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Dissociative Identity Disorder: A Literature Review

by

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Abstract

Dissociative Identity Disorder (DID), previously referred to as Multiple Personalities Disorder, has been historically misrepresented in the media and excluded from professional training. This literature review describes the information presented in various research studies to illustrate what DID is, the theoretical models that have been used in application to DID, the role of childhood trauma, as well as successful treatment methods and accessibility of resources. In understanding DID, it is necessary to look at the disorder's prevalence, background, and major symptoms of amnesia and switching between personality states. The theoretical models that will be covered include the Sociocognitive/Fantasy Model and the Trauma Model, as well as the neurobiological perspectives that support the link between trauma and the development of DID. An overarching theme in the literature reviewed was the recognition of the Trauma Model of DID as the dominant theorization. As such, childhood trauma arises as a significant topic in the understanding of DID symptom development. There are various treatment methods used in application to DID, but a common theme within the literature reviewed was the goal of identity integration, which implies communication and better functioning between alters. The research question going into this review was "What does the existing literature tell us about Dissociative Identity Disorder and its treatments and origin?". More extensive research in this area would not only improve DID patients' accessibility to treatment but also decrease the misconceptions and stigmas that are perpetuated in society and social media.

Dissociative Identity Disorder: A Literature Review

Dissociative Identity Disorder (DID), previously known as Multiple Personality Disorder, has been popularized in the media with portrayals that stereotype and misrepresent individuals with DID as dangerous or fictional (Feidelson, 2021). This is incredibly damaging as there is already controversy surrounding the disorder's validity, making it even more difficult for patients with this disorder to receive the proper care. This controversy has led the research community to present a variety of models for describing DID and its symptoms and causes. With there being numerous theoretical models and frameworks for understanding DID, there has been some disagreement among researchers regarding the characteristics of the disorder (Vissia et al., 2016). Even though the disorder is stigmatized in both the media and the world of research, it is imperative that the scientific community continues studying and working closely with DID patients in order to understand its origins, symptoms, development, and treatments. The misconceptions that have been perpetuated in the media are harmful to the DID community and, with the disorder's popularity rising, it is important that research informs the discussion.

Researchers have recently called attention to the role social media plays in the onset of DID symptoms, perhaps bringing this discussion to a wider audience than before (Giedinghagen, 2023). In order to understand DID, it is necessary to first take a look at dissociation in general. *The Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association [APA], 2013) characterizes Dissociative Disorders as follows: “a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior”, with the symptoms potentially disrupting psychological functioning (APA, 2013, pp.291). These symptoms may manifest themselves as unwanted intrusions that are accompanied by a loss of continuity in

subjective experiences. Symptoms can be broken down into two categories: positive, which are symptoms like fragmentation, depersonalization, and derealization, and negative, which are symptoms that affect one's ability to access information or control mental functions, such as amnesia for example (APA, 2013, pp. 291). The DSM-5 characterizes DID as “a) the presence of two or more distinct personality states or an experience of possession and b) recurrent episodes of amnesia” with identity fragmentation varying with culture (APA, 2013, pp. 291-292). This is the commonly used definition of DID, as the presence of two or more personality states is the main diagnostic criterion of the disorder. Specific symptoms of DID include intrusions into conscious functioning and sense of self (i.e. voices and intrusive thoughts), alterations in sense of self (i.e. attitudes and preferences), changes in perception (i.e. depersonalization, derealization, and detachment), and “intermittent functional neurological symptoms” (APA, 2013, pp. 291-292). It is also known that stress can exacerbate these symptoms and make them more evident, which is extremely relevant in the discussion of how environmental stimuli affect neurological development (APA, 2013, pp. 291-292). Patients with DID have a variety of symptoms and are underrepresented in the 10th edition of the International Classification of Diseases (Dorahy et al., 2014). This underrepresentation may create difficulties for professionals in diagnosing and treating dissociative symptoms.

The diagnostic criteria for DID include two or more personality states that disrupt identity, which involves a marked discontinuity in sense of self and agency as well as accompanied alterations in behavior, memory, cognition, affect, consciousness, sensory-motor functioning, and/or perception (APA, 2013, pp. 292). The criteria also include memory gaps and distress caused by symptoms that are not accounted for by any cultural or religious practice and are not due to substance use (APA, 2013, pp. 292). Due to the lack of cohesion among the

international diagnostic criteria, there is a lack of research surrounding how cultural differences affect DID (Dorahy et al., 2014). As many non-Western countries interpret DID symptoms as experiences of possession, this addition to the DSM-5 may help facilitate the understanding and diagnosis of DID when faced with symptoms of possession in these regions (Dorahy et al., 2014).

This paper will consolidate the existing research on DID across a variety of perspectives, with a particular focus on the various models and theories that have been used in the understanding of DID and the factors contributing to the onset and treatment of the disorder. This will include descriptive subsections dedicated to diagnostic tools, prevalence and background, amnesia, and switching between personality states that lead into a larger discussion focused on the relevant theoretical models that have been presented in the analysis of DID. Recently, DID has become more often discussed in the media, which may be leading researchers to take a look at this relationship. The theoretical models that will be discussed include the Sociocognitive/Fantasy Model and the Trauma Model, with a section on Neurobiological perspectives included in support of the trauma-based model. As a result of the review, it became clear that the Trauma Model is the dominant model, and as such, this thesis will primarily focus on this model while also considering the other theories and viewpoints that have been proposed. Relevant treatment options and accessibility will also be discussed, as putting a stronger focus on training professionals in the diagnosis and treatment of this disorder would give the DID community more availability to resources and slowly erase the negative stigma society has attached to these individuals.

Diagnostic tools and self-report measures

In the diagnosis of DID, relevant self-report instruments used for screening include the Dissociative Experiences Scale (DES), the Dissociation Questionnaire (DIS-Q), and the Multidimensional Inventory of Dissociation (MID). Clinician-administered instruments are then used to make a diagnosis, such as the Dissociative Disorders Interview Schedule (DDIS) and the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D) (Cudzik et al., 2019; Şar et al., 2017). Other widely used measures are the Somatoform Dissociation Questionnaire (SDQ- 20) and the Childhood Trauma Questionnaire (CTQ) (Cudzik et al., 2019). There is a lack of materials dedicated to DID in diagnostic interviews that assess for general psychopathology, which may play a role in the lack of data on DID. However, the materials that have been created to assess the epidemiology of DID are the SCID-D and the DDIS. The SCID-D has a tendency to show lower rates of DID than the DDIS because it requires the clinician to determine if an experience is dissociative by nature. It is now claimed that DID can be diagnosed as early as three to four years of age, even though on average, people are diagnosed between the ages of 25 and 35 (Cudzik et al., 2019).

In the study by Ross (2021), their goal was to find the DES-T's sensitivity for determining a person with DID to be in the dissociative taxon and its specificity in determining if a person without a dissociative disorder is out of taxon. Their sample came from an inpatient Trauma Program with a focus on dissociative disorders and they found that the sensitivity of the DES-T in determining DID individuals to be in the dissociative taxon to be 94.6%, while the specificity of the DDIS in determining that individuals without DID are not in the taxon was 45.8% (Ross, 2021). The DES-T divides people into two categories, pathological dissociation (in the taxon) and no pathological dissociation (out of the taxon), or they may be classified as

intermediate. So, when analyzed by the DES, dissociation occurs as a continuum, and when analyzed by the DES-T, dissociation occurs as a discrete pathological category (DES-T taxon score). The DES-T functions as a good screening tool for DID, but it may yield too many false positives in individuals with no dissociative disorders. Trauma-related disorders like DID and PTSD have higher levels of inter-rater reliability than many other DSM-5 disorders, and clinicians should not use a DES-T result of in the taxon to conclude whether or not someone has DID or another dissociative disorder, as many individuals without DID or other dissociative disorders are on the taxon, and the DES and DES-T are not diagnostic tests. However, with the DES-T's high sensitivity, it is highly unlikely that a respondent has DID if they are out of taxon (Ross, 2021).

What is Dissociative Identity Disorder?

In the analysis of DID, it is useful to look at the relevant symptoms and defining aspects of the disorder. It is common to turn a blind eye to uncomfortable topics, however, it is necessary for researchers to expand the body of work in these areas in order to allow for advances to be made in diagnostic and treatment tools. Acknowledging that disorders like DID are real and affect many people is the first step in moving forward and offering these individuals more support and resources. The symptoms of amnesia and switching between personality states must be understood, as they are key elements of the disorder, but it is also necessary to understand the different types of personalities that exist within an individual with DID. In defining DID, it is necessary to look beyond the clinical definition and analyze the disorder's prevalence and background, its recent media representation, as well as the major symptoms of amnesia and switching between personality states.

Prevalence & Background

As around 1% of the population has DID (APA, 2013, pp. 294), it is necessary that the research community dedicates time and resources to increasing the wealth of knowledge on this disorder. These individuals deserve to have professionals available to them that are well-versed in the diagnostic and treatment tools that have been designed for DID. It has been found that as psychiatric severity increases, so does the cross-sectional prevalence of DID (Dorahy et al., 2014). The prevalence ranges from around 2% in outpatient clinics to 5% in inpatient clinics, but rates are even higher in emergency facilities (Dorahy et al., 2014). In a recent meta-analysis of dissociative experiences in college students, it was found that dissociative disorders are present in 11.4%, with DID present in 3.7% (Ross, 2021). The DID population is subject to criticism and harassment due to the stigmas perpetuated by the media that demonize and ostracize those with the disorder. In order to accurately diagnose and treat patients with DID, researchers must determine the most appropriate lens to use for its analysis.

There have been multiple models proposed to explain DID, including the Sociocognitive/Fantasy Model and the Trauma Model. However, the one that has been the most widely endorsed by researchers today is the Trauma Model, which believes childhood trauma to be the main factor in the onset of DID (Dorahy et al., 2014). The Sociocognitive/Fantasy Model was a previously recognized theory of DID that believes that DID can be imitated and is affected by the power of suggestion, fantasy proneness, and various sociocultural influences (Vissia et al., 2016), but it has since been discredited by scholars. The neurobiological perspectives of DID are looking at the relationship between brain development and the development of the disorder, which have been used both alone and in connection with the Trauma Model to support that DID is a valid disorder characterized by differences in brain structures. This thesis will review the

theories that have been proposed in contradiction to the Trauma Model as well as the neurobiological perspectives that support the relationship between trauma and the development of DID. In order to obtain a better understanding of how DID is currently being represented in social media, it is useful to take a look into the lives of DID influencers and how they represent their disorder online.

How the disorder is represented in the media and online can be impactful to the DID community itself by perpetuating incorrect stigmas and false information. The article by Feidelson (2021) focuses on Wyn, who started the DID diagnosis process in 2017 and sought guidance from faces on YouTube that openly talked about their experiences with DID to cope and get some reassurance after watching the movie *Split* (Night Shyamalan, 2016). As it is a movie about a serial killer with multiple personalities (one of them subhuman), she internalized the message that she was a monster. The first YouTube account she found was MultiplicityAndMe, who posts educational videos and treats their alters (in other words referred to as “alternate personality states”, “personality states”, “self-states”, or “dissociative states”) as just another part of them. MultiplicityAndMe is a system of five alters with Jess as the host, and they work together to manage when each is in control of the body (also referred to as “fronting”). It was through finding more channels like this that Wyn learned that people with DID were referring to themselves as systems and giving each alter equal recognition (Feidelson, 2021). Many of the systems that Wyn watched refuted the claims surrounding DID being fake and making someone an unfit parent. Instead of avoiding their alters and seeing them as scary or intimidating, they learned how to communicate and work with them to form a functional system. Many vloggers use they/them pronouns to be inclusive of all the alters in their system by

referring to themselves in the plural sense. Seeing and learning from all these systems gave Wyn hope (Feidelson, 2021).

By talking through traumatic memories and connecting with the other alters, some or all parts will eventually begin to fuse into a cohesive sense of self (this is known as integration of alters, see “Integration” subsection) (Feidelson, 2021). Wyn decided to begin her own YouTube channel and named her system the Entropy System. She learned how to do something she called “falling back in the headspace” that allowed for her alters to take turns fronting on her channel. Upon watching the footage, she thought no one would believe her, but instead received support and questions recognizing each alter by name. She added “Ending the Stigma Against DID” to all her video titles and within two months gained 1000 subscribers (Feidelson, 2021). The founder of the Trauma Disorders Program at Sheppard Pratt Psychiatric Hospital in Baltimore holds a negative opinion about DID YouTube because he thinks that “all this people in one body stuff is inevitably sensationalistic” and that “being public on the internet about DID could make dissociation worse” (Feidelson, 2021). Further, Loewenstein argues that interacting with these different parts only encourages them to become more differentiated. However, Brand sees many positives to DID YouTube, as it helps people feel understood and not as alone, but she also worries about how displaying the disorder for the public might worsen dissociative symptoms by allowing the alters to become more elaborated online and preventing integration (Feidelson, 2021). Brand also pointed out that many patients with DID are hesitant to let go of their dissociative tendencies, and therefore, their alters.

Feidelson (2021) explains that when talking with Wyn’s alters, it often felt like speaking to parts of the same being, just with slight differences. One of her alters made it known that they desired to be seen as an individual, and Wyn regularly allows them scheduled fronting time to do

their desired tasks and activities. Wyn's videos detailed how she facilitated communication between alters and managed having a job, which is helpful information for others looking for advice on managing their own DID. Even though some things on her channel show her having fun with her alters, her response to a comment someone made about wishing they had DID so they would never be lonely was: "Honestly, that's like going up to someone who was trafficked and being like, 'Oh, I wish someone would pay me to travel!'" (Feidelson, 2021). Wyn and her alters had small differences in the way they dress, which could be argued as being an exaggeration of symptoms, however, she explained that this was mainly to help viewers separate alters and mirror how they saw themselves inside. Loewenstein also questions the validity of some vloggers' DID diagnoses, because people with DID would not typically announce it to others, but rather hide it. Brand responds to this issue by saying that those expressing pride on YouTube may just not feel the same shame about the disorder that people did previously. Younger people with DID tend to be more willing to show openness and acceptance around their disorder, and in 2019, the top YouTube channels in the DID community formed a friend group (Feidelson, 2021). The system MultiplicityAndMe held a DID sleepover that Wyn attended with the other systems making a rise in the community: DissociaDID and Team Pinata. These two systems began dating each other long distance and DissociaDID gained over a million followers by 2020. Wyn encourages others with DID not to be nervous about fusing their dissociated parts and likened final fusion to blending different shades of paint into a beautiful new color (Feidelson, 2021). Loewenstein echoed this metaphor. "It's not that everybody is gone," he said, "It's that everybody is more here than ever" (Feidelson, 2021).

Wyn began questioning the idea that she needed to be one cohesive self to be happy, and in 2018, she decided that fusion was not right for her or her system, as some of her alters were

extremely against becoming part of one whole, and she herself would be devastated if put in the position where someone told her she had to fuse (Feidelson, 2021). Kirmayer has argued that psychiatry draws conclusions about dissociation and its best treatments based on the values of Western societies, particularly emphasizing independent personhood as well as acknowledging and integrating trauma (Feidelson, 2021). In other cultures where spirit possession is practiced, it is not assumed that people can recover from dissociation by verbally coming to terms with their traumatic experiences. However, in Western society, judgment is placed on people who cannot or do not wish to integrate their trauma and dissociative episodes into coherent memory (Feidelson, 2021). Rather than fusion, some people with DID prefer a term like healthy multiplicity or functional multiplicity which means they prefer to stay divided, just without the internal conflict that often comes with dissociation (Feidelson, 2021).

20 months after her diagnosis, Wyn decided to leave therapy because she felt more self-sufficient and confident, and her therapist supported her. After receiving hate on the internet, two new alters formed which she introduced to her channel and welcomed into her life, as they helped her block negative commenters. In the Spring of 2020, popular and controversial YouTuber Trisha Paytas made a video claiming to have DID that drew the attention of Kiwifarms, a hateful and misogynistic forum, to the DID community. This resulted in Wyn receiving multiple death threats and horrible hate comments. She decided to stop posting videos for a while, but she began posting again after realizing how important it is to her. Wyn plans to stay multiple forever, and would not have come to this conclusion without guidance from other DID-content creators. As both her therapist and her husband had advocated for fusion, she states that she might have pressured her system into fusing against their will if she had not been online. In her last video, she protested against a new Apple TV+ show called *The Crowded Room*, which

depicts the actor, Tom Holland, as having DID and the first person to successfully claim an insanity defense using their diagnosis. As this character committed several rapes, this story contributes to the negative stigmas that surround the DID community. In the video, Wyn explains that putting a focus on a serial rapist with DID is not the way to humanize the disorder and includes links to a petition to shut down the series (Feidelson, 2021). Media largely contributes to society's conceptualization of DID, as seen with the 1957 film *The Three Faces of Eve* which featured an unrealistic portrayal of DID, making this a common adaptation in Hollywood. 2009's *United States of Tara* and 2015's *Mr. Robot* are further examples of how DID has been depicted as a plot twist instead of a medical condition in popularized media (Feidelson, 2021). To accurately understand DID and how it manifests itself in real people, it is important to recognize the effect that the media has had on the community's representation and how it may influence dissociative symptoms.

Amnesia

A large aspect of DID is the symptom of dissociative amnesia. The DSM-5 characterizes dissociative amnesia as the incapability to remember autobiographical information that is unlike normal forgetfulness (APA, 2013, pp. 291). Amnesia can be specific to an event or period of time (localized), specific to an aspect of an event (selective), or apply to identity and life history (generalized) (APA, 2013, pp. 291). In one study, Huntjens and colleagues (2006) aimed to detect the simulation of inter-identity amnesia and better understand the memory problems seen in patients with DID. They define inter-identity amnesia as when one identity in a DID system has amnesia for events experienced by other identities and explain that their goal is to detect this simulation of inter-identity amnesia by using a task where simulation was relatively easy (Huntjens et al., 2006). After being given background on DID and creating a pretend identity that

is amnesic, patients completed two immediate recall tests from the Wechsler Memory Scale–Revised while in one memory state (Huntjens et al., 2006). After half an hour passed, patients switched to their amnesic identity and were asked whether or not they knew anything about the general procedure or the material they studied. They were then presented with the critical test and a multiple-choice recognition test. In Session 2, after patients were made aware of what their other identity had done, they were asked what they knew about the story and the figures and were again presented with the critical (multiple choice) test. The simulators performed the immediate recall tests in their normal identity state and switched to their pretend amnesic identity before completing the delayed recall and recognition tests. Following the recognition memory tasks, participants completed the Dissociative Experiences Scale and the Creative Experience Questionnaire (Huntjens et al., 2006). An ANOVA test on the total recognition scores showed that all groups differed significantly from one another, with the controls scoring the highest (Huntjens et al., 2006).

Although DID patients and simulators scored much lower than the guessers, they did not significantly differ from each other. The control groups also had the highest scores in probability of selection, which means that they selected the more plausible answer alternatives (Huntjens et al., 2006). They explained that simulators often chose incorrect answers in the recognition task and when it was incorrect, it was also often implausible. Compared to the DID patients group, they also often chose incorrect answers but not because of strategy (Huntjens et al., 2006). Overall, 19 patients ended up reporting complete inter-identity amnesia out of the 22 total patients who participated. These patients' recall scores indicated that they had no knowledge of what happened while they were in the other personality state, but their critical recognition test suggests that their knowledge of the right answer helped them determine what incorrect answer

to choose (Huntjens et al., 2006). Unlike the simulators, their answers were plausible, showing that they were not using the same strategy. They suggest that this could be due to the patients being better malingerers than the simulators since they chose the more plausible answer alternatives, however, they find this unlikely (Huntjens et al., 2006). Rather, they believe that DID patients are suffering from meta-memory problems that have convinced them that they are unable to access the memories from a time when another identity was in control. Due to this, patients may unintentionally ignore the material that they believe to be another identity's, suggesting that this could be self-deception rather than intentional falsification (Huntjens et al., 2006).

Their findings are in line with other research that has been done on inter-identity amnesia and they propose that the inclusion of inter-identity amnesia into the diagnostic criteria for DID may cause issues in determining the validity of the disorder (Huntjens et al., 2006). However, they make note that the exclusion of amnesia as a diagnostic criterion could blur the line between DID and other related disorders. Yet, the results do not provide evidence against dissociative symptoms, nor do they invalidate the abuse reported by DID patients (Huntjens et al., 2006). They recognize the potential association between childhood trauma and meta-memory problems, and give the example that a child experiencing sexual assault from a caregiver may allocate experiences to separate parts, states, or identities designated to handling various situational demands (Huntjens et al., 2006). Even though these experiences end up being encoded into memory, what the child imagines may be very different. By pretending that the abuse is happening to someone else, children are able to avoid confronting that pain and confusion (Huntjens et al., 2006). They were successful in their task of discriminating between normal controls, simulators, and guessers, and even though 19 patients reported no knowledge of what

happened in their other identity state, they did use this knowledge to determine their (often incorrect) answers. Overall, they found that DID patients' amnesia symptoms could be the result of inaccurate expectations of their memory functioning that convinced them that they were unable to access the information that was learned while in another state (Huntjens et al., 2006). It is apparent that although DID patients may be affected by meta-memory problems, they are not consciously deciding to not be able to access the information. Rather, their belief that the information does not belong to them is so strong that they are limited in their memory recall ability. This could provide basic evidence in favor of the Fantasy Model, as the limited ability is characterized by a strong belief, however, it provides stronger evidence for the Trauma Model because it supports the basis that traumatic experiences can cause meta-memory problems.

Betrayal trauma theory views dissociative amnesia as an adaptive response to childhood abuse where dissociative amnesia aids in survival by allowing the child to maintain attachment to an abusive figure who is also vital to their development. Şar and colleagues (2017) examined etiological factors of DID in accordance with developmental traumatization and explain how family and sociocultural factors as well as cognitive and neurobiological disturbances are related. They defined dissociation as a breakdown of integration between psychobiological aspects and systems that make up the totality of the person's functioning, arguing that the breakdown can occur at various levels. Some of these levels include (but are not limited to) the level of sensation, cognition, affect, behavior, and consciousness (Şar et al., 2017). The combination of all these systems working together and this level of dissociation creates dissociative identities with separate systems and their own perspectives of the world. These identities have their own memories, sense of agency, and view of themselves (Şar et al., 2017). Şar et al. discuss the cognitive processes of memory and self-identity construction and explain that construction is

affected by episodic and semantic autobiographical memories as well as auto-noetic consciousness. Further, dissociative identities are associated with memory function and the ability to self-recognize events as autobiographical experiences. Different dissociative identities associate themselves with specific memories or aspects of the same memory and may recall certain events differently than other identities. They can also differ in physiological and neurobiological arousal. Beck's concept of modes can be broken down into behavioral, affective, cognitive, and psychological schemas that encode experiences and respond to both internal and environmental stimuli (Şar et al., 2017). These modes are able to respond to stimuli due to the orienting schema, which is the process that recognizes internal and external stimuli. Different cues signal the requirement of a certain mode, and in normal circumstances, modes are all working together to form an integrated conscious control system (Şar et al., 2017). When these modes become decoupled and more isolated from each other, DID occurs with multiple conscious control systems at play (Şar et al., 2017).

In the discussion of dissociative amnesia, it is important to evaluate state-dependent memory. This is explained by the process of someone failing to remember something because the experience was encoded to a different state of mind than the one they are currently in. Şar and colleagues (2017) elaborate that the different psychophysiological make-ups of the identities within an individual with DID explain amnesia across identities because the identity trying to retrieve the information is not the one that the information was encoded into. Research suggests that these seemingly inaccessible memories are perceived to be retrievable, which raises the question of which process accounts for amnesia across identities in DID: cognitive or metacognitive? Cognitive processes deal with encoding and retrieval, while metacognitive processes would describe the belief that information is not available without any connection to

encoding and rhetorical deficits (Şar et al., 2017). The metacognitive processes that monitor, control, and appraise memory, as well as the research by Huntjens and colleagues, suggest that amnesia in DID is the result of believing these memories to be inaccessible, which is a fault in metamemory processes, not in memory functions (Şar et al., 2017). Even though there is more empirical research to be done on the topic, retrieval states may account for the amnesia across identities experienced with DID (Şar et al., 2017).

Amnesia is a defining characteristic of DID because it is so prevalent with the disorder. Patients with DID may gradually regain their memories via images or body sensations, but this process looks different depending on the individual (Dorahy et al., 2014). In order to understand cognition in DID, research has put a focus on information compartmentalization and transfer. Compartmentalization describes when material is isolated within an identity state and transfer is when that material is passed to other dissociative identities (Dorahy et al., 2014). As different information exists within each personality state, the level of awareness and knowledge of a situation can fluctuate as someone with DID switches between alters.

Switching Between Personality States

The three main categories that the personalities of people with DID fall under are Original, Host, and Alternate. Host identities are those that spend the most time fronting, or engaging with the outside world (Dorahy et al., 2014), and are usually less troubled than the other personalities (Cudzik et al., 2019). The original personality is the personality that the body was born with, while alternate personalities (alters) are fragments related to specific situations and emotional states, with the emotional relationships between them depending on each personality's role (Cudzik et al., 2019). Today, vloggers with DID refer to themselves as

“systems”, with the personality containing the body’s legal name oftentimes being the host of the system, which challenges the idea that any alter is more real than another (Feidelson, 2021).

There are various self-representations that are put forth in different circumstances and it is helpful to apply this explanation when analyzing the process of switching in DID (Oppenheimer, 2002). While any one of these representations is in control, the others are not consciously active. For example, when going to class or school-related functions, one will put forth their academic self. While their other self-representations are not active (like their social self for example), they are still there in the background and still a part of the self as a whole. These self-representations use semantic knowledge, sensory-related information, and other aspects of the self to activate the related area of the neural network that creates a self-image (Oppenheimer, 2002). This self-representation state has been referred to as the working self-representation, which can be compared to the idea of fronting with DID, which describes when a particular alter is acting as the body's working self-representation. Dynamic Systems Theory states that complex systems switch between self-representations discontinuously and activate the self-representation that is most relevant based on both external and internal stimuli (Oppenheimer, 2002).

Switching between personality states/alters is a major characteristic of DID. Cudzik and colleagues (2019) describe the process of switching between alters as a typically smooth transition accompanied by rapid blinking or eye-rolling, an absent gaze, and changes in heart and breathing rate, posture, expression, and tone (Cudzik et al., 2019). This process can look different in each individual, but in a case study of a middle-aged woman (RV) with DID who can switch between her alter personality and her main personality voluntarily and while undergoing an fMRI, they were able to study the switching process itself and how the voluntary controlled

switching from her therapy sessions could be repeated in the fMRI studies. By use of the protocols they developed to isolate the switching process, they were able to find the areas of the brain that were being activated while switching (Savoy et al., 2012, pp. 112-119). They found bilateral activations in multiple cortical sites, with the strongest being in primary sensory-motor areas near the face. This is most likely due to the facial gestures RV made while switching (Savoy et al., 2012, pp. 112-119). Non-cortically, they consistently found bilateral activation within the nucleus accumbens (Savoy et al., 2012, pp. 112-119). They claim that even though conclusions cannot yet be drawn based on one subject, this finding is consistent with the idea of DID developing as a means to escape pain. RV was able to switch rapidly and consistently without excessive head movements in response to simple cues. They were particularly interested in the bilateral activations in the nucleus accumbens and its relationship to rewards, as in the context of DID a reward could be an escape from fear or pain (Savoy et al., 2012, pp. 112-119). They assumed that for RV and other patients with DID, switching personalities is an attempt to protect part of their psychological self from the consequences of physical assault, which would be consistent with the idea of an escape nucleus (Savoy et al., 2012, pp. 112-119). Understanding the process of switching is useful to researchers studying how DID works and develops, especially in consideration of the existing models and perspectives used in application to the disorder.

Current Theoretical Models of DID

In the discussion of DID, there have been various models and theories proposed in an attempt to understand the disorder's symptoms and causes. The main models that will be discussed here include the Sociocognitive/Fantasy Model, neurobiological perspectives, and the Trauma Model. The Sociocognitive/Fantasy Model has been referenced and discredited by

multiple authors in the field, who have since moved towards recognizing the Trauma Model as the most relevant theoretical model of DID. The Trauma Model of DID supports the etiological relationship between DID and childhood trauma of neglect and abuse, while the Fantasy Model claims that DID can be imitated and that high suggestibility, fantasy proneness, and sociocultural influences are all mediators (Vissia et al., 2016). It is relevant to the discussion of DID to compare these two approaches and determine the appropriate lens for clinicians to use in diagnosing and treating patients. In a research study conducted by Vissia and colleagues (2016), the data from psychological tests performed on two patient groups and two control groups were compared to analyze which model fits the findings best: the Trauma Model or the Fantasy Model. The participants of this study included 33 patients and 32 controls being compared on psychological trauma and fantasy measures, all female. The patient groups included 17 people with diagnosed genuine DID (DID-G) and 16 people with Post Traumatic Stress Disorder (PTSD) and the control groups included 16 DID-simulating healthy controls (DID-S) and 16 healthy controls (HC). They also used personality state-dependent measures to test both neutral personality states (NPS) and trauma-related personality states (TPS) for DID-G and DID-S. In the first part of the study, they found group differences through online questionnaires and used various Trauma Model measures to test the frequency of dissociative experiences (Dissociative Experiences Scale (DES)), the severity of somatoform dissociation (Somatoform Dissociation Questionnaire (SDQ-20)), emotional aspects of anxiety (State-Trait Anxiety Inventory-Trait Scale (STAI-T)), and the frequency and duration of depersonalization symptoms (Cambridge Dissociation Scale (CDS)). They also used retrospective trauma measures to find the types of trauma and age of occurrence and duration (Traumatic Experience Checklist (TEC)), as well as care and protection from parents (Parental Bonding Instrument (PBI)) (Vissia et al., 2016). Using

Fantasy Model measures, they tested for sleeping and dreaming experiences or disturbances (Iowa Sleep Experiences Scale (ISES)), fantasy proneness (Creative Experiences Questionnaire (CEQ)), and malingering of psychiatric symptoms (Structured Inventory of Malingering Symptoms (SIMS)). In the second part of the study, they had DID-G and DID-S take the questionnaire twice, once as their NPS and once as their TPS to test additional dissociative-personality-state differences. These questionnaires were divided into categories of trauma and fantasy (Vissia et al., 2016). They also measured current levels of depression (Beck Depression Inventory (BDI)) and the frequency of maltreatment experiences during childhood (Childhood Trauma Questionnaire (CTQ)), as well as interrogatory suggestibility (Gudjonsson Suggestibility Scale (GSS)), the tendency to create false memories (Deese–Roediger–McDermott (DRM)), personality disorder characteristics (Vragenlijst Kenmerken Persoonlijkheid (VKP; Questionnaire Personality Characteristics)), and symptom severity related to schizophrenia (Positive and Negative Syndrome Scale (PANSS)) (Vissia et al., 2016).

The DID-G group scored highest on trauma measures testing for dissociation, somatoform dissociation, and depersonalization, with TPS scores higher than NPS scores, and also highest on the traumatic experience measures. In measuring sleep disturbances they found that DID-G had significantly higher scores on the General Sleep Scale than DID-S and HC groups, but no difference was found between DID-G and PTSD groups (Vissia et al., 2016). In measuring fantasy proneness, the DID-G and PTSD groups scored significantly higher than the HC group, but no significant differences were found when comparing the DID-G group to the DID-S or PTSD groups (Vissia et al., 2016). When measuring symptom malingering, they found significant differences in the DID-G group compared to DID-S and HC and found that when compared to the PTSD group, DID-G scored significantly higher in Neurologic, Psychosis, and

Amnesia subscales as well as on their Total SIMS score, but did not differ in scores on the Affective scale (Vissia et al., 2016). The DID-G group scored significantly higher than DID-S and HC groups on measures of depression and childhood trauma. The DID-G group did significantly worse than DID-S and HC on Recall scores, and was not found to be more suggestible than the other groups, nor were they found to produce more false memories. When measuring personality characteristics, they found that personality state affected the subscales Schizoid, Schizotypal, Paranoid, Dependent, Passive-Aggressive, Narcissistic, Obsessive-Compulsive, Borderline, Avoidant, and Depressive with trauma states scoring higher than neutral states (Vissia et al., 2016).

The main findings of this research were that patients with DID were not more fantasy-prone or suggestible and did not generate more false memories than the other groups, which contradicts the Fantasy Model (Vissia et al., 2016). They also found a variety of trauma-related symptom severities that support the association between severity, intensity, and age of onset of traumatization and the severity of trauma-related psychopathology. This is evidence to support the Trauma Model and challenges the beliefs of the Fantasy Model (Vissia et al., 2016). The results obtained from fantasy measures were inconsistent with levels of daydreaming and fantasy being high for both DID-G and PTSD groups compared to the HC group, and they did not find any differences when comparing the NPS of DID-G patients to the normal self of the DID-S group. This shows that patients with DID and PTSD are equally prone to fantasy and daydreaming, and even though they scored higher than healthy controls, this cannot prove that patients with DID are more prone to fantasy because they scored the same as PTSD patients. Vissia and colleagues (2016) explain that the SIMS questionnaire to test malingering includes subscales that assess for amnesia as well as affective, psychotic, and

neurological symptoms and analyzes a wide range of symptoms that may be comorbid with others. The data collected reflected that the DID-G group scored higher on the malingering of psychiatric symptoms which could be seen as evidence to support the Fantasy Model. However, they argue that since dissociative amnesia is a required diagnostic symptom of DID, the higher scores in the DID-G group provide validation for their diagnoses and also support the Trauma Model (Vissia et al., 2016). The results obtained regarding sleep and dreaming may be evidence for the Trauma Model because these sleep disturbances could be related to the sleep issues (i.e. nightmares) that are experienced by traumatized people, which includes DID and PTSD patients (Vissia et al., 2016). In the examination of dissociative-personality-state-dependent differences, results were consistent with the Trauma Model showing that the DID-G group had the most difficulty with memory, and no differences were found among the group in regards to suggestibility or false memory creation, which contradicts the Fantasy Model (Vissia et al., 2016). Also consistent with the Trauma Model, the DID-G group had the highest scores on all trauma measures as well the highest scores for depression. They use this as evidence to support the idea that more severe trauma (specifically during childhood) is associated with higher levels of dissociative symptoms (Vissia et al., 2016). The results found on childhood trauma history are also consistent with the Trauma Model and both psychoform and somatoform dissociation were associated with neglect and childhood trauma. Through the examination of dissociative-personality-state differences, they found that the DID-G group had more severe reports of trauma in TPS than in NPS. This makes sense because the TPS is consciously aware of the traumatic experiences, whereas the NPS may have dissociative amnesia. However, even with the Trauma Model, sociocultural factors may play a role in the features of dissociative personality states. This study by Vissia and colleagues was the first to use matched groups in one

test to compare these two models using valid self-report measures, and as comorbidity is high with DID, they recognize the importance of further testing in the area (Vissia et al., 2016).

Neurobiological Perspectives: Contributions to the Trauma-Based Model

In the analysis of the biological determinants for DID, researchers have inferred a relationship between early experiences of trauma and brain development. These neurobiological perspectives outline a biological basis for recognizing DID, which is strong evidence to support the disorder's validity. When it comes to the neurophysiological aspects of DID, an orbitofrontal hypothesis has been supported by single photon emission computerized tomography (SPECT) while a cortico-limbic hypothesis has been supported by magnetic resonance imaging (MRI), functional MRI (fMRI), and positron emission tomography (PET) studies and a temporal hypothesis has been supported by EEG and QEEG studies (Dorahy et al., 2014). The orbitofrontal hypothesis is attached to the neurodevelopmental model for DID, which underlines a deficiency in function within the orbitofrontal region (Dorahy et al., 2014). This lobe is also hypothesized to be affected by early trauma. As seen in two different SPECT studies conducted on host identities, patients with DID showed orbitofrontal hyperfusion when compared to normal controls (Dorahy et al., 2014). Evidence found from a structural MRI study showed that patients with DID had smaller hippocampi and amygdalae than normal controls and that there have been differences found between different identities in DID patients, as well as differences in perfusion before and during a switch in identities. Using PET studies, it was found that there was increased cerebral blood flow in the dissociative identity that was associated with traumatic memories (emotional) in comparison to the identity that was depersonalized from the traumatic memories (apparently normal) (Dorahy et al., 2014). This is all evidence to support the cortico-limbic hypothesis. When it comes to the temporal hypothesis, there has been some compelling research

done through EEG studies that shows variability between identity states involving beta activity in the frontal and temporal lobes (Dorahy et al., 2014).

The study by Reinders et al. (2019) contributes to the literature on the neurobiological model of DID as they aimed to see if the application of data-driven pattern recognition methodologies to structural brain images could identify neuroanatomical biomarkers that aid in this disorder's diagnosis (Reinders et al., 2019). This study is important because it supports the idea that genuine DID can be distinguished from healthy controls based on brain morphology, which does not support the ideas of the Fantasy Model (Reinders et al., 2019). They are investigating whether individuals with DID can be distinguished from healthy controls using neuroimaging to find markers that indicate a DID diagnosis while particularly focusing on the makeup of gray and white matter in the brain.

There were 75 participants from medical centers in the Netherlands, Amsterdam, and Switzerland from which they collected data through MRIs (Reinders et al., 2019). From private practitioners and outpatient departments, they recruited 32 women with DID, of which 29 had comorbid PTSD and the other three were in PTSD remission. The DID group and Healthy Control (HC) Group were evenly matched in age, gender, education, and ancestry. SPM8 Software was used to preprocess structural images after segmenting them by tissue types by using the voxel-based morphology (VBM) processing pipeline. Participants were diffeomorphically registered to their common average by aligning gray and white matter maps using a geodesic shooting procedure to compute the deformations. Scalar momentum image features describe the anatomical variability among the patients, which was used in their classification. The pattern recognition approach that they used was Binary Gaussian process classifiers (GPCs). Receiver operating characteristic curves were used to measure classifier

performance and they used a forward mapping strategy to understand how each region of the brain is relative to classification. On this forward map, stronger positive values (larger volumes) in areas indicate a stronger association of a region with DID, while negative values (smaller volumes) indicate healthy controls (Reinders et al., 2019).

The results of this study showed that they were able to accurately discriminate between DID individuals and healthy controls by using pattern classifiers. This provides evidence to support a biological distinction between patients with DID and healthy individuals (Reinders et al., 2019). They report that the gray matter regions of the brain that showed a relative increase in regional volume for the control group and a relative decrease in regional volume in the DID group were: the superior and dorsolateral frontal gyrus, the right inferior temporal gyrus, the left medial and right orbitofrontal gyrus, the bilateral middle, the bilateral anterior cingulate gyrus, the bilateral fusiform gyrus, the left inferior parietal lobule, the bilateral middle temporal gyrus, the bilateral superior occipital gyrus, and the supramarginal gyrus (Reinders et al., 2019). The white matter regions that showed this pattern were: the right inferior, the bilateral middle and superior frontal regions, the left corticospinal tract, the right superior and left inferior longitudinal fasciculus, the bilateral inferior fronto-occipital tract, the left amygdala–hippocampal junction, the bilateral temporal, cerebellar and lateral occipital regions, and the anterior cingulate (Reinders et al., 2019). This pattern favors healthy controls. In favor of DID, the gray matter regions that showed a pattern of a relative decrease in regional volume in the control group and a relative increase in regional volume in the DID group included: the left superior frontal gyrus, left medial parietal lobule, and bilateral cerebellum. The white matter regions that favored DID were: the left inferior fronto-occipital fasciculus, the left inferior and superior longitudinal fasciculus, the bilateral anterior cingulate and insula regions, the right

corticospinal tract, the left parietal regions and putamen, the bilateral inferior, medial and superior frontal regions, the bilateral cerebellum, and the right inferior and middle temporal regions (Reinders et al., 2019). When comparing the brain morphology of individuals with DID and healthy controls, they found evidence of patterns of abnormal brain morphology in individuals with DID within the gray and white matter in the brain, providing evidence for a biological basis that differentiates genuine DID and healthy controls (Reinders et al., 2019).

This development of pattern recognition methodologies will be useful as a clinical diagnostic tool. Using the biomarker approach of employing pattern recognition methods to analyze brain imaging data from people with DID can improve clinical decision-making as well as the patient's quality of life, as it may lower the rate of misdiagnoses as well as decrease treatment time and costs (Reinders et al., 2019). This study was able to distinguish DID patients from healthy controls at an individual level, with 71.88% sensitivity and 73.81% specificity, which is comparable to the sensitivity and specificity of most psychiatric disorders (Reinders et al., 2019). In contribution to the discussion on neuroanatomical biomarkers, earlier studies in this field found a smaller hippocampal volume in individuals with DID, which is thought to be caused by stress hormones from antecedent traumatization. Reinders et al. (2019) reference the Trauma Model and define DID as an early-onset form of PTSD and bring up how childhood trauma can cause altered stress reactivity and long-lasting effects, which could explain these patterns of affected gray and white matter regions of the brain (Reinders et al., 2019). In accordance with models of trauma-related dissociation, it is believed that the cingulate gyrus, medial prefrontal cortex, and superior frontal regions all play an important role in emotion regulation and dissociation. Reinders and colleagues (2019) found that the frontal regions of the

brain are the most affected for both white and gray matter, and suggest that future studies focus on these areas and the middle and dorsolateral prefrontal cortex.

The case study by Savoy et al. (2012) provides a closer look at the regions in the brain that are involved in the process of switching between personalities in people with DID. Even though interpretation is difficult, they argue that the activations in the frontal cortex are potentially the most intriguing as they are most often found in Brodmann's areas (BA) 9, 10, and 11. BA 9 is known as the dorsolateral prefrontal cortex (PFC) and is largely involved in executive control, which controls one's ability to adapt their behavior in response to conflict or competition (Savoy et al., 2012). BA 10 mostly contains the rostral PFC, which enables multitasking and assists in maintaining function in difficult situations (Savoy et al., 2012). The lateral rostral PFC is involved in the process of episodic retrieval tasks and potentially in directing attention between internal and external stimuli (Savoy et al., 2012). The medial region of BA 10 is associated with self-reflection and mentalization of tasks. BA 11 is known as the orbitofrontal cortex (OFC) and it integrates existing knowledge in order to make predictions on specific outcomes (Savoy et al., 2012). Decision-making and reward-guided learning are both connected to various regions of the OFC. While acknowledging the need for additional subjects, they plan to continue their work with their case study and examine various network structures and the obstruction of memories if safeguards permit it (Savoy et al., 2012).

The study by Şar et al. (2017) found increased cerebral blood flow when looking at the brain in a dissociative identity focusing on trauma when compared to a dissociative identity focused on everyday tasks. Through a structural MRI, it was found that DID patients have smaller hippocampi and amygdalae than normal controls, and orbitofrontal hypoperfusion was seen in DID patients when compared to normal controls in two single photon emission

computerized tomography (SPECT) studies that were conducted on host identities (Şar et al., 2017). These findings make sense as it has been suggested by longitudinal neuroimaging studies that the orbitofrontal cortex is one of the last areas of the brain to finish developing, and there is also research to suggest that children who experience early trauma have smaller orbitofrontal cortex volumes (Şar et al., 2017). In addition to Shore's reported relationship between orbitofrontal cortex development, attachment, and emotional regulation, Forrest proposed an orbitofrontal model for DID, which combines theory and research from neurobiology, emotional regulation development, self-development, and experience in application to the development of the orbitofrontal cortex. This theory believes that the development of the orbitofrontal cortex plays a key role in the creation of multiple mental states (Şar et al., 2017).

In the recognition and diagnosis of DID, it is extremely helpful to have a way to biologically distinguish between DID and healthy patients. The findings from neurobiological studies on DID often relate back to the connection between childhood trauma and the development of DID, highlighting the connection between early experiences of trauma and brain development. The ability to recognize DID from a biological basis discredits the idea that DID can be imitated and allows researchers to look deeper into the effect that childhood trauma has on specific regions of the brain and more effectively treat these patients. Research studies focusing on the particular areas of the brain that are most affected by childhood trauma may help clinicians more accurately diagnose and provide treatment to the DID community as well as offer useful information regarding pharmaceutical treatments. Neurobiological findings in this area provide evidence to support the recognition of DID as a response to traumatic childhood experiences that have impacted brain development.

The Trauma Model

The Trauma Model of DID has been adopted as the dominant theorization and researchers applying this model understand childhood trauma as the universal driving factor in the development of DID (Dorahy et al., 2014). Post-Traumatic Avoidance happens both individually and socially, but individuals' need to keep trauma hidden has an adverse effect on research, as well. Many people do not feel comfortable sharing their darkest traumatic experiences or are in denial of them. Childhood trauma is commonly linked to DID and Post-Traumatic Avoidance happens as the brain's response to confronting terrible acts done to a child (Dorahy et al., 2014). This avoidance is negatively impacting the children who have been traumatized and need psychiatric help and allows society to not feel uncomfortable by the trauma that has been inflicted on these children. In order for DID to materialize, the child must have the ability to dissociate. This extreme dissociation leads to the creation of multiple self-states that do not integrate over time and have their own specific attributes and memories. Due to the overwhelming feelings that accompany traumatic experiences, the child is not stable enough to integrate all of those memories and compartmentalized personality states into one self-state. The existing data on DID shows that the development of this disorder is likely due to a mix of trauma, dissociative processes, psychosocial influences, and social constructs that impact self-understanding (Dorahy et al., 2014).

Şar et al. (2017) discuss developmental traumatization and consider that these alternate identities could be understood as more severe trauma-related mental intrusions and avoidance, as seen in PTSD. They reported that childhood abuse and/or neglect is reported by 90-100% of patients involved in most clinical studies (Şar et al., 2017). They argue that disorganized attachment may give DID its footing, as early experiences of abuse/neglect by a relative is

associated with this attachment type (Şar et al., 2017). Derealization and depersonalization may be linked to loneliness as it causes people to think they are the only ones experiencing something. A major claim of this research was that if a child is unable to process abuse, they are unable to make sense of these experiences through narrative and their ability to integrate the abuse with other autobiographical experiences is limited. Their memories of the abuse will remain separated and this will affect the child's ability to form an ordinary sense of self in relation to others. This may also cause interpersonal and internal phobias that discourage change (Şar et al., 2017).

The article by Cudzik and colleagues (2019) argues that children use imagination and fantasy to cope with extreme conditions by dissociating and splitting due to the fact that they do not have suitable defense mechanisms. The difference between DID and PTSD is that DID has its roots in repetitive childhood trauma, while PTSD is associated with traumatic experiences that happen later in life (Cudzik et al., 2019). Cudzik and colleagues (2019) found that 97% of patients with DID reported traumatic childhood events, with 85% of them being sexual abuse. Other events that are often reported by patients with DID are incest, physical abuse, severe neglect, and the death of a loved one. These events usually happen before the age of five (Cudzik et al., 2019). Cudzik and colleagues (2019) present four models for analyzing DID that are all variations of the Trauma Model. These models are the psychoanalytic model, the autohypnotic model, the evolutionary model, and Bowlby's attachment model (Cudzik et al., 2019). All of these models view DID as a severe coping mechanism that children use to try and manage extreme trauma that they cannot physically escape or defend themselves against (Cudzik et al., 2019). The psychoanalytic model believes that alters develop because of defense mechanisms designed to protect the individual from danger and draws from Freud's "Studies on Hysteria", as

splitting and dissociation are defense mechanisms (Cudzik et al., 2019). Infants use splitting to differentiate between good and evil, however, repetitive trauma will cause them to apply this mechanism in situations that are not threatening and allow for the creation of two separate worlds, leading to the formation of new alters to protect the child from the trauma (Cudzik et al., 2019). Cudzik and colleagues (2019) define dissociation as a defense mechanism that separates particular thoughts and memories from the rest of the personality. As there is no distinction between fantasy and reality, this seems to explain why alters can have a different sex, race, or age than the original personality without finding it contradictory. Overall, the psychoanalytic model requires both trauma and fantasy for the development of DID but has faults because it does not explain every clinical symptom, and not everyone who can dissociate develops alter personalities (Cudzik et al., 2019).

The autohypnotic model believes that dissociative patients escape from trauma by engaging in autohypnosis (Cudzik et al., 2019). DID patients have been shown to be highly hypnotizable and autohypnosis could explain many symptoms. This model sees hypnosis as controlled dissociation, therefore, it recognizes dissociation as a form of autohypnosis (Cudzik et al., 2019). Repeated trauma can cause autohypnosis to be more frequently used in other stressful situations. As it interferes with memory and sense of self, this results in episodes of amnesia and the formation of alters. Even though DID patients have high hypnotizability, this theory is assuming a connection between dissociative susceptibility and hypnotizability (Cudzik et al., 2019). Studies have indicated that these processes are not synonymous, as not all easily hypnotized people are able to dissociate (Cudzik et al., 2019).

The evolutionary model focuses on the developmental period of sensitivity that people with DID go through that is impacted by traumatic events, leading to the formation of multiple

personalities. This period is typically between the ages of a few months and 10 years (Cudzik et al., 2019). The disruption of processes such as susceptibility to dissociation, imagination and fantasy, and behavioral states of consciousness could lead to the formation of alternate personalities. Repeated trauma during the sensitivity period could influence the child's dissociative process and the emergence of alter personalities could be in part due to the fact that children assign personalities to their toys or create imaginary friends. Interestingly, alters themselves have admitted to being originally created as imaginary friends and then later acquiring their own lives due to traumatic experiences (Cudzik et al., 2019).

The attachment model focuses on the idea that a child has a primary caregiver who is supposed to be responsible for their survival but instead turns out to be their abuser (Cudzik et al., 2019). Deriving from object relations theory which claims that children form representations of themselves and objects and relate them to one another through emotion, this model believes that children with an abusive caregiver have to create defensive reactions in order to maintain their attachment to their caregiver, which is essential to their survival. To maintain their attachment, the child may use methods such as dissociation, splitting, or internalization and identification with the aggressor (Cudzik et al., 2019). The child's idolization of their caregiver allows them to maintain their attachment to them and split off from negative emotions/memories that affect the image of themselves they wish to present. Devaluation is the reverse process, where the child shifts blame from their aggressor onto themselves. This allows the child to keep their attachment to their abuser by taking over their power and protecting themselves while vulnerable (Cudzik et al., 2019). Splitting allows the child to separate into good and bad versions of themselves as well as good and bad versions of their abuser. They use dissociation to block out traumatic memories and get attached to an ideal version of their caregiver. They push out the

negative memories of the abusive caregiver, which eventually leads to the creation of new alters that allow the child to cope with traumatic situations (Cudzik et al., 2019). It is possible that DID is a variant of children's defense mechanisms against trauma, and the creation of alternate personalities is a coping mechanism. As children younger than 10 do not have a fully created personality or defense mechanisms, they can create alters easier than adults (Cudzik et al., 2019).

The acknowledgment of childhood trauma as the main factor contributing to the development of DID will aid clinicians in diagnosing and treating these patients with the proper care and understanding. Many people are hesitant to open up about their past traumatic experiences, so it is possible that this recognition would increase patients' openness during treatment and therapy sessions as well as guide the clinician in navigating sensitive topics. Even though diagnoses are not typically made until later in life, the understanding that DID is a result of significant childhood trauma may help adults recognize when a child is being abused and prevent further trauma from occurring. The Trauma Model has emerged as the dominant theorization in application to DID, and as such it is useful to look at specific cases to illustrate how early trauma can impact development. Not only does the current theorization help researchers identify who develops the disorder, but it also validates patients' experiences and symptoms.

Who is Diagnosed With DID?: The Role of Childhood Trauma

In differentiating DID from other psychological disorders, more severe and earlier onset of child abuse seems to be a determining factor (Dorahy et al., 2014). Dorahy et al. (2014) make the bold statement that every study systematically examining the aetiology of DID has found the presence of past serious, chronic abuse in the childhood of nearly every person with DID. In order to understand the aetiology of DID, it is necessary to understand exposure, coping, and

developmental factors such as trauma, family dynamics, development in childhood, attachment, and how society plays a role in creating alternate selves (Dorahy et al., 2014). With the onset of the disorder usually around the age of five or six, the child may be aware that the abuse is happening, but not that it is happening to them specifically, so they are able to distance themselves and still maintain some sort of normalcy with their abuser. The child is using dissociation as a coping strategy for severe trauma, and once the child is no longer being subjected to this repeated trauma, they still maintain their ability to dissociate at that level (Urbina et al., 2017).

In a study by Lewis et al. (1997), they aimed to establish a link between early severe abuse and DID while also distinguishing DID from malingering symptoms and other disorders. For convicts, there is even more skepticism surrounding the diagnosis of DID, so they sought to present objective data on dissociation and abuse in 12 different people arrested for murder, as past studies in this area have lacked objective data. This is not representative of the entire DID population, but it is relevant that even in violent crime cases, childhood trauma seems to be the more likely causal factor. They included a table documenting objective information on the nature and extent of physical and sexual abuse for 11 of the subjects, which described some horrific examples that could be considered torture (Lewis et al., 1997). There was a clear link between the child's traumatic experiences and how they manifested later in life. They found that most subjects struggled to remember or minimized their childhood trauma while in their usual personality states, which means that they could not have used their history of abuse to manipulate clinicians, court officials, or anyone else. Most histories of maltreatment were obtained from past records, relative accounts, and childhood friends. None of the subjects were aware that they had DID before the evaluation, and some were in disbelief even after being made

aware of their condition. Due to the extensive investigations that were conducted for the trials, the researchers of this study were able to obtain a larger quantity and better quality of evidence than other psychiatrists/studies (Lewis et al.,1997). They clearly state that their study demonstrates that DID can be distinguished from both malingering and other mental disorders, with the evidence being the different handwritings, documented amnesia, and changes in demeanor, voice, and appearance seen by family and peers prior to the time the crimes were committed (Lewis et al., 1997). For this to be malingering, the subjects would have had to plan the crimes months in advance and feign dissociative symptoms, which is extremely unlikely.

When it comes to differentiating DID from other mental disorders like schizophrenia, the difference is made clear because no other disorder is characterized by voice, demeanor, handwriting changes, and amnesia other than DID (Lewis et al., 1997). Even though many patients with this disorder do have an aggressive personality state present, most of them are not criminals. Many of the males with DID who have been evaluated were incarcerated, not in an outpatient setting, as men may go unrecognized due to their violence being seen as sociopathy. Lewis and colleagues (1997) highlight that not a single subject in their study produced false memories or lied during the discussion of maltreatment, but they did minimize their experiences. Major instances of abuse were mainly found through records and family interviews as the subjects struggled to remember the events. If appropriate resources are available and topics are approached with sensitivity and diligence, evidence of prior dissociative symptoms and childhood trauma can be found (Lewis et al., 1997).

With society's skepticism associated with DID and the way the community is represented through horror adaptations in the media, finding evidence against malingering is extremely important. The study by Lewis and colleagues (1997) provided evidence to support that criminals

did not use their DID to lessen their sentences, as this would have been impossible due to the fact that they had no previous knowledge of their diagnosis and experienced memory issues surrounding their childhood trauma. This study also offers evidence to support the idea that childhood trauma is the dominant causal factor even in cases such as these, which is not to imply that DID is a precursor to criminality. Rather, childhood trauma is a precursor to DID, and this relationship is supported by the evidence presented in the article by Lewis and colleagues (1997).

The case study by Lee et al. (2022) focuses on a 16-year-old boy with nine alter personalities and is the first report of adolescent DID in South Korea. They highlight the importance of differential diagnosis between DID and other disorders like schizophrenia and wish to expand treatment options by explaining how they used ego-state therapy in this case. The following diagnostic measures were used: psychiatric interview of diagnostic criteria, laboratory tests, brain imaging, psychological testing, mental status examination, and the Adolescent DES-SR (Lee et al., 2022). The patient originally came into the clinic because of auditory hallucinations and impulsive behavior and after receiving the DID diagnosis, he received the following treatments: ego-state therapy, emotional psychoeducation, trauma-focused therapy, family therapy, and pharmacotherapy (Lee et al., 2022). After treatment, he was able to identify nine personalities, which established a basis for integration, and he showed improvements in relation to family conflicts and school refusal.

The boy in the case study by Lee and colleagues (2022) came from a planned pregnancy from a couple that exhibited two-way domestic assault and divorced by the time he was eight years old, after which he spent months with his eyes closed, with eating and walking the only exceptions. He was bullied since the first grade and saw his mother harm herself with a weapon at the age of 11. At 13, he became absorbed in video games, which resulted in arguments with

his mother that sometimes ended with physical violence. By 15, he started experiencing auditory hallucinations of three voices speaking to him, one telling him to kill, another telling him to kill himself, and a third that tries to stop the other two (Lee et al., 2022). In response to these hallucinations, he started injuring animals and himself before he attempted suicide. He began treatment at another clinic for schizophrenia and depression, but it did not stop the auditory hallucinations. Two weeks before he came to the clinic, his intoxicated mother handed him a knife and they fought, ending in the patient accidentally assaulting his mother with a deadly weapon (Lee et al., 2022). Once admitted to their inpatient psychiatric unit, he reported it was the “crow monster” inside him that hurt his mother, not him, and that he was a child who could not feel emotions. They performed a psychiatric interview based on the DSM-5 which consisted of laboratory tests, brain imaging, psychological testing, and mental status examination (Lee et al., 2022). They found no noteworthy medical opinions other than hyperprolactinemia, however, using the full psychological test for adolescents, they found that he had a Full Scale Intelligence Quotient of 92. No cognitive distortions were suggested by his projective test results (Lee et al., 2022). They used the Adolescent Dissociative Experiences Scale (A-DES) to evaluate for dissociations and found he had a mean score of 6.77 points, which signifies high levels of dissociation as the mean score of the normative group in South Korea was only 0.75 points in another study on the validity of the A-DES. This patient had the highest scores in the identity confusion/alteration subdimension, with the amnesia subdimension following close behind. However, he scored a zero on the subdimension of depersonalization/derealization, which corresponds to questions like, “I find myself standing outside of my body, watching myself as if I were another person” (Lee et al., 2022). He did not show any of the negative symptoms of schizophrenia like disorganized speech, but he did experience an identity disruption with three or

more personality states and had memory gaps that were later discovered as childhood trauma through the treatment process. In the discussion of therapeutic intervention, they mention the treatments of pharmacotherapy, cognitive behavior therapy, and eye movement desensitization and reprocessing (Lee et al., 2022). However, their focus is on Ego State Therapy, which allows the clinician to come in contact with the patient's various ego states (Lee et al., 2022). This kind of therapy also uses hypnosis and aims to connect the memories of each ego state while also accepting the differences between them.

In ego state therapy, the patient explored his own mind through hypnosis and closed eyes, and named this place "the Mind's Room" (Lee et al., 2022). He described the inside as having a table, sofa, three dogs, 15 trees, and a large eye on the ceiling that could see everything at once. There was a door leading to each of the four rooms, the Computer Room, the Jungle, the Desert, and the Basement. Through Ego State Therapy, they explored these rooms and discovered nine total alters, not including the three reported by the patient (Lee et al., 2022). Whenever a new alter was discovered, the clinician would recognize the physical changes in the patient that accompany each alter. Some alters were aware of each other, but some had no knowledge of the others until they were introduced by the clinician. The patient was aware of some of these alters, but some were at play without his knowledge. He named each alter after a birthstone, all of which were created when he was about 15, except for Emerald who he claims has been around since he was four years old. Ego State Therapy facilitated the inspection and understanding of ego states for the patient, as he was in a safe treatment space where he could comfortably explore the Mind's Room (Lee et al., 2022). Grounding and containment were used to stabilize the patient when he experienced anxiety. They included figures of self-portraits of all nine alters as drawn by the patient, and an illustration of the Mind's Room and its structure. The space was

described as similar to a living room, with the alters Alex, Xandra, and Ri-te. The three doors that lead to the Desert, Jungle, and Computer Room are there, and behind each door new alters were discovered. Emerald was found in the basement, which became available through the treatment process. All the other alters initially feared Emerald, who had been locked away as a child alter for many years, but a playroom was created using hypnotic suggestion (Lee et al., 2022).

Through treatment, these alters were able to gain awareness and understanding of each other. Instead of being bombarded with differentiating opinions when faced with a difficult decision, the patient was able to have a meeting with his alters to potentially come to an agreement (Lee et al., 2022). The relationship between the alters is now much more intimate and comfortable, which was depicted in a drawing by the patient. One of the biggest findings of this case study was that the patient was able to acknowledge that he needs emotions and the ability to control them through the treatment process, even though he had relinquished emotional control due to fear of sensing emotions (Lee et al., 2022). Controlling his emotions also meant controlling his alters, and over time, he was able to control which alters were able to surface and when. This decreased the appearance of alters over time and helped the patient learn how to communicate his own emotions, as he now felt a new sense of security (Lee et al., 2022). Even though the patient did seemingly well after being released from hospitalization, he struggled to adapt to reality and faced familial issues because of it. He was hospitalized again to focus on these external dimensions, where a clinician aided in mending the conflict and facilitating understanding between him and his mother. Family therapy decreased the conflict between them, which gave him time to reflect and he ended up returning to school. Even though he still

struggles with some difficult emotions, he can now make judgments himself and does not need to depend on his alters to sense certain emotions (Lee et al., 2022).

Studies of East Asian countries (i.e. India and South Korea) identify a significantly lower prevalence of DID than Western Countries (i.e. North America and Europe), as the prevalence rate of DID in Asian countries is between 0%-0.5% (Lee et al., 2022). Lee et al. (2022) explain that this may be due to Asian nations' previous tendency to diagnose DID as a possession disorder, and also that South Korean clinicians are not well-versed in the diagnosis of DID. Seeing DID as possession leads people to rely on unconventional treatment methods that may negatively affect them (Lee et al., 2022). The article by Lee and colleagues (2022) discusses the relationship between childhood trauma and DID, and how repeated exposure to trauma can result in the patient being unable to integrate the painful experiences. In this specific case, the patient was incapable of sensing emotions when he first arrived at the clinic, which protected him from suffering from the memory of these experiences. They explain that emotions are a large aspect of life, so alters were psychically created to sense the patient's emotions. These characteristic emotions were assigned to each of the patient's alters (Lee et al., 2022). The doors in the Mind's Room that separated certain alters served as an amnesiac barrier by preventing certain knowledge from being available to certain alters. The authors highlight the importance of differential diagnosis as DID patients receive an average of three to four incorrect diagnoses before arriving at the correct one and auditory hallucinations are a common symptom of both DID and Schizophrenia (Lee et al., 2022). One of the most valuable parts of Lee and colleagues' study is the images they included drawn by the patient himself, as it gives the layperson an introduction to the mental space of someone with DID. An important aspect of this study to note is that through hypnosis, they were able to facilitate the creation of a better environment for

Emerald, a playroom. Hypnosis is just one treatment method for patients with DID, however, many treatments share the goal of amnesia reversal and identity integration.

Treatment and Moving Forward

The treatment experiences of patients with DID vary, but many of them report severe depression, have PTSD, and may have substance abuse, eating, or sleeping issues (Mills, 2022). Recent treatment methods have included longer-term trauma-informed treatment with three stages: stabilization, trauma processing and getting to know their dissociative states, and living a full life. Many of these individuals are also on a mix of antipsychotics due to the high volume of comorbidity with other mental health issues (Mills, 2022). The first step of psychodynamic psychotherapy focuses on the safety of patients and mitigating the risks of self-injurious behavior (Mitra & Jain, 2022). The second step focuses on tolerating, processing, and integrating past trauma through exploring traumatic memories. The final step mainly focuses on the patient's relationship with themselves and the world. It is important that a strong therapeutic alliance is kept throughout this process, not only between the client and the professional but also between the client's involved family members and other alters in their system (Mitra & Jain, 2022). Recent approaches have also begun using trauma-focused cognitive behavioral therapy and dialectical behavioral therapy. Eye Movement Desensitization and Reprocessing has been used as an integrative treatment to aid in symptom reduction, ego strengthening, working with alters, and negotiation of consent and preparation of alters (Mitra & Jain, 2022). Even though psychopharmacology is not the primary treatment used for DID, there are medications that may be used for specific symptoms such as mood disorders or PTSD. The challenge with prescribing medications to people with DID is that different alters may report different symptoms and

compliance varies. Many medications have been tried but none have proven effective in treating DID (Mitra & Jain, 2022).

With amnesia being a major symptom of DID, amnesia reversal has been a focus of recent research (Ross et al., 2022). It is also relevant to look into hypnosis as a method of treatment, as it has been argued as a helpful treatment tool for nearly two centuries (Kluft, 2012). One of the most prominent treatment goals for DID patients is integration, which facilitates communication and better functioning between alters (Rothschild, 2009). However, an overarching issue within the treatment and diagnosis of DID is the lack of training given to professionals and therefore the lack of resources available to DID patients (Mills, 2022). This leads to undiagnosed DID, which is a relevant issue because patients cannot begin the correct treatment until they are correctly diagnosed (Urbina et al., 2017).

Amnesia Reversal

The article by Ross et al. (2022) sought to provide current research on the triggers and circumstances under which individuals with DID or other specified dissociative disorders (OSDD) can reverse their amnesia of childhood trauma. They claim that since 1999, this is the first study to analyze the occasions in which a sample of DID or OSDD participants remembered trauma that they had previously not been able to (Ross et al., 2022). Their study's hypothesis that the large majority of the reversal of amnesia for trauma happens outside of therapy sessions was supported. They explain that all the reported triggers make sense clinically, as they represented aspects of abuse, isolation, and loneliness. The most highly reported triggers included nightmares, hearing/reading certain words or conversations, and people that remind them of their trauma. They argue that these results are not consistent with the idea that recovered memories are created by patients with DID during therapy (Ross et al., 2022). This is important because

skeptics of DID argue that memories of childhood trauma recovered by individuals with DID are artifacts of therapy and that they predominantly occur in therapy sessions (Ross et al., 2022). The alters in individuals with DID who were present for the trauma have a continuous memory of the experiences and these memories are transferred to other personality states, sometimes including the host personality. They acknowledge that triggers occurring outside of therapy sessions do not rule out the possibility that therapy has an influence even outside of sessions, however, their findings support that the remembering that participants experience in therapy sessions only accounts for a small portion of reversals of traumatic amnesia (Ross et al., 2022).

This study is relevant because it is a misconception that the memories that are resurfaced in therapy sessions are actually fabricated by the therapist and are not coming from a real place. The findings showed that the recovery of memories does not primarily happen in therapy sessions themselves, so there is no way for the therapist to manipulate or create memories (Ross et al., 2022). They acknowledge that therapy may have an influence on outside situations, but the triggers reported by the participants showed how many things in everyday life are likely to trigger a traumatic memory. They clarify that DID individuals continuously hold these memories, they are just held by specific alters and not accessible to others. This debunks the idea that these memories are completely wiped from the brain and somehow rediscovered through therapy because the memories were never gone, they were just inaccessible to a particular personality state, which is likely the host (Ross et al., 2022).

Hypnosis

Hypnosis has been argued as a helpful tool in treating individuals with DID/DDNOS for many years as it has been used to treat DID since the 1830s with Antoine Despine (Kluft, 2012). Kluft (2012) argues that hypnosis still plays a role in the treatment of DID patients today given

that hypnotizability is high in dissociative disorder populations. In a case study of an adult woman who experienced over 20 years of incest, was exploited through pornography and prostitution, and was sexually and physically assaulted in law school, they began treatment with the goal of stabilization and preparing the patient for trauma work (Kluft, 2012). This focused on clearing up her headspace enough to be able to discuss emotional topics, as she had so many alters active that her conversational abilities were impaired. They first taught her glove anesthesia and how to transfer it to other locations on her body, which relieved her migraines and panic attacks (Kluft, 2012). Kluft was then able to communicate with some of the alters, but it was difficult to talk to the male alters who identified with abusers. Kluft refused them their favorite beer unless they also accepted imported beer in the hopes of them developing an acceptance for other unfamiliar ideas (Kluft, 2012). This was effective, as they became open to the idea that new things can be interesting instead of threatening (Kluft, 2012). He explains a technique he uses called “origins work” which involves a modified form of age regression that had the mother-based personality go back in time to before it separated, and then move forward in time (Kluft, 2012). Shame reduction procedures were used to help her work through the blame she feels pertaining to the attention she gets from men.

Even though nearly all of the patient’s alters had entered the therapeutic alliance, stabilization requires more elaborate steps once dissociative barriers are brought down (Kluft, 2012). They highlight the importance of protecting the patient from destabilization during trauma work and share that they developed a stabilization protocol to use between sessions. Kluft developed the technique of “fractionated abreaction” that had traumatic material presented in hierarchies which he used with the patient (Kluft, 2012). He also taught her percentage titration and sought to encourage a “yes set” which predisposes the patient to be receptive to what follows

(Kluft, 2012). With the rheostat metaphor, Kluft first taught her how to increase discomfort, and then how to turn the dial back down to her baseline severe discomfort. Through repetition, she learned how to increase and reduce her pain levels with ease. They then went further and taught her to lower her discomfort to 2% below baseline, then 5-10%, and then eventually 90%. Once she was able to reduce her discomfort by 90% below baseline she was also able to completely block out physical or emotional discomfort even though some discomfort continued (Kluft, 2012). Through gaining these skills, she opened up to the idea of trauma processing but gradually became counterphobic and combative against her experiences of trauma. This resulted in the confidence that not only could she handle processing them all, but also that she would become stronger by doing so (Kluft, 2012). The more trauma they processed together, the stronger she became and eventually, she was able to recover her legal knowledge and skills from law school that she previously did not remember. Kluft reiterates the claim that heterohypnotic interventions have a positive effect in the treatment of DID and DDNOS and shows the validity of this method by explaining that in his clinical experience, he has successfully integrated over 180 DID patients and that the work he has done with patients refusing hypnosis work was much more challenging (Kluft, 2012). Overall, he is arguing that hypnosis increases the safety and effectiveness of DID treatment. Hypnosis is not the most scientifically trusted treatment method but it is often mentioned in accordance with DID treatment, which is notable because DID itself is also controversial. Many treatments focus on managing symptoms and communication between alters, as this allows the patient to separate their thoughts and work with their system to create mutual respect and understanding.

Integration

Integration, or fusion, of alters is a common goal in the treatment of DID, however, this does not have to mean complete integration of all alters, but rather that the system is able to facilitate communication between them and maximize functioning (Rothschild, 2009). Like Wyn (Feildelson, 2021), there may be systems that do not feel the need or want to be completely integrated, so they focus their attention on working together. Integration relies heavily on self-awareness and self-reflection, which means that the patient must understand where they are in terms of time and space (Rothschild, 2009). The Self is already thought to be comprised of multiple Selves, and the psyche begins to unite these parts and develop a connected sense of personal identity. This process can be disrupted by trauma, compromising identity coherence and creating a dissociative structure (Rothschild, 2009). The paper by Rothschild (2009) explains that integration is a common aim in the treatment of pathological dissociation, but this does not simply mean fusing the dissociated parts into an associated whole. Rather, the goal is to facilitate awareness of these self-states and make them accessible to the original personality (Rothschild, 2009). A sense of continuity can be achieved through mutual recognition and internal communication between self-states, but this requires the ability to reflect on oneself. Rothschild (2009) describes her patient, Sarah's, development of self-awareness, and how it progressed through their treatment together. It is argued that clinicians who are using a traumatology perspective to treat DID believe that the goal of treatment is to reach a stable sense of unity, not to make parts disappear. The focus should be on creating awareness and cooperation within the system, which gives them more control over their behaviors and actions and decreases the chaos that arises when there is no communication between parts. Many people with DID are seeking integration because they want to be able to be fully present all the time, but Rothschild (2009)

argues that these alters are already fully present, so fully present actually that they lack awareness of anything else, other than the present moment. The full presence that they seek requires a sense of perspective, which requires self-reflection and the ability to access the memories of that self (Rothschild, 2009).

Sarah was a 43-year-old woman who was previously unaware of her dissociation and had endured extreme abuse during childhood. She recounted these traumatic memories either completely emotionlessly, as if they happened to someone else, or went into dissociative states and relived the experiences, in which she screamed, cried, and banged her head against the wall. To ground them both, Rothschild began responding to her memories by looking at her intensely and asking her to meet her eyes. Once she could, she was reminded who Rothschild was, where they were, and the current date. They then repeated that date together, over and over, to put the memory into a temporal perspective (Rothschild, 2009). Sarah understood that she dissociated to maintain her sanity, so she feared that unlocking those traumatic memories would cause her to lose herself altogether. As Sarah discovered her multiplicity and received a diagnosis, Rothschild had to start over and earn the trust of the emerging alters. The first alter that emerged in therapy was a child alter, after Rothschild suggested listening to that voice and playing when it asked to. Soon after that suggestion, the child alter came out in a therapy session and continued to come out at later ones. Rothschild treated the child as she would any other, and joined them in playing with the toys they brought to the sessions. By encouraging Sarah to respect all the voices in her and establishing trust, she facilitated communication between them and opened the door to allowing other alters to comfortably come out and take over the body during their sessions. Rothschild welcomed all of her alters to come out in therapy, which led them into the communication and cooperation phase (Rothschild, 2009). By practicing listening to the voices

in her head, Sarah created a relationship of cooperation between alters and got rid of the competition to be in control. This allowed Sarah to develop an awareness of the interactions and events that happened while another self-state was in control and share information throughout the system. As each alter was revealed in therapy, Rothschild got to know each and was able to introduce them to one another. This important role that Rothschild played in facilitating awareness while in other personality states strongly supports the importance of the therapeutic relationship between clinician and client, as they must work together to build the trust and openness necessary to allow for other alters to emerge (Rothschild, 2009). Sarah became very interested in learning about the other alters in her system, so she often asked questions in therapy about the others and even wrote down questions she wanted Rothschild to ask a specific alter so she could report back to her. This process facilitated negotiation and communication between the alters, some of which were moderated by Rothschild. Over time, Rothschild's mediation was less necessary because Sarah learned to listen and communicate internally.

Dissociative processes can disrupt one's subjective experience of time, which is related to trauma as someone may be simultaneously responding to a situation in the past and present (i.e. PTSD). When Sarah relived her traumatic memories, repeating the current date helped her place those events in the past (Rothschild, 2009). Rothschild (2009) argues that reclaiming a sense of time cohesion also allows one to reclaim a narrative history, continuity of selfhood, and continuous consciousness. Sarah was able to develop an understanding of time continuity and open the door to a sense of her own history by understanding that she continues to exist even in moments she cannot remember. Integration of brain functions allows an individual to feel a connection to the past, present, and future, and this therapeutic process opens communication between traumatic states and assists in bilaterally integrating information into areas of the brain

that were previously dissociated, increasing the coherence of one's autobiographical narrative (Rothschild, 2009). As time and space are both impacted by dissociation, alter personalities live in a separate time and place from the here and now. The recognition that all the alters within a system share one body is essential to treatment, as some alters may be unaware that they are cohabitating with others or that they are not the only one's affecting the body. This is huge in terms of keeping the body safe, as all alters need to realize that if one of them gets hurt, they all do. The recognition of the body as a place in time and space as well as an awareness of memories facilitates the experience of a coherent self (Rothschild, 2009).

There is a sense of hesitancy and fear associated with integration because of the belief that it means the death or disappearance of an alter (Rothschild, 2009). Sarah's alters began fusing together rapidly until a minor trauma caused them to split apart again. This happened because rather than forming true cohesion of the self at her core, she was just sticking the pieces together. Integration is the awareness of the continuity in one's coherent existence. This means being aware of the consistency across time, place, and person as well as the many parts of self (Rothschild, 2009). Through treatment, Sarah reclaimed her memories and was able to talk through them and remain present. She bridged dissociative gaps and was able to recall memories while remaining conscious in the present and being aware of her various moods and self-states. Through this process, all of Sarah's alters eventually became integrated and by the end of treatment, she was able to validate her existence within herself, gain perspective, and be fully present (Rothschild, 2009). This is the true goal of integration. It is not the erasure of identities, but rather, the facilitation of communication and cooperation amongst them for the greater good of the body and the system. Fusion will happen naturally as the patient no longer feels the need

to be separated into parts and kept away from specific memories, but this is not a requirement of integration.

Accessible Treatment and Professional Training

Accessibility to treatment and professional training is essential, as there are many people who do not have access to resources. An important argument that Feidelson (2021) makes is that it is especially hard for nonwhite people to get the right kind of treatment for their DID symptoms, and that talk therapy with a trained professional has been established as the gold-standard treatment method (Feidelson, 2021). A large issue within the treatment of DID is the lack of training given to psychologists on their diagnostic and treatment methods, as many mental health professionals have not been trained in assessing dissociative disorders due to the controversy about them causing many graduate programs and medical schools to not train students in this area (Mills, 2022). This lack of training and accessibility heavily impacts the DID community, as it may prevent them from receiving the proper diagnosis and treatment. In the case study by Urbina et al. (2017), they aimed to provide evidence for why practitioners should be screening for undiagnosed DID and call attention to how DID is represented in the media as well as the skepticism it faces from mental health professionals. In the discussion of fake versus real DID, they clarify that the DSM-5 suggests a way to differentiate by recognizing that those who imitate DID are likely to appear as if they enjoy having the disorder, while people with real DID are likely to be ashamed by their diagnosis and may even lie about their symptoms (Urbina et al., 2017). They found reports of anywhere from 1- 20% of patients admitted to psychiatric units having DID and in an inpatient setting they found that 2% of them had previously undiagnosed DID. A study by Ross et al. (1991) found that 6% of the patients who scored above 20 on the Dissociative Experiences Scale had undiagnosed DID. This is significant

because of the number of patients who have received multiple different diagnoses over the course of their treatment, and living in this constant state of hypervigilance can have long-term effects (Urbina et al., 2017). Even though many DID patients have recognizable episodes of amnesia, some of the less obvious symptoms can be overlooked.

Urbina et al. (2017) argue that practitioners should be asking psychiatric patients about depersonalization, amnesia, derealization, fugue, identity alteration, and identity confusion when screening for common diagnoses, as this information is not often offered by the patient. They also mention the issue surrounding the lack of training on DID for mental health professionals due to the controversy, and clarify that the DES can be used without any special training (Urbina et al., 2017). In their 3-stage treatment approach, Stage One focused on establishing stabilization and safety as well as symptom reduction. In Stage Two, the goal was to confront, work through, and integrate traumatic memories and the goal of Stage Three was rehabilitation and identity integration (Urbina et al., 2017). They end their discussion by reiterating the importance of practitioners screening for undiagnosed DID, as once this diagnosis has been made, treatment can be targeted at the root of the issue instead of relying on other comorbid diagnoses that are more common or familiar (Urbina et al., 2017). As most mental professionals are familiar with Cognitive Behavioral Therapy, this can be used temporarily to treat DID until more suitable treatment is available. Routine screenings for underlying DID in patients with recurring inpatient psychiatric hospitalizations or multiple psychiatric conditions would catch undiagnosed DID that would have gone untreated. Not only would this improve their quality of life, but it would also lower the frequency of hospitalizations and decrease the cost of treatment (Urbina et al., 2017).

Conclusion

As the literature currently stands, there is significantly more support for the Trauma Model of DID than any other theoretical model. This model believes in the relationship between childhood trauma and the manifestation of DID, as children will split into separate personality states through repeated dissociation in an attempt to protect the original personality from experiencing the trauma being inflicted on them. There are many Neurobiological perspectives that have been proposed in the literature that found differences in brain structure when comparing the brains of people with DID and controls, and this offers strong evidence to support DID as a valid disorder characterized by physical changes in the brain. The neurobiological research often supported an association between the differences they were finding and experiences of childhood trauma, as they recognized the Trauma Model as the dominant theorization going into their studies. This was illustrated in the numerous case studies presented in this literature review as the patients often reported significant childhood trauma preceding the onset of their DID symptoms. The recognition of childhood trauma as a major determining factor may help decrease the stigma associated with DID and the frequency of misrepresentation because it takes the blame off of the DID community and puts it onto their abusers, redirecting the judgment they have historically faced to be towards those who caused them the trauma.

By understanding the many variables that affect the onset of the disorder, clinicians will be able to more accurately diagnose and treat these systems. With the recent wave of DID prevalence in social media, people are beginning to shift their ideas and accept all alters within a system as equally real and psychologically valid. Integration between alters is often the goal of treatment for many, however, this does not imply forced fusion between all alters. More so, integration facilitates communication between alters and helps them work together to make sure

each individual alter, as well as the body, is healthy and happy. Through treatment, certain alters may fuse together, combining their memories and personalities to form one. The goal for some may be to eventually fuse all of their alters together, but for others, this may just happen as a result of treatment. It is important that the research community puts focus on furthering the research in this field, as it will increase awareness as well as the success and accessibility of treatment.

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