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Understanding women's help-seeking for problematic and unhealthy alcohol use through the lens of complexity theory

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Abstract

Purpose

It is well established that women face multiple barriers to accessing treatment for problematic and unhealthy alcohol use, but less is known about how their interconnected problems affect how they seek help from, and access, alcohol-treatment services. This study explores the dynamic nature of women's help-seeking for problematic and unhealthy alcohol use and how this can be compounded by unsuitable treatment services, especially when women present with complex needs.

Design/methodology/approach

Thirteen semi-structured interviews with women who had accessed alcohol-support services were conducted, audio-recorded, transcribed, and analysed thematically using complexity theory.

Findings

For women with complex needs, the process of seeking help may trigger unpredictable behaviours, health or social problems, and intermittent serial access to treatment. Current services don't always address women's holistic needs. Unless services focus on addressing interconnected problems – including historic trauma – they may compound the complexity of women's problems. Complexity theory offers novel insights

into this process, a concept not applied to problematic and unhealthy alcohol use treatment previously.

Practical implications

Services should adopt non linear approaches to treatment. Implementing complexity approaches to treating women's problematic and unhealthy alcohol use should capture the dynamics, complexity, and non linear nature of women's help seeking journeys as well as their internal and external responses that may result in relapse. We recommend complexity-focused, multiple-component, integrated collaborative strategies to address not only addiction but all components of women's needs – including past trauma.

Originality/value

Applying complexity-thinking to help-seeking experiences for alcohol treatment and recovery services is novel, and proved useful in understanding the variety of women's experiences and how these interact with their help-seeking behaviours, including treatment environments.

Keywords

Women's help-seeking, women's alcohol misuse, complex adaptive systems, complexity theory

Introduction

Men continue to drink more than women; however, international data (Slade et al., 2016) which analysed 68 studies has shown that the gap continues to narrow. The Institute of Alcohol Studies (2017) suggested a number of explanations for this trend, including, but not primarily, the notion that women are working and having more disposable income than previous generations (Smith and Foxcroft, 2009). Alcohol-related hospital admissions for women have risen by 30% from 2008/09 to 2014/15 (Institute of Alcohol Studies, 2017). This was accompanied by an increase in alcohol-related mortality in women according to official UK data in 2018 (ONS, 2019). The most recent treatment data (ONS, 2019) indicated that women comprise 40% of the population receiving “alcohol treatment”. However, there was a decline in the number of people receiving “alcohol treatment” from 2008/09 to 2018/19. Residential treatment services form a small part of this provision. In this study we use the terms problematic and unhealthy alcohol use in reference to substance misuse or abuse to move away from stigmatising language. However, where research has specifically used alcohol abuse or misuse, these terms will be used and referenced as such.

Women who misuse alcohol, face multiple barriers to seeking treatment, which impact on their help-seeking behaviour (Brady and Ashley, 2005). Research suggests that, obstacles affecting more women than men include physical ill-health; psychosocial, financial, sociocultural, and sociostructural issues (Schober and Annis, 1996; Boffetta and Hashibe, 2006); histories of sexual, physical, and/or psychological abuse (Angove and Fothergill, 2003), and/or childhood trauma (Small et al., 2010; Magnusson et al., 2011). As a result, the process of initiating, progressing through, or completing treatment can be elusive and complicated, and is often characterised by short-term recovery followed by relapse (Boffetta and Hashibe, 2006).

Physiologically, women may experience an alcohol-related telescoping effect (Keyes et al., 1989); that is, they use lower levels of alcohol than men (at least initially) but their use escalates to addiction and dependency more quickly, leading to serious health problems (e.g. brain damage and liver disease).

Storbjörk (2011) suggests that, women in alcohol treatment have more contact with mental health services than men. During women's help-seeking journeys, there is a correlation between unresolved or co-occurring psychiatric problems, delays in seeking help, and relapse (NICE, 2010). This could be due to disruptive family environments, childhood parental abuse or neglect, prenatal genetic factors, biological environmental risk factors, or negative re-enforcement from self-medicating that causes a cycle of drinking-related anxiety reduction and induction (Willinger et al., 2002; Gilbert et al. 2019; Boroumandfar et al. 2020) .

In terms of socio-economic factors, Lander et al. (2013) identify a change in lifestyle, poor social functioning, and the interaction between alcohol, poverty, housing, social isolation, marital breakdown, parenting difficulties, offending, and unemployment as additional complex factors that interfere with help-seeking, causing delays, premature withdrawal from treatment, or relapse. Neale et al. (2018) identify other complex vulnerabilities interfering with help-seeking, including gender-based violence, unreported sexual abuse, the stigma around sexual orientation, cultural issues, income, and other drug use (Simpson and Miller, 2002). These have been associated with destructive emotions and habits, maladaptive coping mechanisms within dysfunctional relationships, and negative spousal influence. While men may also be affected by these factors, research points to women feeling more vulnerable and experience greater attitudinal barriers than men (Gilbert et al., 2019).

The tension-reduction hypothesis (Conger 1956) explains how some women

affected by these problems may continue using alcohol to reduce or respond to stressful life events, making access to effective treatment difficult (Windle and Windle, 2015).

Additionally, women affected by trauma and adverse childhood experiences who experience addiction may struggle to seek help due to victimisation, the increased risk of continued substance misuse, and the ritualised, compulsive comfort-seeking that may be associated with their problematic alcohol and substance misuse (Cocozza et al., 2005; Bailey et al., 2019). By the time they are ready, they may have additional physical and psychological problems or be enmeshed in volatile relationships (Neale et al., 2018), experience parenting challenges, and/or be in the process of a child-protection intervention (Lander et al., 2013).

Women usually have lower incomes and fewer financial resources than men to access fee-paying treatments (NICE, 2014). Along with a lack of transport, the cost of childcare, having more caring responsibilities than men, isolation arising from family problems (e.g. mental ill-health, marital problems, or domestic abuse), and a lack of financial independence, this can also make seeking help a challenge (Small et al., 2010). All within the context of the decreasing accessibility of alcohol and other substance misuse services and a move away from statutory, predominantly residential, alcohol services.

In the early-1990s, the “purchaser–provider split” (PPS) was introduced as a service model. Services are purchased/commissioned by Clinical Commissioning Groups (or similar) and the providers are treatment services (Bailey and Davidson 1999). According to Bailey and Davidson (1999), this model has set up an internal market and competition for services that have to tender for them, and over time the third sector (charities, social enterprises and voluntary groups) has played an increasing role in providing substance misuse services. The PPS has operated within a prolonged

period of austerity. Roberts et al. (2020) report significant problems accessing alcohol services, a lack of cohesion in the commissioning processes, and cuts in funding resulting in a reduced number of people being able to “access specialist treatments”.

Moreover, the consequences of alcohol misuse, such as stigma or having to maintain a caring role combined with the effects of alcohol misuse, have a particularly detrimental effect on women (Hernandez-Avila et al., 2004). The gender double-standards regarding drinking results in women’s drinking being stigmatised and deemed non-nurturing and unfeminine (De Visser and McDonnell, 2012). Consequently, women tend to identify their alcohol-related problems differently from men: they may be more secretive, delay seeking help, shy away from labels such as “alcoholism” and “dependency” (Thom, 1987; Glass et al., 2013), and access treatment only when their physiological or mental health problems worsen (NICE, 2014).

Peralta and Jauk (2015) further highlight the “double bind” for women with children who are labelled as “deviant bad mothers” – the shame associated with alcohol dependency and the fear of losing children to social services – as interfering with help-seeking (Glass et al., 2013). Some gender-responsive services offer childcare, support regarding social services involvement, relational support, and trauma- and strength-based interventions; yet, women are still less likely to seek help if their partners are dependent on alcohol, unsupportive, negative, or cause emotional turmoil – and, once in treatment, these problems can undermine women’s recovery (NICE, 2010).

In relation to meeting the complex needs of women who misuse alcohol, research suggests that women-only services provide a safe space away from male substance users, although the evidence is inconsistent (Bride, 2001). Greenfield et al. (2007, 2013) find that women perceived women-only services as a safe arena where experiences could be shared, and where women-specific issues could be discussed safely without

the sexual tension provided by men (Swift et al., 1996). Other users of women-only services described them as overwhelming and unrealistic, as they were distant from a mixed-gender world. Some have described women-only services as “bitchy” (Godlaski et al., 2009). A study by Neale et al., (2018) identified poor relationships between female residents in women-only settings such as hostels and prisons and questioned whether same gender services can be effective. However, Brady and Ashley (2005) stress that women do have different treatment needs, they argue it is necessary to offer women specific provision, and set out recommendations for women-only substance misuse services.

Although there is research supporting the provision of women-specific services, these services do not always integrate trauma-specific interventions to address the complexities caused by historic adverse childhood experiences (ACE), the wider contextual factors, safety issues, or cognitive functioning problems linked with commencing and completing treatment (Ashley et al., 2003; Bailey et al., 2019). Even gender-focused services do not always integrate interventions that address women’s co-occurring problems or historic trauma – despite most help-seeking women requiring such interventions (Gilburt et al., 2015; Bailey et al., 2019). This lack of consideration for the multi-layered and complex problems women face can also prevent access to treatment (Schular et al., 2015). Sequential modelling in treating trauma has been deemed ineffective, given that trauma can trigger the continued use of alcohol, and there is a risk of relapse if trauma-based interventions are introduced before sustained abstinence (Hobden et al. 2018). The requirement of sustained abstinence is in itself an barrier to treatment access. Integrative psychosocial interventions, designed to address trauma and substance misuse simultaneously, have found significant improvements in treating trauma-related symptoms early in the treatment process while addressing

substance misuse to improve recovery and reduce risks of relapse in alcohol misuse (Brady and Back, 2012; Dass-Brailsford and Safilian, 2017).

This study uses a qualitative method to investigate the dynamic nature of women's help seeking experiences towards recovery from problematic and unhealthy alcohol use through the lens of complexity theory (Kuhn, 2009). Complexity theory is used to demonstrate the dynamic and non linear nature of help-seeking for problematic and unhealthy alcohol. Help seeking is attributed or affected by multiple factors that are interconnected contributing to complex and unpredictable help seeking experiences. This makes it impossible to know the possible outcomes of help seeking efforts. To our knowledge the application of complexity theory to women's help seeking has not been used in this area of alcohol research.

Complexity theory

Complex adaptive systems have many defining characteristics, such as intricate, open, interactive sub-systems with unclear margins (Kuhn, 2009). They encompass of several, varied, interrelating agents (Waldrop, 1992).

Complexity theory, is historically well applied in the scientific disciplines although increasingly used in social work, health, criminal justice and psychology (Fish and Hardy, 2015). It provides an opportunity to consider individual services as complex adaptive systems that continuously adjust to the dynamics of the social world, which often call for unusual change, stress, and adaptability (Hood, 2018).

Plsek and Greenhalgh's (2001, p 625) consider complex adaptive systems as "a collection of individual agents with freedom to act in ways that are not always totally

predictable, and whose actions are interconnected so that one agent's actions change the context for other agents".

Within complexity theory, agents, are autonomous actors within a complex adaptive system. As agents, they operate and respond to the demands of changes of that system (Plsek and Greenhalgh's (2001, p 625). As an example, complex adaptive systems contain active agents that are both actors and information processors (i.e. social workers, health workers, therapists or counsellors), other services and organisations (i.e. social services, hospitals, mental health services or half-way houses/housing services).

These agents are inter-connected and interact with one another at different levels. They influence each other and their activities co-evolve (Kuhn, 2009). Agents self-organise around the context that attracts them to a particular direction to exhibit patterns of stability, they are sensitive to their context, unpredictable and are non linear (Ellis et al. 2017).

However, individual agents do not rely on top-down rules. They are influenced and function based on their own internalised principles and values that develop into complex social patterns, complicated resident rules and cultural features. For example, people as, individual agents follow internal rules (e.g. instincts, expectations that might drive an action) or schemes and act as reference points for behaviours that can be applied to new situations (Plsek and Greenhalgh, 2001).

By taking these three perspectives together, we are acknowledging that, problematic and unhealthy alcohol use, the individual, and treatment services, all present complex dynamics, that, together contributed to the difficulties in women's help seeking journeys. The women demonstrate a dynamism i.e. continuous movement, 'an ability to adapt, to have energy, to instigate, to respond and react' to others and the

environment both physically and socially (Kuhn, 2009, p.29)

Why complexity thinking in help seeking, problematic and unhealthy alcohol use

To understand why women in this study have struggled with relapse during their help-seeking journey's we argue that individuals are 'human systems' i.e. complex adaptive systems (Hayes and Andrews, 2020). We take the perspectives from psychotherapy that consider an individuals' psychological and mental functioning as complex intrinsic dynamic systems that endlessly evolve through because of the continuous demand for action and thoughts that with or without being triggered by incentives and external forces (Vallacher, Read and Nowak, 2002). People's thoughts intersect with motivational forces, within the person and those arising from external influences that may cause unpredictability as well as some instability in behaviour (Vallacher, Read and Nowak, 2002). We think this definition is appropriate given that our participants have spoken about dealing with past trauma in relation to their addiction.

We also take Pycroft's (2018) position that addiction is best understood as a complex adaptive system which is highly deterministic with the real possibility of a spiraling down leading to entrenched and socially exclusionary factors. These deterministic factors cover a range of biological, psychological and social issues which can become "locked in" with the system having an ability to accommodate perturbations such as treatment interventions which poses significant challenges to interventions and their necessity of being as dynamic as the problems they are trying to solve (Pycroft 2018, p.6). We also consider this perspective a helpful way to understand how women struggled to overcome addiction because of either their brain struggling to deal with the state of destabilisation after withdrawal from alcohol or environmental factors or social factors attracting them to achieve unpredictable help-seeking outcomes.

We also acknowledge that treatment or rehabilitation services providing treatment are also complex adaptive systems that either contribute to a successful or unsuccessful help seeking journey.

Application of complexity theory

This study applied concepts borrowed from complexity theory to understand women's help seeking journeys (Thompson et al., 2016). Specifically, we examine the features of complex adaptive systems as related to women's help-seeking for problematic and unhealthy alcohol use. In particular:

Attractors: are defined as factors that drive or pull the system to a particular outcome or a range of possible adaptive outcomes. In this study, we consider the problematic unhealthy drinking as an attractor that pulls back participants from successfully going through help seeking processes (Hayes and Andrews, 2020).

Dynamic pattern: a dynamic pattern is the interaction of the system elements with the internal (emotions) and external environment (e.g. people engaging with people). These patterns are dynamic and they have the capacity to change over time depending on circumstances and what influences the system functioning internally or externally.

Therefore, new patterns or transitions, take place through changes, no matter how small, of relevant parameters of system functioning (Heinsel et al. 2014). In the context of this study, we suppose that, a destabilisation/disturbance of unhealthy drinking behaviour, could facilitate either a more stable change process and

behaviours towards recovery or indeed, relapse. This is because a system is more prone to change when it is under unstable condition (i.e. problematic drinking being disrupted = unstable phase= increased dynamism). This is supported by our findings showing relapse preceded in times of instability and increased dynamic complexity.

Non linearity: these interactions are non linear at multiple levels. They can result in uncertainty and unpredictable outcomes. Thus, interventions provided for unhealthy alcohol use will not be proportionate to the output. Hence psychotherapy studies argue that therapeutic processes are not linear- we argue this applies to alcohol therapeutic treatment programmes. One cannot predict future dynamics in relation to individual's past experiences (Hayes and Andrews, 2020; Heinsel et al. 2014).

Interaction: this refers to interaction between the individual with addiction behaviour, perceptions and decision making; interpersonal with others, (medical professionals, counsellors etc.), group dynamics with others accessing treatment, and or with the treatment environment. (Kuhn, 2009)

Unpredictability: the continuous changes and adaptations in the system – usually new and unpredictable. Any new environmental or social circumstances may potentially disrupt help seeking at any stage of seeking recovery. Hence recovery is unpredictable (Lewis, 2014)

The attributes of complexity theory assist in understanding the possibility of women

encountering unforeseen crises, which may result in either positive or maladaptive problem-solving approaches when seeking help. These crises may lead to women experiencing an unstable period in their lives, during which internal and external factors may influence their functioning, and they may require more support to adapt. Alternatively, where there is right support, interventions and treatment, women may adapt, thrive, develop new behaviours, and emerge into a new and stable state (Hayes and Andrews, 2020).

We also used complexity theory to examine women's lived experiences and whether the interventions that were approached or accessed supported them in addressing their already complex problems – for example, the treatment environment or the circumstances that influence or hinder the process, whether or not new life events emerged, and how women dealt with those problems along the way without necessarily looking at intervention outcomes (Marchal et al., 2014) – and to interpret this using complexity concepts. The focus was on the process of seeking change (help and treatment), their dynamic and associated experiences in that process (not treatment outcomes).

We took the position that women who drink problematically and unhealthily, need services that address all aspects of their lives and support them to work within reasonable boundaries without tipping into even more chaotic lifestyles, despite the unpredictability of outcomes. We argue that a linear approach to service provision is too simplistic and does not always achieve best outcomes.

Methods

Research setting

All participants were based in South London and had accessed support from a range of

alcohol-treatment services for women across the South London Boroughs, primary care services, Alcoholics Anonymous (AA), and individual counselling, for example twelve-step programmes, residential services, face-to-face and online services. Participants were interviewed by a female researcher at a venue of their choosing (often in the service facility), by telephone or Skype to ensure they were comfortable discussing their experiences.

Recruitment

We were supported to recruit for this study by an alcohol recovery organisation that offers support services to women including social networking platforms for peer support and to celebrate women's recovery from problematic and unhealthy alcohol use. The manager of the organisation acted as the gatekeeper, and assisted with the recruitment process.

Women who expressed interest were invited to take part and provided with information sheets on behalf of the researchers. Participants were then approached and recruited using a purposive homogeneous sampling technique. Participation was voluntary, verbal, and written informed consent was obtained directly from the women by researchers prior to taking part in the study. Participants were each given a £30 gift voucher as an honorarium for taking part.

Thirteen women agreed to participate. This small sample size could be the result of service providers' gatekeeping by the service staff that supported the recruitment and selection of participants for this study, reluctance due to the timing of the research in respect of women's help-seeking journeys, the sensitive nature of women's journeys, and/or unwillingness to disclose sensitive information, because they are a hidden and hard to reach population, and a stigmatised group. The researcher was able to engage hermeneutically with participants and elicit highly relevant information regarding the

complexities of help-seeking (Smith et al., 2009).

Inclusion and exclusion criteria

The study included women with coexisting problematic and unhealthy alcohol use and complex needs who had previously accessed alcohol-treatment services, and/or were currently in treatment, and had identified themselves as having experienced challenges in their help-seeking journeys. To take part women needed experience with accessing women-only services although those with experience of both women-only and generic mixed services were included to avoid omitting experience and to enhance understanding of the complexity of help-seeking. Participants needed to be emotionally and psychologically well to take part. The women were approached through a gatekeeper who asked them if they wished to take part and ensured they were freely able to tell their stories and well enough emotionally to take part. Women assessed by the gatekeepers to be too vulnerable to take part were excluded from the study.

Ethical approval

Ethical clearance for the study and publication of results was gained from the University of Greenwich Research Ethics Committee. Procedures regarding signed informed consent, anonymity, and confidentiality were adhered to throughout.

Procedure

Semi-structured interviews facilitated exploration of the complexities of women's experiences. The interview schedule was developed following a review of the literature and expert advice from a steering group involving the authors and members with experience of working in the drugs and alcohol service.

Interviews aimed to achieve rapport, identify contextual factors, and prompt a wide-ranging discussion of participants' experiences of seeking help to address their self-identified alcohol problems.

The study follows phenomenological approaches enabling an open, curious conversation and a deeply dialogic process (Shaw, 2011). Interviews took place from June to December 2016 inclusive, lasted up to 60 minutes each, and were conducted either face-to-face, by telephone or via Skype.

Transcription and analysis

We applied interpretative phenomenological analysis (IPA) to attend to the individual lived experiences of seeking help was viewed through the eyes of the participant (Smith et al., 2009). We then employed double hermeneutic where the researcher interpreted the participant's interpretation of their life world. Thus, researcher and researched engaged in co-construction of meaning (Smith et al., 2009).

Each individual case narrative was then analysed fully before undertaking a further analysis where the researchers identified themes of descriptive, dialectal and conceptual importance through (Smith et al., 2009). Initial ideas were captured and clustered into themes for each participant that were then compared and for convergence and divergence (Maynard, Spires and Pycroft, 2019).

To validate the data and analysis, two group-based sessions with participants were conducted to member-check the themes derived from the data, and these were confirmed as representing the narratives and perspectives of participants (Birt et al., 2016).

Findings

Participants

Consistent with interpretive analysis approaches, a sample of 13 women was recruited (Smith et al. 2009). Table 1 shows the participants' sociodemographic characteristics captured using a brief participant information questionnaire. Their demographic information, mental and physical health diagnoses, and alcohol use were established via self-reporting.

The 13 participants were aged between 28 and 61 and spoke about using additional substances. All had co-occurring mental health problems; depression and anxiety were particularly common, although two had serious mental health problems (bipolar disorder and schizophrenia).

Nine participants disclosed a history of sexual abuse, domestic abuse, and physical health problems, with one participant having chronic, unrelated health problems. One had a sensory disability (deafness) and another language difficulties with limited English proficiency.

Most participants had been physically dependent on alcohol for between three and 30 years and had required medically assisted detoxification. Eleven were abstinent from alcohol, and had been sober for durations ranging from a few weeks to a few years. One had recently relapsed and aimed to become abstinent again; one was drinking less on each occasion she drank.

All participants had previously accessed generic primary care and charitable alcohol-treatment services, and all had dropped out or relapsed, with an average of five attempts.

Three participants had accessed mixed-group residential treatment and two had been evicted after breaching residential treatment rules before accessing the women-

only services that they were in at the time of the study.

One participant had paid for private treatment and residential rehabilitation in the past, but had become bankrupt as a result of her drinking problems and financial mismanagement.

< Table 1 near here >

Findings

The findings are presented under the following main three themes which were identified from the data as below:

- “I turned to drink for comfort”
- Non linearity of the help seeking process
- “It can be kind of grungy; sitting in that waiting area is awful

“I turned to drink for comfort”

All 13 participants described how life experiences whether new or previous trauma, contributed to dynamic patterns of behaviour during their journey of seeking help- they triggered relapse, influenced or exacerbated problematic and unhealthy alcohol use because alcohol helped them cope.

Two participants disclosed continued challenges with trauma that was linked to rape, three disclosed childhood abuse and also domestic abuse perpetrated by partners and family members. Three participants had been victims of gang crime, nine were also dependent on drugs, such as heroin, crack cocaine, and cannabis. Almost all the

participants felt isolated from their family, friends, and community, and some had lost their jobs due to drinking.

In a sense, the range of psychosocial, traumatic events and environmental external influences made them vulnerable to alcohol relapse. We argue these were pull factors - in complexity terms, attractors- that disrupted a person's functioning. These attractors were drawing them to find comfort in drinking because they were a much stronger force than their capability to continue with treatment. Examples are presented in sub-themes below:

“I lost my best friend to cancer”

Beni and Santoni (2019) argue that, being on a rehabilitation treatment plan or simply quitting a substance, does not imply any long-term psychological effects of traumatic life events will be eliminated. Thus, the fact that participants were in treatment did not guarantee them full eradication of any psychological experiences that were linked to their problematic and unhealthy alcohol use. As explained:

“I was abused as a child [...].”

“One of my brothers is extremely ill – cancer, you name it; diabetes, blood pressure [...]. I took over taking him to the hospital [...] because our mother is dead [...] I was run into the ground and continued having a drink for solace. This happened twice, then another. I got a community detox and then the same happened again the following year. It's always around November/December.”

(Client I)

“I lost my best friend to cancer [...] my brother died six weeks later. I did not go and seek help for bereavement counselling or anything. The drink took away the pain.” I was advised when I was in detox that the only way that I'm going to stay sober is by

going into a twelve step rehab. I went in for three months from my assessment. The mental health, child issues, the sexual abuse, the rape and other issues that I had to deal with.”

(Client C)

The experiences above suggest that trauma can be powerful in altering an individual’s motivation or seeking recovery and in this case, help seeking became futile. We argue that the range of factors affecting participants individually suggest that women seeking to address alcohol problems can be complex themselves. There are risk factors such as illness, death, attachment issues that may signify additional bidirectional and dynamic risks factors (to relapse) that emerge and interact with one another affecting the outcome of help-seeking – i.e. contributing to unpredictability (Lewis, 2014).

“I was doing so poorly in terms of, I was going there high”

Participants often continued drinking while in the process of seeking detox treatment. Some, experienced severe visible health symptoms, for example liver failure, bleeding gums, and psychiatric symptoms that forced them to adapt their lifestyle:

“I was a day client (accessing alcohol treatment) [...] because it’s only up the road. So, the last time, just before I went into the hospital, because I’d got chronic cirrhosis I’d lost 80% of my liver – what is left of it is repairing. I did try and kill myself, but I just didn’t care either way [...] I remember waking up – basically, I’d passed away three times in the hospital, and by some sheer miracle I’d pulled through.”

(Client A)

Of note however, is how the illness can be triggered by the body functioning, (whether or not it is induced by addiction) - which in itself the body is a complex adaptive system and when there is immune dysregulation, can causes poor health

(Sturmborg, 2021). The above quotation portrays traumatic experiences linked to physical health or loss of health that then triggered relapse for several of our participants.

One participant, who initially had an alcohol addiction and later heroin and cocaine, spoke about her experience of accessing treatment without committing to the process:

“I was doing so poorly in terms of I was going there high, I was going there drunk, I was quite abusive I think, so even though my therapist was quite happy for me to play it out, and I was meeting with a nurse, my mental health worker that was connected with the council thought that I was just rubbishing it all. I had about six or seven appointments, but I got kicked out of that [...]. I would go there and say, “Yeah, I’d like to give up the drugs” but the drink can stay, I really wasn’t prepared to...”

(Client B)

Client B portrays a key challenge around the lack of motivation or commitment to treatment. The first time of accessing treatment was either impaired or they lacked the capacity to regulate themselves or avoid impulsive behaviours that prompted them to continue drinking. In complexity terms, the individual is continually attracted (pulled) to relapse or they are at that point unable to escape a cycle of problematic drinking or drug use.

“I ended up in hospital again, after another suicide attempt”

Eight of the 13 interviewees reported suffering with mental health problems alongside their drinking, including anorexia, depression, anxiety, and suicidal thoughts. Most services did not provide focused mental health interventions alongside alcohol treatment, as such, eight of the participants received mental health support through

community mental health teams and crisis support during their help-seeking journeys. Their contact with mental health services was characterised by a revolving-door situation, and that mental health and alcohol problems were not always addressed within the same service.

“Attempted suicide [...] I ended up in hospital again, after another suicide attempt, and spent several months on a psychiatric ward, diagnosed bi-polar with chronic depression [...] occasional visit to the psychiatrist. I was seeing the psychiatrist regularly but I doubt any medication was doing me any good really with all the drinking [...]. Up to a point I was still getting appointments from XXX (drugs and alcohol service). I was probably signed off and that’s when I first went to XX (drugs and alcohol service)”

(Client E)

“I was going to see a different practice (for mental health treatment) ... it was for the panic attacks and anxiety attacks, but that was...a 12-session thing. I missed about four appointments, and she just went over the same thing, over and over again and I didn’t feel like I was getting anywhere with her. I confided in one of the builders, that used to work on the same depot as me, about the panic and anxiety attacks, and he’s also gone through it, and he was more help to me than what the therapist was doing.”

(Client K)

“XX was the only place that deals with the mental health side... and the addiction that would take me. No one else would take me, because I was high risk”

(Client C)

The participants indicated that treatment services, provide a multi-staged process of treating mental health and alcohol problems separately, resulting in unpredictable care and treatment. Seeking treatment for problematic problematic and unhealthy alcohol use is only one component of services that need to be coordinated in the community to

address not just alcohol but mental health problems. It is the case often that those working with the person with dual diagnosis do not always understand their problems that are often reported to be complicated and therefore better coordinated services are required (Pycroft and Green, 2016).

Furthermore, literacy was a barrier for one participant, who had had little schooling. During Alcoholics Anonymous meetings, she was expected to take a turn and read from the Big Book, but this was a challenging task that prevented her from engaging fully with the intervention:

“They were all sat around a table, they all read from the Big Book and it was like, I don’t have a fucking clue what you’re going on about. It was quite regimented and anything that was on paperwork, I would dismiss it. [...] That’s the intimidation really, I can’t sit there and read. You are kind of like frowned upon if you wouldn’t or couldn’t read. I was embarrassed because I’m a woman, I’ve got five kids, and embarrassed that I can’t read, can’t spell. So, it was a big thing for me to even attempt it, trying to, and them saying: ‘What do you mean, you can’t read that word?’”

(Client D)

The above quotation illustrates that illiteracy was a barrier. It would appear facilitators of AA presented restrictions (possibly they were unaware of this) that disturbed the process of seeking help. The effectiveness of AA appeared to depend on participants’ engagement with the range of activities of which included reading to the group. In complexity terms, a given outcome may be a result of the interaction of a variety of factors. In this case, the absence of support for those who cannot read or write limited a potential opportunity for engagement and growth, thus was detrimental to the participant’s confidence and esteem (another unpredictable outcome).

Non linearity of the help seeking process

In complex systems, a small change could lead to extreme changes in the system. This feature of complex adaptive systems is linked to dynamism and non linearity, where a change in one part of the drinking behaviour may not necessarily lead to an identical change in women's psychological or physiological systems. At the same time, change is likely to destabilise how women function without alcohol.

Witkiewitx et al. (2019), argue that those who experience withdrawal symptoms require support, alternative treatment, be it psychological interventions or pharmacological interventions to help prevent relapse. Some participants in this study, going through detox experienced serious physical withdrawal symptoms during treatment- an expected response medically. In the process of experiencing withdrawals, some participants lacked the self-efficacy to sustain their help-seeking journey. The excerpt below is presented as an example:

"I'd sort of got in a (treatment) hostel. A housing worker, basically told me straight that it was a problem and it was not normal to be shaking in the morning, and that meant it was quite bad. I don't think I really considered it so bad...Yeah. But that wasn't so successful...and then I kind of went through phases in my life where I was functioning while drinking so I'd still be working. And then when I wasn't working, then I didn't really have anything. It just gave me a free reign. I normally like, if I had any appointments I normally try and schedule them for the mornings so I wouldn't turn up hammered but if I am I'd miss them or I'd get them out the way and then once all my commitments were done then I started drinking."

(Client G)

Client H demonstrated how her body needed to adapt to treatment and withdrawal symptoms or fluctuations in the human system's physiological functioning at different levels of treatment. However, she considered her life to be unstable, and chaotic at the time of seeking residential rehabilitation, her motivation fluctuated and therefore she missed regular appointments, disengaged and relapsed- hence, internal and external factors interacting and causing destabilization in help seeking.

Some participants experienced difficult emotional responses due to the stigma and double standards (Client H) associated with women's drinking. Often, this led to feelings of loneliness during help-seeking episodes:

"I was dealing with all the emotional stuff, dealing with the baggage, feeling alone [...] feeling like, and the disappointment of leaving the place that, I was used, and I still wasn't fixed in my eyes."

(Client H)

On the other hand, participants who had been admitted to dry houses for rehabilitation considered this a positive intervention compared to being on the streets. However, dry houses were not sufficiently supervised to ensure women's safety and continued abstinence. One participant reported poor dynamics with other residents and constant pressure to drink, which led to her eviction and homelessness:

"I'd drank with others and never got caught until I came back one night pretty drunk, and I got evicted and sent to a homeless hostel, central London."

(Client C)

For some, lack of additional support and negative attitude expressed by some staff at times contributed to feelings of anger especially when no additional support was provided.

As reported below:

“They were making me more angry than I was, because they’d be telling me how I should be and how I should feel, and I know myself pretty well, if I say I’m not coping it means I’m not coping... They used to just say to me, ‘Just go on your way you’ll be alright’, so you’d be brushed off. “

(Client C)

Others spoke about how group facilitators invited them to draw on ‘higher powers’ in order to address their drinking problems. However, in some cases, participants did not believe the ‘higher power’ approach was effective for them:

“We were doing the twelve-step programme. I got to step three, I think, or step four. At a point they asked me to hand it over to my higher power, and I thought, *no, I don’t have a higher power; no higher power will take it off me*. I was basically, I would say attacked, because every single fibre of the recovery was hinged on this higher power.”

(Client J)

Each participant responded differently to interventions they accessed, treatment environment and the facilitator’s approach to delivering group sessions. A complex systems perspective therefore helps to understand that while certain interventions are provided and we expect certain interactions between a dry-house or counsellor-patient, in women’s help seeking processes to contribute to positive changes in drinking related behaviours, the help seeking process is not straightforward or linear. In the process of help seeking internal and external factors such as living a chaotic life, housing instability, lack of positive support system, lack of motivation and willpower, may negatively affect the person’s goal to consistently seek help, or remain persistent in the help seeking process.

“It can be kind of grungy; sitting in that waiting area is awful, it’s not nice”

Some of the women mentioned that the environment in which treatment services are delivered act as a barrier to successful help seeking. They explained how certain services can be in inappropriate configurations locations and thus unwelcoming. For example, most women found accessing treatment groups with men intimidating. As reported:

“weekend-recovery-support services are too ‘male’ to be comfortable. There are usually guys who come there and chat about things and you just feel...excluded (if you like), so people [women] tend to avoid it.” [...] The staff don’t mean to but they are very brash, so people tend to avoid it. I’ve tried it and I thought, “No this is not for me”

(Client J)

“Women-only groups made me realise you've been slowly brainwashed over period of time and I have seen how you can be held hostage in your own home.”

(Client G)

Other women criticized treatment environments as being generally humiliating, too busy, untidy and uncomfortable:

Queuing up and getting humiliated at the front [outside] and then the first few people get seen and be assessed. Cut-off point for assessments, probably serving a purpose, driving people away.

(Client J)

The positioning of a series of security doors going in and then another one letting you in, then a really tiny sitting room with probably only enough seats for eight people, yet it [treatment centre] can get quite busy and people ‘kicking off’...it’s just madness.

(Client K)

It can be kind of grungy; sitting in that waiting area is awful, it's not nice, rubbish everywhere, dead-end street type of thing. It's a bit of a state, it feels like just a reflection of you, at that stage...

(Client B)

With the concept of complex adaptive systems in mind, system elements, such as environmental factors interact with the treatment programme to either facilitate or discourage engagement with treatment/interventions. However, it is organisations' responsibility to offer a safe and supportive environment. Yet, the excerpts above demonstrate that poor quality treatment environments and negative experiences in help seeking are a barrier for either future engagement in alcohol treatment services, or increase the likelihood of relapse.

The above excerpts demonstrate the concept of nonlinearity. Not all treatment environments were suitable for all individuals. All women presented with unique life history, experiences of seeking or accessing treatment, social context, psychological factors, or emotional challenges. Their individual circumstances contributed to different views of what they deemed suitable or supportive to their unique needs, this contributed to the complexity of their help-seeking journeys and the unpredictability and nonlinearity of outcomes.

In summary, all 13 participants in this study experienced dynamic and non linear help-seeking processes in different ways. The process of change was unpredictable for a number of reasons. The findings indicated that they needed to follow-up to access help. The treatment environment was key, there was a perception of inadequate support and a mismatch with counsellors or key workers who appeared to minimise the impact of serious life events, and did not recognise the impact of a deterioration in physical

health and psychological wellbeing. These findings suggest that the interconnection between agents (such as treatment services/therapists other people) and women's internal and external influences results in complexity, uncertainty, and unpredictable help-seeking outcomes.

Discussion

This study applied complexity theory to explore help-seeking experiences of alcohol treatment and recovery services. Using a complexity lens, the findings demonstrate that women's help-seeking behaviours varied due to their unique needs, their previous journeys, and the (often complex) process of seeking or accessing treatment. Their help-seeking journeys and experiences reflect their determination to address their problematic and unhealthy alcohol use and its impacts, and the stressful life events (Windle and Windle, 2015) that cause complexities and uncertainties. This has meant that they have found it difficult to organise themselves in part because of the barriers presented by treatment services as well as the other complexities linked to the addiction itself, physiological, psychological systems and rehabilitation services.

Our findings indicate that women seek help after enduring physical harm, mental health problems, homelessness, financial difficulties, and complex family problems, in line with Gilbert et al. (2015). Findings support literature linking alcohol dependency with mental health issues, a history of trauma, domestic violence, and adverse childhood experiences (ACEs) (Angove and Fothergill, 2003; Small et al., 2010; Glass et al., 2013; Greenfield et al., 2013; Holly, 2017; Neale et al., 2018; Fox, 2020). Our application of complex theory demonstrates that, because of the interactions and interconnectedness between risk factors, successful help-seeking is not achieved through approaching a single treatment-providing agent but rather involves engaging with several internal

components (e.g. emotional states) and external factors, which may be detrimental, encouraging, or both.

It is unclear whether, women-only services would be attractive to all women per se, or whether an individual service staff would understand the interconnectedness of these issues and holistically to address the unpredictability of women's circumstances. A number of the participants talked about the services providing a safe and supportive social space in which to address their issues. This is consistent with a Canadian qualitative study (Kruk and Sandberg, 2013) which found that the three core needs of women-only substance misuse services are normalisation and structure, biopsychosocial–spiritual safety, and social connection.

A UK study (Neale et al., 2018), which also uses qualitative in-depth interviews on women-only substance misuse services, found that a number of the participants felt safe, relaxed, and understood once they have settled into treatment – though it should be noted that both of the above studies interviewed drug users and women with identified alcohol problems. We found that persistent and consistent help-seeking is emergent from the interactions between different factors, including how the treatment environment is perceived, co-occurring health issues, and women's personal and social circumstances and readiness to seek help. Thus, help-seeking for problematic and unhealthy alcohol use should be seen as a complex problem requiring differing solutions, and an understanding there could be unexpected outcomes as a result of the help-seeking.

When co-occurring problems are seen as interdependent, , this can be confusing to and complex – particularly when treatment plans conflict with each other and with other components of the system (Randle et al., 2015). This was the case for participants seeking treatment for physical and mental health problems while simultaneously

seeking recovery from problematic and unhealthy alcohol use. Such confusion affects women's ability to manage the demands of each competing intervention, and often results in unexpected responses (e.g. treating a physical health problem may result in psychological problems, an increase or relapse in drinking, and/or using other drugs). As Fox (2020) finds, in some cases, issues around domestic abuse also remain unaddressed.

Concurring with Messina et al. (2010) and Bailey et al. (2019), this research found that alcohol services lacked the expertise to deal with mental health, domestic abuse, and housing issues. The interplay between alcohol and domestic abuse or mental health problems was also overlooked (Fox, 2020). Participants were not referred to specialist services, thus creating a gap in the interventions they needed. In some cases, for example, residential rehabilitation resulted in homelessness after they struggled, relapsed, or infringed on the treatment centre's rules.

The lack of housing support when individuals were discharged as a result of relapsing, resulted in stepping back from help-seeking and a sense of personal failure making them less likely to approach or trust treatment services. The singular approach offered by alcohol-treatment services created a paradox whereby participants anticipated adopting new behaviour, but the structure only offered linear approaches to recovery and failed to understand that women are more than the sum of their parts, and that the unpredictability of how those parts respond to interventions sometimes inadvertently limits the change that can be achieved.

Similar to Fox (2020), in this study there is no evidence of progress in gender-inclusive, well-rounded, collaborative approaches that address all components of women's problems, even in the event of unpredictable outcomes.

Study strengths and limitations

The strength of this study falls within the purview of the complexity theory attributes used to analyse women's experiences in help-seeking for problematic and unhealthy alcohol use. Not many studies have done this with a particular focus on women-only services so this research contributes to emerging literature that looks at addiction through a complexity lens. The limitations of this study include a small sample size, the self-selecting nature of the sample and the retrospective nature of the reporting. In addition, participants were recruited and selected by service staff resulting in gatekeeping and possible sampling bias. These factors, in combination, may have contributed to gaining a sample of participants who were upset at the time they were approached to take part in the study and eager to report their concerns regarding seeking support from alcohol services. However, given that participants' reports across a wide range of similar services included both critical and supportive elements, it would appear this bias was minimal.

Generalisability

The study was conducted in a single urban centre (London), so the findings relating to services may be limited with regard to other types of settings, for example countries outside the UK and less urban settings.

Using complexity theory to understand the multifactorial needs that inform women's help-seeking styles may have theoretical generalisability, although individual women with unique circumstances could present other variables (internal or external components), and those needs must be considered (Randle et al., 2015). However, using complexity theory as a model would allow those working in recovery services to open their minds to a range of agents that interfere with help-seeking, causing non

linearity and unpredictable outcomes.

Conclusions

This study highlights the important role of services in addressing the multiple, and sometimes complex, needs presented by women approaching alcohol-related treatment services. Complexity-thinking, has proved useful in understanding women's experiences and how these interact with their help-seeking behaviours, including treatment environments. Serial access to multiple services, rather than one-off access to a single service, compounded the difficulties women experience when seeking help from alcohol services.

Clinical implications

Our findings corroborate those of earlier studies: Better outcomes are achieved when one-to-one counselling provision (Morrissey et al., 2005), safety-first approaches (Galvani, 2006; Amaro et al., 2007), and trauma-informed, gender-responsive treatments (Messina et al., 2010; Peralta and Jauk, 2015; Holly, 2017; Bailey et al., 2019) are integrated into treatment programmes to address the impact of long-term cognitive, emotional, physical, and sexual abuse.

However, services should go beyond these approaches and adopt a complexity-focused perspective. The complexity theory applied in this study enables exploration of complex issues that otherwise remain unknown, but that interfere with interventions and result in unintended consequences and non linear outcomes; for example, the ways in which addressing one aspect of a woman's problems might trigger another problem (Randle et al., 2015). While we acknowledge the increase in gender-based and gender-responsive provision, we recommend complexity-focused, multiple-component,

integrated yet collaborative strategies to address not only addiction but also all components of women's needs – including past trauma. Treatment environments may also improve help-seeking experiences and outcomes for women. A focus on internal and external feedback responses in relation to women's treatment might help services to respond quickly to unpredictable negative outcomes, reducing attrition, withdrawal, relapse, and repeat assessments with women who find it difficult to engage with services.

Some aspects of women's needs may require unique women-only services. This should be acknowledged within current approaches. This would address the potential impact of one intervention destabilising another aspect of women's lives – an outcome that highlights the importance of holistic treatment approaches and programmes that promote women's recovery, where unhealthy alcohol use might be linked to trauma, mental health problems, or domestic abuse.

Policy implications

Provision of services that meet women's holistic, dynamic and complex needs will require the development and implementation of policies and practice guidance that take a dynamic systems or complex systems focus. This will be of value to those accessing services, costs of treatment and it will influence a review in the service delivery models. Of additional value will be evaluation studies using complex systems approaches to inform and support policy improvements.

Future research

Participants' experiences captured the unpredictable, non linear nature of help-seeking

behaviours and services. This suggests that complexity theory is a fruitful area for further research around women's help-seeking behaviours. There is a need for further research that involves provider agencies, and women who could have benefited from early-intervention services, to look at how women can access help for unhealthy alcohol use early, how best to address mental health and traumatic issues associated with women's drinking, and how best to promote prompt and timely help-seeking behaviour.

References

- Amaro, H., Dai, J., Arevalo, S., Acevedo, A., Matsumoto, A., Nieves, R., and Prado, G. (2007), "Effects of integrated trauma treatment on outcomes in a racially/ ethnically diverse sample of women in urban community-based substance abuse treatment", *Journal of Urban Health*, Vol. 84, pp. 508–522.
- Anderson, R.A., Toles, M.P., Corazzini, K., McDaniel, R.R., and Colon-Emeric, C. (2014), "Local Interaction strategies and capacity for better care in nursing homes: a multiple case study", *BMC Health Services Research*, Vol. 14, pp. 244.
- Angove, R. and Fothergill, A. (2003), "Women and alcohol: misrepresented and misunderstood", *Journal of Psychiatric and Mental Health Nursing*, Vol. 10, No. 2, pp. 213–219.
- Ashley, O.S., Marsden, M.E., and Brady, T.M. (2003), "Effectiveness of substance abuse treatment programming for women: a review", *American Journal of Drug and Alcohol Abuse*, Vol. 29, pp. 19–53.
- Bailey, K., Trevillion, K., and Gilchrist, G. (2019), "What works for whom and why: A narrative systematic review of interventions for reducing post-traumatic stress disorder and problematic substance use among women with experiences of interpersonal violence", *Journal of Substance Abuse Treatment*, Vol. 99, pp. 88–103.
- Bailey, S. and Davidson, C. (1999), The purchaser–provider split: theory and UK evidence. *Environment and Planning C: Government and Policy*, Vol. 17, No. 2, pp. 161–175.
- Birt, L., Scott, S., and Cavers, D. (2016), "Member checking: a tool to enhance trustworthiness or merely a nod to validation", *Qualitative Health Research*, Vol. 26, No. 13, pp. 1802–1811.

- Bircher, J., and Hahn, E.G. (2016) Applying a complex adaptive system's understanding of health to primary care. Vol. 5, pp. 1672. doi: 10.12688/f1000research.9042.2.
- Boffetta, P. and Hashibe, M. (2006), "Alcohol and cancer", *Lancet Oncology*, Vol. 7, pp. 149–156.
- Boroumandfar, Z., Kianpour, M. and Afshari, M. (2020) Ups and downs of drug rehab among women: a qualitative study. *Bio Medical Central Women's Health*, Vol. 20, No. 77. Available at: <https://doi.org/10.1186/s12905-020-00946-2>
- Brady, T.M. and Ashley, O.S. (2005) Women in substance abuse treatment: results from the Alcohol and Drug Services Study (ADSS), available at: https://www.emeraldgrouppublishing.com/journal/add?distinct_id=174157de08119e-0be14aa460adf5-393e5809-1fa400-174157de08229c&_ga=2.73904145.2092582779.1598088386-1249204989.1598088386#author-guidelines (accessed 25 July 2019).
- Brady, K.T, and Back, S.E. (2012) Childhood trauma, posttraumatic stress disorder, and alcohol dependence. *Alcohol Research*, Vol. 4, pp. 408-13.
- Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3, No. 2, pp. 77–101.
- Bride, B.E. (2001), "Single-gender treatment of substance abuse: effect on treatment retention and completion", *Social Work Research*, Vol. 25, No. 4, pp. 223–232.
- Cocozza, J.J., Jackson, E.W., Hennigan, K., Morrissey, J.P., Reed, B.G., Fallot, R., et al. (2005), "Outcomes for women with co-occurring disorders and trauma: program-level effects", *Journal of Substance Abuse Treatment*, Vol. 28, No. 2, pp. 109–119.

- Cordon, C.P. (2013). System Theories: An Overview of Various System Theories and Its Application in Healthcare, *American Journal of Systems Science*, Vol. 2, No.1, pp. 13-22
- Dass-Brailsford, P., and Safilian C.M. (2017,) Integrated Approaches to Treating Psychological Trauma and Substance Abuse in Women: An Update, *Trauma Acute Care*, Vol. 2, No. 41. doi: 10.21767/2476-2105.100041. Available at: <https://trauma-acute-care.imedpub.com/integrated-approaches-to-treating-psychological-trauma-and-substance-abuse-in-women-an-update.pdf>
- De Visser, R.O. and McDonnell, E.J. (2012), “‘That’s OK. He’s a guy’: a mixed-methods study of gender double standards for alcohol use”, *Psychology and Health*, Vol. 27, No. 5, pp. 618–639.
- Ellis, L.A., Churruca, K. and Braithwaite, J. (2017) Mental health services conceptualised as complex adaptive systems: what can be learned?. *International Journal of Mental Health Systems*, Vol. 11, No. 43. Available at: <https://doi.org/10.1186/s13033-017-0150-6>
- Fish, S., and Hardy, M. (2015) Complex issues, complex solutions: applying complexity theory in social work practice, *Nordic Social Work Research*, Vol, 5:sup1, pp. 98-114.
- Fox, S. (2020), [...] “you feel there’s nowhere left to go: the barriers to support among women who experience substance use and domestic abuse in the UK”, *Advances in Dual Diagnosis*, Vol. 13, No. 2, pp. 57–71.
- Galvani, S. (2006), “Safety first? The impact of domestic abuse on women's treatment experience”, *Journal of Substance Use*, Vol. 11, No. 6, pp. 395–407.
- Gilbert, P. A., Pro, G., Zemore, S. E., Mulia, N., and Brown, G. (2019). Gender Differences in Use of Alcohol Treatment Services and Reasons for Nonuse in a

National Sample. *Alcoholism, clinical and experimental research*, Vol. 43, No. 4, pp. 722–731.

Gilburt, H., Drummond, C., and Sinclair, J. (2015), “Navigating the alcohol treatment pathway: a qualitative study from the service users' perspective”, *Alcohol and Alcoholism*, Vol. 50, No. 4, pp. 444–450.

Glass, J.E., Mowbray, O.P., Link, B.G., Kristjansson, S.D., and Bucholz, K.K. (2013), “Alcohol stigma and persistence of alcohol and other psychiatric disorders: a modified labeling theory approach”, *Drug & Alcohol Dependence*, Vol. 133, No. 2, 685–692.

Godlaski, T.M., Butler, L., Heron, M., Debord, S., and Cauvin, L. (2009), “A qualitative exploration of engagement among rural women entering substance user treatment”, *Substance Use and Misuse*, Vol. 44, No. 1, pp. 62–83.

Greenfield, S.F., Cummings, A.M., Kuper, L.E., Wigderson, S.B., and Koro-Ljungberg, M. (2013), “A qualitative analysis of women’s experiences in single-gender versus mixed-gender substance abuse group therapy”, *Substance Use and Misuse*, Vol. 48, No. 9, pp. 750–760.

Greenfield, S.F., Trucco, E.M., McHugh, R.K., Lincoln, M., and Gallop, R.J. (2007), “The Women’s Recovery Group Study: a Stage I trial of women-focused group therapy for substance use disorders versus mixed-gender group drug counseling”, *Drug & Alcohol Dependence*, Vol. 90, No. 1, pp. 39–47.

Hayes, A.M., Andrews, L.A. (2020) A complex systems approach to the study of change in psychotherapy. *BMC Medicine*, Vol. 18, No. 197. Available at:
<https://doi.org/10.1186/s12916-020-01662-2>

Heinzel, S., Tominschek, I., Schiepek, G. (2014) Dynamic patters in psychotherapy- Discontinuous Chnages and Critical Instabilities During the Treatment of

Obsessive Compulsive Disorder, *Nonlinear Dynamics, Psychology and Life Sciences*, Vol. No. 2, pp.155-176

Hernandez-Avila, C.A., Rounsaville, B.J., and Kranzler, H.R. (2004), "Opioid-, cannabis- and alcohol-dependent women show more rapid progression to substance abuse treatment", *Drug & Alcohol Dependence*, Vol. 74, No. 3, pp. 265–272,

Hobden, B., Bryant, J., Carey, M, et al. (2018) Finding the optimal treatment model: A systematic review of treatment for co-occurring alcohol misuse and depression. *Australian and New Zealand Journal of Psychiatry*. Vol. 52, No.8, pp. 737-750.

Hodiamont, F., Junger, S., Leidi, R., Maier, B.O., Schildmann, E. and Bausewein, C. (2019). Understanding complexity-the palliative care situation as a complex adaptive system. *BMC Health Services Research*. Available at: <https://doi.org/10.1186/s12913-019-3961-0> (accessed 6 January 2021)

Holly, J. (2017), "Mapping the maze – services for women experiencing multiple disadvantage in England and Wales", AVA and Agenda, available at: www.mappingthemaze.org.uk/wp/wp-content/uploads/2017/09/Mapping-the-Maze-executive-summary-for-publication.pdf (accessed 9 September 2019).

Hood, R. (2018), *Complexity in Social Work*. London: Sage.

Hser, Y.I., Evans, E., Huang, D., and Messina, N.P. (2011), "Long-term outcomes among drug-dependent mothers treated in women only versus mixed-gender programs", *Journal of Substance Abuse Treatment*, Vol. 41, No. 2, pp. 115–123.

Institute of Alcohol Studies (2017), Factsheet: Women and Alcohol, available at: <http://www.ias.org.uk/Alcohol-knowledge-centre/Alcohol-and-women.aspx> (accessed 28 August 2020).

- Kruk, E. and Sandberg, K. (2013), "A home for body and soul: substance using women in recovery", *Harm Reduction Journal*, Vol. 10, No. 39, pp. 10–39.
- Kuhn, L. (2009), *Adventures in Complexity: For Organisations Near the Edge of Chaos*. Chicago, IL: Triarchy Press.
- Lander, L., Howsare, J., and Byrne, M. (2013), "The impact of substance use disorders on families and children: from theory to practice", *Social Work in Public Health*, Vol. 28, Nos 3–4, pp. 194–205. doi:10.1080/19371918.2013.759005.
- Lewis, S. (2014), Responding to domestic abuse: multi-agented systems , probation programmes and emergent outcomes. In *Applting complexity theory. Whole systems approaches to criminal justice and social work*. Policy Press: Bristol University press
- Magnusson, Å., Lundholm, C., Göransson, M., Copeland, W., Heilig, M., and Pedersen, N.L. (2011), "Familial influence and childhood trauma in female alcoholism", *Psychological Medicine*, Vol. 42, No. 2, pp. 381–389.
- Marchal, B., Van Belle, S., De Brouwere, V., Witter, S., and Kegels, G. (2014), "Complexity in health: consequences for research & evaluation", FEMHealth discussion paper, available at:
https://www.abdn.ac.uk/femhealth/documents/Deliverables/Complexity_Working_paper.pdf (accessed 10 August 2020)
- Messina, N., Grella, C.E., Cartier, J., and Torres, S. (2010), "A randomized experimental study of gender-responsive substance abuse treatment for women in prison", *Journal of Substance Abuse Treatment*, Vol. 38, No. 2, pp. 97–107.
- Morrissey, J.P., Jackson, E.W., Ellis, A.R., Amaro, H., Brown, V.B., and Javits, L. (2005), "Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders", *Psychiatric Services*, Vol. 56, No. 10, pp. 213–222.

- Maynard, Spiers and Pycroft, A. (2019) Emma Maynard, Aaron Pycroft & Johanna Spiers (2019): “They say ‘yes, I’m doing it... .and I’m fine’ ”: the lived experience of supporting teenagers who misuse drugs, *Journal of Social Work Practice*, DOI: 10.1080/02650533.2019.1697868ty
- National Institute of Clinical Excellence (2010), “Alcohol-use disorders: preventing the development of hazardous and harmful drinking”, National Institute for Health and Clinical Excellence, available at:
<https://www.nice.org.uk/guidance/ph24/resources/alcoholuse-disorders-prevention-pdf-1996237007557> (accessed 25 October 2019).
- National Institute of Clinical Excellence (2014), “Domestic violence and abuse: multi-agency working”, Public Health Guidance, available at:
www.nice.org.uk/guidance/ph50 (accessed 27 August 2020).
- National Statistics (2019), “Adult substance misuse treatment statistics 2018–2019: report”, available at: <https://www.gov.uk/government/publications/substance-misuse-treatment-for-adults-statistics-2018-to-2019/adult-substance-misuse-treatment-statistics-2018-to-2019-report> (accessed 13 July 2020).
- Neale, J., Tompkins, C.N.E., Marshall, A.D., Treloar, C., and Strang, J. (2018), “Do women with complex alcohol and other drug use histories want women-only residential treatment?”, *Addiction*, Vol. 113, No. 6, pp. 989–997.
- Office for National Statistics (2019), “Alcohol-related deaths in UK registered in 2014”, available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/casesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/2018> (accessed 13 July 2020).
- Peralta, R.L. and Jauk, D. (2015), “A brief feminist review and critique of the sociology

- of alcohol-use and substance-abuse treatment approaches”, *Sociology Compass*, Vol. 5, No. 10, pp. 882–897.
- Plsek, P.E. and Greenhalgh, T. (2001), The challenge of complexity in healthcare, *British Medical Journal*, Vol.325, pp. 625-8.
- Pycroft, A. (2018) Consciousness in rather than of: advancing modest claims for the development of phenomenologically informed approaches to complexity theory in criminology. *Journal of Theoretical and Philosophical Criminology*, 10. Available at : <http://www.jtpcrim.org/FEB2018/Pycroft.pdf>
- Pycroft, A and Green, A (2016) Challenging the cultural determinants of dual diagnosis in the criminal justice system p. 147-166. In Mental health, crime and criminal justice. Winstone, J. eds. Hampshire: Palgrave
- Randle, J.M., Stroink, M.I., and Nelson, C.H. (2015), “Addiction and the adaptive cycle: a new focus”, *Addiction Research & Theory*, Vol. 23, No.1, pp. 81–88.
- Roberts, E., Hillyard, M., Hotopf, M., Parkin, S., and Drummond, C. (2020), “Access to specialist community alcohol treatment in England, and the relationship with hospital admissions: qualitative study of service users, service providers and service commissioners”, *British Journal of Psychiatry*, Vol. 6, No. 5, e94.
DOI: <https://doi.org/10.1192/bjo.2020.80>.
- Schober, R. and Annis, H.M. (1996), “Barriers to help-seeking for change in drinking: a gender-focused review of the literature”, *Addictive Behaviors*, Vol. 21, No.1, pp. 81–92.
- Schuler, M.S., Puttaiah, S., Mojtabai, R., and Crum, R. (2015), “Perceived barriers to treatment of alcohol problems: latent class analysis”, *Psychiatric Services*, Vol. 66, No. 11, pp. 1221–1228.

- Schwab, E.D., and Pienta, K.J (1996) Cancer as a complex adaptive system, *Medical Hypotheses*, Vol 47, Issue 3, 1996, pp. 235-241,
- Simpson, T.L, and Miller, W.R.(2002). Concomittance between childhood sexual and physical abuse and substance use. *Clinical Psychology Review*, Vol. 22, pp. 27–77
- Slade, T., Chapman, C., Swift, W., Keyes, K., Tonks, Z., and Teesson, M. (2016), “Birth cohort trends in the global epidemiology of alcohol use and alcohol-related harms in men and women: systematic review and metaregression”, *BMJ Open*, 6, e011827.
- Small, J., Curran, G.M., and Booth, B. (2010), “Barriers and facilitators for alcohol treatment for women: are there more or less for rural women?”, *Journal of Substance Abuse Treatment*, Vol. 39, No. 1, pp. 1–13.
- Smith, L. and Foxcroft, D. (2009), “Drinking in the UK: an exploration of trends”, available at: <https://www.jrf.org.uk/report/drinking-uk-exploration-trends> (accessed 7 December 2019).
- Smith J.A, Flowers P, and Larkin M (2009) *Interpretative Phenomenological Analysis: Theory, Method and Research*. Los Angeles, Sage
- Storbjörk, J. (2011), “Gender differences in substance use, problems, social situation and treatment experiences among clients entering addiction treatment in Stockholm”, *Nordic Studies on Alcohol and Drugs*, Vol. 28, No. 3, pp. 185–209.
- Sturmberg, J.P. (2021) Health and disease are dynamic complex-adaptive states: Implications for practice and research. *Frontiers in psychiatry*, Vol. 12, page 354. DOI=10.3389/fpsy.2021.595124. Available at: <https://www.frontiersin.org/article/10.3389/fpsy.2021.595124>

- Swift, W., Copeland, J., and Hall, W. (1996), Characteristics of women with alcohol and other drug problems: findings of an Australian national survey. *Addiction*, Vol. 91, No. 8, pp. 1141–1150.
- Thom, B. (1987), “Sex differences in help-seeking for alcohol problems—2. Entry into treatment”, *British Journal of Addiction*, Vol. 82, No. 9, pp. 989–997.
- Thompson, D.S., Fazio, X., Kustra, E., Patrick, L., Stanley, D. (2016), “Scoping review of complexity theory in health services research”, *BMC Health Services Research*, Vol. 16, No. 87. doi:10.1186/s12913-016-1343-4
- Tuffin, R. (2016) Implications of complexity theory for clinical practice and healthcare organization, *BJA Education*, Vol. 16, No. 10, pp.349–352,
- Vallacherm R.R., Van Geert, P., Nowak, A. (2015) The Intrinsic Dynamics of Psychological Process. *Current Directions in Psychological Science*, Vol.24, No. 1, pp. 58-64.
- Waldrop M. (1992) Complexity: the Emerging science at the edge of order and chaos. New York: Simon and Schuster
- Willinger, U., Lenzinger, E., Hornik, K., Fischer, G., Schönbeck, G., Aschauer, H.N., and Meszaros, K. (2002), “On behalf of the European Fluvoxamine in Alcoholism Study Group: anxiety as a predictor of relapse in detoxified alcohol-dependent patients”, *Alcohol and Alcoholism*, Vol. 37, No. 6, pp. 609–612.
- Windle, M. and Windle, R.C. (2015), “A prospective study of stressful events, coping motives for drinking, and alcohol use among middle-aged adults”, *Journal of Studies on Alcohol and Drugs*, Vol. 76, No. 3, pp. 465–473.
- Witkiewitz, K., Litten, R.Z., and Leggio, L. (2019) Advances in the Science and Treatment of Alcohol Use Disorder, *Diseases and Disorder*, Vol. 5, No. 9. Available at : [https:// 10.1126/sciadv.aax4043](https://doi.org/10.1126/sciadv.aax4043)

