Dissociative Trauma: A Framework in Working With Substance Users in Vancouver's Downtown Eastside

by

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A capstone submitted in partial fulfillment of the requirements for the degree of

Master of Counselling (MC)

City University in Canada

Vancouver, B.C.

May 18, 2025

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Abstract

Dissociation, once narrowly defined as a rare and extreme disruption of consciousness, is now increasingly understood as a spectrum of responses to trauma, particularly in the context of complex developmental histories (van der Hart, 2021). This evolving understanding is highly relevant in addiction treatment, where individuals frequently present with unrecognized or under-treated dissociative symptoms stemming from chronic, relational, and developmental trauma (Huỳnh et al., 2016; Oviedo-Joekes et al., 2011). Emerging research indicates that complex trauma is disproportionately prevalent in populations with substance use disorders, often driving both the initiation and maintenance of addictive behaviours as maladaptive coping mechanisms (Baudin et al., 2022). Trauma-focused therapeutic approaches, including models like eye movement desensitization and reprocessing therapy (EMDR), have shown promise in addressing the underlying dissociative processes that fuel addiction (Bae et al., 2016; Deacon & Abramowitz, 2004; Karatzias et al., 2019). This paper advocates to incorporate dissociative symptom screening, and evidence-based trauma focused treatment into addiction recovery settings, emphasizing clinical strategies (van der Hart, 2010). By addressing the dissociative roots of addiction, treatment programs can offer more sustainable recovery pathways for this highly vulnerable population.

Keywords: dissociation, addiction, EMDR, complex trauma, trauma-focused

Dedication

To those seeking funded access to trauma treatment in addiction recovery. A specific client stands out in my memory as an example of how the addiction treatment system has failed dissociative clients. He was brave enough to share with a group of 20 men in a treatment center that, at times, he would end up at the dealer's house and not remember how he got there. This was his response to a seeking safety questionnaire asking about amnesia experiences. The group responded that this was weird and was just an excuse to get high. I was a young counsellor at the time and had no idea about dissociation. I wondered if what he said was possible. He also shared about being in art therapy and feeling suicidal afterwards, as his trauma symptoms had gotten worse. He shared experiences of being in reputable treatment centers in the Lower Mainland of B.C., and being told that he was not doing their program well enough, and that is why he was getting worse. He even tried flying to another province to access a program that dealt with trauma and addiction simultaneously, as he was not getting what he needed at the various treatment centers in B.C.. This client ended up passing away from an overdose. Had I known what I know now, with the training I presently have, I could have helped this client understand his dissociative symptoms and complex trauma. I could have given him direct treatment for his mental health symptoms, which were so clearly getting in the way of his recovery from addiction. This paper is dedicated to him, in the hopes that through education and advocacy, we can better equip treatment centers to support these vulnerable clients so they can experience recovery that is inclusive of their mental health challenges.

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Chapter One: Introduction to the Lack of Trauma Treatment in Addiction Recovery

Our current addiction treatment system seems to leave Vancouver's addicted population highly traumatized, underdiagnosed, and their trauma undertreated. Those who use drugs in Vancouver have high rates of posttraumatic stress disorder (PTSD), and this can interfere with their accessing services, demonstrating a need for more trauma-specific interventions and training for staff of agencies that support this population (Goytan et al., 2021). Addiction treatment in Vancouver, British Columbia, is part of the medical system, with the Vancouver Coastal Health (VCH) Authority taking control of acute care addiction services and addiction treatment facilities in 2002 (Marsh & Fair, 2006). It seems secular skills-based programming is predominant under VCH's oversight of licensed treatment facilities under a medical model of addiction, employing a biopsychosocial approach (Marsh & Fair, 2006). Individuals receive medical detox, stabilization beds, and treatment programs. From start to finish, this treatment takes about six months. Short-term residential treatment provides a substance-free living environment, individual and group interventions, and case management focused on eliminating problematic substance use (Marsh & Fair, 2006). Behavioural change is prioritized by addressing functional deficits, improving social functioning, and helping those in treatment reintegrate into the broader community (Marsh & Fair, 2006). For the vast majority, they return to drug use within these six months. An extensive study of drug users in Vancouver who accessed forms of treatment found no significant differences between levels of drug use prior to treatment compared to six months later (Pilarinos et al., 2019). Their mental functioning during this time is not highly studied in the literature, but it is another source of concern. Some research suggests that how much individuals in treatment are struggling with their mental health decreases throughout treatment, but that those who relapse during this time are more likely to be struggling

with their mental health (McGaffin et al., 2015). Considering the high percentage of people who relapse during treatment, with one study showing 61% of substance users had returned to substance use within one year after discharge from treatment, researchers should be more concerned with why those in treatment are struggling with their mental health (Bretch & Herbeck, 2014).

There are several ways that those in addiction treatment are not being offered the proper psychological care, with dissociative symptoms, complex trauma presentations, and evidence-based trauma-focused treatment possibilities being missed. The way mental illness is diagnosed and conceptualized under the biomedical model has an impact on how people are offered treatment (Engel, 1977). Those receiving addiction treatment in the medical system may have their mental health concerns framed as biological illnesses, such as anxiety and depression, and be offered pharmacological treatment, rather than be provided psychological treatment for childhood trauma (Winograd et al., 2019). Many people with a substance use disorder (SUD) have experienced childhood trauma (Swendsen et al., 2010). The complexity of symptoms of those with persistent childhood trauma may vary from the traditional PTSD presentation (Herman, 1992). Childhood trauma also strongly predicts the development of dissociative symptoms, with those with SUD particularly at risk (Sar, 2011). Those with dissociative disorders who seek treatment are often not believed by health care professionals about their symptoms and trauma, and misdiagnosed in the health care system (Nester et al., 2022). Presumably, a disorder like the dissociative subtype of PTSD (PTSD-DS) that has both dissociative and PTSD elements would be overrepresented in the substance-using population. However, it seems that dissociative symptoms and disorders are not even on the radar of those in addiction treatment facilities (Connors, 2018). More generally, in the treatment of trauma,

professionals are confused about how to integrate trauma treatment with substance use treatment. They may fear offering trauma treatment to those in addiction treatment (Back et al., 2009). These barriers exist despite evidence that those with PTSD and SUD fare better when they are offered trauma treatment within the first year of their substance use treatment (Ouimette et al., 2003). This paper takes the stance that this population's trauma needs to be centred, properly assessed, and screened for dissociation, and directly treated with therapy. Centring a diagnosis such as PTSD-DS as something to screen for and treat in addiction treatment centers may help reduce ignorance and aid in providing evidence-based treatment for those in addiction recovery. An ethical and practical approach is taken in discussing what treatment should be available to address this population's mental health.

Stigma and Community Response

It is problematic that abstinence has been historically used as the sole standard of success for addiction treatment outcomes, compared to taking a more comprehensive view of overall psychological functioning. It is a simplification that a person's life will improve if they only stop using substances (Betty Ford Institute Consensus Panel, 2007). Those facing these struggles may also buy into this black-and-white thinking. They may enter treatment centers full of hope that this will be the magic cure, only to face crushing discouragement when they relapse, often experiencing intense shame, leading to more drug use. There is a misconception that a stay in treatment will result in complete abstinence and permanent resolution of the addiction (White, 2007). This hyperfocus on substance use as the predominant outcome measure of addiction treatment success by all those involved in care unintentionally leads to neglecting significant mental health concerns that plague this population (White, 2007). Quality of life should be considered, which is significantly impacted by early childhood trauma. In a research study of

substance users accessing opiate replacement treatment, early emotional abuse was a statistically significant predictor of quality of life. Early trauma was found to be negatively correlated with physical and mental health (Christia et al., 2021). The mental health system has taken a more holistic view on recovery compared to the addiction system. Corrigan et al. (2019) write that while mental health recovery is seen more as a process where symptoms can decrease below clinical levels and psychosocial functioning can improve, addiction recovery has been strictly focused on the outcome of abstinence. This outcome does not reflect the process of being in recovery from addiction, where the person may struggle with symptoms such as cravings while abstinent, or improve their psychosocial functioning while using less of their preferred substance or using a different substance.

Stigma towards those with SUD is that they are making poor choices to use substances, and the hyperfocus in recovery on whether they are using substances is a reflection of this stigma. Addiction is unfairly judged as a choice of an aberrant lifestyle (Murney et al., 2020). Those with co-occurring SUD and PTSD may also be met with stigma towards their mental health condition. Mental health diagnoses may be met with pity rather than blame. Both types of stigma were experienced in a Canadian sample within primary care settings (Murney et al., 2020). Health care providers who have internalized this stigma may not appreciate and respect clients' ability to make their own decisions. Clients experience stigma within the health care system when they are not provided sufficient information about their mental health conditions and options for treatment, and their wishes regarding their care are not respected (Stuart et al., 2012). This paper suggests that this is happening in addiction treatment centers by not assessing for trauma and dissociation and not providing trauma-focused therapy.

There has been recognition from harm-reduction advocates that we need to stop focusing solely on drug consumption while supporting those with addiction issues (Corrigan et al., 2019). Febres-Cordero et al. (2023) have written about how anti-drug policies have contributed to a worsening of shame and self-deprecating behaviours in the addicted population. They have advanced the argument that healthcare professionals should not be further marginalizing those with addiction issues within the healthcare system by requiring abstinence to access care. They have asked that society stop blaming those with addiction issues solely for their plight, as we know through research that there are many contributing factors making it more likely for someone to suffer from an addiction, which include systems of power and systemic discrimination. These factors are outside the control of the individual (Febres-Cordero et al., 2023). This type of thinking begs a social consideration of circumstance in understanding someone's mental health challenges.

Historical Contribution of the Biomedical Model

The way the biomedical model categorizes mental health disorders subtly presents a barrier to those with SUD and childhood trauma receiving trauma-focused psychological interventions. Framing addiction as a medical issue rather than a moral issue may allow more people to see the need for medical treatment for this demographic. This seems like a positive outcome, making treatment more accessible (Szalavitz, 2024). However, it opens up another concern: those accessing medical treatment must qualify for it, meaning they must be sick. Harm reduction advocates against this exclusion, saying that health exists on a continuum and people should receive care regardless of disclosure of specific behaviours. They should not be denied service for being too healthy (Hawk et al., 2017). Rather than just opting in, those getting treatment covered by our medical system need to qualify for the disease that they are being

treated for. This seems evident, but as will be explained in this paper, ways of defining mental disorders are murky, influenced by politics, and change over time. Should those with addictions accessing trauma treatment be contingent on a conservative collection of symptoms of a diagnosis of PTSD? What about those with dissociative symptoms who lack the diagnosis of a dissociative disorder? The lack of a specific diagnosis may inadvertently disqualify these individuals from trauma-specific care, where instead, they receive supportive care that does not specifically treat PTSD. Qualifying for this diagnosis may be more difficult for those using substances, as the effect of the substance may mask symptoms. Research by Christia et al. (2021) on substance users in an opiate replacement program found that of those who have historically experienced PTSD symptoms, those who were not using illicit substances presently were significantly more likely to have a present PTSD diagnosis compared to those currently using illicit substances. Those using illicit substances during their treatment were more likely to underestimate PTSD symptoms in the present, even though they were more likely to experience more PTSD symptoms in the past and the present, compared to those who were not using illicit substances in the present (Christia et al., 2021). When the focus in addiction treatment remains on substance use, and when those in treatment are not being diagnosed with PTSD, their experience of trauma symptoms may be neglected in treatment.

Those who receive treatment need to have a legitimate biological disorder under the biomedical model, but this clarity may be unattainable with mental health phenomena leading to diagnostic quagmires (Engel, 1977). Engel (1977) writes that the analogy of biological pathology and ‘disease’ has been applied to mental disorders as an attempt to legitimize them. The psychological field has tried to emulate the medical field in claiming that specific biological dysfunction creates mental pathology, trying to distinguish itself from the field of philosophy.

Centring the concept of disease within the somatic realm distinguishes its study from the psycho-sociological contribution of mental suffering (Engel, 1977). This is important in considering the identification and treatment of developmental trauma, which is interpersonal. When mental illness is defined as biochemical, problems of social adjustment, character disorders, and dependency syndromes would be excluded (Engel, 1977).

A critique of psychiatry and psychology is that they have been called ‘soft sciences’ as they cannot meet the methodological rigour of replication, generalizability, and validity that science calls for (Uher, 2020). The difficulty lies partially in the science, but partially in the fact that this metaphor of biological illness may not fit psychosocial phenomena. Biological bases for physical illnesses could be more clearly distinguished, whereas mental disorders historically could not be tested for. Those in the medical system want this empirical evidence to support the legitimacy of mental disorders (Marich, 2023). The mind and in-the-moment subjective experiences are context-dependent and difficult to test. We can test the process of experiencing through repetitive observation, but the experience itself is mainly untestable. Some researchers have attempted to turn the study of the mind or psyche and its activities of inner and outer behaviour into the study of brain activity (Uher, 2020). Psychiatry shifted away from psychoanalytic approaches in the 20th century as neuroimaging, molecular, and genetic testing methods improved, as did psychopharmacology (Stein et al., 2022). Concerning the treatment of trauma and dissociation, these attempts to qualify illnesses biologically may shift the focus away from clients’ subjective experience of symptoms, and they may not qualify for specific diagnostic profiles depending on what they report. This is a system of qualification rather than support.

Regarding identifying PTSD, these neurological testing methods can establish neural correlates of disorders. However, the cost has been prohibitive in including this on a wide-scale basis in the diagnosis of mental disorders. Also, brain correlates overlap between different psychiatric diagnoses (Stein et al., 2022). Psychiatry still relies on a nosological system of diagnosis focused on categorical disorders, which uses self-reporting from clients and screening for specific symptom experiences to identify what disorders a person has. This is far from an exact science, where psychiatrists may not follow the guidelines or follow them too rigidly, leading to differential diagnoses (Stein et al., 2022). Regarding trauma, the Diagnostic and Statistical Manual of Mental Disorders 5 TR (DSM-5TR), which is used in North America, has tried to legitimize trauma by instead focusing on the event rather than solely symptom presentation (American Psychiatric Association [APA], 2022). This is why to qualify for PTSD, you must meet Criterion A: a person must have been exposed to a traumatic event. This event can be actual or threatened death, serious injury, or sexual violence (APA, 2022). This is an attempt to qualify what is and what is not trauma. There is a moral argument here that we need to consider these types of crimes traumatic to validate the experience of victims, even if many victims do not develop symptoms of PTSD (Marx et al., 2023). Unfortunately, whether something is horrific enough to merit psychological damage has long been part of the reasoning to legitimize or discredit PTSD. There is a logic here where if something is normalized, such as corporal punishment, how could it be bad enough to cause trauma? Childhood abuse, emotional abuse, and neglect may not meet Criterion A, as it needs to be a ‘life-threatening’ event. This type of reasoning pulls us away from a scientific mindset of identifying and treating illness, and is primarily influenced by social norms (Marx et al., 2023).

There is also a challenge in accessing psychological treatment interventions due to the reliance on pharmacotherapy in the psychiatric field (Stein et al., 2022). Accessing psychological treatment is difficult in the medical system. This is not just a matter of who has access to funding, but legitimizing definitions. The biological view of mental disorders necessitates pathological functioning as something that most healthy people do not suffer from. This excludes a consideration that trauma responses are widespread and adaptive in specific circumstances, and a larger societal consideration of what trauma entails (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). This conceptual grouping would be too vast in the biological conceptualization of disease, and the concept of malfunction would fall apart. There is pressure in this model to narrow the pool of identification to keep within the understanding of pathology, thus excluding those who do not qualify for these categorical assessments of mental illness from treatment (Engel, 1977). This will become evident in the consideration of what dissociation is, and the comparison between the European diagnosis of "complex trauma" and the Canadian DSM-5TR diagnosis of PTSD-DS outlined in this paper (APA, 2022; World Health Organization [WHO], 2022b).

There is also a sectioning off of mental health services from general health services, impacting those in addiction treatment, which could be examined from this historical perspective (Kruger et al., 2024). This may stem from our disembodied society and a historical division between mind and body put forward by the Christian orthodoxy. The body was seen as separate from the soul (Engel, 1977). The mind can be seen as activity or energy, communicating feelings, and has been connected to the idea of the soul. The brain is the biological entity that houses the mind, but is not synonymous with it (Engel, 1977). The mind connects with spiritual and interpersonal healing, which is not valued in the medical understanding of disorders. This

discussion of the mind and internal existential experiences is not considered legitimate and evidence-based in the medical profession (Marich, 2023). This is a carryover from when the body was seen as a machine that could be dissected and understood, while the mind seemed more elusive. The hard sciences could locate the source of their illnesses and treat them, whereas the field of psychology struggled to legitimize mental illness as a malady of the body (Nerenberg, 2020). This stigma towards the legitimacy of mental disorders still exists in medicine today. Due to these factions, people are not receiving holistic, integrated care for mental health concerns (Sinyor et al., 2019).

Overmedicated and Undertreated

This narrow focus on addiction as a biological disease has led to the development of medications to treat addiction, such as the opiate replacement medications that have taken over the harm-reduction movement in B.C. They publicize statistics of reduced overdose deaths by 50-70% to substantiate the effectiveness of such methods (Winograd et al., 2019). Again, the focus is narrowly placed on whether the person with an addiction is using, and outcomes related to drug use. Psychosocial non-medical treatments for substance use disorders (SUDs) take a back seat to pharmacological options (Winograd et al., 2019). This follows a general trend in psychiatry, where pharmacotherapy is pushed over psychotherapy despite a statistically significant patient preference for the latter across studies (McHugh et al., 2013). There is also evidence that psychological treatments are more effective for PTSD. A meta-analysis of psychological versus pharmacological treatments for PTSD by Coventry et al. (2020) found greater reduction in PTSD and depressive symptoms and improved sleep for psychological treatments. Some research on addiction treatment suggests that pharmacological treatments paired with psychological treatments are more effective than when either is provided alone

(Jhanjee, 2014). The question of someone's overall well-being is neglected when the focus is diverted to pharmacological interventions.

Those with co-occurring disorders attending addiction treatment are often not treated adequately, as there is a lack of medical oversight and a reliance on psychotropic medications. Most have not received a formal psychiatric diagnosis, with some receiving a general label of anxiety or depression given by a General Practitioner (GP) or primary clinic doctor (Huỳnh et al., 2016). In a study by Huỳnh et al. (2016) of Quebec residents who had attended an addiction treatment facility in 2004, medical data was collected within a two-year study period. Of this group of individuals, 2.6% did not consult any medical professional and were excluded from the sample. Of the remaining participants, 56.4% had consulted only a G.P., 43.2% had consulted both a G.P. and a psychiatrist, and 0.4% had consulted a psychiatrist only. High service users accounted for 5.1% of the sample and 26% of total visits. This averages out to roughly eight visits a month per person. This compares to the moderate service user group, consisting of 68.2% of the sample, averaging 1.5 visits per month, and the low service user group, consisting of 26.7% of the sample, averaging 2.76 medical professional visits a year, or 0.23 visits a month per person. Within the high service user group, 94.2% reported having had a diagnosis of an anxiety disorder and 64.9% were diagnosed with a mood disorder. This compares to 65.4% and 26.3% respectively in the moderate usage group and 16.9 % and 3.6% in the low usage group. Of the different groups, 84.4% had a diagnosis of SUD in the high usage group, compared to 50.8% in the moderate usage group and 18.8% in the low usage group. There seems to be a lack of diagnosis of mental health conditions and a lack of medical follow-up in a large percentage of this sample. This is particularly notable in this sample's low rates of SUD diagnosis (Huỳnh et al., 2016). These stats can be contrasted with research by Rosic et al. (2017), where researchers

assessed for and classified mental health diagnoses. In this sample of those with SUD prescribed methadone in Ontario, 42.6% were determined by researchers as having an anxiety disorder, and 41.4% were classified with a mood disorder (Rosic et al., 2017). This is a different demographic, but the rates of these disorders are higher in this sample. In a large survey spanning all of the U.S., 57.1% of those in treatment for SUD also disclosed a co-occurring mental health condition (SAMHSA, 2021). In my observation working in a treatment center, those in SUD treatment are given several psychotropic medications to address immediate sleep and mood concerns. Antidepressants are commonly prescribed to those with alcohol use disorder (AUD) and depression, with low-quality evidence supporting their efficacy. However, this effect was found non-significant when certain studies at high risk of bias were excluded (Agabio et al., 2018). Quetiapine is often prescribed due to its sleep and mood effects, and is thought of as a potential treatment for AUD (Ray et al., 2010). Certain medications are overprescribed or prescribed off-label, which is a problem that exists in the larger society as well. In a large U. S. study of 5,132,789 individuals who filled prescriptions for psychotropic medication, 58.2% had no psychiatric diagnosis during that year (Wierchers et al., 2013). In the research by Rosic et al. (2017), 46% were on a psychotropic medication, with antidepressants being the most commonly prescribed, followed by benzodiazepines. These findings are amplified in the Canadian prison system, where many inmates have SUD upon entering the system and then are prescribed psychotropic medications at increasing rates during their stay (Brown, 2017). Quetiapine specifically is often prescribed and abused in prisons (Pinta & Taylor, 2007). Similarly, among those in treatment institutions, many are overmedicated. Given the lengths of stay in treatment centers, it is questionable whether there is enough oversight to determine the long-term impacts of these medications. Many do not have adequate medical oversight and receive the bulk of their

care from treatment centers (Fleury et al., 2022). In my experience, those coming into treatment will often answer ‘none’ as to whether they have mental health issues. If they do list anything, they will say they struggle with ‘anxiety and depression,’ common concerns for those accessing mental health and addiction services (Community Addictions Peer Support Association [CAPSA], 2023). They often have not had a formal mental health assessment done by a psychiatrist, and GPs have assigned these labels (Huỳnh et al., 2016). GPs are responsible for a large proportion of mental health care (Borges et al., 2016). Many physicians lack integration and training in addiction medicine (Klimas et al., 2017). Much of the addicted population is not receiving adequate health care in general, no doubt exacerbating their mental health and addiction challenges (Fleury et al., 2022). In a Quebec sample of 17,819 participants listed in an addiction treatment database, 18% made frequent use of the emergency department, 48% had no usual outpatient physician, and 36% had a usual GP. In the 12 months prior to acute care use, 38% received psychosocial interventions from a community agency, and 28% received care from addiction treatment centers (Fleury et al., 2022). There is a gap in mental health care for this population.

For a population that is deeply traumatized, what are their psychological needs? The addicted population often has co-occurring mental health concerns. In a large-scale study by Swendsen et al. (2010) in the United States, spanning ten years, mental disorders were predictive of later onset of alcohol and drug abuse and dependence. Another large-scale study in New York, USA, found that in a non-clinical sample, Axis I disorders were not predictive of persistent alcohol and cannabis use disorder, but personality disorders such as antisocial personality disorder and borderline personality disorder were (Hasin et al., 2011). In a sample of men in Spain diagnosed with opiate dependence and receiving methadone, 67% had psychiatric

comorbidities (Roncero et al., 2011). An extensive U.S. study of those with prescription opiate use disorders cited as high as 77.8% had PTSD in those with polysubstance use and very high levels of psychopathology (De Nadai et al., 2019). Of participants in the North American opiate medication initiative (NAOMI) project in Vancouver, B.C., 43% reported a history of abuse, 19.5% sexual abuse, and 62.6% reported a history of emotional abuse (Oviedo-Joekes et al., 2011). Those with addictions are most likely to have psychiatric comorbidities, with trauma as a common etiological precursor. They should be screened and treated for these other conditions while in addiction treatment, particularly as they are not receiving adequate care in their communities.

The addiction system has not historically dealt with severe mental health challenges, meaning they have failed to provide direct support and acknowledgment of symptoms. There is a push to exclude those with substance use disorders from diagnosis, mental health teams, and formal treatment groups in the mental health system due to their active substance use (CAPSA, 2023). This stigma may be internalized by clients as well as health care providers. When polling clients, 21% of mental health patients said they would have an issue accessing combined services with addiction clients, and 15% said they were unsure. Among addiction clients, 11% polled said they would have an issue accessing services combined with mental health clients, and 18% said they were unsure (CAPSA, 2023). This sectioning off of addiction clients is not accurate to the challenges faced by this population and is not representative of the clients seeking care. A qualitative study by Kruger et al. (2024) of expert professionals working in addictions in New York, USA, noted how the system is siloed and fragmented. They noted different streams of services for addictions and mental health, where clients could fall through the cracks. They called for wrap-around service, where clients' issues were addressed wherever they were

accessing services, and that the system drops these arbitrary distinctions. This paper advocates for mental health screening in addiction treatment to facilitate trauma-specific care for individuals with co-occurring disorders, with the hope that they will feel affirmed in this medical model of care. This population deserves the same level of support provided in psychiatric mental health services. Now, within B.C. Mental Health and Substance Use Services, there are some facilities called tertiary care that treat mental health and addiction issues simultaneously (BCMHSUS, 2024). These are not easily accessible to all, as there are long waitlists and specialized referral processes, and the person needs to have tried and failed at other recovery facilities to be considered. These beds are designated for clients with severe/complex addiction and severe/complex mental health conditions (BCMHSUS, 2024). Since comorbidities are so high in this population, where this is becoming an expectation, our system should adapt. Currently, the addiction system and the mental health system, respectively, are set up to treat one disorder rather than both (Minkoff et al., 2004).

Reflexivity Section

The personal significance of this research is that I have seen firsthand the mental state that many Downtown Eastside residents are in when they enter addiction recovery. I have worked at a treatment center for over a decade and am an outreach addiction counsellor in Vancouver, B.C. Many of the systemic injustices and practices discussed in the introduction of this paper are from my anecdotal observations working in this community. Trauma is ever-present in this population, yet they are not receiving formal diagnoses and do not have access to trauma-specific interventions. I have witnessed the stark lack of services and trained practitioners helping this population.

There is a narrative in these recovery communities that we do not want to address trauma too early, as it may destabilize clients and cause them to relapse. This is ironic because of the statistics already cited around relapse rates. In my time working in addictions, I have observed a push to exclude those with substance use disorders from diagnosis, mental health teams, and formal treatment groups in the mental health system due to concerns that they are not stable enough to participate. This resistance may come from the understaffing and underfunding in both systems. There is a felt sense of avoidance of getting into someone's trauma. Recently, within the last decade, there was a push to be "trauma-informed". In my experience, this meant reading a manual about trauma, taking a few quizzes, and operating with the assumption that everyone has trauma. The VCH guidelines (2020) for trauma-informed practice specify trauma symptoms that care providers should be aware of. They cite some of the research on trauma impacting overall health. They focus on building awareness, creating safety, and teaching skills to manage trauma. One small section on trauma-specific services says these are only offered by professionally trained clinicians. They are only offered once clients are fully engaged in services and have built safe relationships with care providers, where care providers can assess readiness and/or interest in trauma-specific services and assist in the referral process (VCH, 2020). This suggests that care providers should engage with clients sharing trauma stories, but instead focus on building stability and then refer to other services for trauma-specific interventions. It echoes the concern around clients' stability and implies that trying to address trauma directly compromises emotional safety (Zoellner et al., 2011). Retraumatizing clients by talking about their trauma is a misconception. Therapists talking to clients about trauma are not creating new "monsters" but attending to ones that already exist (Zoellner et al., 2011). VCH's guidelines

(2020) emphasize giving autonomy and choice, but it seems this does not apply to clients wanting to discuss and get direct treatment for their trauma while in care.

The biopsychosocial model that has taken over healthcare has been criticized for being vague and lacking in specific content, serving as an umbrella term for many programs (Bolton & Gillett, 2019). In the treatment facility where I was working, we applied the biopsychosocial model in the form of skills-based programming designed to teach clients how to live a healthy life. There was an implicit assumption that the clients were making poor decisions because they did not know any better, and that we could educate them about their addiction. This did not fit with my experience of personal recovery, that there were emotional reasons why I used drugs, namely trauma, and that those reasons needed to be addressed so I could stay abstinent. There was some implementation of Seeking Safety classes for a time in the facility where I was working, but then they were replaced with more Cognitive Behavioural Therapy (CBT) derivatives. CBT programs such as "Living Life to the Full" by the Canadian Mental Health Association were implemented (CMHA, n.d.). There is an ethical concern about providing CBT interventions in routine care, in that their diluted application may impact efficacy (Stein et al., 2022). Was providing this once-a-week group with colourful images and booklets given to residents to take a look at in their downtime equivalent to the standardized treatment protocols of CBT used in the research supporting this modality? Another critique of this modality is that it does not get to the root of the problem in the same way psychoanalytic approaches do (Stein et al., 2022). Yet, CBT and Motivational Interviewing are considered the treatments of choice in addiction treatment settings according to a U.S. study by Mark et al., (2020), citing that 90% of the 13, 585 facilities included reported using these two modalities. These are considered evidence-based therapies for SUD.

I felt incompetent and confused when dealing with residents' trauma, particularly when they voiced that they wanted to address it directly. The suggested response was, “that is not what we deal with here; you need outside counselling.” Many counsellors may not feel prepared to manage these types of psychological concerns, leading them to defer responsibility. Some specific training on dissociation and trauma could help. A study of counsellors in Delaware found that 68% felt inadequately prepared to assess for trauma, and 75% felt inadequately prepared to treat trauma. In this sample of 195 mental health practitioners, 30% had not received training on dissociation (Kumar et al., 2022). This pattern of shifting responsibility does not benefit clients. There is a noted lack of trauma-specific counselling for those in lower socio-economic classes who cannot afford paid services, and are not connected with therapy supports in other systems of care (McQuaid et al., 2017; Russell et al., 2020). I have witnessed waitlists for funded trauma-specific counselling stretching to 2 years. Even in more intensive treatment programs, they will not dig into clients’ trauma for fear of destabilizing them. Could we not apply a client-centred approach where we respect the client’s autonomy to decide when and how they want to address their trauma? If the client is saying they are willing and able to do some of this deeper work, should we not be able to assist with this? According to Shier and Turpin’s (2017) model of Trauma-Informed Practice in addiction programming, empowering clients with trauma helps them feel comfortable sharing, manage triggers, and gain awareness and understanding of their trauma. Service providers set the tone for clients to share openly. Clients want to feel understood when sharing their unique histories. All of this is related to empowering clients to cope with trauma symptoms. If the topic of trauma is taboo or clients feel unable to share and learn about trauma, they are disempowered to cope with the trauma they have experienced. When considering how our services support those accessing them, we need to

consider a broader, more holistic view of recovery, including mental health. A qualitative study of people in recovery from drug use in the Netherlands, by Martinelli et al. (2023), identified that taking a broader view of recovery that was not solely focused on substance use was integral to healing. One gentleman commented that identifying his underlying mental health concern and experiences of trauma helped him understand his pattern of drug use and develop a more positive self-identity with this newfound compassion for himself. Another lady was able to connect her substance use to her mental health symptoms. These realizations help lessen shame and support recovery (Martinelli et al., 2023).

Looking for Trauma and Offering Trauma-Specific Care

This discussion culminates in the question of offering trauma treatment to those with addiction issues. I am asking that etiology be considered and explored regarding mental health concerns faced by those accessing addiction treatment. Society as a whole needs to open up to examining the impact of trauma on the mental well-being of the population. This etiology contributes to so much sickness, with many mental health disorders correlating with adverse early childhood experiences (Lewis et al., 2021). John Briere, a well-known trauma researcher, surmised that "if we could somehow end child abuse and neglect, the eight hundred pages of the DSM … would be shrunk to a pamphlet in two generations" (Briere, n.d.). This is to say that this collection of disorders relied on by mental health professionals may be focusing too narrowly on present-day symptoms while ignoring the factors that shaped them. Janina Fisher (2017a) explains that children growing up in unsafe environments associate the possibility of threat with a lack of safety. In that way, their nervous system constantly responds to that possibility, triggering a myriad of defensive responses, such as fight, flight, freeze, fawn, fold, and attachment cry. She explains that with greater trauma, there is a greater chance of these states

being dissociated, meaning the child may be operating in one distinct state, rather than another, without them being integrated. This ties into the defence cascade model and the theory of structural dissociation, but also explains why these clients have developed to be constantly on guard, potentially leading to chronic hyperarousal or hypoarousal, which may be seen as anxiety and depression (Fisher, 2017a).

Theoretically, if collectively, society was able to support parents to take better care of their children, and those with significant challenges were offered psychological treatment, we could significantly reduce rates of addiction. Instead, the impact of medicalization is that we examine the dysfunction and treat the symptoms without addressing the cause (White, 2007). In addiction treatment, recovery and remission have been defined in terms of substances consumed rather than underlying causes (White, 2007). This is a reactionary approach that is so frequently seen in our medical system (Kong, 2022). A logical argument is to be made here: this surface-level approach will not create the depth of change for clients that could be achieved with a more holistic approach (White, 2007). There is a question of who stands to gain from maintaining the status quo. There is a whole industry invested in how recovery is currently defined, with many people demanding solutions for those with addiction issues. However, there is little societal questioning of why so many of our citizens are becoming addicted (White, 2007). Perhaps an acknowledgment of the prevalence of childhood abuse of all kinds is too much for society to stomach. Denial and minimization are easier for people to accept. Freud certainly thought so when he retracted his acknowledgment of childhood sexual abuse as contributing to hysteria, replacing it with a more politically favourable conclusion that patients were projecting their own fantasies, causing this dysfunction (Freud, 1985). It is easier for people not to acknowledge the societal and cultural role in the sickness of those with trauma and SUD.

The drugs were a solution to deal with symptoms, often from lifetimes of traumatic experiences. According to the self-medication hypothesis, drugs provide a type of dissociation from these painful feelings and memories (Baudin et al., 2022). Developing a SUD may result from using substances to regulate negative emotions emerging from PTSD symptoms (Stewart & Conrod, 2003). From a period of abstinence in a rehabilitation center, substance users may return to drugs to numb their feelings. Research by Tripp et al. (2020) supports that trauma symptoms can lead to more alcohol consumption in the future, noting a reciprocal relationship where more alcohol predicts greater PTSD symptoms and worsening PTSD symptoms predict more future drinking. The impact of PTSD symptoms on future drinking contributed to a larger effect size than the reverse (Tripp et al., 2020). A literature review by Hawn et al. (2020) also supports the self-medication hypothesis that problematic drinking may be an attempt to cope with PTSD symptoms. PTSD symptoms can include nightmares, intense anxiety, and volatile emotional outbursts. This points to trauma, or more specifically, relational or attachment trauma, as a potential cause (Hawn et al., 2020). This research suggests that treating PTSD symptoms is a necessary part of reducing substance use, thus treating the underlying cause of the need to numb feelings. There is support to suggest that dysregulated emotional states can trigger relapse. Researchers Daigre et al. (2024), followed a group of outpatient SUD treatment participants for 18 months post-COVID-19 lockdown, and found that having more feelings of loneliness, anxiety, and overall worse psychiatric functioning during this time, as well as being diagnosed with a mental health disorder were negatively correlated with the duration of abstinence attained. Around 70% of participants consumed their drug of choice during the follow-up period. People with early childhood trauma are much more likely to end up with serious health problems, such as addiction, in adulthood (Felitti et al., 1998). A large-scale study of Swedish twins noted

significant correlations between Adverse Childhood Experiences (ACEs) and mental disorders and addiction, even when controlling for the genetic contribution (Daníelsdóttir et al., 2024). A review of 13 studies on severe mental health conditions and interpersonal trauma found higher comorbidity of Axis I disorders, including substance use disorders, in traumatized groups compared to non-traumatized groups (Mauritz et al., 2013). Trauma needs to be acknowledged and treated in the recovery from addiction.

Who Should Provide Treatment

These clients deserve to have proper treatment that is fitting with their experience of symptoms. Thus, addiction counsellors should be trained in the modalities that best serve their population, and such training opportunities should be made available to them. This should be a responsibility placed on the agencies that employ addiction counsellors through the health authority. In my personal experience, these treatment centers often have a small budget for training, and these funds are often allocated towards small workshops rather than more intensive training. The types of modalities have included mainly motivational interviewing and CBT derivatives rather than trauma-specific interventions. When reviewing the approach of treatment centers in B.C., it is cited as providing psychosocial interventions for substance use disorders and trauma-informed practice (VCH, n.d.). While training in these modalities may be more costly, the benefit would outweigh the cost by properly preparing staff for the needed work. It would enable them to support their clients rather than worrying about referring them out for these interventions to agencies with long waitlists and specific qualifying criteria that may exclude them.

During residential addiction treatment may be the best opportunity to offer psychological interventions to those dealing with addiction and trauma. They will likely be abstinent from their

drug of choice, which could make them more emotionally present. In order for exposure therapies to work, the person needs to be able to access the emotion held in their traumatic experiences, with fear activation being essential in exposure therapy (Foa & Kozak, 1986). If they are numbed out with substances as a potential attempt to avoid emotions, this could be ineffective. When they are in treatment, a rare opportunity presents itself to receive this type of therapy. Their physical needs are taken care of, and not having to keep up with procuring money for their addiction opens up time that can be spent investing in therapy. Offering short-term direct trauma treatment during this time may be the only opportunity to do this type of psychological work with this population. This should be weighed against the argument that this could do more harm if these clients are not emotionally ready. It may be a choice between doing this treatment in this setting or not doing it at all.

In light of the changing landscape of trauma diagnosis and the growing awareness of the prevalence and implications of trauma within the addicted population, practitioners can be better equipped to offer trauma-specific interventions. Addiction treatment is mental health treatment, and yet these individuals are not receiving the same type and level of care as patients in inpatient psychiatric settings. A formal PTSD-DS diagnosis could be a bridging step in getting these patients treated properly. Then there is the question of where to treat them. I have suggested that treatment centers are an optimal point of access to trauma-specific treatment. Those in recovery value these facilities as integral to their recovery, so they are already willing to engage in treatment at such facilities. A survey of those in recovery from addiction in Canada, where 45.7% of the participants were B.C. residents, found that 83.2% of them rated residential addiction treatment programs as very important to their recovery (McQuaid et al., 2017). They are living there, already involved in doing psychological work on themselves, and not

intoxicated to the point of being emotionally dissociated. In an outpatient approach to offering PTSD and SUD treatment by Brady et al. (2001), 61.5% of the sample did not complete 10 or more of the 16 therapy sessions. The most common reasons for drop-out included transportation difficulties and scheduling difficulties. These would not be an issue in an inpatient setting. In a meta-analysis of inpatient SUD treatment programs, the average drop-out rate was 30.4%, so that more people would be accessing more treatment (Lappan et al., 2020). There is also a consideration that these beds are often funded by the Ministry of Social Services, which makes them accessible for those experiencing poverty. In an Ontario study by Russell et al. (2020) of those seeking treatment, affordability was cited as a barrier to accessing psychological support for their addiction. Most participants in this study agreed that counselling was a helpful service in supporting their recovery. Counselling that helps with trauma was cited as particularly helpful (Russell et al., 2020). These barriers were also acknowledged in the Canadian survey by McQuaid et al. (2017), who noted a lack of affordable professional help for mental health and emotional problems.

In order to make this a possibility, better training could be offered to treatment center counsellors to be able to offer trauma-specific interventions. This may be more feasible than diverting addiction patients into mental health systems, where they may be rejected due to substance use, or have to wait to get assessed and treated, which may not be accessible during the timeframe in which these individuals are in addiction treatment (CAPSA, 2023). Canadian mental health services are already overloaded, with many clients not receiving access to counselling, facing long wait times, and experiencing a general lack of mental health professionals (Moroz et al., 2020). It seems that providing trauma-focused interventions can

most feasibly happen in treatment centers. However, some barriers to offering this type of training to addiction counsellors should be addressed.

Academia and specialized counsellor training programs have been prohibitive of addiction counsellors accessing training in trauma-specific modalities such as eye movement desensitization and reprocessing therapy (EMDR) and prolonged exposure therapy (PE). There has been a discrediting of the calibre of the work that these addiction counsellors are doing, as they have not had the same level of education as master 's-level counsellors. Lived experience and experience working with clients are not recognized by academia, despite these types of experience providing relatability and responsiveness to clients that cannot be taught in school. The argument that these counsellors are unqualified, even though counselling in B.C. has been historically unregulated, has allowed training institutions to specify that counsellors must work in “mental health” settings, which excludes addiction settings (EMDR International Association, n.d.). This priority for mental health professionals is also noted in training opportunities for PET (Canadian Psychological Association, 2024). This distinction between addiction and mental health professionals is ridiculous, suggesting that somehow the populations being treated are different from one another. This paper suggests that those who work in treatment centers are emotionally invested in the well-being of their clients in the same way that counsellors in other settings would be. Thus, having this established rapport makes them the ideal practitioners to offer their clients treatment. The impact of rapport is evident in client success, with those in treatment being more likely to show confidence and commitment at the three-month mark, and more likely to complete treatment when they started off their stay with greater rapport with staff and more counselling attendance (Broome et al., 1999).

Safety in treatment facilities should be considered when offering psychological care. Some clients may not feel safe in treatment facilities, and may not feel safe with service providers due to power differentials that exist within the system of addiction care under the health authority. A sample of Aboriginal Canadian participants in a methadone maintenance program expressed high levels of distrust in the medical system and experienced intersectional discrimination within this system (Smye et al., 2011). Those in institutions may not feel affirmed by the available mandatory treatments. More research should be conducted to investigate whether this is the case. An article by Kilty (2012) interviewed Canadian women who had been incarcerated and in halfway houses and found a heavy reliance on pharmaceutical treatments and some CBT group attendance in treating psychological issues. These women were not being treated adequately, were experiencing high levels of psychological distress, and wanted more psychological treatments made available to them. Their needs were being overlooked, similar to those of our target population. There was a heavy reliance on pharmaceutical interventions, similar to our target population. There were similar power differentials with the services provided, where they could risk going back to prison for revealing specific details of their experiences (Kilty, 2012). Participants in this qualitative research expressed the desire for psychological treatment outside of the system. Decision-makers typically do not take these requests seriously, but they can be centred in this discussion (Kilty, 2012). It would be helpful to investigate whether our target population would feel similarly about wanting more psychological treatments available to them outside of the system of recovery treatment and the health authority of which they are a part of.

This is a large-scale issue that cannot be addressed in the scope of this paper, but should be mentioned in the context of trauma treatment, where so much focus is on helping clients feel

safe. Many clients feel more supported by relatable staff with their own lived experience. Clients may feel that staff who have gone through their own trauma and addiction struggles can empathize more (CAPSA, 2023). At the same time, if those staff are experiencing their own mental health challenges, their instability may feel unsafe to clients. Staff instability may lead to greater staff turnover and worse client outcomes (Roche & Nicholas, 2016). Client engagement is higher in facilities with more professionalism and where staff have greater skill in training and efficacy (Broome et al., 2008). There is a balance here, which the addiction field has been navigating since the inception of residential treatment facilities, as to whether to hire other people with lived experience. Providing more training for addiction counsellors could bridge this gap and allow those working in treatment centers to receive proper professional training.

Power dynamics in society also play out in treatment facilities, impacting the experience of safety. There are concerns about authority in abstinence-based facilities, where staff have the authority to ask clients to leave the program. This sets up a power differential, where authorities in the facilities oversee clients' actions paternalistically (O'Leary et al., 2022). Facilities are trying to resolve this by dropping the abstinence mandate and allowing clients to use substances off the premises as long as they are not harming others in the facility. Social control and set norms, such as abstinence, may motivate clients to follow what others around them are doing, supported by a strong therapeutic community (O'Leary et al., 2022). This creates another set of problems where other clients are potentially being triggered by clients who are on substances. The group norms shift to being more erratic as more clients are using substances. Clients may struggle more with mental health symptoms and be less engaged in treatment. These factors may impact clients' felt sense of safety in treatment facilities, impacting their success with trauma-specific interventions. It is important to consider that safety is relative, and many of the clients

were living in more unsafe circumstances prior to entering treatment. Trauma-specific treatments can still make a meaningful impact in less than perfectly safe circumstances (Kaysen et al., 2020).

Purpose Statement

This paper proposes that we examine systemic gaps in Vancouver's addiction treatment facilities to address clients' mental health challenges. There is a narrow focus in such facilities on life skills training while neglecting co-occurring mental health conditions, such as trauma presentations (VCH, n.d.). Despite the provision of medical and evidence-based treatments, participants in treatment often relapse within 6 months (Brecht & Herbeck, 2014; Pilarinos et al., 2019). The cycle of relapse is perpetuated by the hyper-focus on the treatment of the behaviour of ingesting substances, exacerbating shame and stigma rather than investigating underlying causes such as trauma (White, 2007). This paper advocates for a more holistic, trauma-informed approach that considers addiction to be a symptom of deeper psychological issues, stemming from ACEs (Felitti et al., 1998). The reliance on pharmacological treatments due to the medicalization of the addiction treatment field prioritizes symptom management rather than addressing root causes (Winograd et al., 2019). By shifting the focus to trauma treatment, outcomes could improve, reducing the risk of relapse and improving overall mental well-being. Better training for addiction counsellors in trauma-specific interventions could bridge gaps in current treatment protocols. Identifying complex trauma, developmental trauma, and other presentations of trauma could help professionals see and treat these underlying conditions in the context of addiction treatment facilities. The DSM-5 TR acknowledges a dissociative subtype of PTSD, which may be overrepresented in the addicted population in comparison to the general public (APA, 2022). This may partially account for the experiences of ongoing lifelong trauma that many members of the Downtown East Side community have experienced (Oviedo-Joekes et al., 2011). Treatment provided to these community members in addiction recovery facilities should be responsive to these psychological realities. Symptom profiles and treatment

implications are discussed relating to dissociation and trauma, and this paper considers whether this diagnosis of PTSD-DS is an affirming and helpful diagnostic framework to facilitate treatment for our target population. This capstone intends to advocate for trauma-specific care for those receiving addiction treatment in the City of Vancouver and, more specifically, the Downtown Eastside. It argues that while long-term developmental trauma does lead to a more complex presentation, these types of trauma-specific treatments are still effective. Screening for dissociative trauma could identify the need for and facilitate access to these treatments and bring decision makers' attention to the service gap of those receiving addiction treatment in receiving mental health supports.

Definition of Terms

C-PTSD

The World Health Organization in the ICD-11 defines this disorder with symptoms of re-experiencing the trauma, deliberate avoidance of reminders of the trauma, and a sense of current threat expressed in hypervigilance. This diagnosis also includes significant difficulties in emotional regulation, persistent negative self-view, feelings of shame about the trauma, and interpersonal problems. The first three symptoms are shared with PTSD, while the last three of these symptom clusters are unique to C-PTSD (WHO, 2022b).

Criterion A

Required criterion to meet for a PTSD diagnosis. Exposure to actual or threatened death, serious injury, or sexual violence in one or more of the following ways- directly experiencing it, witnessing it, learning that it happened to a close family member or close friend, or experiencing extreme or repeated exposure to the details of the traumatic event (APA, 2022).

Derealization/Depersonalization

A sense that things are not real, as if in a dream, or objects appear unreal. A sense of 'watching oneself' or experience of feeling that 'things are not happening to me', feeling as though one's body is not one's own (Haager et al., 2018).

Dissociation

The DSM-5 TR defines dissociation as disrupting the normal, subjective integration of behaviour, memory, identity, consciousness, emotion, perception, body representation, and motor control (APA, 2022).

Dissociative Experiences Scale (DES)

The DES is an example of a commonly used screening tool to measure dissociative symptoms, often used in correlation research to identify groups with higher dissociation. Screening tools can identify individuals for a more formal diagnosis process. DES scores are considered high, meaning a likely dissociative disorder, if the score is ≥30 (Altintas et al., 2018). The DES shows good reliability (Cronbach's $\alpha = 0.95$) and is helpful in identifying clinical levels of dissociation, but may show a significant floor effect when used for sub-clinical levels of dissociation. Evidence supports its use in community and prison samples in Italian research (Saggino et al., 2020).

Dissociative Disorders

There are several of these listed in the DSM, such as dissociative identity disorder, dissociative amnesia, depersonalization/derealization disorder, other and unspecified dissociative disorders, and PTSD dissociative subtype (APA, 2022).

Posttraumatic Stress Disorder -Dissociative Subtype (PTSD-DS)

Diagnosing the dissociative subtype requires that the person meet all requirements of PTSD and meet the derealization/depersonalization criteria according to the DSM. The PTSD diagnostic criteria require the person to meet Criterion A. After the event, the person experiences

intrusion symptoms, avoidance symptoms, negative cognition symptoms, and increased arousal symptoms lasting longer than one month (APA, 2022).

Trauma

Is defined more inclusively by The Substance Abuse and Mental Health Services Administration (SAMHSA) (2014) as resulting from "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being" (chapter 1), which is similar to how this paper uses the term trauma, as the Criterion A criterion of the DSM diagnosis of PTSD is too narrow to be representative of the experience of developmental trauma.

Trauma Model

This states that dissociation is a normal response to trauma, and exists on a continuum. This is a dimensional model. This can range from zoning out to full amnesia. The underlying theory is that this response mitigates the full emotional impact of the trauma (Loewenstein, 2018). This theory looks at trauma as a risk factor for dissociation. It can be viewed as adaptive in that it allows human beings to carry on, despite overwhelming and unbearable events. The trauma becomes compartmentalized in fragmented memories and sensory experiences (Krause-Utz, 2022).

Taxon Model

This is a categorical model that says there are two distinct populations of dissociation, one normal and one pathological. Only a small percentage of dissociated people meet the criteria for the DSM disorders (Loewenstein, 2018).

Chapter Two: Literature Review

Evidence of a Dissociative Subtype: Who Are These People, and How Can We Find Them?

History of Dissociation in Western Psychology

Understanding the diagnosis of PTSD-DS starts with understanding the history of dissociation and trauma in the Western world. Diagnosing mental health disorders, and in particular dissociative disorders, is a process that has evolved over several hundred years. It is important to consider the historical and political trends that have influenced this process to understand what dissociation is believed to be currently. The landscape of diagnosing trauma and dissociative symptoms is changing as the etiology and presentation are being more well-researched. There has been more interest in acknowledging dissociation in the larger therapeutic community in recent decades. Nevertheless, it is important to recognize a rich history of recognizing dissociation in the treatment of trauma. In the late 18th century, the study of mental illness was moving away from being a matter dealt with by the church and into the realm of scientific inquiry. In 1775, Mesmer demonstrated that scientific methods drawn from magnetism demonstrated similar healing results to exorcism (Kluft, 2018). In the second half of the 19th century, Braid adapted Mesmerism and magnetism into forms of hypnosis that were more consistent with today's hypnosis. Healing professionals at the time were interested in hypnosis and dissociation with the rise of Mesmerism and the exploration of spiritualism and psychic phenomena (Kluft, 2018). There was a recognition of dissociation in hysterical patients by Janet, among others. In Janet's doctoral dissertation, *L'Automatisme Psychologique* (1889, as cited in van Der Hart & Horst, 1989), he outlined the study of patients with hysteria treated with hypnosis and experiences such as possession. Janet noted that consciousness may not be unified in these patients, that fixed ideas and states can operate without the conscious awareness of the

central personality (van Der Hart & Horst, 1989). A fixed idea is described as a defined image, thought, or statement with accompanying feelings and body movements that intrude upon normal consciousness. These are now called flashbacks (van der Hart & Horst, 1989). These are the most simplistic forms of dissociation, whereas more complex forms involve whole histories and patterns of behaviour that compose alters. This was thought to be related to state-dependent learning, where traumatic experiences and associated psychological phenomena are dissociated from other conscious states, and can only be accessed when the individual is put back into that state or triggered, and in this way, the self was fragmented (van der Hart & Horst, 1989). Van der Hart (2021) notes how these early definitions of dissociation were concerned with structural dissociation of the personality, referred to as division or doubling of the personality.

The rise of psychoanalysis and Freud's rejection of hypnosis in the early 1900s inadvertently turned the therapeutic community's focus away from dissociation as it related to trauma (Kluft, 2022). Dissociation and dissociative disorders, such as grand hysteria, were understood at the time as an unintentional passive split of consciousness and lack of psychic cohesion resulting from real trauma. In contrast, Freud argued that this psychological pathology resulted from a more active repression and intrapsychic conflict resulting from fantasies and creating false memories (Kluft, 2018). This understanding of trauma dominated the psychological space for a century and is still impacting us today in our resistance to acknowledge and understand dissociation as a pervasive and unintentional phenomenon that essentially accompanies trauma (Kluft, 2018). This history helps us understand more about how dissociation was originally conceptualized. However, a new understanding and classification of dissociation has more recently taken precedence, which is to examine dissociative responses as responses to trauma. This way of defining dissociation is more concerned with the symptoms of dissociation,

such as depersonalization and derealization, the components of a PTSD-DS diagnosis (van der Hart, 2021). Van der Hart (2021) cites the creation of the DES may have contributed to this change in conceptualization, as it measures symptoms of dissociation. There became a distinction between positive symptoms of a trauma response, like intrusive symptoms and hyperarousal, versus the negative symptoms of dissociation, such as detachment, when in the previous conception of dissociation as a structural issue, both of those symptoms were included as part of the phenomenon (van der Hart, 2021). The distinction of dissociative disorders, PTSD, and PTSD-DS seems to be largely theoretically based distinctions, when we examine the history of how dissociation is defined.

What Labels and Theories Represent Our Target Population's Experience

Building on Janet's work on dissociation as a trauma response, the "trauma model" of dissociation looks at the functional purpose of dissociation: to shield an individual from the full emotional impact of their trauma. Dissociative responses are understood on a continuum and are understood as adaptive responses to trauma. This contrasts with the Freudian view that fantasy-prone hypnotizable individuals may be subject to the implantation of false memories of childhood events (Loewenstein, 2018). Indeed, the trauma model is more affirming to clients, as practitioners believe what clients share about their experience rather than suggesting they made it up. Researchers found that in a sample of 276 participants who self-reported that they experience dissociative symptoms, 45.65% said they were afraid of practitioners' response in accessing treatment, such as them not believing their trauma. Of those who had discontinued treatment, 27.54% endorsed that they had experienced this type of dismissal of their trauma by their treatment provider. Practitioners who are trained in the trauma model were shown to be less likely to trigger dissociative clients' shame when they discuss or exhibit symptoms (Nester et al.,

2022). Regarding the emotional impact of the trauma model and the emotional safety of clients, it is important to believe clients' experience of trauma.

There are also variations globally in how trauma is defined, leading to further invalidation of clients experiencing trauma and dissociative symptoms. North America's PTSD diagnosis relies on qualifying for "Criterion A" in addition to other symptoms (APA, 2022). Criterion A, known as the stressor criteria, has been an essential part of the DSM diagnosis of PTSD since the publication of the DSM-III in 1980 (Marx et al., 2023). It was initially defined by the APA (1980) in the DSM-III as a "significant stressor that would evoke significant symptoms of distress in almost everyone." It was then adjusted to a psychologically traumatic event that is generally outside of the range of usual human experience (APA, 1987). It is now defined as being exposed to "death or threatened death, actual or threatened serious injury, or actual or threatened sexual violence, either personally or vicariously" (APA, 2022, p. 301). One would guess that as the definition has changed over time, it changed who qualifies for this criterion, and those who did not qualify may not have accessed treatment. This relates to the concern that, in the medical model, those who are not ill do not qualify for treatment, and having such a conservative conception of trauma denies access to those suffering from trauma symptoms. Some psychologists argue for a broader definition of Criterion A, wanting to include events such as experiences during the Pandemic of COVID-19 or experiences of racism, which are both linked to PTSD-like symptoms (Marx et al., 2023). Others argue to get rid of Criterion A entirely, saying it is impossible to get rid of the ambiguity about what events qualify as trauma and which do not, and suggest it is unlikely that PTSD symptoms would arise if there were not some type of traumatic event (Marx et al., 2023). This consideration of Criterion A has made the consideration of trauma event-centred, whereas many clients who have suffered child abuse have

suffered ongoing, enduring conditions, which have created a profound subjective experience of trauma. Saakvitne et al. (2000) acknowledged this subjective complexity in their definition of trauma as an individual's experience of an event or enduring conditions in which the individual could not integrate their emotional experience and was overwhelmed. This can include a threat to life, body integrity, or sanity, which overwhelms their ability to integrate their experiences. Some psychologists have been concerned that the diagnostic net of PTSD is not representative of the symptoms and profile of those who experienced ongoing developmental trauma (Friedman, 2013).

Herman (1992) created the term "complex trauma" to identify and work with individuals with a long history of interpersonal trauma that may not be represented with the DSM's formulation of PTSD. She shared her understanding that in order for repeated trauma to occur, the victim must be in a state of subordination and captivity, under the control of the perpetrator. This type of abuse can happen in private in the confines of the family unit or more publicly in the political sphere. It was noted that this type of trauma can mimic the symptoms of personality disorders. Differences in the presentation were noted when this type of complex trauma was present in survivors of childhood sexual abuse, such as chronic depression, dissociative symptoms, substance abuse, impulsivity, self-mutilation, and suicidality (Herman, 1992). The term complex trauma, adopted by the International Classification of Diseases (ICD), a diagnostic manual used in Europe, is a broader umbrella term looking at a person's history and general functioning (WHO, 2022b). It may better represent the experience of developmental and attachment trauma (Friedman, 2013). The ICD-11 defined trauma as an "exposure to an extremely threatening or horrific event or series of events" rather than life-threatening, as the DSM Criterion A requires for a diagnosis of PTSD (WHO, 2022a). This focuses on the

emotional reaction of the individual experiencing the trauma rather than the event itself. What was historically referred to as sub-syndromal PTSD may be more adeptly identified and treated within this diagnostic framework (Friedman, 2013). With such a categorical view of trauma, it is evident that clients' trauma may be dismissed under the current North American diagnostic framework, which could lead to professionals not believing clients' trauma. Many therapists may be concerned about the emotional impact of labeling someone with a disorder, and the invalidation they face in this type of process may adopt a non-pathologizing approach with clients and try to normalize clients' experiences by encouraging them to see their trauma and dissociative symptoms on a continuum of normal behavior (Reagan, 2022)

In considering C-PTSD as a valuable alternative to PTSD, there is some research suggesting measurable differences between PTSD and C-PTSD. Research by Torres et al. (2023) found that in a German group of 81 participants with a trauma history (80.2% female), those with C-PTSD reported more relational trauma, with earlier onset, and more comorbidities. No differences between groups were found in dissociative measures in this study. In a sample of 116 older adults in Switzerland, childhood traumatic events were significantly associated with complex PTSD symptoms, including dissociation (Krammer et al., 2015). Van Dijke et al. (2015) found a significant correlation between childhood complex trauma and adult C-PTSD, with a mediating factor of psychoform dissociation. Psychoform dissociation was measured with the DES. This includes symptoms such as amnesia, depersonalization, and derealization, in addition to everyday experiences of dissociation. There was a positive relationship between childhood complex trauma and adult C-PTSD with small to medium effect sizes. Introducing psychoform dissociation as a variable to account for some of the variance led to a reduction in the direct effect between childhood complex trauma and adult C-PTSD. However, the resulting correlation

was still statistically significant, consistent with a partial mediation relationship. The presence of psychoform dissociation, which can appear as early as middle childhood after the experience of childhood complex trauma, may partially predict those who will develop adult C-PTSD, and researchers suggest this should be included in the diagnosis of C-PTSD, and may be relevant to the diagnosis of PTSD-DS. Hyland et al. (2020) found a significant association between C-PTSD and dissociative experiences compared to PTSD and no PTSD. In this sample of 106 clinical patients with trauma in the United Kingdom, 67 met the criteria for C-PTSD, whereas nine met the criteria for PTSD. Re-experiencing in the here and now, affect dysregulation, and disturbed relationships correlated with dissociation, whereas the latter two are specific to C-PTSD. A study of 1699 children found that 77.6% had experienced multiple traumas or prolonged exposure to trauma, with interpersonal trauma being the most common type, and many of the sample were experiencing symptoms of C-PTSD not accounted for in a PTSD diagnosis. More than 50% of the sample reported difficulties with affect regulation, negative self-image, impulse control, and attention/concentration issues. A third of the sample exhibited symptoms of dissociation, somatization, oppositional behaviour, inappropriate sexual interest, and attachment challenges (Spinazzola et al., 2005). A broader conceptualization of trauma, such as C-PTSD, would help represent the challenges of those who experienced childhood trauma.

The DSM-5-TR has included a diagnosis of disorder of extreme stress not otherwise specified (DESNOS) to fit with this broader experience of developmental trauma. The criteria for this diagnosis are issues with affect regulation and impulse control, dissociative symptoms, somatoform symptoms, self-identity disturbance, relational problems, and alterations in personal meanings such as helplessness, a feeling of being permanently damaged and ashamed, despair, and distrust. A person can be diagnosed with both DESNOS and PTSD if they meet the criteria

for both (APA, 2022). Interestingly, these symptoms span multiple classes of DSM disorders, such as personality disorders, dissociative disorders, and somatoform disorders (Farina et al., 2019). The results of these studies support the fit of the C-PTSD or DESNOS diagnosis for childhood trauma, relational trauma, and dissociation compared to PTSD. PTSD may cast an overly narrow net.

Dissociation can also be defined more broadly than those symptoms represented in the PTSD-DS diagnosis, raising the question as to whether dissociation exists on a continuum and whether dissociative symptoms are just trauma symptoms. When considering this question, it can be helpful to understand some of the theories behind how dissociation works. Cardeña (1994) outlines three subdivisions of dissociation. Firstly, there is an absence of conscious awareness of impinging stimuli or ongoing behaviour that should be accessible to the person. This may make the intentional recall of such stimuli or behaviour impossible. Secondly, it involves the coexistence of and separation of mental systems that should be integrated, such as sensations, thoughts, feelings, volition, memories, and identities. Lastly, ongoing behaviour or perceptions would be inconsistent with the person's introspective, sincere verbal report. Kluft (2022) added to this conception of dissociation, saying that the split-offs or shutdowns of internal awareness of experiences are happening to avoid threatening internal or external stimuli. The idea that aspects of human experience can be sequestered is expanded upon in Watkins and Watkins' (1997, as cited in Kluft, 2022) description of ego states, stating that the boundaries between these ego states of bound-together systems of experience and behaviour can be more or less permeable. When the boundaries are quite strong, you may observe what appears to be separate personalities, as is the case with dissociative identity disorder (DID). However, most people can converse with different parts of themselves. Some of these parts may be dissociated from other

parts. The discussion of these dissociative mechanisms applies more broadly to dissociative disorders, rather than just ‘depersonalization’ and ‘derealization’ symptoms represented in PTSD-DS.

Furthering our understanding of how to define dissociation, it is important to be aware that there is debate about the functional mechanisms of dissociation. Much of our understanding of dissociation in the field of psychology is theoretical. The structural model of dissociation outlined by Steele et al. (2009) suggests that some aspects of the personality may be dissociated to maintain functioning after traumatic events. The apparently normal parts (ANPs) function by doing day-to-day tasks and interacting with others, whereas the emotional parts (Eps) hold somatic representations of the trauma. These parts were noted initially in Myers’ (1940, as cited in van der Hart et al., 2001) work on soldiers returning from war. This type of trauma was represented in a lack of awareness and control over movements and sensations, later referred to as somatoform dissociation by Nijenhuis et al. (1996, as cited in van der Hart et al., 2001). A corresponding term, ‘psychoform dissociation,’ refers to the dissociation of beliefs and emotions. The personality is fragmented. People with a secondary level of structural dissociation would have multiple Eps that have split off from the awareness of the ANP and can be experienced with great intensity as intrusions when triggered (van der Hart et al., 2010). This would apply to those with C-PTSD and borderline personality disorder, and potentially those with PTSD-DS. People with a tertiary level of dissociation would have multiple ANPs. Such is the case with DID (van der Hart et al., 2010). This is one of several compartmentalization/multiplicity models that suggest that dissociation involves both compartmentalization or the loss of control of processes that would normally be under conscious control through detaching from some subjective aspects of experience and having more than one center of consciousness, or multiplicity of self (Dell &

O'Neil, 2009). van der Hart et al. (2010) conceptualize that dissociation disrupts the normal integration of mental functions, such as consciousness, control and identification of emotions, sense of one's body, sense of identity, and sense of movement, fitting with this idea of compartmentalizing and multiplicity. When exposed to trauma, traumatized individuals have not integrated these memories, leading to an avoidance of these memories by ANPs who have no autobiographical memory of these occurrences. EPs hold the first-person autobiographic perspective for these traumas. EPs take on trauma defensive qualities, such as the mammalian defensive actions, fight, flight, freeze, and collapse. They are solely centred on sensorimotor and trauma reenactments. This can include insecure attachment strategies, which Bowlby (1980) theorized filter out painful information relating to the attachment figures. This phenomenon was termed 'defensive exclusion', and was a way to prevent the distressing feelings relating to the trauma from arising during the attachment experience. Some scientific evidence from studies (Reinders et al., 2003, 2006, 2009) supports this theory of structural dissociation. The participants' brains were scanned, and the condition where EPs were exposed to trauma scripts was represented by less activation of the hippocampus, parahippocampal gyrus, and prefrontal cortex, and overactivation of the amygdala, insula, and caudate. The prefrontal cortex is typically associated with higher-level cognitive control over decisions and emotional regulation, which is typically impaired after trauma, whereas the midbrain is thought of as the fight or flight center of the brain, which becomes more active after trauma (Hopper, 2017). This contrasted with the condition where ANPs were exposed to the trauma scripts, which manifested with more prefrontal activation on scans. There are marked differences in brain activation patterns between participants with DID and healthy controls. The more hippocampal volumes are reduced, the greater the level of structural dissociation (Reinders et al., 2003, 2006, 2009).

We can also look to etiology for an understanding of the function of dissociation. Betrayal Trauma theory, constructed by Freyd (1996), suggests that trauma perpetrated by someone the victim is socially tied to and trusts may cause the victim to exhibit "betrayal blindness" or dissociate from the trauma to protect survival and attachment. This theory explains why children being abused by their families often have amnesia about the abuse or do not identify it as abuse (Freyd, 1996). In a large-scale survey by Stroebel et al. (2012) of college students, those who had experienced childhood sexual abuse by their fathers were more likely to endorse being distant from both parents or being distant from dad and close to mom during the time of the abuse. This may represent an emotional shutdown. In adulthood, they described being estranged from one or more of their parents and having long-term anger, suggesting a disruption in attachment between the child and their caregivers that persists over time. Farina et al. (2019) suggest that attachment trauma stemming from the disruption of attachment between the caregiver and the child, resulting in disorganized attachment, may relate to traumatic dissociation. The child may develop conflicting internal working models of what to expect when in close relationships, influencing memories and expectations of attachment. The ongoing stress interfering with brain development and function, paired with dependency for survival on the caregiver, makes a parasympathetic freeze response more likely than other defensive responses, and the conflicting desires to get close and flee from the caregiver lead to dissociative responses (Porges, 2007; Farina et al., 2015). Kluft (2007) theorized that the child experiencing ongoing trauma may adopt alternate versions of the self that represent 'goodness' or 'safety' to submit to powerful others. This is to preserve hope and safety in these critical relationships. Şar and Öztürk (2008) expand on multiplicity, suggesting that a specific part of the self, the sociological self, becomes altered and consumed by resolving unresolved trauma by doing reenactments in a

distorted version of reality. This is referred to as ‘trauma time’. There is a dissociation between the psychological self, responsible for creativity, synthesis, and progress and the sociological self, responsible for conservation, metaphors, collectivism and imitation (Şar & Öztürk, 2008). These reenactments exist in a social context, so the individual cannot find resolution alone. Thus, the sociological self has societal and cultural dimensions. The ongoing fragmentation of the self and reorganization of the mind into multiple parallel processes operating independently of each other defines the dissociative process (Farina et al., 2019).

This association between fragmented memory of early childhood abuse in adults in the psychiatric population is well documented. Dr. Loewenstein (1991) wrote that a patient who reports no memory of the first 9 or 10 years of their life is likely to have multiple personality disorder, now known as DID. He estimated that as many as 98% of patients with DID report histories of childhood trauma, and 80% will meet the criteria for PTSD at the time of diagnosis. A systematic review of 44 articles by Carr et al. (2013) found that physical abuse, neglect, and sexual abuse predicted the development of anxiety and mood disorders. Personality disorders and schizophrenia were associated with emotional abuse, and personality disorders were also significantly associated with physical neglect.

The Defence-Cascade Model of Dissociation

Schauer and Elbert (2010) suggest an evolutionary framework for dissociation, saying that it is adaptive. Suppose the victim of the trauma is in direct and close proximity to the perpetrator. In that case, when there is the presence of body fluids such as blood or semen that could contaminate the victim, or when the victim has already been injured, dissociation may prevent further harm. This model has been developed by examining animal behaviour. If the animal’s skin has been penetrated with sharp objects, such as teeth, or penetrated at an orifice,

moving around could cause further tissue damage. Open wounds invite infection if exposed to contaminating fluids. A freezing response is more likely when the attacker is bigger and stronger and can overpower the animal and can signal submission. An animal that appears dead is less likely to get eaten, and the decrease in blood pressure and vasodilatation could prevent the animal from bleeding out. The animal feels less pain and is immobilized in this state, so it will not try to fight off its attacker, and its sound production is inhibited to not attract the attacker's attention after the attack. The attacker may lose interest more quickly if the animal has entered this frozen state. The defence cascade model of trauma response suggests a predictable series of defence responses when exposed to traumatic stress. Initially, there is an orienting freeze response mediated by the superior colliculus and periaqueductal gray (PAG), followed by the fight or flight reaction coinciding with activation of the sympathetic nervous system and dorsolateral PAG (Schauer & Elbert, 2010; Lanius et al., 2018). Sensation and perception are significantly altered. Analgesia is experienced due to the release of endogenous cannabinoids. The co-activation of the sympathetic and parasympathetic nervous systems and tonic immobility follows this. Dissociation follows if there is little chance of escape, which involves immobility and emotional shut-down modulated by the ventrolateral PAG. Analgesia is experienced during this shutdown due to the release of opioids in the kappa-opioid system (Schauer & Elbert, 2010; Lanius et al., 2018). This is analogous to the 'playing dead' response in animals and prevents pain to the organism. It is theorized that this may signal submission to the attacker and defuse aggression, it may lessen tissue damage that could result from struggle, loosen the grasp of the attacker if they think the animal is dead, and allow for escape. The animal may faint, preceded by a disgust reaction. These patterned defence responses, such as the vasovagal dissociative response, can be conditioned and are predicted by the adaptive nature of the past experiences of

the organism (Schauer & Elbert, 2010). Schauer and Elbert (2010) theorize that these later stages of shutdown are a good model for the symptoms of derealization and depersonalization in PTSD-DS. Visual and auditory stimuli become more distant in derealization, and there are changes in kinesthetic stimuli perception, which changes body awareness in the case of depersonalization.

Lanius et al. (2018) defend the cascade-defence model of trauma by discussing neurological correlates and surmising the importance of the endogenous cannabinoid (eCB) system and the endogenous opioid systems in trauma responses. Both systems share an analgesic effect, and act on the amygdala, insular cortex and anterior cingulate cortex, which are all involved in emotional responses to pain (Tsagareli et al., 2020). The eCB and mu-opioid systems may relate to the fight-or-flight components of the defence cascade model, leading to analgesia. In contrast, kappa-opioid receptors may relate to the immobilization shut-down response, reduced vocal responses, and downregulation of the sympathetic nervous system response (Lanius et al., 2018). Research on the mu-opioid system (endorphins) in veterans found increased β-endorphin levels in those who had PTSD compared to those without PTSD. Those increased levels correlated with intrusion and avoidance symptoms and analgesic effects (Baker et al., 1997). The kappa-opioid system may be responsible for mediating negative emotional experiences during inescapable trauma. Research giving participants a kappa-opioid inhibitor noted alterations in consciousness with changes in sensory stimuli processing and changes in affect with reported experiences of depersonalization (Addy et al., 2015). There are high volumes of kappa-opioid receptors in the claustrum, and this part of the brain may be associated with dissociative symptomology. The claustrum and the insula are part of a network responsible for orienting an individual to salient internal and external experiences (Rabellino et al., 2015). Some research suggests decreased connectivity between the claustrum and the bed nucleus of the

stria terminalis (BNST), among those with PTSD-DS compared to those with PTSD and healthy controls. The BNST is considered an extension of the amygdala responsible for anticipating threats (Rabellino et al., 2018). Excessive inhibition of limbic regions, including the amygdala, by the prefrontal cortex has been used to explain emotional dysregulation and emotional detachment among those with PTSD-DS (Lanius et al., 2010). Lanius et al. (2018) suggest these findings may have transdiagnostic benefits when examining PTSD and PTSD-DS and suggest modulation of these neurological systems may reduce symptoms. Both the opioid system and the endocannabinoid system (eCB) have been linked to addiction, and the eCB is thought to interact with the opioid system (Scavone et al., 2013). In the eCB, two ligands, N-arachidonylethanolamine (AEA) and 2-arachidonoylglycerol (2-AG), serve as endogenous agonists to receptors, such as the key receptor CB1R (Zou & Kumar, 2018). The cortex, amygdala, hippocampus, hypothalamus, olfactory bulb, cerebellum, and basal ganglia contain high densities of CB1Rs (Mackie, 2005). This system acts on dopaminergic. This should be considered in reference to the Hypothalamic-Pituitary-Adrenal (HPA) axis and the Sympathetic Nervous System, as the cannabinoid receptors act on these systems (de-Roon-Cassini et al., 2020). This eCB is known to reduce stress activation in the hypothalamic and limbic pathways of the brain, and this signalling system may be dysregulated in the case of PTSD, with reduced circulating concentration of eCB suggesting greater vulnerability to stress, specifically 2-AG (Hill et al., 2013). It has been surmised that increases in 2-AG ligands may buffer the damaging effects of stress (Hill & Tasker, 2012). Animal model research suggests that the time of trauma exposure may correlate to different changes in this system, noting that childhood trauma increases levels of eCB ligands and decreases CB1R levels. In contrast, adolescent trauma increases CB1R and decreases ligands and adulthood exposure increases ligands and decreases

CB1R (Bassir Nia, et al., 2019). Different responses have been observed in this system when exposed to acute stress versus chronic stress. Both AEA and 2-AG levels have been shown to be modulated in both acute and chronic stress exposure. These changes in receptors and ligands are attempts to maintain homeostasis despite chronic stress. Down-regulation in this system can lead to poor stress adaptation, such as habituation, and increased stress responses, such as impaired extinction and exaggerated startle responses (deRoon Cassini et al., 2020). Dysregulation in this system following early life exposure to trauma is predictive of adult psychopathology, with correlations noted between circulating eCB and mental illness such as PTSD (Hillard, 2018). CBR1-deficient mice have been impaired in their ability to have extinction of fear response to auditory stimuli in session and between sessions, a type of learning thought to be underlying exposure therapy (Marsicano et al., 2002). Increases of the CNR1 gene, which encode CBR1, have been connected to the development of cannabis dependency (Schacht et al., 2012). These collective findings on endogenous opioid and cannabinoid systems give some sense of brain functions relating to PTSD and PTSD-DS and support the defence-cascade model of dissociation. They also hint at a potential underlying connection between the use of substances that target these two systems and the mediation of trauma-related symptoms, as drugs that impact the cannabinoid system tend to impact the opioid system and are often analgesics (Scavone et al., 2013).

Supporting the defence-cascade model in human subjects, researchers Mobbs et al. (2009) noted differences in human brain activation when comparing conditions mimicking preemptive threat detection and direct predator attack defensive responses. This study used a simulated video game to induce feelings of attack. Results were measured using fMRI readings, self-reports of panic and anxiety, and the number of errors while playing the game. Forebrain

structures were activated, such as the ventromedial prefrontal cortex, subgenual anterior cingulate cortex (sgACC), hippocampus, hypothalamus, and amygdala, when anticipating a threat, which was characterized by passive freezing and anticipatory anxiety about the threat. The ventromedial cortex, hippocampus, and amygdala are associated with assessing fear, vigilance, and behavioural control. This would be when freezing responses are observed in animal models, as well as vigilance, analgesic, and strategic responses (Mobbs et al., 2009). Mobbs et al. (2009) found that during the attack, the response was dominated by fear and active escape and avoidance responses, and more midbrain structures and the mid-dorsal ACC were activated, whereas decreased coupling was observed with the ventromedial cortex, amygdala, and insula. The midbrain was more active where the threat was imminent, activating the periaqueductal gray and cortical areas associated with analgesia and panic. Increased panic was correlated with more locomotor mistakes. If there was more chance of attack, this activated the pregenual anterior cingulate cortex, which is associated with more behavioural control and analgesia. Different areas of the fear system are activated in anticipation of a threat compared with the actual attack, and activation during the attack depends on the proximity of the threat and the chance of escape.

DSM-5 PTSD-DS Category or Continuum?

The political trend to discount dissociation seems to be reversing in recent decades (Kluft, 2022). The DSM-5, released in 2013, added the subtype of PTSD, which is dissociative (PTSD-DS). These people meet the full criteria for PTSD and also have symptoms of depersonalization and derealization (APA, 2013). The DSM criteria are conservative, fitting with the "taxon model" of dissociation, that only a small percentage of the population qualify for this clinical diagnosis and that this disorder is a distinct grouping (Loewenstein, 2018). This model

relies on identifying ‘taxons’, latent categories or dimensions where members differ qualitatively from non-members (Meehl, 1995). This diagnosis is stated to be supported by the research. However, there is debate as to whether depersonalization and derealization are truly characteristic of a dissociative subtype of PTSD, when flashbacks and amnesia are, by nature, dissociative. This distinct disorder suggests that those with this subtype have pathological levels of dissociation, but this begs the question of why these two dimensions of dissociation were selected rather than a broader view of dissociative symptoms (Dorahy & van der Hart, 2015). In defence of the inclusion of PTSD-DS into the DSM-5, three types of research were included. There was evidence for the clustering of symptoms of this disorder, suggesting a diagnostically relevant category. There was neurological evidence supporting differences in brain function of this disorder compared to others. Lastly, evidence was presented to review differences in treatment responses of this disorder (Spiegel, 2012). These are the typical qualifiers to be considered a mental/psychiatric disorder by the DSM, that the disorder represent a distinct clinical entity giving evidence of underlying psychobiological functioning, that it cause significant distress or disruption in functioning, and that is is clinically useful in diagnosis and treatment planning (Stein et al., 2010).

Research for Subtype as a Distinct Clinical Entity

The inclusion of PTSD-DS in the DSM-5 suggests that depersonalization and derealization are diagnostically valid and representative in distinguishing this subtype from the typical PTSD presentation, and also that PTSD-DS exists as a distinct disorder from other dissociative disorders. This is complicated, as there is a demonstrated overlap of etiology and symptomology with traumatic stress disorders and dissociative disorders (Loewenstein, 1991). When examining the prevalence, Stein et al. (2013) found that when surveying general

population samples in 16 countries, PTSD accounted for 1.9% of the population. Of these cases, 14.4% were estimated to be the dissociative subtype. Dissociation was correlated with more re-experiencing trauma symptoms, being male, more prior trauma, ACEs, childhood onset of PTSD, history of separation anxiety and specific phobias, bipolar disorder, generalized anxiety disorder, oppositional defiant disorder, and suicidality. The childhood onset of PTSD and ACEs may suggest a relational element to the trauma (Stein et al., 2013). There is a correlation between higher levels of betrayal trauma and higher levels of dissociation in research with psychologically ill adults. This correlated with more negative physical and mental health symptoms (Freyd et al., 2005). A study by Griffith et al. (2024) of 224 trauma-exposed participants found that perceived betrayal was predictive of worse PTSD symptoms, depressive symptoms and dissociative symptoms. Fung et al. (2023) found some support for this research cross-culturally with two studies contrasting cultures of English-speaking Americans and U.K. residents with Chinese-speaking residents of Hong Kong and Taiwan. The findings suggested similar associations with dissociation, diagnosis and betrayal trauma. Betrayal trauma was more highly associated with DID and BPD features in both samples. Participants with more dissociative amnesia features and identity dissociation features reported significantly more PTSD symptoms across these studies (Fung et al., 2023). These findings question whether PTSD-DS is distinct enough from other disorders to be diagnostically useful, whether the dissociative features of depersonalization and derealization are exclusive or whether there is a broader dissociative profile, and whether this disorder is representative of a distinct etiology.

This has been a long-standing debate in the field of psychiatry as to whether mental disorder symptomology exists on a continuum or forms distinct disorders. Biological arguments support the disease model and suggest that diseases are distinct states within the organism.

Psychodynamic thinkers have prioritized the continuum arguments (Engel, 1977). Regarding whether the taxon model is a good fit for psychopathology, Paul Meehl (1995) writes that it may be a good fit for certain disorders, while the thresholds and ways of grouping symptoms may be where the fault lies. He says that the past ways of determining whether a psychological disorder was a taxon or on a continuum were imprecise, so he proposes mathematical solutions to answer this question. Paul Meehl (1995) developed a method called 'taxometrics' to examine covariation among indicators such as test scores with a latent variable such as a mental disorder. This method is an alternative to mixture and cluster analyses in identifying latent structures. Haslam (2003) notes that this method uses multiple procedures to assess whether the taxon model fits with the disorder or whether a dimensional model is a better fit. Dissociation seems to fit a categorical model, whereas PTSD and anxiety disorders seem to fit a more dimensional model, along with BPD. Research on personality disorders such as BPD seems to support a dimensional approach rather than a categorical one (Livesley et al., 1994). An distinction is made between the concept of abnormal personality which simply means being on an extreme end of a trait on a continuum of distribution of population data, and the clinical concept of a personality disorder which implies that this extreme position on the continuum is causing manifestations of a disorder (Livesley et al., 1994). This is an important distinction as the latter concept uses the lens of a person's functioning rather than whether they meet certain criteria, which is potentially more meaningful regarding mental health. If a mental health condition is getting in the way of identity, attachment, socialization, and work, this is what would bring someone to want to get psychological help (Livesley et al., 1994). Interestingly, there is a lot of comorbidity with BPD when it comes to trauma, with 24% of those with lifetime PTSD also having BPD, and 30.2% of those with BPD also having PTSD in a nationwide U.S. study. Those with BPD and PTSD were

significantly more likely to have a substance use disorder than those with BPD alone or PTSD alone, and these prevalence estimates and findings did not vary by gender (Pagura et al., 2010). This paper would like to see how this method could be applied to PTSD-DS, whether this method of taxometrics would support PTSD-DS as a distinct taxon when PTSD seems to fit more on a continuum model, and whether it would fit more with dissociation or with PTSD. Given the high comorbidity rates cited in this paper with PTSD, DID, BPD, SUD, and the concept of C-PTSD, it seems confusing as to why it is important to have all of these separate disorders in the face of a common etiology and questionable clinical usefulness if a person has a bunch of diagnoses. It also seems like in the undertaking of defining all of these disorders, we may have lost sight of the importance of the individual's experience of the disorders and the impact on their daily life.

With that said, broader research seems to support the 'taxon model' that those with PTSD-DS are a distinct group from those with the more traditional presentation of PTSD. They do tend to have more severe trauma symptoms (Loewenstein, 2018). Latent profile analysis (LPA) can be used in sample data to determine if there is a group with dissociative symptoms that varies from a group with PTSD. LPA is a statistical analysis that identifies latent subpopulations with varying degrees of probability within a population based on specific variables through a categorical latent variable approach (Spurk et al., 2020). Latent profile analysis uses continuous data and analyzes symptom profiles within the data of the sample (Misitano et al., 2022). This is important in determining whether this subtype is a useful diagnostic category, separate from PTSD. LPA studies seem to support a group with PTSD and dissociative symptoms. Haagen et al. (2018) used the Dissociative Experiences Scale-II (DES) to identify a dissociative subtype of PTSD in a group of treatment-seeking male veterans. They

found four groupings in their sample: one with high PTSD symptoms, one with high PTSD symptoms and dissociative symptoms, one with low PTSD symptoms, and one with moderate PTSD symptoms. Only the dissociative PTSD group scored highly on the dissociative symptoms scale. Age, comorbid depression, and substance use disorder did not differentiate these groupings. Other LPA research by Blevins et al. (2014) supports a PTSD and dissociative grouping among trauma-exposed college students, along with a PTSD grouping and a well-adjusted grouping. This research did not support that the dissociative group had higher PTSD symptoms. This sample was 67.1% female. The grouping with higher dissociative symptoms exhibited broader dissociation than just depersonalization and derealization, and was associated with more conversion disorder, borderline personality disorder, and schizophrenia spectrum disorder. A latent profile analysis by Wolf et al. (2012) of two groups of veterans, one male with 360 participants, and one female with 284 participants, found that 15% of the male sample, and 30% of the female sample consisted of a distinct group with PTSD symptoms and high derealization and depersonalization symptoms. The dissociative group had not experienced significantly more sexual abuse or significantly worse trauma symptoms. The group of women had higher comorbidity with avoidant and borderline personality disorder diagnoses. It is worthwhile to note that a borderline personality disorder (BPD) diagnosis requires symptoms such as unstable self-image, mood instability due to marked reactivity, and a pattern of unstable and intense relationships which are similar to diagnostic criteria for C-PTSD such as emotional regulation difficulties, persistent negative self-view and feelings of shame about the trauma, and interpersonal problems (Leichsenring et al., 2024). This crossover of symptoms may make diagnosis difficult. However, a study by Powers et al. (2022) using IDC criteria for PTSD, C-PTSD, which included disturbance of self-organization, and BPD, does support these as separate

diagnostic concepts. Research on a civilian population with PTSD by Steuwe et al. (2012) found evidence of a dissociative subgroup in their LPA and confirmatory factor analysis, which accounted for 25% of their sample. This group was primarily female, and those with a lifetime history of bipolar disorder, psychotic disorder, or current substance use were excluded. Of this sample, 73.6% indicated a history of childhood abuse. This group did have significantly higher levels of childhood abuse and neglect and higher comorbidity with other mental health disorders. Personality disorders were not assessed. They found that a three-grouping model provided the best fit for the data, with one group exhibiting moderate-level PTSD symptoms, one group exhibiting high-severity PTSD symptoms, and one group with high-severity PTSD symptoms that were lower than the PTSD group and high depersonalization and derealization. A recent systematic review of LPA studies by Misitano et al. (2022) supports these findings. This review included 13 studies, published up until January 2022. Participant numbers in these studies ranged from 134 to 860, with a mix of genders and mostly white participants spanning Canada, the United States and Europe. The majority of articles (8 out of the 13 studies) found three groupings: one with low PTSD and low dissociation, one with high PTSD and low dissociation, and one with high PTSD and high dissociation. The prevalence of PTSD-DS ranged from 3.48% to 30%. In the majority of these studies, the symptom severity of the PTSD-DS groups was as high or higher than that of the PTSD groups. In many of these studies, the number and severity of traumas correlated positively with PTSD-DS membership. Some studies noted higher rates of anxiety and depression in this subgroup, and higher rates of somatoform symptoms, sleep difficulties, and anger. An LPA by Gidzgier et al. (2019) on women with SUD and PTSD found a three-grouping model provided the best fit, with a grouping with high PTSD and dissociative symptoms representing 18.7% of the sample. Higher scores on childhood trauma measures and

higher drug use severity characterized this dissociative group. This group also scored higher on depressive and BPD symptoms compared to the other two groups. The other two groupings were a high PTSD symptom grouping and a low PTSD symptom grouping, neither of which scored highly on the dissociative measures. This study gives us a sense of the interaction between the PTSD-DS subtype, childhood trauma, and substance use, which will be expanded upon later in this paper.

Psychobiological Correlates

Neuroimaging data also supports this dissociative subtype as a distinct group. Wolf et al. (2023) studied a large sample of primarily male post-9/11-era, and applying LPA found that using a four-class grouping was the best fit for the data, with 17.1% of the sample having high symptom severity and minimal dissociative symptoms and 6.5% of the sample having high symptom severity and high dissociative symptoms fitting with the PTSD-DS symptomology. This later group had worse PTSD symptoms compared to the high-PTSD low dissociation group but had no greater rates of childhood trauma, adult trauma, or traumatic brain injuries (TBIs), with no significant differences in co-occurring alcohol or drug use disorders, mood disorders, or anxiety disorders. There was a positive relationship between depersonalization and derealization severity and whole hippocampal volume, specifically the whole hippocampal head, leading to increased bilateral hippocampal volume. This is an interesting finding, as DID has been associated with decreased hippocampal volume in previous research, specifically looking at dissociative amnesia, so perhaps this finding supports the narrow symptom profile of derealization and depersonalization in PTSD-DS rather than including amnesia (Dimitrova et al., 2023). There was some foundation for this finding, as ketamine administration in animal studies was found to induce dissociative symptoms and increase hippocampal volume (Keilhoff et al.,

2004). It was associated with bilateral posterior cingulate gyrus volume and some decreased activity between the bilateral posterior cingulate cortex (PCC) and right isthmus. Wolf et al. (2023) guess that the impaired functioning of this pathway may impact sensory awareness, consciousness, and physical sense of body location and movement. The SNPrs263232 in gene ADCY8 was significantly associated with dissociation severity. These differences remained after controlling for lifetime TBIs, lifetime trauma exposure, childhood trauma exposure, and antidepressant use. Lanius et al. (2010) noted PTSD-DS had excessive medial prefrontal inhibition of limbic regions, including the amygdala, resulting in emotional overmodulation compared to the classic presentation of PTSD, having reduced prefrontal activation and limbic overactivity, which resulted in emotional undermodulation. This concept seems to fit with research by Daniels et al. (2016), which found increased grey matter volume in the right middle frontal gyrus in participants with PTSD-DS compared to PTSD, an area associated with downregulating emotional arousal. There was also decreased grey matter in the right inferior temporal gyrus in those with PTSD-DS, an area associated with object recognition and visual processing. This may contribute to feelings of unreality during dissociation (Daniels et al., 2016). Checking the nosological description of PTSD-DS against neurobiological correlates helps to validate it as distinct from PTSD and may help diagnostically in the future. This distinct difference in brain functioning was not explained through different levels of childhood trauma, which gives credence to the biological explanation of PTSD-DS as a distinct disorder and explains the dissociative symptomology that is part of this disorder.

There is some crossover with symptomology between the PTSD subtype and DID as measured by the DES, but the research supports that these are distinct disorders. Research on DID clients by Fedai & Asoğlu (2022) noted a deficient presence of PTSD. In a sample of 70

patients with DID from a psychiatric outpatient clinic, there were high levels of historical abuse and neglect, and anxiety and mood disorders. However, only 5.7 % had a substance use disorder, and 1.42 % had PTSD. The mean DES score was 52.75. Ducharme (2007) cautions that the clinical profiles of disorders often do not fit into neat categories when the patient is in front of the practitioner. In regard to DID and C-PTSD, both stem from significant childhood trauma, so they can co-occur. A study by Swart et al. (2020) of Dutch patients at a mental health clinic found high levels of co-occurring PTSD-DS and dissociative disorders. In their sample of 150 participants, 60% met the criteria for PTSD, and 30% met the criteria for PTSD-DS. Of the PTSD-DS subgroup, 54% met the criteria for one or more dissociative disorders, as identified with the DES and structured clinical interviews.

A larger view of dissociation within individuals with PTSD may prove fitting. An extensive study by Choi et al. (2017) of adolescents with trauma found a better fit for their data with an expanded model of dissociative symptoms compared to the model of PTSD-DS, distinguishing just depersonalization and derealization symptoms of dissociation. This expanded model identified a distinction between severe PTSD, severe PTSD with dissociation, an anxious arousal type with less severe symptoms, and a dysphoric arousal subtype. This dysphoric subtype had higher degrees of dissociation compared to the solely PTSD group and had higher rates of dissociative amnesia and avoidance, and a low probability of flashbacks and nightmares. Both models identified a group with high dissociation and high trauma symptoms, in contrast to a group with low dissociation and high trauma symptoms.

Prevalence Estimates

Researchers are still establishing prevalence rates of PTSD-DS in various populations. A meta-analysis by White et al. (2022) studied the prevalence of the subtype in populations of

participants with PTSD. They cited the pooled prevalence of the dissociative subtype as 38.1% for all 53 samples, with a prevalence of 45.5% in the clinical cutoff and diagnostic samples, which use clinical assessment and screening tools to diagnose, and 22.8% for latent class analysis and LPA samples, which use grouping models for the data. These estimates appear higher at face value than previously cited research estimates. A review of prevalence in mental health institutions and prisons may be helpful to compensate for a lack of specific research addressing poly-substance users in addiction treatment settings. Researchers Hill et al. (2020) found much higher rates of the dissociative subtype of PTSD in hospital settings than in other research populations. In a psychiatric sample of women with a history of childhood abuse, 85% met the criteria for PTSD, and of those, 83% met the criteria for the dissociative subtype. No significant differences were found between the group with PTSD and the group with the dissociative subtype regarding the number of lifetime trauma exposures, childhood trauma exposure, or overall PTSD symptom severity. High rates of dissociation were found in a prison study by Altintas et al. (2018) and were correlated with childhood trauma and substance use. A sample of 200 Turkish inmates (50% female, 50% male) was given the Childhood Trauma Questionnaire (CTQ-28) and the DES. During childhood, 47% of the sample were emotionally abused, 37% were physically abused, 49.5% experienced sexual abuse, 68% experienced emotional neglect, and 55.5% experienced physical neglect. DES scores were high, with 43.5% having a likely dissociative disorder (score of ≥30). The CTQ and the DES scores were significantly positively correlated ($r=0.50$, $p<0.01$). Another study by Foote et al. (2006) found that 29% of an inner city sample in an outpatient psychiatric ward completing an assessment for dissociation met the criteria for a dissociative disorder. This did not include PTSD-DS. Those with dissociative disorders had significantly more childhood trauma.

Research suggests that rates of PTSD are high in addicted populations. A cross-sectional study by Proescholdt et al. (2018) of 134 participants receiving inpatient detoxification from substances in three German-speaking clinics found that 38.1% screened positive for PTSD and 14.9% screened positive for subsyndromal PTSD. Those with PTSD reported significantly more childhood abuse of all forms. An American study with a Canadian sample of inmates from B.C. (n=97) compared to a general population sample (n=510) from Florida found that the 'dissociative complexity' as defined by more positive scales for differing dissociative symptoms on the Multiscale Dissociative Inventory (MDI), predicted prison membership, female gender, cumulative trauma, suicidality and substance use on top of the predictive power of the general dissociative score (Briere et al., 2016). These scales measured dissociative symptoms such as identity dissociation, disengagement, memory disturbance, emotional constriction, and depersonalization and derealization. The prison sample had a mean number of trauma types of 6.32 (SD = 2.9), and a mean number of clinically elevated MDI scales of 1.71 (SD = 2.1). This contrasted with the general population sample, which had a mean number of trauma types of 2.23 (SD = 2.2) and a mean number of elevated MDI scales of 0.12 (SD = 0.6) (Briere et al., 2016). Another cross-sectional study by Somer et al. (2015) compared Israeli patients getting treatment for opiate use disorder (primarily men), women at a clinic for domestic violence survivors, and a community sample of graduate students. They found significantly higher levels of physical and sexual abuse in clinical samples, as well as significantly higher levels of dissociative symptoms, and the likelihood of having experienced a dissociative trance. The women subjected to violence were significantly more likely to have depersonalization symptoms than the other two groups, and more likely to have experienced sexual abuse compared to the opiate treatment group. A large-scale U.S. study by Simpson et al. (2019) noted worse symptoms

and worse functioning among those with a lifetime PTSD diagnosis and drug use disorder (DUD) when compared with those with a lifetime PTSD diagnosis and alcohol use disorder (AUD) and those with just PTSD or solely a DUD. They were more likely to have qualified for a lifetime social anxiety disorder diagnosis, a personality disorder diagnosis, and have attempted suicide. They listed more substance disorder symptoms than their non-comorbid counterparts. This was from a sample of 36,309 participants in a survey, intended to represent trends in the American general population. Prevalence of lifetime PTSD and AUD was 1.7%, and rates of PTSD and AUD within the past year were 0.8%. The prevalence of lifetime PTSD and DUD was 1.8% and 0.7%, respectively, within the last year. Within the last year, the prevalence of having just AUD was 11%, DUD was 3.2%, and just PTSD was 3.2%. This research suggests functional psychiatric differences for those with comorbid PTSD and SUD, and necessitates more specialized research on this demographic. Much of the research reviewed has been on PTSD and AUD. Given that rates of PTSD are higher in those with SUD and AUD, and rates of PTSD-DS are higher in clinical and prison populations where rates of SUD and AUD are typically higher, it follows that PTSD-DS is a valuable diagnostic consideration for these populations.

Treatment Response

The general guidelines for treating PTSD from the American Psychological Association tend to favour trauma-focused therapies (APA, 2019). These guidelines are based on a systematic review by the Research Triangle Institute of studies published before 2012 (Watkins et al., 2018). They assessed the strength of the treatment, benefits and risks, patient preferences, and evidence for applicability to specific populations. The therapies that were strongly recommended were CBT, cognitive processing therapy (CPT), PE, and cognitive therapy (CT) (APA, 2019). PE was shown to be more effective at reducing PTSD symptoms compared with

supportive counselling, relaxation training and treatment as usual, including pharmacotherapy. Several meta-analyses support PE's superiority over controls (Powers et al., 2010; Cusack et al., 2016). The meta-analysis by Powers et al. (2010) did not exclude dissociative symptoms and disorders as exclusion criteria, so results support the use of this treatment with participants with PTSD-DS. The manual for PE does not consider dissociation and severe dissociative disorders as a counterindication for treatment (Foa et al., 2007). CPT and CBT are effective in reducing PTSD symptoms (Jonas et al., 2013). There is a concern that dropout rates are higher with trauma-focused treatments. However, this was not substantiated in a meta-analysis by Imel et al. (2013), which cited that a greater number of sessions and group format compared to individual counselling led to higher dropout. However, they found no statistically significant difference regarding trauma-focused therapies versus non-trauma-focused therapies. They noted significant categorization issues in research, where some therapies were classified as 'trauma-focused' when they did not allow the clinician to focus on the trauma memories, and others classified as control conditions turned out to be substantiated therapeutic modalities such as present centred therapy (Imel et al., 2013). There is research investigating specific treatment modalities for trauma in addicted populations, and debate as to whether non-exposure-based treatments may be better tolerated. There is some evidence supporting treating substance use disorder simultaneously with PTSD (Karatzias et al., 2019).

PTSD and Dissociation, and Trauma Treatment

Generally, there seems to be mixed evidence regarding treatment outcomes for those with complex trauma. In a meta-analysis by Gerger et al. (2014) of 18 studies on trauma treatment, the "complexity" of psychological issues was a moderator in treatment response when comparing trauma-specific treatments to more general counselling interventions (non-specific). Non-

specific interventions may not have focused on PTSD specifically, may not have been practicing one specific type of intervention, or may have been more behavioural interventions, such as relaxation treatments. While this study did not test for dissociation specifically, it was included because of the size of the study and its relevance to treatment outcomes. It included participants with PTSD and subthreshold PTSD who had experienced at least one trauma as defined by the DSM-IV, and were involved in RCTs providing individual therapy. “Complexity” was operationally defined in this study as having two out of four of the following: symptoms lasting for more than six months, the presence of multiple problems such as co-occurring disorders or ongoing traumatic factors, multiple or childhood traumas, and/or the presence of a PTSD diagnosis (Gerger et al., 2014). Specific interventions performed better in general, but there was a significant interaction effect where the effect size difference between specific and non-specific interventions was significantly larger in studies without complexity. This study had several limitations in terms of the heterogeneity of types of treatments, and only a small number of studies met the criteria for inclusion; however, these shortcomings were controlled for with conservative data analysis, according to researchers (Gerger et al., 2014). Complex trauma need not be a counterindication to treatment, as demonstrated in a study by Zepeda Méndez et al. (2024). Participants with PTSD-DS and probable C-PTSD achieved similar treatment gains compared to participants with PTSD during a five-day intensive trauma treatment program consisting of EMDR, in vivo exposure, and trauma-sensitive yoga. These patients were being followed by their therapist before and after this intensive treatment and did not have active suicidality or SUD. A systematic review and meta-analysis by Karatzias et al. (2019) of 51 randomized controlled trials up to 2018, for PTSD, found increased effectiveness of trauma-focused therapies such as CBT, exposure, and EMDR compared to control groups in decreasing

trauma symptoms, and included studies where participants were more likely to meet the criteria for C-PTSD as defined in the IDC-11. Some control groups were waitlisted, whereas others were non-specific therapy groups. The evidence suggested that these treatments effectively treat C-PTSD symptom clusters of affect regulation, negative self-concept, and disturbance in relationships, though not all studies reported data on all three clusters. No one trauma-focused therapy performed significantly better than the others. This review excluded studies where participants had intellectual or developmental disabilities, traumatic brain injuries, or where substance use disorder was identified as the primary disorder. However, studies with participants with comorbid SUD were included (Karatzias et al., 2019).

Due to limited research on PTSD-DS specifically, we can take a broader approach in looking at the treatment response of dissociative disorders and trauma. A naturalistic study of dissociative disorders, DID, and DDNOS, by Brand and Stadnik (2003), tracked dissociative symptoms of depersonalization and derealization in addition to amnesia and absorption in patients for 30 months while mental health professionals were treating them. This study included 109 patients, the majority of whom were white and female, with the majority having been abused and neglected as children, and researchers noted they would likely be classified as having PTSD-DS rather than PTSD due to high scores on all dissociative symptoms. PTSD symptoms at intake were highly correlated with dissociative symptoms at intake, and a reduction in dissociative symptoms at follow-up was correlated with a reduction in PTSD symptoms and overall distress at follow-up. Total dissociation at intake did not impede changes in PTSD symptoms during treatment. However, researchers did suggest that targeting dissociative symptoms during treatment is needed to reduce dissociative symptoms, rather than just focusing on trauma (Brand & Stadnik, 2013).

Most studies reviewed in this paper support that those with PTSD-DS can obtain similar treatment gains with therapeutic interventions compared to those with PTSD. Even a study that reported worse treatment outcomes for this subtype of PTSD cited that meaningful treatment outcomes were still obtained (Wolf et al., 2016). A study by van Toorenburg et al. (2020) of 62 participants with severe PTSD found a significant treatment response to an intensive eight-day trauma treatment combining PE and EMDR, noting improvements in emotional regulation. This was an important finding given the short-term and direct approach to treatment. Those participants with PTSD-DS had similar treatment outcomes compared to those who had PTSD. There were no differences in outcomes when comparing those who had experienced childhood sexual abuse that happened before the age of 12, compared with sexual abuse that had happened after the age of 12. The researchers surmised there might be a connection between dissociation, early attachment wounding, emotional dysregulation, and worse treatment outcomes. This was not substantiated by their findings, as there were no significant differences between the PTSD group and PTSD-DS group with regard to the age of onset of sexual abuse or emotional regulation measures at onset and post-treatment. This study conflicts with other research that has found that earlier trauma onset may result in more minor improvements in treatment results (Karatzias et al., 2019).

Another study by Zoet et al. (2018) with a similar treatment protocol of an intensive 8 days of a combination of PE and EMDR treating 168 participants with PTSD found that those participants who met the criteria for the dissociative subtype of PTSD (22.6% of sample) realized similar treatment gains compared to those with PTSD. Of the participants, 98.2% of the sample met the criteria for ‘severe PTSD’ as rated by the Clinician-Administered PTSD Scale (CAPS). Large treatment effect sizes were reported on the CAPS and PTSD Symptom Scale Self

Report version, suggesting that those with PTSD-DS respond equally well to these treatment modalities as those with PTSD. A naturalistic study by Lynch et al. (2008) of patients accessing an outpatient trauma treatment clinic found that significant changes in dissociation during treatment correlated with a reduction of PTSD and depressive symptoms as well as suicidal ideation and self-harm. Symptom severity at baseline was significantly associated with the level of dissociation. Initial dissociation at baseline was not significantly associated with a change in depression or PTSD symptoms posttreatment. Initial dissociation was positively correlated with posttreatment PTSD and depression, but the amount of variance it accounted for was relatively small (R^2 change = 0.026- 0.034). About half of the 174 participants had two co-occurring disorders, with the most common diagnosis being PTSD followed by depression. Participants were not excluded based on dissociative disorders, with 18 participants having a dissociative disorder diagnosis. This study did not have a control group, with 82 participants engaging in individual psychotherapy and 92 participants engaging in a trauma-focused group. However, symptom reduction throughout treatment was significant, with 40% of high dissociators noted as having reliable improvement in dissociation scores and 33% moving into the non-clinical range for dissociation at follow-up. The research reviewed thus far does support meaningful treatment responses for those with dissociative symptoms.

Haagen et al. (2018) found no significant differences in treatment response between severe PTSD and dissociative PTSD groups in an LPA with a 4-grouping model. Participants were classified into low PTSD, moderate PTSD, high PTSD, and high PTSD/ dissociation groups, with the latter group representing 8.8% of the total sample. Post-traumatic severity scores significantly decreased after treatment in all groups except the low-PTSD group. This was a sample of 80 veterans, mostly male, who were formally diagnosed with PTSD and were either

being offered EMDR, Narrative Exposure Therapy, or non-trauma-focused PTSD interventions. In a general sample of people with PTSD, Bae et al. (2016) found that with an average of 4.4 sessions of EMDR, sixty-five percent of participants were deemed ‘responders’ to the treatment as they had a 30% decrease in total CAPS score. Non-responders had statistically significantly higher levels of pretreatment derealization, depersonalization, and numbing symptoms, as shown in the CAPS scores.

Sexual Abuse and Violence Outcomes

Drug use disorders are common among people who have suffered childhood sexual abuse, many of whom may also experience dissociation, and the following research supports these correlations in a variety of demographics. In a group of female college students, childhood sexual abuse predicted more self-destructive behaviours such as alcohol and drug use as well as higher measures of dissociation (Rodriguez-srednicki, 2008). A study by Hussey and Singer (1993) found that in a group of adolescent psychiatric inpatients, sexual abuse predicted elevated substance use. In a sample of female inmates, 73% had experienced childhood sexual abuse, 20% had dissociative symptoms in the clinical range, and 70% met criteria for a SUD in the past year (Lynch et al., 2023). A study by Dorahy et al. (2016) compared three groups: one with participants with severe dissociative disorders, one with participants with C-PTSD, and one with participants with general psychiatric disorders. Childhood sexual abuse significantly predicted membership in the severe dissociation group compared to the C-PTSD group. All forms of childhood maltreatment significantly predicted membership in the severe dissociation group and the C-PTSD group compared to the general psychiatric group. These studies support the inclusion of studies on participants with early sexual abuse as potentially representative of those

with PTSD-DS and those with SUD, in this paper's consideration of treatment outcomes for trauma-focused therapy.

In considering whether those in addiction treatment should be offered trauma-focused interventions immediately in treatment, the question remains as to whether this may be destabilizing for some clients, for example, those with C-PTSD relating to childhood abuse. Conflicting research will be reviewed. A study by Wagenmans et al. (2018) examining severe PTSD and treatment results with PE and EMDR found that the presence of childhood, adolescent, and adult sexual abuse did not negatively impact treatment outcomes. Large effect sizes were noted for treatment outcomes. The sample size for this study was 165 participants, primarily women (71.5%), and dissociative disorders were not excluded from the sample, but dissociative symptoms were not reported. These results are important as they challenge previous research findings that women with PTSD and high levels of dissociation relating to childhood abuse may not fare as well post-treatment with approaches that prioritize trauma counselling versus first stabilizing participants with skills training in affect regulation before proceeding to counselling (Cloitre et al., 2012). Other studies echo concerns around whether stabilization is needed before trauma-focused counselling for those with C-PTSD stemming from childhood abuse. A meta-analysis by Dorrepaal et al. (2014) reviewed seven studies treating females who had PTSD and C-PTSD relating to childhood abuse. They reported large effect sizes for trauma reprocessing treatments for those who had PTSD, compared to C-PTSD. Those with C-PTSD did not realize greater benefits from exposure-based treatments, and those in affect management conditions had lower drop-out rates and higher recovery rates, meaning more people no longer qualified for the diagnosis post-treatment. Another concern is as to whether those with sexual assault trauma can be treated successfully even within the context of the ongoing danger of

retraumatization due to lifestyle, as many experience ongoing trauma in the context of their adult relationships, with one study noting that homelessness and depression increase risk of retraumatization (Banyard et al., 2003). A study by Kaysen et al. (2020) in the Democratic Republic of the Congo found that a similar reduction of psychological symptoms could be achieved for women who had experienced sexual violence while living in less safe circumstances compared to those living in safer circumstances, despite a spike in symptoms for those living in less safe circumstances after initially starting treatment. These women were treated with CPT. Dissociative symptoms were not reported. This outcome is relevant to the addicted population, as the ongoing potential for traumatization has been used as a reason to delay trauma-focused treatment until the person's situation has stabilized.

Trauma-focused treatments have been shown to produce long-term improvements in those who have experienced childhood sexual abuse. A long-term follow up of a RCT by Resick et al. (2012) found that treatment effects were maintained five to ten years after CPT and PE treatment in a group of female rape survivors with extensive trauma histories. The parent sample consisted of 171 females, 41% of whom had experienced childhood sexual abuse. Current addiction was excluded. However, dissociation and dissociative disorders were not. Of the original participants, 126 could be included in the follow-up study. Control group members received treatment after a delay period. Overall, this literature supports that those with early childhood sexual trauma will respond well to trauma-focused therapy. However, whether stabilization is necessary and whether a phase-based approach is needed will be explored further in the next section.

Phase-Based Treatment vs. Prolonged Exposure

There have been studies showing that therapists, specifically seasoned therapists, have a preference for using a phase-based approach when treating trauma with high levels of dissociation (Dorahy et al., 2016). Janina Fisher (1999), instructor and supervisor at The Trauma Center at HRI, Boston, MA, in the United States, states that it is helpful to teach clients tools to regulate their nervous systems, such as grounding and coping skills, to deal with activation, to stabilize and resource clients before explicitly addressing the trauma. This is based on the belief that the session will not be helpful if a client is overly activated or dysregulated. She states that a client who is less than 60% present in their body, on a scale of how dissociated they feel, will likely not benefit from a counselling session. This reasoning supports having a phase-based approach to trauma counselling, where clients are taught these regulation skills before entering into confronting trauma memories. Given the success of intensive brief treatments cited earlier in this paper, these cautions should be viewed discriminately as potential theoretical arguments rather than evidence-based practice. At the same time, there are many experts still advocating for the use of phase-based treatment as the best approach for C-PTSD and dissociative disorders. This allows for stabilization and minimizes harmful coping behaviours such as substance use, before entering into exposure to traumatic memories, which is done in a titrated fashion (Brandt et al., 2012). Ducharme (2017) suggests spending time helping clients develop coping strategies to self-soothe before jumping into working with traumatic memories when treating clients with C-PTSD. She cautions that a good alliance with the therapist is needed before going into traumatic memories. She insists on screening for dissociation when working with trauma. These precautions are based on the phase-based treatment used for patients with DID, where an initial phase of establishing safety and stabilizing the client precedes a phase focused on confronting

traumatic memories, which is then followed by a phase of identity integration and rehabilitation (International Society for the Study of Trauma and Dissociation [ISSTD], 2011). These clients may become overwhelmed with anxiety if trauma memories are targeted too quickly, pushing clients into a dissociated state (Ducharme, 2017). There is a pacing element that must be supportive of all of the parts of the client, as eliciting trauma content too quickly will cause decompensation (ISSTD, 2011). Active substance use is a counterindication for intensive trauma memory work in this model (Ducharme, 2017). This may prove problematic for the target client population considered in this paper, if ongoing abstinence is required to progress to phase two, then some clients may not get there. There is some evidence supporting a phase-based approach for those with dissociation and SUD. A case study by Pollock et al. (2017) found that starting with harm-reduction support for self-harming behaviours, including alcohol abuse and suicidal tendencies, was effective in continuing with trauma-specific interventions with a 58-year-old man with DID, AUD, and MDD. Phase one lasted five months with 11 phone call sessions, and focused on stabilizing the client's health measures, such as sleep and alcohol consumption, and resourcing the client with relaxation methods and psychoeducation. Phase two lasted four months, including 12 sessions of trauma-informed psychotherapy focusing on exposure and moving towards integration of different identities. Phase three only included two sessions with the therapist over five months, which allowed the client to integrate and maintain positive changes and secure his sense of identity. Progress was assessed with multiple measures, and the client noted statistically significant changes in his dissociative, depressive, and alcohol-related symptoms, with his ability to emotionally regulate increasing significantly. The client still experienced some anxiety, depressive, and dissociative symptoms post-treatment (Pollock et al., 2017).

Some studies support the effectiveness of phase-based treatment for dissociative disorders. However, there is still a question as to whether the early phases of stabilization are superior or needed when compared to a direct trauma-focused approach. A study by Schlumpf et al. (2022) examining the impact of treatment on complex dissociative disorders and C-PTSD did lend support for phase-based treatment effectiveness. However, there was no comparison to a direct-treatment group. This study compared pre-treatment and post-treatment measurements from an eight-week inpatient treatment of dissociative disorders and complex trauma, which focused on the first and second stages of treatment. They noted that hypoconnectivity in areas of the brain is associated with autobiographical memory present in those with C-PTSD and dissociative disorders, which had normalized post-treatment, and had significant improvements in PTSD and dissociative symptoms. Schlumpf et al. (2021) noted improvements in previous research on the same sample in emotional regulation abilities and cognitive appraisal post-treatment. A randomized controlled study by Baekkelund et al. (2022) did not support the phase-based approach. They compared a condition with a stabilization first-phase psychoeducation group intervention of 20 sessions, followed by individual therapy, to an individual therapy condition for DID and DDNOS participants with significant childhood trauma. Both groups experienced significant improvements in symptom reduction and psychosocial functioning, with no significant differences between groups during treatment. Baekkelund et al. (2022) noted that more research was needed on whether the phased approach was better than a trauma-focused intervention. They said perhaps providing the phase one interventions in individual therapy could have been better suited to individual needs. Another limitation was that the individual therapy was not manualized or standardized. Another study by Cloitre et al. (2010) compared a phase-based approach with effect and interpersonal regulation training, followed by exposure to

supportive counselling, followed by exposure and affect and interpersonal regulation training, followed by supportive counselling. The sample was of women who had PTSD related to childhood abuse. The affect regulation/exposure group was the most likely to lose PTSD status following treatment, had greater improvement in affect regulation compared to the other two groups, and had lower drop-out rates when compared to the other exposure condition. Conflicting research by Oprel et al. (2021) found no improvements in symptom reduction when an initial phase of affect regulation training preceded PE, compared to a PE condition and an intensified PE condition. All conditions in this RCT achieved significant symptom reduction, which was still significant at a one-year follow-up. There were no significant differences in drop-out rates or secondary measures such as emotional regulation, interpersonal problems, and self-esteem. This sample was of Dutch participants accessing outpatient mental health services for trauma. They had a PTSD diagnosis, at least moderate PTSD symptoms, and childhood trauma was present.

The phase-based approach has been criticized for delaying essential treatment. It is part of the exposure therapy model that stabilization will happen as the exposure progresses and is not needed as an advanced stage (De Jongh et al., 2016). There is some evidence to support treating substance use disorder simultaneously with PTSD, and that trauma-specific intensive treatments can be tolerated in these populations (Karatzias et al., 2019). One RCT study by Mills et al. (2016) in Sydney, Australia, looked at subjects who met DSM criteria for PTSD and substance use disorder and randomly assigned them to a PE integrated treatment for PTSD and substance use, or treatment as usual for their substance use. Changes in PTSD symptoms were measured through the CAPS. Of the group assigned to PTSD treatment, participants were Australian-born primarily, 60% female, unemployed (76.4%), with 30.9% having a history of

imprisonment. Half of the participants demonstrated clinically significant improvement in PTSD symptoms. Those with greater PTSD symptoms at baseline were more likely to experience a significant reduction of symptoms post-treatment. Those with a greater number of traumas experienced less of a reduction in PTSD symptoms. The greater the number of treatment sessions attended, the greater the reduction in PTSD symptoms. A pilot study by Schacht et al. (2022) offered brief Written Exposure Therapy (WET) to participants in a residential addiction treatment facility in Baltimore, Maryland, U.S. They attended up to 5 sessions. This study started with 49 participants eligible for this study, having elevated scores on the PCL-5, a self-report measure assessing PTSD symptoms. Of those, 30 completed this treatment, and 29 were included in the final statistics. Scores significantly improved on measures of mental health, emotional regulation, and recovery capital with medium to large effect sizes. This pilot study was not randomly assigned and did not have a control group, but it does lend support to offering direct trauma treatment during addiction treatment. In a randomized controlled study by Sloan et al. (2023), WET performed as well as PE with fewer dropouts in treating veterans with trauma. LoSavio et al. (2023) support the use of WET with those using substances, noting that neither the presence of substance use nor depression decreased the effectiveness of this treatment in a group of veterans.

Those with a complex trauma presentation can tolerate intensive treatment without a phase-based approach. A Dutch study by Hendriks et al. (2018) delivered an intensive PE treatment over one week, with four intensive treatment days and three 90-minute sessions per day. This study looked at participants with a history of interpersonal trauma, with 71.2% reporting childhood sexual abuse and 63% childhood physical abuse. Dropout and adverse events were noted during treatment week and in a six-month follow-up. The impact of socio-

demographic details, whether someone was living alone, mental health diagnoses, dissociation, and fear habituation, was considered. Treatment responses showed 71.2% showing a posttreatment response, 30.1% loss of diagnosis, and 13.7% achieving complete posttreatment remission. No participants dropped out in the active treatment, and 95% completed treatment and two booster sessions. One adverse event happened during the study, which involved hospitalization for suicidal ideation. No significant changes to suicidal, self-harm, or aggressive behaviour from baseline to treatment, and four participants reported symptom worsening through treatment or follow-up. This study was inclusive of a more complex PTSD presentation fitting with the IDC diagnostic criteria for complex trauma. The intention was to show this population's safety and efficacy of intensive exposure-based treatment.

There is some theoretical support for employing the use of modalities such as Internal Family Systems (IFS) to treat those with dissociation, considering how trauma can be split off into separate parts and identities. IFS uses the multiplicity paradigm, which states that the mind is not one unitary thing but divided into many parts or subpersonalities. This therapy is based on systems theory and uses principles of mindfulness and self-compassion to heal trauma. Certain vulnerable parts are thought to hold the pain of the trauma, while others are thought to distract from this pain and manage life tasks (Hodgdon et al., 2021). This therapy fits well with the theoretical compartmentalization/multiplicity models of dissociation discussed earlier in this paper. This approach does not use phases but has built-in pacing and stabilizing, unique to each individual treated. This includes getting to know split-off emotional parts, protecting them with imaginary safe places, and inviting all parts to meet with the client internally and be able to engage in dialogue. All of this can be accomplished with visualization exercises, which may complement the dissociative tendency of absorption (van der Hart, 2012). This modality has not

had as much research backing historically, but efforts are being made to substantiate it as evidence-based practice for trauma. An early-stage proof-of-concept exploratory clinical study to verify the efficacy of this treatment was conducted by Comeau et al. (2024). The results suggested significant reductions in trauma symptomology and meaningful clinical improvements in a small sample of 15 participants with PTSD after 16 weeks of an online parts-based intervention group. The sample experienced intrapersonal trauma, with 35% reporting childhood sexual or physical abuse and 25% reporting intimate partner violence. The results of this study are intriguing in that a group format would allow practitioners to meet and treat more participants, as funding for trauma-based interventions is scarce. Another small study of 17 participants with PTSD and childhood trauma by Hodgdon et al. (2021) found promising results with a significant reduction of PTSD and dissociative symptoms post-treatment with IFS. A pilot study by Ally et al. (2025) providing an online IFS group with accompanying individual sessions for a group of 10 adults with PTSD and SUD found promising results. The group rated the intervention highly, with 70% retention at 12 weeks. Participants experienced significant thought minimally clinically relevant reductions in PTSD symptoms and a significant global decrease in cravings for substances. It would be helpful to see an RCT replicating these results on a larger scale.

Dissociation and Addiction

More thorough screening and diagnosis of dissociation in addiction recovery settings could shed light on the type of psychological interventions that are needed for the addicted population. There is evidence that researchers can identify a dissociative subtype within a population of people with substance use issues. A cross-sectional study by Baudin et al. (2022) found a group with high alcohol severity and high dissociation in a French rehabilitation center.

The high alcohol severity and high dissociation group in this study was a homogeneous group experiencing high levels of anxiety, depression, PTSD, and childhood trauma. Researchers theorized that this group may be using alcohol as a backup strategy to dissociate from these painful mental health symptoms. There is also a consideration of whether people are using substances to dissociate from painful experiences, which could explain a potential overrepresentation of dissociative PTSD in the addicted population. The research on this matter is conflicting. A study by Froelich et al. (2021) examined a sample of US veterans in a detox facility and found correlations between endorsing using substances to alleviate stress and avoid uncomfortable feelings, a history of physical and sexual abuse, and a PTSD diagnosis. This group also rated higher on risk-for-relapse factors post-detox. Research by Schäfer et al. (2007) did not show a strong link between childhood trauma and dissociative symptoms. However, their sample of German patients in a detox center did not have many individuals with high dissociation levels (3% of the sample), measured with the DES. They suggest other factors may have mediated the relationship between childhood trauma and dissociative symptoms, which would need further investigation. Higher DES scores were associated with greater alcohol abuse severity. Higher rates of childhood trauma were associated with earlier increased tolerance, loss of control over alcohol, and an earlier onset of the 'age of first drink'.

Researchers are trying to understand the relationship between dissociation and addiction. A study by Imperatori et al. (2023) found a mediating role for pathological dissociation between childhood trauma and behavioural addictions such as gambling, internet gaming, excessive social media use, exercise dependence, and compulsive buying. Higher Childhood Trauma Questionnaire scores were associated with higher DES-T scores, which predicted higher Total Behavioural Addiction Index scores in a group of 633 young adults. The researchers theorized

that childhood trauma may lead to changes in integration between different areas in the brain referred to as dissociation, leading to difficulty with mentalization and top-down control, and making additive processes more likely. Researchers Zdankiewicz-Ścigala and Ścigala (2018) suggest that alexithymia and pathological dissociation are both processes that distort reality, allowing for the splitting off of painful emotional experiences. These lead to emotional disabilities that block verbalization and mentalization processes. They found in their research comparing alcohol-dependent participants in an addiction treatment facility compared to a control group, that alexithymia and dissociation mediated the impact of attachment style on the level of alcohol addiction. Fear of intimacy and fear of rejection were found to be higher in those scoring higher in alexithymia and dissociation measures. Research by Gidzgier et al. (2023) representing polysubstance users noted high levels of childhood trauma, and that dissociation is associated with a greater risk of suicide. A German sample of women meeting both the criteria for PTSD and SUD at some point within the last 12 months were given the CTQ, DES-T, and Structured Clinical Interview for the DSM-IV. In this sample, 84.5% met the criteria for AUD, 48.5% for cannabis use disorder, 31.2% for sedative use disorder, 28.5% for cocaine use disorder, 28.2% for stimulant use disorder other than cocaine, and 21.3% for opiate use disorder. The majority of the sample were unmarried and unemployed, making them low-income. Of the 343 participants included in the study, 93.3% had reported at least one type of childhood abuse or neglect. Sexual abuse was common, with 72.6% reporting moderate to severe childhood sexual abuse. The presence of dissociation was significantly correlated with more suicidal ideation across the various types of childhood trauma. Emotional abuse was found to be significantly associated with dissociative symptoms in those who met full PTSD criteria compared to those with sub-syndromal PTSD. There was a positive correlation between sexual

abuse and suicidal ideation in those with sub-syndromal PTSD. There was a positive relationship between physical abuse and suicide attempts in the sub-syndromal group, and a positive relationship between emotional abuse and suicide attempts across the sample. The trauma predicts dissociation and substance use, and perhaps suicide can be viewed as a final attempt to dissociate from painful symptoms. This last study speaks to the prevalence of trauma and abuse in the addicted population. In a U.S. sample of 1955 women with substance-use problems and a co-occurring mental health diagnosis in nine different treatment settings, researchers found that nearly 85% had been physically abused and nearly 70% had been sexually abused (Savage et al., 2007). There was a significant correlation between abuse severity and frequency of abuse, and trauma and psychiatric symptoms measures. Trauma symptom severity and psychiatric symptom severity were strongly correlated. However, interpersonal abuse was a weak determinant of drug-use severity and psychiatric symptom severity, and alcohol use severity was not predicted by trauma history or distress (Savage et al., 2007). There is no clear relationship between dissociation and substance use, but there is a clear link between early childhood abuse and psychiatric symptoms in this population with co-occurring disorders.

Concurrent SUD and PTSD and Treatment Response

For those with concurrent PTSD and SUD, two sets of results are of interest. Unfortunately, not all studies examined the levels of substance use after treatment, as well as the reduction in PTSD symptoms. There are different ways of measuring substance use across studies, with many relying on self-reporting, when urine drug screens and breathalyzers would be more reliable, though perhaps more expensive and off-putting to participants. Some research suggests that trauma-specific treatment, in addition to addiction treatment, results in reduced drug use compared to solely addiction treatment. An RCT by McGovern et al. (2015) in Vermont

and New Hampshire, USA, broke 221 participants into three conditions. They compared ICBT, a CBT-focused treatment on trauma and addiction (not exposure-based), Individual Addiction Counselling (IAC), a staged substance-focused therapy, and standard care, which consisted of intensive outpatient treatment for substance use. Standard care was maintained in all conditions, and the other two treatments were added as independent variables. This was all provided in the context of outpatient programs serving many uninsured or publicly funded patients. The addiction counsellors working at these agencies were trained to provide the ICBT and IAC in the two test conditions. ICBT and IAC require about eight 45-50 minute sessions spread out over 8-12 weeks, and are both manualized. The sample of participants was predominantly white and female, in their mid-thirties, with an average CAPS score of 77.35 (65 or greater is considered 'severe' PTSD). Outcomes were evaluated at three and six months. The six-month point was used to evaluate completion data. PTSD symptoms decreased over time in all conditions. Toxicology urine drug screen and breathalyzer results were more stable in the ICBT group, whereas positive drug screen results rose in the other two groups. The ICBT group experienced a reduction in days of drug use over the past 90 days in timeline follow-back interviews. This study suggests that providing trauma treatment to substance users will decrease substance use. It also supports the feasibility of training counsellors currently working in substance use treatment centers to provide trauma-focused interventions. Other research noted a reduction in PTSD symptoms within the addiction treatment sphere when participants were provided trauma-focused therapy. A study by Coffey et al. (2016) provided PE treatment to participants with PTSD and AUD and found promising results. Participants who were actively psychotic, manic, or suicidal were excluded from this study. The average number of traumas meeting Criterion A was eight. Participants were receiving addiction treatment in a facility and were randomly

assigned to a modified PE condition, a modified PE condition with an additional trauma-focused motivational enhancement condition, and a healthy lifestyles condition focused on physical health. Trauma symptoms were measured with the CAPS initially and the Impact of Event Scale-Revised throughout treatment and follow-up. Alcohol and substance use were measured with the Time Line Follow-Back method, where participants retroactively assessed how much they were drinking each day for a set period. A report was made about the quantitative estimate of usual substance use patterns. Researchers also used urine drug screens and a breathalyzer. There were reductions in trauma symptoms in all three conditions, but the PE conditions did significantly better, with these results holding at three and six-month follow-ups. Depression score reductions, measured with the Beck Depression Inventory II, were significantly greater in the PE conditions. All conditions reduced alcohol consumption, and there were no significant differences between conditions. Post-treatment substance outcomes were not included in the measurements. Those in the healthy lifestyles condition were significantly more likely to complete the treatment than those in the exposure conditions. While completers in exposure conditions experienced larger reductions in PTSD symptoms, those who did not complete still experienced a significantly greater reduction of PTSD symptoms compared to the healthy lifestyles condition. Similar reductions of PTSD, alcohol and depressive symptoms were obtained by Gros et al. (2017) post-treatment in a sample of veterans receiving concurrent treatment of PTSD and SUD using PE (COPE). In this sample of 51 veterans, traumatic brain injury (TBI) was a moderating factor in the treatment response for PTSD. Those with TBI had less reduction of PTSD symptoms and less reduction of depressive symptoms following a twelve-week exposure-focused (COPE) treatment. All participants experienced reduced alcohol use, as measured with the Time Line Follow Back method. Another study by Brady et al. (2001) that provided PE to those with PTSD and cocaine

addiction as part of an outpatient group treatment program resulted in significant reductions of severity of trauma symptoms and cocaine addiction severity among treatment completers.

How those with PTSD fare in substance use treatment has also been a subject of debate, and results are mixed. A systematic review of 22 studies by Hildebrand et al. (2014) found that 13 studies reported no association between PTSD diagnosis and how participants fared in treatment. In contrast, seven studies reported a negative association between PTSD diagnosis and treatment outcomes, and two studies reported a positive association between PTSD diagnosis and treatment outcomes. The majority of studies did not specify whether participants received any trauma-specific treatment. These studies focused on substance use measures such as a questionnaire or UDS. Those using UDS were rated as better quality studies, which included the two studies showing a positive association between PTSD diagnosis and SUD outcomes.

As one of the goals of this paper is to advocate for trauma-focused treatment for those with PTSD-DS and SUD, it is important to consider broadly whether these treatments are effective and feasible for those with SUD and trauma. Researchers Molina and Whittaker (2022) compiled treatment outcomes for people with PTSD and SUD with a history of ACEs. They found mixed results across the 13 studies in their systematic review, comprising nine RCTs, two quasi-experiments, and two before-and-after studies. Integrated trauma treatments included Seeking Safety, Trauma Recovery and Empowerment Model (TREM), Attachment Informed Trauma Recovery and Empowerment Model (ATREM), ICBT, Modified Prolonged Exposure (MPE), COPE, and Integrated Exposure-Based CBT for PTSD and AUD. Three of the RCTs found a small to medium effect size of the treatment compared to control on PTSD symptoms (Coffey et al., 2016; Ghee et al., 2009; Mills et al., 2012). In another two studies, scores on PTSD symptom scales improved significantly (Benton et al., 2012; Wolff et al., 2012). The

treatment impact on substance use had mixed results, with some studies reporting a slight improvement in substance use measures (Fallot et al., 2011; Saunders et al., 2016). Other studies cited increases in substance use (Ghee et al., 2009; Benton et al., 2012). Attrition rates were high but comparable to substance use treatment rates (Molina & Whittaker, 2022). A study by Garz et al. (2007) found a mediating effect of learning coping skills on trauma and psychiatric symptoms causing emotional distress as measured by the PTSD Symptom Scale and Global Severity Index, as well as drug use severity as measured by the Addiction Severity Index. This study noted greater improvements between baseline measures and 12-month follow-up in the treatment group who received Seeking Safety than the control group, though these groups were not randomly assigned (Garz et al., 2007). Seeking Safety is an evidence-based CBT present-focused coping skills intervention for those with trauma and SUD (Sherman et al., 2023). This study by Garz et al. (2007) included 402 female participants with co-occurring mental health and addiction issues and a history of trauma. The majority of participants were receiving inpatient services at residential addiction treatment facilities in the United States, with 187 in the treatment group and 215 in the control group. Perhaps providing interventions targeting skill development to improve emotional regulation can be an adjunct to trauma-focused interventions if this is not already included in these modalities.

Reduction in PTSD symptoms is obtained in addiction treatment facilities with trauma-specific interventions. Some addiction treatment facilities are offering trauma-specific care. The Mirmont Treatment Centre in Lima, Pennsylvania, is an inpatient facility for treating addiction, which has a specialized trauma program where patients receive group therapy and EMDR. Researchers Giacomucci and Marquit (2020) demonstrated the feasibility of incorporating trauma-focused psychodrama into these groups as a treatment method. They found significant

reductions in trauma symptomology as measured by the PTSD checklist, which were not impacted by whether the participants had received EMDR. Unfortunately, there was no control group for this study so that the results may be explained by participation in a program in general. Substance-related outcome measures and attrition were not considered, and dissociative symptoms were not measured. Overall, the research reviewed supports the integration of trauma-specific interventions into addiction treatment programs, with predicted reductions in PTSD symptoms.

The research supports that trauma-focused treatment should be offered to people in addiction treatment programs. However, there may be difficulties in accessing addiction treatment in general, which should be considered. There are currently not enough treatment beds in B.C., and long waitlists for publicly funded beds (British Columbia Center on Substance Use, 2023). There was not a lot of specific research on this, but this study represents the general target population in terms of geographic location. A study by Phillips et al. (2014) of at-risk youth ages 14-26 noted that while 537 of the 1015 sample sought treatment during the study, 138 reported being unable to access it, with 170 of the 1152 attempts to access treatment being unsuccessful. Those with Aboriginal ancestry, homelessness and being a victim of violence were more likely to be unsuccessful in accessing treatment. There may be a place to consider less conventional treatment delivery methods to make this more accessible. Acosta et al. (2017) found promising results from delivering a web-based self-management CBT intervention in reducing heavy drinking in veterans with PTSD symptoms. This was delivered in 20-minute segments, with 24 available over 12 weeks. The treatment condition was compared with a treatment-as-usual condition with health supports typically accessible to veterans. Perhaps web-based programs could be made accessible to those with addiction issues and trauma if further research supports

their effectiveness. This may prove more accessible to some people who are struggling to gain access to addiction treatment.

This paper has examined the way we conceptualize those with extensive childhood trauma and dissociative symptoms, and how the label of PTSD-DS may help describe a complex presentation. Conversely, symptoms of negative identity and emotional dysregulation, in addition to hypervigilance and trauma triggers, may be best represented with the label of C-PTSD. This label does not exist in the DSM-5 in North America, and the comparable label 'DESNOS' is not frequently diagnosed. PTSD-DS has a smaller symptom profile, with a specific dissociative profile of depersonalization and derealization, which does not encompass the larger theoretical landscape of dissociation. Within the conversation about whether PTSD-DS is a useful diagnostic label, it is important to recognize that the way dissociation is understood changes over time. The addicted population has experienced high levels of childhood trauma, and presumably high levels of dissociation, with some theorists suggesting substance use can be an attempt to dissociate from trauma symptoms. This paper argues that identifying dissociative symptoms in this population would bring more awareness to the need for trauma-specific treatments for this population. The rest of chapter two focused on whether these treatments would be effective in this population. Due to a lack of specific research, the literature review casts a wide net to examine treatment responses in populations that may partially represent our target population. The research generally supports that those with extensive childhood trauma do benefit from trauma-specific interventions, in that their PTSD symptoms decrease, amongst other mental health benefits. There is mixed evidence as to whether these interventions reduce substance use levels specifically, but the evidence supports that those with concurrent SUD and PTSD can be helped to reduce PTSD symptoms. As the general findings support the

implementation of trauma-specific interventions in the addicted population, making these available in addiction treatment centers seems to be a reasonable conclusion. This will be discussed further in the following chapter.

Chapter Three: Discussion and Recommendations

Discussion

This paper explores a strategy of making trauma-focused treatment more accessible to those in addiction recovery by illustrating the role of relational and dissociative trauma in their symptom presentation. However, the history of confusion in defining dissociation has led to difficulty identifying and categorizing this phenomenon in present-day clinical settings such as addiction treatment. Dissociation as a concept has a long history in psychology, with early contributions from Janet, who studied hysteria and dissociative states using hypnosis (1889, as cited in van der Hart & Horst, 1989). Freud's rejection of hypnosis shifted the therapeutic focus away from dissociation for much of the 20th century (Kluft, 2022). The theoretical underpinnings of dissociation include several theories. The theory of structural dissociation divides the personality into apparently normal parts (ANPs) for daily functioning and emotional parts (EPs) for holding traumatic memories. Severe fragmentation, as seen in DID, involves multiple ANPs and EPs (Steele et al., 2009). Betrayal trauma theory suggests dissociation protects survival in cases of caregiver abuse by enabling betrayal blindness, where victims suppress awareness of the abuse to maintain attachment and safety (Freyd, 1996). Early conceptions of dissociation understood it as a part of how the mind organized trauma. In contrast, modern understandings of dissociation see it as a possible response to trauma, where fragmented memories or states emerge in addition to other mental and behavioural symptoms as adaptive survival mechanisms (van der Hart, 2021). This later view seems to focus more on symptoms and does not assume that dissociation is a part of traumatic presentation; it is perhaps more pathologizing and selective about applying this term (van der Hart, 2021). Consequently, fewer people would receive this label; thus, the wisdom in treating dissociation is not being

applied as widely. This may be contributing to why the diagnosis of dissociative trauma seems absent from populations of people with SUD in treatment centers, compared with prevalence estimates presented for these populations. The substance-abusing demographic has many marginalizing factors, such as homelessness, poverty, and childhood abuse, which make them more likely to experience trauma symptoms (Lewis et al., 2021; SAMHSA, 2014).

Widening the net of what constitutes dissociation appeals to some therapists, who take a more inclusive, less pathologizing approach to treating those with dissociative responses, believing that this is more affirming of their traumatic experiences. The trauma model conceptualizes dissociation as part of a continuum, from normal responses to severe disorders, offering a non-pathologizing lens for clients (Loewenstein, 2018). This creates more confusion in the narrative of dissociation, as psychiatry is operating under the taxon model, which argues dissociation is categorical, with distinct pathological states, such as PTSD-DS and DID (Loewenstein, 2018). Diagnostic terms used in our North American system of identifying mental illness, discussed in this paper, include PTSD-DS, which is characterized by depersonalization and derealization, alongside standard PTSD criteria (APA, 2022). Whether a person seeks help in the medical system from psychiatrists or in the counselling field from therapists impacts which model they are exposed to and how they understand their symptoms. The addiction field seems to inhabit the space of the medical system. However, it may be lacking the diagnostic rigour that is accessible through mental health services and the ongoing, qualified therapeutic care that is present in therapy (Marsh & Fair, 2006). Adding to the confusion, there seems to be a lack of a specific diagnosis in North America that points to developmental trauma as the cause of dysfunction in the way that a C-PTSD diagnosis does. This diagnosis, which exists in Europe, may feel more representative and affirming of the client's experience of childhood trauma

compared to the label of PTSD. It includes symptoms of emotional dysregulation, interpersonal issues, and negative self-perception, which are not covered in standard PTSD definitions (WHO, 2022b). Some research suggests that those with C-PTSD have higher rates of dissociative symptoms compared to those with PTSD, thus suggesting that dissociation is an important clinical consideration when treating those with C-PTSD (Hyland et al., 2020). It is more highly associated with the earlier onset of trauma and higher familiarity with the perpetrator of the trauma compared to PTSD, implying the presence of developmental relational trauma (Torres et al., 2023). The more relational, repeated, and prevalent the trauma is across various developmental stages, the greater the complexity (APA, 2024).

The research presented seems to favour our current, more conservative North American diagnostic system in examining PTSD-DS. This may be due to a bias in the research, particularly with LPA analyses. Data groupings attempt to place categorical boundaries on a data distribution, but researchers infer disease classification based on these results (Schofield et al., 2022). Several categorical groupings could often fit the data, and researchers choose the best fit. These studies' results may be interpreted too literally (Schofield et al., 2022). LPAs have identified distinct groups within PTSD populations: low dissociation, high PTSD, and high PTSD with high dissociation (PTSD-DS), and dissociative subtypes are associated with other dissociative symptoms such as memory gaps, other mental health conditions, more severe trauma, and more complex symptoms (Haagen et al., 2018; Misitano et al., 2022; Wolf et al., 2012). Neuroimaging data show that PTSD-DS exhibits distinct brain activation patterns, such as increased medial prefrontal inhibition and differences in hippocampal structure (Wolf et al., 2023). PTSD-DS shares some characteristics with DID and C-PTSD, but research supports that these are distinct clinical entities (Fedai & Asoğlu, 2022; Swart et al., 2020). Some ways of

targeting neurobiological systems may emerge from insights into dissociation-related brain changes. For example, some findings on the endocannabinoid and opioid systems seem to support the defence-cascade model of dissociation, as well as linking dissociation theoretically to addictive processes (Lanius et al., 2018). There are difficulties identifying dissociative symptoms, which may affect diagnosis. White et al. (2022) suggest that dissociative presentations are heterogeneous and that prevalence rates would not vary even if dissociation were defined more broadly than it is in PTSD-DS. The APA (2024) echoes these concerns, stating that limitations to present research may include the heterogeneity in traumatic life events, the exclusion of forms of psychological trauma, and the over-emphasis of the diagnosis of PTSD. Identifying the diagnosis of PTSD-DS in those wth SUD could be a step towards accessibility of treatment for some, while excluding others. Understanding some of the complexity of dissociative symptomology and acknowledging etiology may help this label feel more affirming for those with developmental trauma.

The statistics examined in this paper, around prevalence and correlations with trauma, explain why this population should be of interest in screening for PTSD-DS. The estimates of prevalence of SUD, PTSD, and dissociative symptoms are much higher for those with childhood trauma (Lewis et al., 2021; van Dijke et al., 2015). Stein et al. (2013) report that PTSD-DS prevalence consists of approximately 14% of PTSD cases globally, whereas a meta-analysis of 49 studies by White et al. (2022) reveals around 38% prevalence. It is associated with childhood trauma, with a strong correlation between early relational trauma and dissociative symptoms in adulthood (Stein et al., 2013). There is comorbidity, as dissociation often co-occurs with anxiety, depression, and SUD (Stein et al., 2013). Rates of PTSD are higher in those with SUD, with rates of PTSD in an extensive U.S. study of those with prescription opiate disorders cited as high as

77.8% in those with polysubstance use and very high levels of psychopathology (De Nadai et al., 2019). The experience of complex trauma puts these individuals at far greater risk of addiction and PTSD (Lewis et al., 2021). For these reasons, these individuals in treatment centers should be carefully screened for ACEs and trauma symptoms.

Resistance to acknowledging dissociation in clinical practice stems from historical biases and diagnostic limitations (Loewenstein, 2018). A broader recognition of dissociation as part of a trauma response could enhance the accuracy of diagnosis and treatment strategies. Screening tools like the DES effectively identify individuals with high dissociative tendencies (van der Hart, 2021). This would be a valuable tool for identifying those with dissociative disorders, as there is a high overlap with many individuals with PTSD-DS also qualifying for a dissociative disorder (Swart et al., 2020). There is some research from an inpatient drug detoxification center that suggests that screening for traumatic experiences and symptoms was feasible and practical. It did not increase distress for participants and yielded a 38.1% positive rate for PTSD (Proescholdt et al., 2018). Providing proper psychiatric diagnoses could repair some of the inequities faced by this population and facilitate proper treatment, as evidence suggests that treating dissociative symptoms leads to improvements in levels of PTSD symptoms and a reduction of overall distress (Brand & Stadnik, 2013). Early detection of PTSD-DS allows for tailored treatment plans focusing on trauma and its dissociative components.

Integrative Trauma-Focused Treatments are important in the treatment of PTSD-DS. Trauma-Specific Interventions featuring exposure show effectiveness for reducing PTSD symptoms in this population (Benton et al., 2012; Coffey et al., 2016; Ghee et al., 2009; Mills et al., 2012; Mills et al., 2016; Wolff et al., 2012). There was not a lot of research available for those with SUD and dissociative disorders. However, a general suggestion for

working with those with dissociative disorders is to use a phase-based approach (ISSTD, 2011). There is some evidence that this type of approach can lead to significant reductions in PTSD and dissociative symptoms in those with C-PTSD and dissociative disorders (Schlumpf et al., 2022). Challenges to phase-based models include that delaying trauma processing risks perpetuating symptoms and client dissatisfaction. Combining this wisdom with the benefits of exposure would suggest an approach like EMDR, a phase-based approach that can also be applied as a brief treatment. Emerging evidence suggests direct, intensive trauma treatments, such as week-long PE protocols, may be safe and effective for individuals with complex trauma and dissociation (van Toorenburg et al., 2020). As with any treatment, it will not work for everyone. PE may produce extinction of the fear response in specific contexts, such as the therapist's office, but the results may not generalize to the client's real life. This may be a limitation for this modality's utility in a treatment center setting (Markowitz & Fanselow, 2020). However, clinicians' aversion to this modality runs deeper than it not working for specific clients. Many clinicians lack training in dissociative disorders, leading to underrecognition and underdiagnosis (Kumar et al., 2022). Practitioners may avoid trauma-focused interventions for fear of destabilizing clients or exacerbating dissociative symptoms (Zoellner et al., 2011). In a survey of PE training participants, many clinicians expressed concern that this treatment method would increase patient distress. Clinicians with a specialization in PTSD expressed less concern about using PE (Ruzek et al., 2014). This may suggest that a clinician's sense of familiarity with treating PTSD may translate to more comfort implementing trauma-focused treatment. Results suggested clinicians with some CBT background, those with fewer years of clinical experience, and those interested in helping clients improve may have more favourable interest in this modality (Ruzek et al., 2014). Even amongst clinicians treating PTSD, negative attitudes towards exposure

therapy include that the ends do not justify the means, that it causes harm to clients which goes against the ethical guidelines of the profession of counselling, and that research does not fully represent adverse reactions that can happen with clients (Olatungi et al., 2009). EMDR is an alternative treatment that may fit better with clinicians' morals, but clinicians' fears still need to be addressed. Providing clinicians with training in dissociation and trauma frameworks and tools for managing in-session dissociation within the window-of-tolerance model will help build confidence to navigate the complexities of dissociative presentations and address clinician resistance to more direct methods of treating trauma (Kumar et al., 2022).

Ethically, this paper promotes using client-centred interventions, which recognize client autonomy. Allowing clients to choose when and how they address their trauma fosters empowerment. Overly paternalistic attitudes that exclude clients from decision-making about their treatment should be avoided (Slater, 2006). It has been noted that providing choice for those in addiction treatment is trauma-informed (Shier & Turpin, 2017). It is also worth noting that practitioners of treatment centers may be underestimating clients' ability to make progress with their trauma. A study by Kressel et al. (2000) found that staff in a treatment center consistently rated clients lower on progress estimates than the clients rated themselves. This begs the question: whose perspective is more important in determining client care? This paper also advocates for integration across systems, meaning bridging gaps between addiction and mental health services to ensure comprehensive care for individuals with co-occurring disorders (Kruger et al., 2024). A formal PTSD-DS diagnosis could act as a bridge between these silos, facilitating access to trauma-focused interventions, and clients should be informed about their mental health conditions and treatment choices to foster empowerment.

Future directions include developing more inclusive diagnostic frameworks and expanding the understanding of dissociation beyond depersonalization and derealization, conducting more research on trauma-focused interventions in populations with high dissociative symptoms, such as those with SUD and PTSD-DS, and training clinicians to address dissociation confidently, bridging the gap between mental health and addiction services. These findings should be examined and explored systemically to avoid the pitfalls of a narrow training-based approach while not addressing the underlying culture of treatment centers (Roche & Nicholas, 2016).

Findings and Clinical Significance

The addiction treatment system in Vancouver focuses on treating substance use but often neglects to directly treat co-occurring trauma despite prevalence rates (VCH, n.d.). Trauma, particularly childhood relational trauma, is a key factor driving substance use, as is supported by the self-medication hypothesis (Hawn et al., 2020). Many people with SUD and a history of childhood abuse are using substances to forget their problems, lower stress, and avoid uncomfortable feelings, all of which can be seen as tied to trauma symptoms (Froelich et al., 2021). Nevertheless, mental health diagnoses are often incomplete or inadequate, dissociation is not being accounted for, and trauma-specific interventions are rarely available (Huỳnh et al., 2016; McQuaid et al., 2017). A dissociative trauma framework might better address the needs of this population.

The paper proposes introducing formal diagnoses like PTSD-DS to validate and guide trauma-specific care. Those entering addiction treatment could be screened for trauma and dissociation, using tools like the CQT and DES. Addiction counsellors could be better equipped with trauma-focused training to assess and address dissociative symptoms. Client autonomy

could be considered in determining readiness for trauma work, which includes listening to clients who want to talk about and deal with their trauma while in treatment. Clients generally feel more supported and affirmed when their reports of dissociative experiences are believed by clinicians (Nester et al., 2022). Studies included in this paper have highlighted the prevalence of childhood trauma and dissociation in the SUD population, and the effectiveness of trauma-focused therapies like EMDR and PE for those with severe PTSD or dissociative symptoms has been emphasized.

Financial and Systemic Considerations

There is not much funding going towards the treatment of addictions. The opiate epidemic has brought more awareness to addictions, so a portion of the budget for substance use services is being allocated to provide Narcan and opiate replacement medications (Ministry of Mental Health and Addictions, 2024). This is typical of the medical system, to look for pharmaceutical solutions that are reactive to the demand, rather than proactive in reducing the burden of the disease of addiction (Andrews et al., 2004). Providing psychological support to those struggling with addiction issues does not appear to be a priority (Winograd et al., 2019). There is also an implied judgment of their value, that they do not deserve the same psychological support as the rest of the population, as addiction services have been separated from other mental health services (CAPSA, 2023). It is the opinion of this paper that these systems segregate those with addictions and do not allow them access to the trauma-specific therapy they need.

There is also an isolation of individuals with mental health conditions and addictions within the larger medical system, where the systems most responsible for providing care are not taking a holistic systemic view of health. This is evidenced by the prioritization of GPs in treating mental health conditions over therapists (Huỳnh et al., 2016). There is little community

support for Downtown Eastside residents of Vancouver, despite high rates of mental illness and addiction (Linden et al., 2013). This paper acknowledges these shortcomings of our society and medical system in treating this population.

The Improving Access to Psychological Therapies (IAPT) program in England has had some success trying to address some of these inequities in care by trying to increase accessibility to evidence-based psychotherapy for those with mental disorders (Clark, 2018). People can self-refer or get referred to the program, where they receive a comprehensive psychological assessment. They receive a low-intensity intervention, followed by a high-intensity intervention if they do not respond to the first intervention. High-intensity face-to-face interventions are recommended as initial treatment for PTSD, such as CBT and EMDR (Clark, 2018). According to the U.K. National Institute for Health and Care Excellence, the interventions are offered to treat the corresponding disorder. They estimate that they treat 560,000 people annually, with around 50% reporting recovery (Clark, 2018). Elements of this model could serve us well in B.C., as more people would be assessed and given the correct psychological treatment for their disorders. In B.C., many psychiatrists see the benefits of psychological treatments and are trained in psychotherapy, but do not provide this due to time constraints (Hadjipavlou et al., 2015). A Canadian survey showed that many people do not receive adequate access to psychological treatments due to a perceived cost barrier and not knowing where or how to get help (Dezetter et al., 2015). Having a program like the IAPT could serve as a measure of accountability in providing evidence-based care for those experiencing greater stigma and social inequality, such as those with SUD and PTSD, who are struggling to get adequate treatment for their mental health conditions (Barry et al., 2014).

There is evidence-based trauma-focused treatment that is effective in treating PTSD and PTSD-DS (APA, 2019; Haagen et al., 2018). Many of those who would potentially qualify for a PTSD diagnosis are being offered supportive care rather than trauma-specific treatment (Finley et al., 2015). Research by Finley et al. (2015) with veterans' services suggests that many psychologists trained to offer trauma-specific interventions are spending the majority of their time offering supportive care. The more the clinic offered supportive care rather than PE and CPT, the more participants rated the clinic as appearing understaffed, suggesting dissatisfaction with services. Utilization and adherence to trauma-specific treatments increased their perceived effectiveness among participants (Finley et al., 2015). This paper advocates that further research may help to identify and address these barriers as they pertain to addiction recovery settings, and emphasizes offering trauma-specific treatments to those needing them while they are residing in residential treatment.

In deciding what therapies to offer in residential treatment, there is also a question of which modalities are most easily supported by research to treat the variety of mental health conditions present, such as anxiety and depression (CAPSA, 2023). Specific modalities, such as CBT, dominate published research (Soares et al., 2020). CBT seems to be a popular choice given the amount of research substantiating its efficacy in the treatment of anxiety and depression, as well as showing efficacy for somatoform disorders and addiction (Hofmann et al., 2012). The treatment of PTSD specifically may get lost in this type of consideration due to underdiagnosis. Anxiety and depression are often co-morbid with PTSD-DS, showing greater comorbidity than PTSD (Swart et al., 2020). There are, however, treatments listed in this paper for the treatment of PTSD that can also be used to treat anxiety and depression. EMDR is becoming more standardized, with RCTs supporting its use for depression (Seok & Kim, 2024). It has also been

shown to be effective in treating anxiety as well as PTSD (Balkin et al., 2022). In this paper's review of the literature on IFS, there was some support for use with those with childhood trauma and dissociation, and it is a mindfulness-inspired experiential therapy, with some of the same theoretical underpinnings as EMDR (Hodgdon et al., 2021). Parts work is not unique to IFS, and Janina Fisher's trauma informed stabilization treatment (TIST) has been cited as a way of bridging theories cited in this paper, such as the structural dissociation of the personality, the defence-cascade model of dissociation, and phase-based approaches to trauma treatment for C-PTSD (Fisher, 2017a). These aspects can be integrated into EMDR through the fragmented selves protocol, providing a well-rounded trauma-focused treatment (Fisher, 2023). Research supporting the efficacy of mindfulness-based strategies is rapidly growing (Soares et al., 2020). These could be valuable alternatives to CBT to implement in treatment centers, as they are more trauma-focused.

The medical field favours CBT and Dialectical Behavioural Therapy (DBT) as cost-effective and testable treatments, which it tends to offer through the mental health system. DBT, while it is the gold standard treatment for those with BPD, does not address the trauma directly, and other treatments are likely needed (Steuwe et al., 2021). They are examples of top-down approaches that favour addressing and adjusting cognitions and beliefs associated with traumatic experiences, which in turn will change feelings and sensations. There is concern that these methods may not help change deep-seated impulses and drives that are stored in somatic expressions in the body (Schwartz & Maiberger, 2018). There is also evidence that when implicit memories are activated, the areas of the brain responsible for communicating experiences into words are shut down. Trauma survivors, when feeling a sense of threat, such as being in the counsellor's office, may not be able to articulate their experience (van der Kolk, 2006). More

bottom-up approaches, which target sensations in the body through practices intended to bring present-moment awareness to these expressions, may release tension in the body, which may, in turn, change emotions and beliefs about a traumatic situation (Schwartz & Maiberger, 2018). EMDR seems to have some elements of a cognitive approach, such as restructuring of beliefs, some exposure work of sitting with feelings that arise when thinking of traumatic memories, and some mindfulness-like elements, such as not forcing things but just observing, and some somatic pieces of noticing activation in the body (Shapiro, 2018). This combination could make it more likely to be favoured in today's therapy climate, as it is growing in popularity (Onofri, 2023). The *APA Guidelines For Working With Adults With Complex Trauma Histories* (2024) favour integrative approaches that incorporate mindfulness and somatic elements, sequenced to fit client readiness, and favour healing attachment injuries. EMDR meets all of these criteria (Shapiro, 2018).

Eye Movement Desensitization and Reprocessing (EMDR)

Implementing EMDR therapy into addiction treatment centers is feasible. Steven Dansinger has already implemented this as a key therapy in setting up the first major Buddhist addiction treatment facilities in Los Angeles in the U.S. (Larchmont Tower Therapy Group, n.d.). He has developed the MET(T)A protocol to implement in drug treatment facilities, which combines mindfulness and EMDR protocols in the treatment of addiction. This is being provided in several facilities in the U.S. (Dansiger et al., 2020). He advises that the phased approach of EMDR better prepares those in treatment to tolerate the distress caused by reprocessing of traumatic memories, so they are less likely to relapse. He also acknowledges the risk of dissociation during reprocessing and suggests that mindful present-moment awareness can help counteract this defence mechanism and help clients stay regulated (Dansiger et al., 2020). These

two approaches pair well together, and Rozelle and Lewis (2014) argue that EMDR is a mindfulness-based approach. It uses concentrated attention to the present moment through bilateral stimulation (BLS) to help regulate clients during reprocessing. It has them observe what is happening in their minds and bodies during the experience. The principles of EMDR and mindfulness govern the treatment provided at these facilities, with all clients considered to be in phases one or two of the EMDR protocol upon arrival at the facility. All staff are trained in these modalities (Dansiger et al., 2020).

EMDR aims to reduce the distress associated with traumatic memories by reprocessing these memories in a way that promotes integration into normal memory networks. EMDR utilizes bilateral stimulation through eye movements, tapping, or auditory tones. It encourages the client to focus on distressing memories while simultaneously engaging in bilateral stimulation, which may reduce traumatic memories' vividness and emotional intensity (Shapiro, 2018). The first and second phases, history taking, and preparation, identify target memories and dissociative symptoms and assess the client’s readiness and safety for trauma work. These focus on building trust, equipping clients with grounding and emotional regulation techniques, and educating clients about the EMDR process and dissociation management. Extra time may be needed to stabilize clients and develop grounding skills before engaging in trauma reprocessing (Shapiro, 2018).

The trauma work is titrated, meaning it is processed in smaller, more manageable pieces, so the client does not become overwhelmed with emotion. Therapists can focus on specific aspects of a memory or use metaphorical techniques to reduce the intensity of distressing material (Shapiro, 2018). The direct trauma-focused work involves identifying specific target memories, negative beliefs, and desired positive beliefs, and desensitization, using bilateral

stimulation to process traumatic memories while the client maintains a dual focus on the present safety and the past memory (Shapiro, 2018). Reprocessing is used on the memory until the emotional intensity is completely reduced. Positive beliefs are then installed and integrated with the reprocessed memory. The therapist checks for residual physical tension or distress and addresses lingering somatic reactions (Shapiro, 2018). The session can be ended with grounding exercises and reinforcing the client's stability. The therapist reviews progress across sessions, ensuring reprocessed memories no longer evoke distress (Shapiro, 2018).

Exposure-based treatments such as EMDR and PE have shown efficacy for PTSD and C-PTSD in several meta-analyses (Deacon & Abramowitz, 2004; Karatzias et al., 2019). A few studies by van Toorenburg et al. (2020), Zepeda Méndez et al. (2024), and Zoet et al. (2018) indicate that combining EMDR with exposure treatment is effective in treating those with PTSD-DS. Studies suggest EMDR effectively reduces symptoms of dissociation when used with preparatory grounding techniques. A study by Bae et al. (2016) found that EMDR responders significantly reduced derealization and depersonalization symptoms. Van Minnen et al. (2012) reviewed available empirical support for PE and found it can be used successfully with dissociative symptoms and SUD, as well as BPD, depression, and suicidal behaviour. There is some qualitative evidence suggesting that using the standard protocol of EMDR with those with SUD and PTSD can reduce alcohol and substance use (Kullack & Laugharne, 2016). This is promising for treating our target population, which has high comorbidity. Despite this evidence supporting trauma-focused interventions in this population with co-occurring trauma and SUD, Kemmis et al. (2017) write that one of the main reasons for withholding these treatments is the suggestion that substance use enhances reactivity to negative stimuli relating to concerns about worsening symptoms during treatment. Their research discounted these claims when they

compared a group of substance users (SUD) to a group of substance users with PTSD (PTSD-SUD) and a group of participants with solely PTSD (PTSD). They found that the three groups exhibited emotional processing difficulties, with the PTSD and PTSD-SUD groups exhibiting similar difficulty to each other, and significantly greater difficulty than the SUD group. This illustrates the impact of PTSD on psychiatric symptom severity and daily functioning, regardless of the presence of SUD. These authors recommend considering trauma-focused treatments for the PTSD-SUD population (Kemmis et al., 2017).

Some modifications may include incorporating more of the theoretical understanding of dissociation into the work with clients. This may mean modifying the standard EMDR protocol and bringing some psychoeducation for clients and clinicians around parts work. Janina Fisher has developed a Fragmented Selves Protocol for EMDR therapists that can help support clients with more severe and persistent trauma (Fisher, 2023). This can fit nicely into the structural dissociation of the personality framework and the defence cascade model of dissociation. Janina Fisher (2017b) puts these two together, noting that dissociation of the personality can occur with severe complex trauma, where each of the defensive responses along the defence cascade continuum may compose a separate part of the client's inner world. She also notes dissociation can be part of the freeze or collapse and submit response, which would be a fit defence cascade model (Fisher, 2017b). Approaching the trauma work of EMDR in this way may address issues of not being able to access traumatic material or being flooded by trauma symptoms. The personality is organized so that ANPs keep traumatic experiences out of awareness, whereas only EPs have access to the traumatic implicit memories (van der Hart et al., 2010). Negative symptoms of dissociation, such as amnesia, depersonalization, and analgesia, would be associated with ANPs. In contrast, positive dissociative symptoms such as intrusions would be

associated with EPs' reenactments of traumatic experiences. These EPs can be organized around the mammalian action system of defence, responding to a threat to attachment with several parts being activated, including dissociative parts (van der Hart et al., 2010). These may be fixated on specific action impulses and attachment patterns involving either approach or defence in relationships, and many EPs can hold aspects of a single trauma (van der Hart et al., 2010).

Incorporating parts work as a modification may be helpful for clients with developmental trauma. Working with clients with C-PTSD, there is research by de Boer et al. (2025) suggesting that when compared to clients with PTSD or those without, they experience more polarization and fragmentation between parts of themselves and less access to curiosity, compassion, and other qualities associated with the concept of Self in IFS. In this research, the development of these positive qualities of Self helped reduce C-PTSD symptoms of emotional regulation, negative self-concept, and relationship problems. The benefits of applying the model of structural dissociation and parts language to describe defensive states may include increased mindfulness, less flooding, and the feeling of being heard and validated by all parts of the client (Fisher, 2017b). This is a less pathologizing approach that frames symptoms as parts. This avoids certain ANP parts of the client continuing to disown and silence EPs through suppression, and the therapist colluding with this sentiment, trying to get rid of symptoms without acknowledging their adaptive nature. It is a more holistic approach to the client's inner system (Fisher, 2017b). This allows clients to differentiate parts, such as EPs, which can calm the flooding and need to act on the impulses of parts, and make the client feel that this is only one part that is activated rather than their whole self (Schwartz & Sweezey, 2020).

To implement the fragmented selves protocol, the client is given psychoeducation on the structural model of dissociation and is invited to notice the parts they have that they can identify

within this framework. Clients can be taught to connect with how these parts feel now (Fisher, 2023). They can learn internal dialogue to help soothe their parts. Clients can negotiate with parts to allow for reprocessing; clinicians can help select targets based on when the part being worked with is triggered rather than a specific past event (Fisher, 2023). Clients are encouraged to unblend, identify the feeling as the part's feeling, and locate the part in their body. They are encouraged to approach the part with curiosity, asking about its age, and then exploring a scene or image that the part shares that represents the feeling they are experiencing (Fisher, 2023). The part would then be asked for the worst part of this image, and the negative and positive cognition, the same as you would do in the standard protocol of EMDR, except it is with the part rather than the client (Fisher, 2023). Age-appropriate language should be used, as these parts are seen as child parts. The clinician could also consider protocols for working with children. SUD readings are still used, and the part is also asked to report what they notice now. There is a caution that highly dissociative clients will likely not reach a SUD of 0. The clinician can encourage the client to offer reassurance to the part and ask what it needs from the client (Fisher, 2023).

Clinicians Working With Dissociation

Part of the hesitation to treat those with concurrent addiction and PTSD-DS with trauma-focused therapy is coming from clinicians, so their concerns need to be addressed. When engaging in treatment, therapists may feel cautious in working with dissociative clients. They may feel responsible for causing the dissociation or incompetent in managing dissociation in session (Strait, 2014). This paper proposes a few treatment nuances that address clinicians' concerns about supporting clients experiencing dissociative symptoms in session. Most of the literature on treatment outcomes with dissociative clients focuses on trait dissociation, meaning

retrospectively as measured by clinical scales like the DES (Kleindienst et al., 2016). Clinicians may be more concerned about managing state dissociation, meaning the dissociation that can arise inside the session as a phenomenon, including the client's subjective experience of the therapy session (Kleindienst et al., 2016). Kleindienst et al. (2016) suggest that clients who are more highly dissociated in session, or high in state dissociation, can still benefit from treatment, but not as much as those who are not as dissociated. They measured state dissociation through self-report after each session, where participants were asked about their experience in session around depersonalization, or feeling that their body does not belong to them, derealization or feeling that things around them are unreal, somatoform dissociation or difficulty hearing sounds or hearing sounds from far away, and analgesia or specific body parts feeling insensitive to pain. Though trait dissociation, as measured by the DES, was correlated with state dissociation, trait dissociation was not a significant predictor of improvements in trauma symptoms (Kleindienst et al., 2016). Ensuring clinicians feel more competent in managing dissociation in session would likely make them more likely to provide trauma-focused therapy, furthering the aim of this paper.

Applying an understanding of the window-of-tolerance in working with clients may address clinician fears around harming clients (Olatungi et al., 2009). This somatic wisdom helps to conceptualize what a client can tolerate safely and how to manage state dissociation in session, by attempting to stay in the client's window of tolerance (Ogden et al., 2006). Clients will need to be triggered during the session, not to cause an abreaction, but to tap into some of the traumatic material for reprocessing (Shapiro, 2018). The counselling evokes the unresolved body experiences stemming from attachment injury and trauma, such as dissociative symptoms, so that it can be challenged and transformed (Ogden et al., 2006). We want clients to be able to regulate

themselves once they are triggered. This window of tolerance is based on polyvagal theory, which states that the vagus nerve has different branches, activating different physiological states within the body. The ventral vagus is associated with social connection and feeling comfortable and safe. If a person feels unsafe, the activation of the sympathetic nervous system is associated with the fight-or-flight response and hyperarousal. The later activation of the dorsal vagus is associated with a freeze or shut-down response and hypo-arousal (Porges, 2007). Extreme states of hyper- or hypo-arousal are seen as outside the window of tolerance, whereas the client being able to bring oneself back into a more ventral vagal state would be seen as in the window of tolerance. Hypoarousal may be seen as embodying some dissociative symptoms such as having extremely low energy, shutting down, and immobility (Ogden et al., 2006). Integrating the theory of structural dissociation, the EPs may be representing trauma symptoms by holding hyperaroused energy or hypoaroused responses. ANPs may feel more ventral vagal in their presentation (van der Hart et al., 2010). There is a balance between tapping into EPs and the triggered energy of defensive states such as fight, flight, and freeze, and then coming back into more regulation as ANP. This can empower the client to master navigating between these states, and clinicians can assist with this process.

The therapist's goal in helping the client regulate within their window of tolerance would be to access ventral vagal activation after being triggered. If the client dissociates during the session, these experiences can be approached with curiosity by the therapist and the client, and some movements like tensing specific skeletal muscles can help regulate hypoarousal (Ogden et al., 2006). When a client is experiencing dissociation, there may be a disconnect from the relationship with the therapist, where the client may fall silent, cease eye contact, and withdraw posturally. They may be unable to access language or a coherent narrative about the trauma

(Strait, 2014). When the therapist is attuned, there may be a joint experience of this feeling of deadness or freezing, which may bring up countertransference for the therapist (Strait, 2014). Some modifications have been suggested by Schauer and Elbert (2010), which may prove helpful for clinicians. When doing exposure-based treatments, it is advised to titrate exposure with more reality testing, cardiovascular activation, sensory stimulation, and encouragement of speech production until the client can process the traumatic material without shutting down. Using more pronounced sensory stimuli in sessions, such as essential oils or ice packs, can encourage present-focused awareness, and activating skeletal muscles through applied tension exercises can bring clients back into the window of tolerance. Clients can be encouraged to drink water before or during the trauma exposure session as a way to regulate. Clinicians should not utilize relaxation or disengagement from the here-and-now to close sessions, as these may exacerbate dissociation (Schauer & Elbert, 2010).

These can be seen as part of resourcing in EMDR and used during reprocessing (van der Hart et al., 2010). Taking from the fragmented selves protocol, these regulation techniques are offered as resources to help the parts, rather than quiet or eliminate them (Fisher, 2017b). Offering our treatment to parts rather than seeing the client as a homogenous being prevents dissociative parts from adapting and taking over sessions and the client from experiencing progress. It can help address parts' fears of certain emotions that may trigger the dissociative parts to intervene (van der Hart, 2010). For example, clients may need to express anger that may have been inhibited (Schauer & Elbert, 2010). Clinicians can reframe unsafe behaviours in clients as resulting from parts being activated and triggers. Fight or flight parts may be activated to take action. The client blends with their EPs and believes that they want what the part wants. This could show up as discontinuing therapy, attacking the therapist, or taking extreme actions

such as suicide attempts as an exit strategy (Fisher, 2017b). These may be alarming to clinicians, but can be understood as the desires and intentions of these defensive response parts. In this way, more curiosity and intentional awareness can be directed towards these behaviours and assist clients in doing the same (Fisher, 2017b). Clinicians can help clients investigate and understand the intentions of these parts, particularly how drug use can be an attempt to escape by the fight or flight parts. They can also help empower the client by asking if they agree with what the specific part wants to do. The most effective way to ensure the client's safety is to help them unblend from the parts wanting to use these extreme measures (Fisher, 2017b). Understanding these dynamics as different parts may feel more coherent and less pressured for the therapist to manage the client's behaviour, and they feel more competent to manage the dissociative symptoms and fracturing of the personality (van der Hart et al., 2010). Hopefully, these suggestions will help quell clinicians' fears and prepare clinicians to do this exposure-based work.

In Conclusion

The idea of introducing trauma-focused treatment at this stage of addiction recovery may feel like an ill-advised plan despite the research provided. The instability of these clients may feel like a barrier, but it is the burden of co-occurring conditions such as PTSD that puts these clients at greater risk of relapse if not treated (Froelich et al., 2021). Providing trauma-focused treatment at this point in the journey of those in recovery does not prohibit future therapy. Generally speaking, short-term therapy interventions may provide some immediate results, whereas long-term therapy is more beneficial to long-term functioning (Knekt et al., 2008). Those in recovery may benefit from ongoing therapy; these suggested interventions are just a starting point. This is not encapsulated in these short-term research studies and results-based

modalities. This is more evident with those with SUD who access 12-step communities, where those with decades free from substance use continue to do step-work and meet with a sponsor. There are 12-step groups for those with co-occurring disorders that seem to support long-term abstinence (Laudet et al., 2004). There are ongoing benefits of having a sponsor, a peer, and a role model to take those in recovery through the step work, which exceeds the explained benefits of social support (Rynes & Tonigan, 2012). There is a therapeutic benefit to doing this deeper introspective work, which may be inspired by starting this process in addiction treatment. These types of support are not exclusive. Not allowing for trauma-focused treatment as part of SUD treatment feels prohibitive and short-sighted.

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