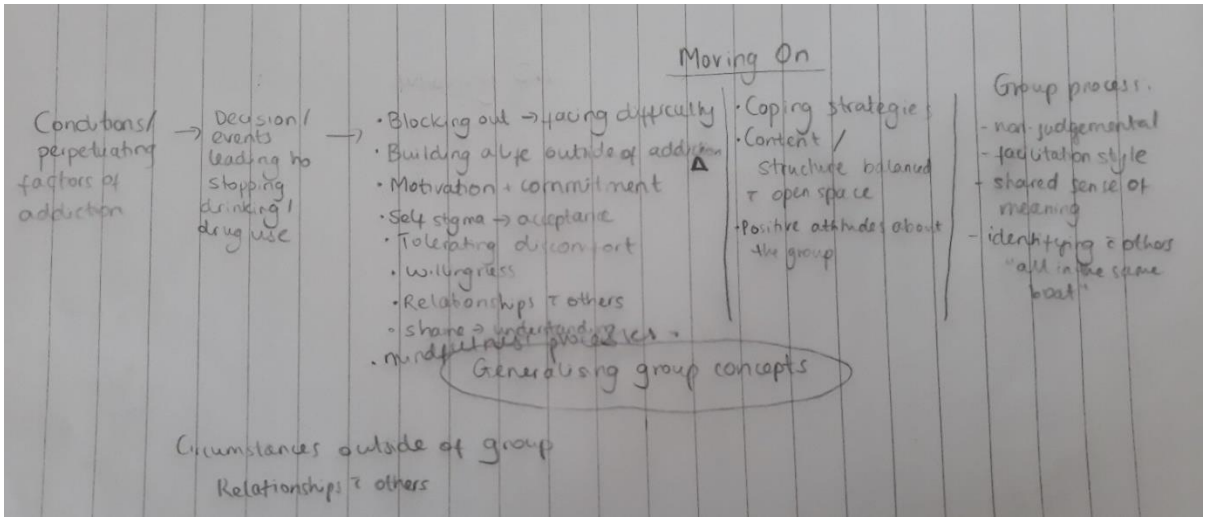
The prioritising process that needs to happen could be seen like a weighing scale – investing more in to recovery so that is the heavier end, so that there is so much that could be lost by going back to alcohol/ drugs; P10 talks about the pros and cons outweighing each other (page 5). This is something I am seeing in all the transcripts, this sense of life without drugs becoming more rewarding and far outweighing a life with drugs.

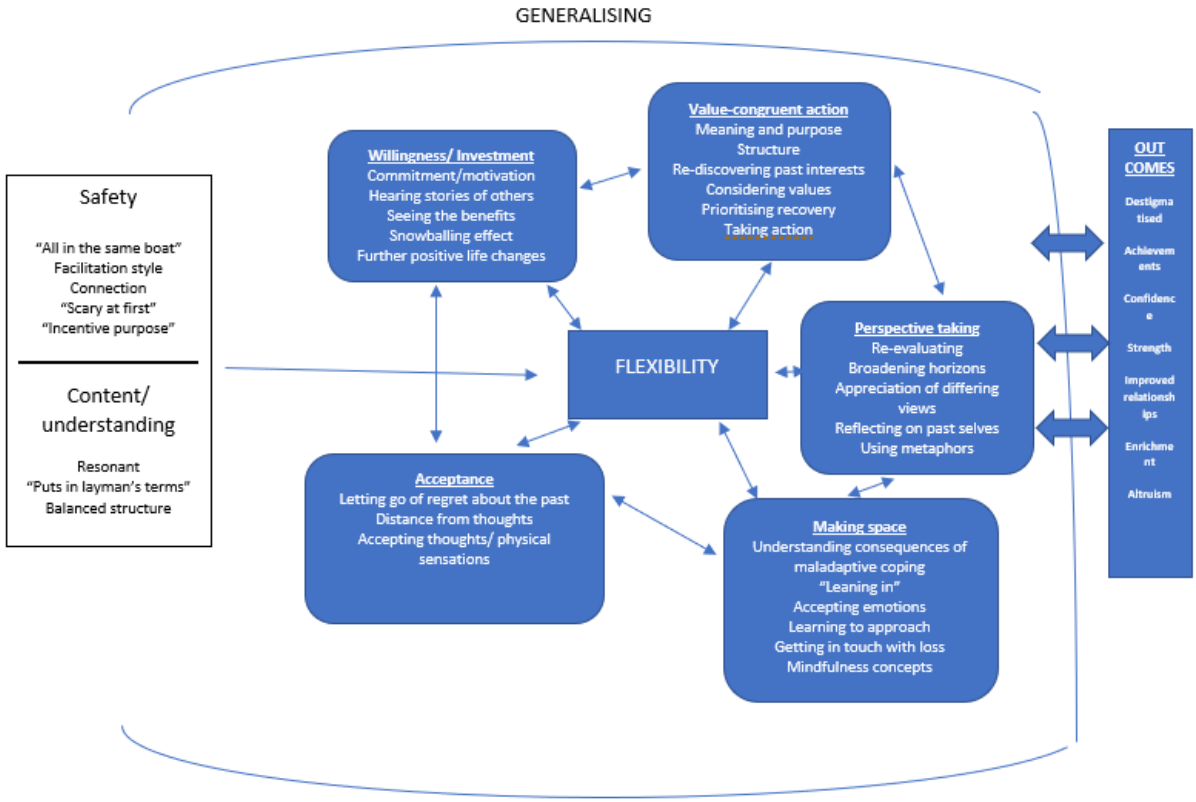
Another key process seen here is learning to accept difficult life experiences, make space for difficult emotions – "life's not perfect" as P10 talks about.

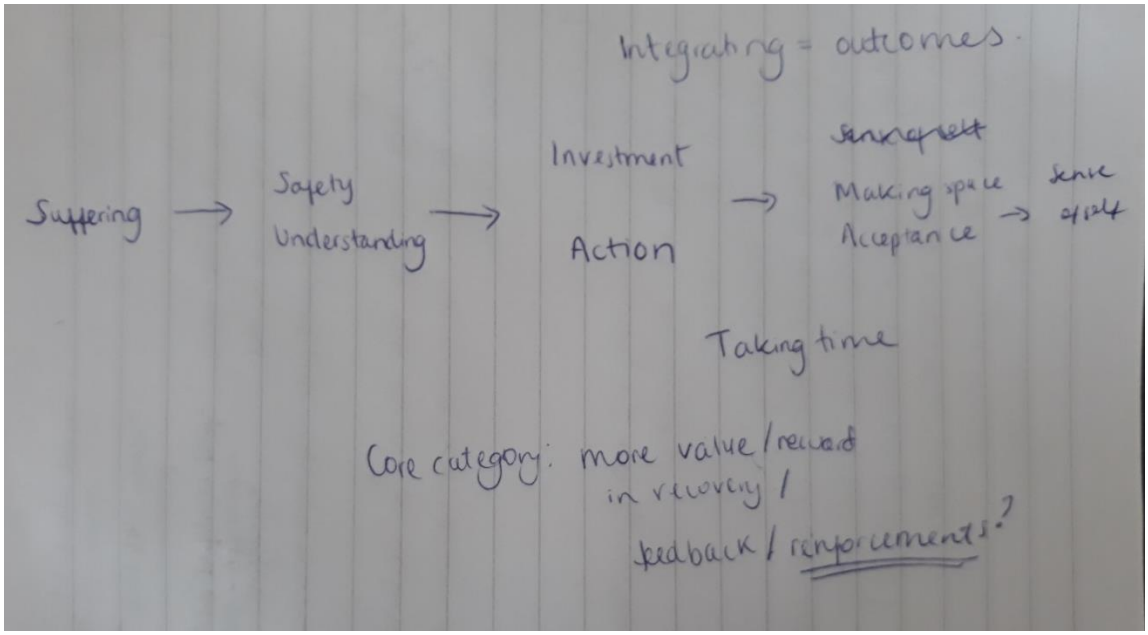
PAGE 9 about learning that blocking out (experiential avoidance) leads to further and maintained difficulty

A note on language: the accessible language used (rather than ACT language) seems to mean that participants have been able to apply it to their own lives, P10 uses phrases that are taken directly from the group, as do so many other participants.

Appendix H: Diagrams of model development (Versions 1 – 3)






Integrating = outcomes.
Suffering
Safety
Understanding
Investment
Action
Making space
Acceptance
Sense of self
Taking time
Core category: more value / reward in recovery /
feedback / reinforcements?

Appendix I: Bangor University School of Psychology Ethical Approval Confirmation

Reply all | Delete | Junk | Block | ···

Ethical approval granted for 2019-16553 A qualitative exploration of the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

E

ethics@bangor.ac.uk
Thu 04/07/2019 08:36
To: Emma Shepley

Dear Emma,

2019-16553 A qualitative exploration of the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

Your research proposal number 2019-16553
has been reviewed by the School of Psychology Ethics and Research Committee
and the committee are now able to confirm ethical and governance approval for the above research on the basis described in the application form, protocol and supporting documentation. This approval lasts for a maximum of three years from this date.

Ethical approval is granted for the study as it was explicitly described in the application

If you wish to make any non-trivial modifications to the research project, please submit an amendment form to the committee, and copies of any of the original documents reviewed which have been altered as a result of the amendment. Please also inform the committee immediately if participants experience any unanticipated harm as a result of taking part in your research, or if any adverse reactions are reported in subsequent literature using the same technique elsewhere.

Appendix J: Health and Care Research Wales (HCRW) Ethical Approval

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Dr Lee Hogan
School of Psychology, Brigantia Building,
Bangor University, Bangor, Gwynedd
LL57 2DG

Email: HCRW.approvals@wales.nhs.uk

19 September 2019

Dear Dr Hogan

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Exploring the process and experience of change throughout 'Moving On In My Recovery'; a psychological group intervention promoting recovery from addiction.**
IRAS project ID:	**265252**
Protocol number:	**TBC**
REC reference:	**19/WA/0220**
Sponsor	**School of Psychology**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **265252**. Please quote this on all correspondence.

Yours sincerely,
Anne Gell

Email: HCRW.approvals@wales.nhs.uk

Copy to: *Mr Huw Ellis*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	Version	Date
Covering letter on headed paper [Cover Letter for REC]	1	05 July 2019
Evidence of Sponsor Insurance or Indemnity (non NHS Sponsors only)		01 August 2019
Interview schedules or topic guides for participants [Interview Schedule]	1	07 June 2019
IRAS Application Form [IRAS_Form_12072019]		12 July 2019
Organisation Information Document		14 August 2019
Other [initial contact form]	1	07 June 2019
Participant consent form	2	03 September 2019
Participant information sheet (PIS)	2	03 September 2019
Research protocol or project proposal [Study Protocol]	v1	07 June 2019
Response to Request for Further Information		03 September 2019
Schedule of Events or SoECAT		
Summary CV for Chief Investigator (CI) [CV Chief Investigator]	1	07 June 2019
Summary CV for student [CV Principle Investigator (Student)]	1	07 June 2019
Summary CV for supervisor (student research) [CV Academic Supervisor 2]	1	07 June 2019

IRAS project ID	265252

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
Single site study conducting all research activities	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study.	An Organisation Information Document has been submitted and the sponsor is not requesting and does not expect any other site agreement to be used.	There is no funding to sites	It is expected that there will be a Local Collaborator (the role of the Local Collaborator is to support practical arrangements to facilitate the presence of the research staff under Letters of Access/honorary Research Contracts, etc).	No Honorary Research Contracts, Letters of Access or pre-engagement checks are expected for local staff employed by the participating NHS organisations. Where arrangements are not already in place, research staff not employed by the NHS host organisation undertaking any of the research activities listed in the research application would be expected to obtain an honorary research contract. This would be on the basis of a Research Passport (if university employed) or an NHS to NHS confirmation of pre-engagement checks letter (if NHS employed). These should confirm enhanced DBS checks, including appropriate barred list checks, and occupational health clearance.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.

Appendix K: Betsi Cadwaladr University Health Board Research Ethics Committee Approval Letter

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

Ariennir gan Lywodraeth Cymru
Funded by Welsh Government

Wales Research Ethics Committee 5
Bangor

Mailing address:
Health and Care Research Wales
Castlebridge 4
15-19 Cowbridge Road East
Cardiff, CF11 9AB

telephone: 07970 422139
email: Wales.REC5@wales.nhs.uk
website: ww.hra.nhs.uk

Please note:
This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites until you receive HRA/HCRW Approval

19 August 2019

Dr Lee Hogan
School of Psychology,
Brigantia Building,
Bangor University, Bangor, Gwynedd
LL57 2DG

Dear Dr Hogan

Study title:	**Exploring the process and experience of change throughout 'Moving On in My Recovery'; a psychological group intervention promoting recovery from addiction.**
REC reference:	**19/WA/0220**
Protocol number:	**TBC**
IRAS project ID:	**265252**

The Research Ethics Committee reviewed the above application at the meeting held on 15 August 2019. Thank you for attending to discuss the application.

Ethical opinion

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below. .

Conditions of the favourable opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations.

Registration of Clinical Trials

It is a condition of the REC favourable opinion that all clinical trials are registered on a publicly accessible database. For this purpose, clinical trials are defined as the first four project categories in IRAS project filter question 2. For clinical trials of investigational medicinal products (CTIMPs), other than adult phase I trials, registration is a legal requirement.

Registration should take place as early as possible and within six weeks of recruiting the first research participant at the latest. Failure to register is a breach of these approval conditions, unless a deferral has been agreed by or on behalf of the Research Ethics Committee (see here for more information on requesting a deferral: https://www.hra.nhs.uk/planning-and-improving-research/research-planning/research-registration-research-project-identifiers/

As set out in the UK Policy Framework, research sponsors are responsible for making information about research publicly available before it starts e.g. by registering the research project on a publicly accessible register. Further guidance on registration is available at: https://www.hra.nhs.uk/planning-and-improving-research/research-planning/transparency-responsibilities/

You should notify the REC of the registration details. We routinely audit applications for compliance with these conditions.

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit: https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

After ethical review: Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study
- Final report

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical review of research sites

NHS/HSC Sites

The favourable opinion applies to all NHS/HSC sites taking part in the study taking part in the study, subject to confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland)being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS/HSC sites

I am pleased to confirm that the favourable opinion applies to any non NHS/HSC sites listed in the application, subject to site management permission being obtained prior to the start of the study at the site.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Covering letter on headed paper [Cover Letter for REC]	1	05 July 2019
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Indemnity Insurance]	1	05 July 2019
Interview schedules or topic guides for participants [Interview Schedule]	1	07 June 2019
IRAS Application Form [IRAS_Form_12072019]	-	12 July 2019
Participant consent form [Consent form]	1	07 June 2019
Participant information sheet (PIS) [Study Information Leaflet]	1	07 June 2019
Research protocol or project proposal [Study Protocol]	1	07 June 2019
Summary CV for Chief Investigator (CI) [CV Chief Investigator]	1	07 June 2019
Summary CV for student [CV Principle Investigator (Student)]	1	07 June 2019
Summary CV for supervisor (student research) [CV Academic Supervisor 2]	1	07 June 2019

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

No declarations of interest have been made in relation to this application

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at: https://www.hra.nhs.uk/planning-and-improving-research/learning/

19/WA/0220	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project.

Yours sincerely

Dr Jason Donal Walker, MB BCh BAO, FRCA
Consultant Anaesthetist
Chairman Wales REC 5

E-mail: WalesREC5@wales.nhs.uk

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments*

"After ethical review – guidance for researchers"

SL-AR2 After ethical review - research oth

Appendix L: Betsi Cadwaladr University Health Board Research & Development Department Approval

To: Lee Hogan <lee.hogan@bangor.ac.uk>
Cc: Emma Shepley <sepa88@bangor.ac.uk>; 'Huw.ellis@bangor.ac.uk' <Huw.ellis@bangor.ac.uk>; 'Mike Jackson' <mike.jackson@bangor.ac.uk>
Subject: IRAS 265252. Confirmation of Capacity and Capability at BCUHB NHS Organisation.

Dear Dr Hogan,

Re: IRAS 265252 . Confirmation of Capacity and Capability at BCUHB NHS Organisation.

Full study title: Exploring the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

This email confirms that Betsi Cadwaladr University Health Board (BCUHB) has the capacity and capability to deliver the above referenced study, documents reviewed are those as listed in the HRA/HCRW approved list. The **Organisation Information Document** has been attached.

We agree to start this study on the date you, as Sponsor, provide as the "Green light".

If you wish to discuss further, please do not hesitate to contact me.

N.B. Future submission of amendments, should be sent to our R&D generic inbox: BCU.ResearchandDevelopment@Wales.nhs.uk

Cofion, Regards
Kelly.

Kelly Andrews
Hwylusydd Ymchwil • Research Facilitator

Bwrdd Iechyd Prifysgol Cymru - Betsi Cadwaladr University Health Board

Appendix M: Research Protocol approved by Ethics Committee

Large Scale Research Project Proposal

1. Project title:

A qualitative exploration of the process and experience of change throughout 'Moving on in my recovery'; a psychological group intervention promoting recovery from addiction.

2. Supervision

Dr Lee Hogan will provide 'clinical supervision' specific to the psychological group intervention (Moving on in my recovery; MOIMR), substance misuse/ addiction services, study recruitment and literature review. Dr Mike Jackson will provide 'academic supervision' specific to the qualitative design and analysis. They will be available via email and regular scheduled face to face meetings.

3. Background

Addiction is a widespread and serious concern. Addiction can be defined as a behaviour that is habitual, compulsive and continued despite problematic cognitive, behavioural and/or physiological consequences. The burden of addiction is considerable. Alcohol and substance use disorders are leading causes of premature mortality and account for over 20% of the 183.9 million disability-adjusted life years lost to mental and substance use disorders worldwide (Whiteford et al., 2010).

Recovery from addiction has been understood as a process that involves learning to cope, rather than a "cure" (Neale et al., 2015). Therefore, it is widely argued that flexible resources which promote resilience, agency and choice are needed for recovery (Larkin et al., 2006).

NICE guidelines (Department of Health, 2011) recommend psychological group interventions alongside medical intervention in the treatment of alcohol and drug addiction. Recovery resources which are already in widespread use include the Twelve-Step Fellowships (Alcoholics Anonymous (AA) & Narcotic Anonymous (NA)), and SMART recovery. In the light of high relapse rates among people who have gone through these programs (Moos & Moos, 2006), arguments have been put forward for a new, cost-effective approach to the treatment of alcohol and drug addiction which reduces rates of relapse.

Moving On In My Recovery (MOIMR; Hogan, 2016) aims to meet these objectives. It is a 12-session group program which draws on principles of Acceptance and Commitment Therapy (Hayes, Strosahl & Wilson, 2012) along with other psychological therapeutic approaches, aimed at people with co-occurring drug/ alcohol and mental health problems who are considering moving out of treatment services. The program developed out of consultations with people in recovery and professionals around what was helpful to discuss when considering leaving treatment services and what tools and strategies helped the most. The program draws on evidence-based approaches to topics such as moving forwards, lifestyle balance, anxiety, building/rebuilding relationships, relapse, grief and loss, identity, shame and stigma and moving on. Engagement with the wider community is encouraged via weekly challenges which are embedded within the program. Since its inception in 2016, MOIMR has expanded to 25 locations across Wales, with many graduates of the program now trained as facilitators working alongside staff to deliver the program. Despite the large amounts of anecdotal evidence from service users, MOIMR is currently lacking empirical evidence which demonstrates its effectiveness. A feasibility study is currently underway which aims to identify what psychological benefits the program generates and whether outcomes

regarding behavioural change can be measured. It is hoped that this feasibility study will pave the way for a larger scale randomized controlled trial (RCT) in the future.

In generating empirical evidence regarding treatment for addiction, research (including the feasibility study currently underway) has tended to focus on quantitative outcome measures. It is recognized that this type of research does not uncover the deeper dimensions involved within an individual's journey towards recovery, and formalized investigations into the mechanisms for change are largely unexplored (Russell-Mayhew et al., 2010). Orford (2008) has proposed that future research should place a larger focus upon understanding change processes within recovery.

Some studies have employed qualitative designs to understanding the processes of change found in attendance of 12-steps fellowships. Rodriguez and Smith (2014) explored young men's experience of NA using an Interpretive Phenomenological analysis, looking specifically at processes of change and shifts in identity. This study revealed processes including overcoming identity conflicts, developing social networks and a sense of belonging. Identity transformation occurred via the process of accepting their identity as a recovering addict. A recent study by Rodriguez-Morales (2017) which employed a longitudinal IPA case study design to AA changes including the development of self-care and increased emotional understanding at 2 months. At 6 months increased social networks and ability to mentalise were found. At 10 months self-actualisation and increased sense of spirituality was noted.

Delucia et al. (2015) conducted a grounded theory analysis from interviews gathered at focus groups with 19 NA members. The examined the key ingredients of recovery processes. Three dimensions of characteristics were uncovered. Personal characteristics included willingness, hope, responsibility, perseverance and commitment to change.

Program characteristics included meetings, sponsorship, step work, service. Fellowship was found to be an essential element of recovery and characteristics of this included connections and enjoyment.

As these studies have revealed, qualitative approaches to recovery can offer important insights in this area. The study proposed in this document will allow an in-depth exploration using rich and detailed data (Charmaz, 2006). This will provide an extremely useful understanding the processes of change that individuals make in their journey towards recovery, and how MOIMR facilitates this.

4. Research Question

What is the process of change that people experience through MOIMR? How does this change happen and what contributes to it?

5. Participant recruitment

MOIMR recovery groups are well established and running on a rolling basis at 4 locations (and possibly expanding) across North Wales. There are between 10 and 20 individuals attending each of these groups.

Inclusion criteria: in order to take part in the interviews there will be a requirement that people have attended at least 9 of the 12 group sessions. Participants must be patients of a Substance Misuse Service (SMS). Recruitment will be focussed on identifying individuals who have made changes towards recovery as a result of attending MOIMR. Individuals who completed the group within the last 12 months will be eligible. Potential participants will be identified by asking group facilitators and SMS workers to identify participants who meet the recruitment brief and given information sheets about the study. Potential participants will be able to show their interest in taking part either by returning the "Initial Contact Form" or by letting their group facilitator/ SMS worker know they are

interested and give permission for their contact details to be shared with the researcher via secure email. There will be a financial incentive (£10) for taking part in the interviews. A sample size of 15 will be sufficient to reach saturation in themes (Charmaz, 2006).

Dr Lee Hogan is currently running a feasibility study in to MOIMR, which involves quantitative measures pre, post and follow up which quantitatively measure difference in mood, anxiety, psychological flexibility and alcohol/ substance use. The study proposed in this document, although separate to the feasibility study, will provide a more detailed qualitative insight which will complement the feasibility study well. Dr Lee Hogan has had no issues with recruitment in to the feasibility study.

6. Design and Procedure

The study will utilise a qualitative approach following Grounded Theory methodology. Data will be collected through semi-structured interviews, with transcription and development of the grounded theory taking place on a continual basis throughout the research allowing the questions asked by the researcher to evolve and change throughout the interviews.

It will be a retrospective follow-up study, with interviews conducted post successful completion of the 12 week MOIMR groups.

The interviews will be conducted most likely in SMS clinic settings. and community centre setting where the MOIMR groups take place. For those clients for whom this is not a suitable location, alternative arrangements will be made, most likely conducting interviews at GP surgeries, or within their home (providing this is appropriate and does not pose any risk).

7. Measures

Only demographic information will be collected; age and gender, and whether participant has remained abstinent.

8. Data management and analysis

Grounded theory methodology will be used to analyse the transcripts. For qualitative projects which involve detailed analysis of the data, a sample of 10-15 will be adequate.

9. Ethical/ Registration Issues

The protocol for this project was reviewed according to the guidelines of research developed by the National Research Ethics Service, and is considered to be research according to these guidelines. University and NHS Research Ethics Committees will therefore need to be involved with this project and will be registered with both.

10. Feedback

The findings of the project will be disseminated to appropriate and interested stakeholders, such as the substance misuse service, Welsh Government, mental health and social services across Wales and the participants involved in the project.

11. Risk Assessment

- *Potential for disclosure of risk to self or others by participants during interview*. I will deal with this potential risk by explaining the limits of confidentiality before the interview commences. I will communicate any risk to their identified SMS worker, gaining consent when appropriate, but ensuring participants understand that I may communicate concerns without consent if this is deemed necessary.
- *Risk of distress*. The interview questions are not anticipated to lead to significant distress, however, it is possible that discussing one's journey to recovery may be

distressing for participants. If a participant becomes distressed, the interview will be halted immediately and participants will be reminded their participation is voluntary and they do not have to answer the question if they do not wish. I will use therapeutic skills including active listening and support participants to engage with coping strategies to help manage any distress as appropriate.

- *Potential for risk to interviewer due to lone working*. I will deal with this risk following the usual lone working guidance, e.g. ensuring to be aware of relevant risk information before meeting participant for the first time and making use of the "buddy system" to communicate where I will be and expected time to complete interviews.

12. Data Storage

Participants will be assigned a unique anonymous identifier code which will be used on all documentation from the beginning of the project. A document which links real names to identifiers will be kept in a locked cabinet at an NHS site. An electronic version will be password protected and kept on the lead researchers personal NHS drive. From this point, no patient names will be recorded on any documents generated by this project.

Paper information will not contain any personally identifiable information (anonymous identifiers only) and will be transported from the location of the visit in a locked briefcase and transferred to a locked filing cabinet on NHS premises.

Recordings of interviews will be made on a recorder. At the earliest opportunity, the interview will be transcribed on to a password protected NHS computer with all identifying information removed. Once complete, the recording will be deleted from the recorder. The write up of the study will be carried out on a personal laptop, however, no identifying information will be used at this stage.

13. References

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