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## The role of attachment in sexualised polydrug use among LGBT+ male Chemsex users and the impact on Neuropsychology: Clinical implications for the use of Mentalisation Based Therapy (MBT)

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### KEYWORDS

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### Abstract

LGBT+ individuals still experience systemic, cultural, and personal discrimination in modern society, the impacts of which may impact not only on their mental wellbeing, but also their interpersonal functioning. Within LGBT+ men Chemsex is becoming of increasing interest in the literature. Current research into Chemsex explores the engagement through an epidemiological lens, exploring factors related to likelihood of engaging in Chemsex. Seldom however, outside of standard treatment protocols for addiction, has literature been submitted with recommendations on how best to support the needs of these individuals who are seeking support for their Chemsex use. Standard drug treatments may be lacking in understanding the unique phenomenology of LGBT+ men, resultant of the discrimination they may face within society, their homes, with their peers or other relationships.

The purpose of this paper is to examine how the experiences of LGBT+ men may impact on their psychological wellbeing through insecure attachments and subsequent mentalising capabilities. Based on the current evidence base with regards to attachment and mentalisation within LGBT+ men, it is being proposed that Mentalisation Based Therapy (MBT) may be an effective treatment model for LGBT+ men who view their Chemsex use as problematic.

### Introduction

LGBT+ individuals still experience systemic, cultural, and personal discrimination in modern society, the impacts of which may impact not only on their mental wellbeing, but also their interpersonal functioning. Within LGBT+ men Chemsex is becoming of increasing interest in the literature. Current research into Chemsex explores the engagement through an epidemiological lens,

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The paper will start by giving an outline of the definition of Chemsex, theories around Chemsex use, and the desired effects of the drugs used within this context. Explanations of attachment theory and how this relates to mentalisation, particularly with regards to the literature around LGBT+ men's attachment styles, and their resultant relational patterns, will be discussed. Finally, there will be an exploration of emotional dysregulation and the link between drug use and hypersexuality, before proceeding to argue for the case for MBT as a possible clinical intervention for Chemsex users. Conclusions and limitations regarding the evidence base and clinical implications will be drawn.

## Chemsex

Chemsex is defined by drug use that facilitates sexual encounters which can last for a few days among gay, bisexual and men who have sex with men (MSM) often using a combination of mephedrone,  $\gamma$ -hydroxybutyrate (GHB),  $\gamma$ -butyrolactone (GBL), and crystallised methamphetamine (crystal meth) (McCall et al., 2015). To explore the desired effect of each of these drugs, Bowden-Jones and Abdulrahim (2020) provide a clear overview. Mephedrone enhances mood, induces euphoria, increases energy, lessens the need to sleep, improves concentration, and enhances sexual experiences such as heightening sensuality, lowering inhibitions and enabling prolonged sexual performance. GHB/GBL causes euphoria, relaxation, sedation, and produces pro-sexual and smooth muscle relaxant effects. Crystal meth increases alertness, energy, and confidence, induces euphoria, and decreases appetite.

Most research on Chemsex exists within a post-positivist epistemology, often through an epidemiological lens. Quantitative and thematic

analyses ascertain which factors make individuals more likely to engage in Chemsex. Men who are HIV positive, those living in densely populated areas, men born outside of the UK, and those with a lower sexual self-efficacy are more likely to engage in Chemsex (Smit et al., 2012; Scrivner et al., 2013; Bourne et al., 2014; Hibbert et al., 2019). With interpersonal motivators being that those engaging in Chemsex do so from a desire to belong within the gay community (Smith & Tasker, 2017).

Gallios et al. (1992) suggest that sexual behaviour is influenced more by relationships with peers than relationships within families. Given Smith and Tasker's (2017) findings that gay men may engage in Chemsex to belong to the gay community, the social and relational aspect of Chemsex is apparent. Chemsex may provide men with an opportunity to belong within a community, based on normative behaviours as perpetuated and established amongst LGBT+ men.

Ahmed (2016) found that perceived drug use is common, highly visible, and a normalised behaviour among gay men in south London. Keogh et al. (2009) also found that gay men in England perceived drug use to be very common and an integral aspect of socialising. Arguably, the overt discourse around poly and sexualised drug use within the gay community make this a normative part of gay life, sex, and relationships. As such, as a means of 'fitting in' men may engage in Chemsex. From an attachment perspective one could argue that the desire to engage in Chemsex serves to aid in the development of attachment relationships with other men by engaging in behaviours that are seen as normal, even essential, serving as a function to form relationships within these social spheres.

## Attachment Theory

Attachment theory, first theorised by Bowlby (1969), postulates that early caregiving relationships form internal working relationships and working relationship with others. As children grow, they internalise their experiences with their caregivers, developing internal working models, creating frameworks for relationships in adult life (Bowlby, 1973). Ainsworth et al. (1978) developed this theory further, suggesting that

four general attachment patterns could be observed: secure, avoidant, anxious-ambivalent and disorganised. Secure attachments in a child's development have been linked with an ability to regulate emotions relatively autonomously (Fonagy, 2018) and the ability to form stable relationships in adult life (Coan, 2008). Further, in the presence of healthy attachments with caregivers, children develop the ability to mentalise, being able to understand their own, and others, emotional states, regulating these accordingly through self-reflection and the ability to understand oneself and others in terms of thoughts, feelings wishes and desires (Fonagy et al., 2000; Bateman et al., 2016).

Conversely, in the absence of secure attachments, people may struggle regulating their emotions, forming barriers to the development of healthy relationships in adult life (Schore, 2001; Belsky, 2002; Fonagy, 2010; Fuchshuber et al., 2019). Attachment relationships during childhood may act as a precursor for the attachment relationships in adult life (Hazan & Shaver, 1994; Simpson & Rhodes, 2010) with those who are securely attached being more able to negotiate and maintain close relationships than those with insecure attachments (Mikulincer & Shaver, 2007).

Attachment, however, is not a static concept. Attachment relationships can change over time. Research looking into the relationship formations in gay people shows that self-acceptance (a key concept in attachment theory through internalisation by our relationships with others) is highly impacted within LGBT+ people's relationships with their families and peers (Kaufman & Raphael, 1996; Malyon, 1981; Malyon 1982; Allen & Oleson, 1999). There may be high levels of judgement, impacting on levels of shame and internalised homophobia, causing significant ramifications on attachment styles and development. These judgements may become internalised, impacting on later relationships in adulthood and throughout different life stages.

### Attachment in LGBT+ populations

Peer rejection in gay men has been linked to attachment anxiety, independent of parental attachments (Landolt et al., 2004) highlighting the importance of attachment relationships

outside of parental structures and the resultant impact these can have on relationship development. Landolt et al. (2004) suggest that peer relationships may influence adult relationships and attachment due to an association with rejection, leading to anxious attachment relationships with others. Rejection in development may create templates which convey a message that relationships are dangerous or rejecting. LGBT+ men who have experienced bigotry and discrimination, may struggle to trust others, coping through either avoiding closeness, or trying to hold on to any relationships they have, activating various attachment coping strategies.

Shame has been linked to less integrated identity development in LGBT+ people (Wells & Hansen, 2003) with difficulty in accepting sexuality being related to avoidant and anxious attachments (Mohr & Fassinger, 2003). Formative relationships may lead to a disintegration of the ability to accept oneself if they are riddled with messages of shame and discrimination (Elizur & Mintzer, 2001). The failure to develop a strong sense of self may lead to unsatisfactory intimate relationships due to relationships being linked to shame, insecure attachment, and internalised homophobia (Erikson, 1993). In the absence of messages of acceptance and love in developmental relationships, these relational patterns may be mirrored in romantic relationships, leading to avoidant attachments to romantic partners through cutting off emotions to protect oneself. Or anxious attachments leading to anxiety-driven behaviours, such as subjugation of one's own needs for the benefit of romantic partners (Brown & Trevethan, 2010).

Links between adult attachment styles and how they influence romantic and sexual relationships can be seen amongst LGBT+ men. Developmental relationships may serve as a blueprint for how many LGBT+ men navigate their relationships. Sexual communication and confidence have been linked to adult attachment styles in gay men; those with anxious and avoidant attachments being less likely to feel able to communicate their sexual needs than those with secure attachments (Starks et al., 2013). Men with anxious and avoidant attachments are also more likely to engage in unprotected anal

intercourse (UAI) (Starks et al., 2013). With men who have avoidant attachments having on average 31.5 times as many casual sexual partners with whom they have UAI. Men with avoidant attachments are more likely to favour casual sexual partners devoid of commitment or emotional involvement, as a defensive mechanism to avoid closeness with others which may have been developmentally associated with pain and rejection through peer and or family relationships. Whereas men with anxious attachments are more likely to desire sex that communicates closeness, intimacy, and connection (Wang et al., 2010). LGBT+ men with anxious attachments are more likely to engage in UAI due to beliefs that condoms interfere with intimacy, suggesting that UAI serves as an unspoken communication of trust and intimacy to help form close relationships (Starks et al., 2017).

There is also a link between attachment style and sexualised drug use within LGBT+ men. Starks et al., (2015) suggest that gay men with avoidant attachment styles may engage in sexualised drug use to enable them to have sex, with drugs acting as an affect regulator. Given the desired effects of GHB/GBL and mephedrone as lowering inhibitions and regulating anxiety this makes sense. Further, evidence suggests that hypersexual behaviours, being sexual behaviours that are impulsive, frequent, and inappropriate (Kafka, 2010), may be maladaptive coping strategies to regulate emotions in the absence of effective affect regulation (Garofalo et al., 2016). Sexually related emotions may be particularly hard to manage (Diamond et al., 2011) so while not adaptive affect regulating behaviour, hypersexuality may serve as the only means some individuals have to regulate their emotions (Gratz & Roemer, 2004). If we consider Chemsex to fall under the umbrella of hypersexuality, by arguing that the use of drugs, engagement in sex with multiple partners, and being significantly more likely to engage in UAI, it could be argued that Chemsex facilitates a form of affect regulation in the absence of effective mentalisation. Engaging in poly-drug use and unsafe sexual practices (i.e., Chemsex) may also serve as a means of developing attachment bonds and belonging to a community.

## The neurological components of attachment and poly-drug use

The neurology of poly-drug users, and the role of attachment on the brain, suggests that the main regions of interest (ROI) appear to be in white matter (WM) integrity of the superior longitudinal fasciculus (SLF) and the superior corona radiata (SCR). Diffusion tensor imaging (DTI) through fractional anisotropy (FA) often ascertains this information. DTI is an imaging technique which evaluates microstructural differences in white matter, with FA being a common measure in DTI research. FA explores movement of isotropic water molecules, such as cerebrospinal fluid, and anisotropic water molecules, such as fibre bundles (Morgan et al., 2012). FA can be used to infer alterations in axonal diameter, fibre density and myelin structure, providing an understanding of the effectiveness of axons in the brain in communicating messages between different brain regions (González-Reimers et al., 2019). Smaller axonal diameter, less fibre density and impaired myelin structure are theoretically linked to poorer effectiveness of neural communication through reduced size to send information, or insufficient insulation of axons potentially leading to circuitry discharge. A weakness of approaches from this perspective are that they lack the ability to establish cause and effect, instead only identifying correlation. Nevertheless, such approaches can be helpful in ascertaining physical changes and considering how these factors may be incorporated into practice by reifying theories of attachment in a neurological basis.

Research conducted on neurological differences in drug users have shown differences in WM integrity in poly-drug users compared to non-drug using controls. Poly-drug use has been shown to be particularly harmful to WM in the SLF and SCR (Hiebler-Ragger et al., 2016), with FA in the left and right SLF and SCR being greater in non-drug users compared to poly-drug users (Unterrainer et al., 2017). Diminished WM integrity of these regions has been linked to impaired decision making (Bechara, 2005) insecure attachment, personality dysfunction (Hiebler-Ragger et al., 2016) and substance use



disorder (SUD) (Beardslee et al., 2011; Baker et al., 2013; Unterrainer et al., 2016).

Six key emotions have been identified within the brain's affective systems, proposed as influencing both personality structure and attachment organisation. These being SEEKING, SADNESS, FEAR, ANGER, CARE, and PLAY (Panksepp et al., 2002; Davies & Panksepp, 2011; Zellner et al., 2011). WM impairment have been found in the SUF and the SCR in those with insecure attachment, which has been linked to negative affect (Unterrainer et al., 2017). It has been suggested that diminished WM integrity in these areas may be linked to affective states of FEAR and SADNESS in poly-drug users, which have been linked to attachment pathology (Unterrainer et al., 2016; Hiebler-Ragger et al., 2016) with poly-drug users exhibiting higher amounts of anxious attachments, ANGER, FEAR, and SADNESS than non-drug users (Unterrainer et al., 2017). It has been argued that substance use can be seen as a chemical affect regulator, creating an artificial secure attachment base in those using them (Flores, 2004; Fuchshuber et al., 2020). However, in the long run substance abuse weakens attachment relationships potentially leading to a complete lack of control (Flores, 2004).

Given the link then between drug use, insecure attachment, sexual behaviours, and the role of attachment formation in LGBT+ men's lives, it would make sense that men may turn to Chemsex to form bonds with other men and regulate negative affect. However, this does not provide a long-term solution to managing attachment difficulties or emotions. Clinical interventions with this group of individuals could benefit therefore from focussing on developing attachment relationships and enabling adaptive emotional regulation. As such, mentalisation based therapy (MBT) could be an effective way to facilitate this.

### **Mentalisation and MBT**

Mentalisation is the ability to understand one's own actions and the actions of others through understanding thoughts feelings, wishes and desires (Fonagy et al., 2016). In the absence of effective mentalising, it is theorised that no constructive social interactions can exist, nor

mutuality in relationships or sense of personal security (Fonagy et al., 2018). Mentalising is largely preconscious and imaginative, requiring one to imagine the inner states of oneself and others (Fonagy et al., 2016). The ability to mentalise emerges in the context of secure attachments in development and is a key determinant of self-organisation and affect regulation (Fonagy et al., 2016). Psychopathology is proposed to be resultant of ineffective mentalising, with individuals failing to appropriately process their own experiences and those of others, when a mental picture of the other is inferred from one's own experience of the self, through projection (Bateman & Fonagy, 2016).

Mentalising capabilities have been categorised into four different dimensions (Lieberman, 2007), these being: automatic versus controlled, mentalising the self-versus others, mentalising with regards to internal versus external features, and cognitive versus affective mentalising. Controlled mentalising is a slow process, requiring reflection, attention, awareness, intention, and effort. Whereas automatic mentalising is faster, reflexive and requires minimal attention, awareness, intention, or effort. Well-functioning mentalising requires the ability to switch flexibly between these modes. A mentalising intervention may encourage movement from automatic mentalising to controlled mentalising through reflection and partnership with the therapist (Fonagy et al., 2016). Automatic mentalising develops in infancy, tracking and expressing mental states quickly and efficiently to satiate survival needs. Controlled mentalising develops later, with executive function in the brain not developing until later in life (Apperly, 2010). Insecure attachments in development may impair communication between the automatic and executive regions of the brain through inhibiting neural systems associated with controlled mentalising (Nolte et al., 2013).

Mentalising of the self-versus others involves the ability to mentalise one's own internal states and motivation and the internal states and motivations of others (Fonagy et al., 2016). The ability to mentalise the internal states of others is linked with the ability to mentalise one's own internal states; relying on a shared representation

system enabling empathic processing, which operate through mirror-neuron stimulation (Lieberman, 2007; Lombardo et al., 2010). In the absence of appropriate activation of these neural systems in development, an individual may struggle to mentalise through miscommunication of these systems due to them never fully developing. Particularly in interpersonal situations, an individual may misinterpret another's motivation or internal states and misconstrue their actions to be attacking, punitive, or dismissive which could lead to a rupture in the relationship. This can be seen in clients with borderline personality disorder (BPD), who may Hypermentalise emotions in others through excessive attention given to external cues without reflection, engaging in automatic, but not controlled, mentalising (Fonagy et al., 2016).

Where cognitive mentalising allows individuals to name, recognise and reason about mental states, affective mentalising involves the ability to understand the feelings of these states, which is essential for genuine empathy and sense of self (Fonagy et al., 2016). MRI research has shown that emotionally triggering situations suppress the neural communication between the cognitive and affect mentalising networks (Beyer et al., 2014). Individuals with BPD have been shown to experience heightened sensitivity towards emotional cues, linked to overactivation of the amygdala, and regulatory deficits in the orbitofrontal cortex and prefrontal cortex (Lynch et al., 2006; Domes et al., 2009; Harari et al., 2010; Ritter et al., 2011). Given that insecure attachments impede on healthy neurodevelopment and impair neural communication between brain regions responsible for effective mentalising (Nolte et al., 2013) it is unsurprising that individuals with BPD struggle with this and may hypermentalise the states of others. Due to an overactivation of brain's threat systems resultant of historical attachment relationships causing repeated activation of these through neglect, abuse, or rejection; individuals may learn the message that others, and attachments to others, are dangerous, and to maintain their safety they must separate themselves from others to survive. Much like how many LGBT+ men may have learned to

relate to one other through repeated discrimination as described above.

Given the link between insecure attachment and substance misuse, and the role of attachment in relationship formation and sexualised behaviours in LGBT+ men, it is possible that through ineffective mentalising, LGBT+ men may engage in Chemsex as a form of affect regulation in the absence of effective mentalising capabilities. As such, MBT may be effective in the treatment of this client group, developing a therapeutic process in which the mind of the client becomes the focus of the treatment, supporting them in understanding how they think and feel about themselves and others (Fonagy et al., 2016). MBT focuses on supporting individuals to see how their 'errors' in understanding themselves and others may perpetuate their concerns, maintaining difficulties in relating to others (Fonagy et al., 2016). Particularly for this client group, MBT may support in understanding how their historical relational patterns may colour their current interpretations and relationships with others, associating intimacy and closeness with attack or rejection, leading to an inability to effectively mentalise.

### Limitations and recommendations

MBT is fundamentally a micro, individualistic approach which comes from a one-person psychology, which is evident given its psychoanalytic roots. Mentalisation and the role of attachment may be important factors for many LGBT+ men and their engagement in Chemsex, however this is only one aspect of the many reasons as to why LGBT+ may engage. Attachment theory and mentalisation do well in the explanation and justification of understanding the individual in the room, however they do little to understand the wider contextual and systemic discrimination that LGBT+ men experience. Further, this paper does not account for the instances for when LGBT+ men may engage in Chemsex despite having had secure attachment relationships. Nor does it consider those with insecure attachments who do not engage in Chemsex.

However, this paper does not seek to propose that MBT is the only approach for working with these

individuals. Instead, it aims to suggest a framework grounded in the evidence base, using a particular model to work with these individuals. Further, as is the case with the majority of psychotherapy research and application, the focus is between the client, the therapist, and the material being brought (regardless of the particular theory of mind being drawn upon within the psychotherapeutic model).

However, it could be argued that the role of therapy is not to challenge or make changes to the systemic oppression that exists within marginalised communities, but to provide a space in which this oppression can be made sense of in an environment that enables the ability to understand and reflect. Though this is not to say that practitioners do not have a moral or ethical duty to fight oppression outside of the therapy room.

Further, given the unique phenomenology of LGBT+ men, the attachment of these individuals and the discrimination experienced throughout their development could be brought into the MBT framework to enable clients not to only understand their distress, but also offer a framework within which this distress can be made sense of as a result of the systemic and lifelong discrimination they may have experienced. This would need to be carefully assessed for and understood in the context of mentalising capability and attachment relationships within a clinical setting, to ensure that MBT would in fact be the most appropriate model for the client.

## Conclusion

Chemsex could be viewed as a maladaptive form of coping with repeated rejection in attachment relationships. With men desiring to fit into a community and connect with others, while experiencing anxiety in trying to get close to others through repeated messages that relationships result in rejection. Given the overlap between activation of brain regions associated with attachment and drug use it could be argued that through repeated rejection, some men may turn to drugs to relate to others, while inhibiting anxiety

through both hypersexual behaviours and drug use.

Using MBT, Chemsex users may be able to build on their mentalising capabilities and learn to communicate more effectively between mentalising modes, enabling better affect regulation, leading to a reduction in the need to rely on Chemsex to engage in relationships with other men, forming attachments which are secure in their adult relationships.

This paper provides a framework for understanding Chemsex as an attachment disorder, linked with ineffective mentalising capabilities. However, further research is needed on the topic to see if the clinical application of this a viable treatment option for these individuals.

## Conflict of interest

The author of this paper declares no conflict of interests, including any financial, personal, or other relationships with other people or organisations.

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