

Evaluating the Impact of Dissociation in Psychiatric Disorders

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Abstract: *Introduction: Dissociative symptoms are present in a various number of psychiatric disorders and are viewed as a major risk factor for suicidal and self-destructive behavior. Dissociation is defined in DSM-5 as a “disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior”. Assessing dissociation within different categories of mental disorders can be used to predict symptom severity and nonresponse to psychotherapeutic treatments. The most important tool in this process is the Dissociative Experiences Scale (DES). The purpose of the current study is to extend the understanding of dissociation in Psychiatric Disorders.*

Material and methods: The current study used PubMed and Cochrane databases to identify relevant articles that refer to the subject of dissociation in Psychiatric Disorders.

Results and Discussions: Dissociation and dissociative disorders have been at the root of continuous controversy in psychiatric and psychology communities. The general confusion comes from the reduced conceptual distinction between dissociation as a symptom, process, deficit and psychological defense. At the high end of the DES score we find dissociative disorders, but closely followed by posttraumatic stress disorder, borderline personality disorder and conversion disorder with eating disorders, schizophrenia and anxiety disorders at midrange and the lowest scoring DES psychiatric disorder is found in bipolar disorders. Early intervention, based on these scores, show major improvement in maladaptive functionality, suicidal and self-destructive behavior, coupled with a reduction in total treatment cost.

Conclusions: There is a significant benefit in careful assessment of dissociative symptoms for the entire spectrum of mental disorders. There is a major need to raise awareness in all mental health facilities, of the value that this has in the current clinical setting.

Keywords: *Dissociation; Dissociative Experiences Scale (DES); Psychiatric Disorders.*

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Introduction

Dissociation is defined in its simplest form as a separation in the structure of normal mental processes like emotions, memories, perceptions and others, that are usually integrated and accessible to the conscious experience (Burlea et al., 2010; Huidu, 2019; Spiegel, 2003). Dissociation is found at the core of dissociative disorders and is a diagnostic criterion for acute stress disorder (ASD), post-traumatic stress disorder (PTSD) and borderline personality disorder. This class of psychopathology is also found in varying intensity in almost all mental disorders ranging from schizophrenia to obsessive-compulsive disorder, anxiety disorders and many more. Assessing dissociation within different categories of mental disorders can be used to predict symptom severity and nonresponse to psychotherapeutic treatments. Dissociative disorders are among the oldest psychiatric disorders with published case reports appearing in the 18th century and extensive descriptions in the medical literature of the 19th century (Loewenstein 2018). After the Vietnam war more funding was pushed in researching dissociation and starting with DSM-III the diagnosis of PTSD and diagnostic categories for Somatoform and Dissociative Disorders were added. Also, a series of scales were introduced to help objectify and track dissociative episodes and symptoms, e.g. Dissociative Experiences Scale (DES), the DES-Taxon Scale (DES-T), the Adolescent DES, the Dissociative Disorders Interview Schedule (DDIS), the Clinician Administered Dissociative States Scale (CADSS) and the Structured Clinical Interview for DSM Dissociative Disorders (SCID-D) (Spiegel et al, 2011, Lyssenko et al, 2017).

Despite all this, there is still a strong controversy, not only in medical debates, but also at the social and political level. This in turn leads to a lack of well-structured training and educational programs involving dissociation, especially regarding diagnosis and treatment. The lack of a single, coherent school of thought is evident when comparing ICD-10 and the DSM-V. When characterizing dissociation, ICD-10 defines it as a “partial or complete loss of the normal integration between memories of the past, awareness of identity and immediate sensations, and control of bodily movements” acknowledging that it may also involve motor and sensory functions concentrating these experiences in a term called conversion. While DSM-V separates these notions in multiple classes, ICD-10 bundles them up in a category called somatoform disorders (Loewenstein, 2018; Spiegel et al., 2011).

Methods and Results

The primary author completed a literature review of PubMed/MEDLINE databases **to identify relevant articles that refer to the subject of dissociation in Psychiatric Disorders**. The primary focus was on meta-analyses that used DES score to compare different diagnoses and studies that addressed the conceptualization of the term.

Results and Discussions:

Distinguishing pathological from non-pathological dissociation complicates things even more. For example, the driver who commutes to and from work can often find himself arriving at his destination without realizing, on a state of „auto-pilot” where he maintains his dexterity and can react to things happening around him but is lost in thoughts. The movie enthusiast may avoid the intrusion of reality to his experience of the film being completely absorbed in the story, but not losing awareness of reality or the ability to consciously interact with his surroundings if the situation calls for it. In either case there is no single feature neurophysiological or phenomenological, that can differentiate if this is pathological in nature (Jureidini, 2004).

For this reason, Hilgard tried to coin the term „neodissociation” with a weaker sense in which the dissociated experiences of consciousness are not independent, but there is a reduction in awareness and diminished conscious control over them (Kihlstrom, 1984).

The researcher Cardena had a considerable contribution in defining dissociation as a term, and in a systematic way, to uncover its various nuances in use. He described it in three different ways: as the lack of integration of mental modules or systems, as a modified state of consciousness, and as a defense mechanism. Even though the latter is a function of the first two, they are all distinctly different (Dalenberg et al., 2012). Recent discussions have labeled the first and second definitions by two terms “compartmentalization” and “detachment” (Nijenhuis & van der Hart, 2011).

Compartmentalization is described by a partial or even complete inability to consciously control processes and take actions that can normally be done by volition, where conscious information cannot surface to the level of necessary awareness. This category does not include the breakdown of the normal processes, only a lack of control in the way they act on emotion, cognition and behavior. From a clinical standpoint the term includes

dissociative amnesia and conversion symptoms, plus other elements from somatoform disorders (Nijenhuis & van der Hart, 2011).

Detachment by comparison, is defined by a more subjective experience, that in which the individual has an altered state of consciousness, where he feels detached from the external world or from oneself. In these „altered states”, emotional experiences are dull and linear and often absent, the clinical equivalent of these states are the out-of-body experiences of derealization and/or depersonalization (Nijenhuis & van der Hart, 2011).

Dissociation is a complex disturbance of the normal state of being, and to fully understand the mechanism at play, it has to be broken down into smaller parts. In this sense there have been multiple studies that analyze where suggestibility, volition, memory, emotions and verbal report fit in the dissociative experience (Jureidini, 2004; Wieder & Terhune, 2019).

While a large volume of psychological literature has focused on suggestion, it never found any use in clinical psychiatric care. Used with a varied number of meanings, suggestibility could be defined as the absence of conscious volition in the sense of automatism or voluntary compliance. There are several instances where suggestibility is enhanced, e.g. priming through subliminal messages prior to the actual suggestion, tapping into scripts where giving a predetermined narrative, the individual is more inclined to follow it, pressure from a group and prestige factors. As the relationship between suggestibility and hypnosis is weak, so are its effects on dissociative phenomenology (Jureidini, 2004; Terhune et al., 2011).

Dissociation is also characterized by involuntariness and is perceived strongly as foreign in direct correlation with the degree in which attention is deflected in the imaginary and situational. Also, it is perceived more as an abnormality when the expectancy of the individual is surpassed in what they normally consider as an adequate response to a suggestion. Situational cues often determine uncued behaviors; we are able to interpret this as involuntary because of the automatic nature of ordinary behavior. Involuntariness in dissociation is determined by a state of loss of effort, in which normal willed actions are perceived as foreign and automated (Jureidini, 2004).

Research in memory has demonstrated a state-dependent effect that can be overturned when other cues with greater significance and meaning are present. An individual can recall far more information if he is persuaded to return to the state in which he was, at the precise moment the memory was stored. Through this mechanism, an adult can be introduced to the idea of personal childhood abuse, that is hidden from the conscious mind

through the unconscious internal mechanism of dissociation (Jureidini, 2004; Weissenborn & Duka, 2000).

Emotions are often flattened in dissociation. This lack of affective coloring is compared to the limbic disconnection syndrome where the normal pathways that connect the sensory cortex, the amygdala and other temporal limbic structures are disrupted. Through this numbing of the affective system, vigilant attention is accentuated with a strong focus on multi-sensory scanning for new information about this new perceived threat. Dissociative experiences determine emotional contraction, reduced interoceptive feelings, blunted pain experience and a feeling of emptiness (Jureidini, 2004; Damasio 1999).

Because there is no objective test to quantify dissociation, researchers have to base their studies on the patients verbal report. Often peer pressure, expectations and others make individuals more likely to misinterpret, distort and be bias in explaining and presenting their emotions and behavior to others. Dissociation stands on a narrow line where deliberate deception and personal pretending can underpin its validity, especially when the individual starts to convince themselves of the reality of their false experience (Jureidini, 2004; Jureidini & Taylor, 2002).

Psychobiology of dissociation

From a psychobiological point of view, dissociation can be compared to the human equivalent of the animal “freeze” or “feigning death”. This protective behavior is used in the face of life-threatening danger, where the normal “fight or flight” strategy cannot be used or it would be more dangerous. The altered response may be attributed to autonomic changes with lowering of blood pressure, heart rate, skin conductance and a reduced skeletal muscle tone. Stephen Porges postulates the polyvagal theory the primitive vagal parasympathetic system is activated once the high stress, sympathetic response fails resulting in this freeze or “playing dead” reaction (Loewenstein, 2018; Jureidini & Taylor, 2002). Repeated chronic trauma seems to strengthen this response with a mix influence from genetic, developmental, neurobiological and psychophysiological stressors. Captivity, childhood abuse, violent partner or trafficking experiences lead to an accentuated use of this freezing or dissociative behavior. From these findings the Trauma Model has been derived. This model sees this psychological state or adaptive mechanism working as a protective behavior in response to trauma or psychological overwhelming experiences (Busu & Teodorescu, 2017; Dalenberg, 2012; Loewenstein, 2018).

Mindfulness and dissociation are the equivalent of white and black. Mindfulness is a state of awareness, knowing and living in the present moment and dissociation is about not knowing and being unaware, to potentially save your life (Forner, 2019).

Dissociation is more inclined to the idea of survival, when there are not any other individuals to help or keep the person safe. Mindfulness and dissociation seem to be rival functions in the human brain even considering the later to be an actual phobia of mindfulness. Considerable differences can be observed when comparing a brain that is dissociating with a brain that has a lot of mindfulness training. An individual who dissociates on a regular basis clearly has a problem regulating his fear level also having a complicated relationship with their own emotions. This lack of insight can lead to a misunderstanding about what they feel and why they feel the way they do, a perpetual “mouse wheel” of the same suffering and pain from their past experiences, misshaping the present. Empathy is a foreign notion to them, often extremely difficult to reach with a strong possibility to trigger traumatic re-enactments. Loneliness is derived from this, a state of not being heard, understood or felt by others. These persons often use their flawed instinctual knowing to judge new situations in an unproductive or destructive pattern. By the nature of dissociation, they are not aware of what they know or feel, the complete opposite of mindfulness. This function of the human body and brain to cut off interactions with the threatening information is the core problem of dissociation. In a simpler explanation, the Insula and medial prefrontal cortex seem to be cut off with the individual not being able to manage the suffering and deal with it, a fact even more evident in abused children who seem to not even develop this function from the start (Forner, 2019).

Many authors see common ground in researching dissociation and hypnosis, considering that there are multiple similarities between the normal hypnotic states and the pathological dissociative experience. This association is being proposed stemming from the fact that hypnosis is far easier to test that dissociative episodes and can offer a better understanding of the pathological processes. As a clinical entity these episodes are undeniable, the hypothesis behind testing trance states and hypnosis in place of dissociative experiences is that they lack any special neurophysiological pattern, to justify constituting them as a specific state of consciousness (Loewenstein, 2018; Paris, 2012).

The framework of “splitting” in schizophrenia has been used for many years as a similarity to explain dissociation. Both are forms of consciousness in which processes and events that are normally fluid in

representation appear fractured and disconnected leading to an alteration in memory, identity and consciousness. The trauma model also appears in the pathogenesis of schizophrenia where stress-related events trigger, in genetically predisposed individuals, the “perfect storm”. Oversensitivity to stress, especially in relations with adverse life events of child abuse may contribute to the development of schizophrenia. A large number of patients with schizophrenia have clinically significant trauma symptoms that include intrusive experiences, avoidance and dissociative symptoms (Bob & Mashour 2011). Also, individuals who experience hallucinations have higher rates of dissociative episodes in comparison with other schizophrenia patients (Bob & Mashour 2011; Foote & Park, 2008). It seems that a large number of patients with dissociative identity disorders have formally been diagnosed with schizophrenia. In fact, dissociative identity disorders seem to have more positive symptoms that even schizophrenics leading to false-positive diagnoses of schizophrenia, which is made even more difficult by studies that show high levels of dissociation in some schizophrenic patients (Bob & Mashour 2011; Sar et al., 2010).

The most common instrument used to assess dissociative experience is the Dissociative Experiences Scale (DES). DES focuses on self-rating and contains 28 items that test the severity of the “dissociative continuum” being able to distinguish between normal, mild or severe manifestations. A hands-on scale, with subjects filling a 100 mm bar to reflect how much they agree with the statement. Questions try and test experiences of amnesia, absorption, depersonalization, and derealization. The Dissociative Experiences Scale–II (DES-II) was introduced in order to reduce completion time of the test, a revised version that uses an 11-point Likert scale ranging from 0 to 100. Both versions of the scale have been verified through multiple studies on their psychometric properties (Lyssenko et al., 2017).

One of the first meta-analyses to test the predictability of the DES scale was done by van Ijzendoorn and Schüngel in 1996 and found a high predictive validity for dissociative disorders and PTSD, as well as a high convergent validity with alternative measures of dissociation. The study included 6000 patients from 85 separate studies. The top results were not surprising, with the highest scores for dissociative disorders (mean=35.3) and PTSD (mean=32.6), followed by affective disorders (mean=19.4), schizophrenia (mean=19.1), personality disorders (mean=16.6). Healthy individuals (mean=11.57) and students (mean=14.27) where surprisingly equal to some psychiatric disorders as eating disorders (mean=14.5), and anxiety disorders (mean=10.2). O’Driscoll C et. al.’s meta-analysis compared

the DES score of healthy individual's vs schizophrenics and showed a large effect size with trauma being one of the prime mediators. Scalabrini et al. compared the DES scores in borderline personality disorder with other disorders and discovered that they are far higher than all the other psychiatric disorders except for PTSD and dissociative disorders (van Ijzendoorn & Schüngel, 1996).

Lisa Lyssenko et. al. in 2017 uses a similar hypothesis in her meta-analysis as van Ijzendoorn and Schüngel in 1996 but with a total of 216 articles comprising of 15,219 individuals. Through this study, the team manages to make a veritable road map of dissociative experiences based on DES within different psychiatric diagnosis. Dissociative identity disorder topping the chart with a mean score of 48.7 followed by posttraumatic stress disorder with a mean score of 28.6 and borderline personality disorder were the third largest with a mean score of 27.9. Other mental disorders had lower mean DES and in descending order they found conversion disorder (mean=25.6), somatic symptoms disorder (mean=18.8), substance-related and addictive disorders (gambling disorder, mean=19.9; alcohol use disorder, mean=19.7; other substance-related disorders, mean=17.7), feeding and eating disorders (mean=18.6), schizophrenia (mean=17.8), Obsessive-compulsive disorder (mean=15.3), depressive disorders (mean=15.3), anxiety disorders (mean=15.2), and bipolar and related disorders (mean=14.8). Subfactors of dissociation could only be evaluated for three of the disorders with borderline personality disorder and schizophrenia having the increased rates of depersonalization/ derealization (Lyssenko et al., 2017).

Results from the second meta-analysis expand upon the first one, the large sample size with a broader diagnostics profile, gives us a better understanding on the effect dissociation plays in most psychiatric disorders. Anxiety and eating disorders have much higher mean DES scores than in the previous meta-analysis 15.2 compared with 10.2 and 18.6 compared with 14.5, while affective disorders drop from 19.4 to 15.3 in mean DES score (Lyssenko et al., 2017). For standalone diagnostics like anorexia nervosa the mean score was 24.1, with higher symptoms of depersonalization and body dysmorphia, while dissociation in bulimia nervosa focused more on amnesia, timelessness, and involuntariness (Guardia et al., 2012; Lupu et al., 2015). Panic attacks are more likely to determine dissociative experiences with depersonalization and derealization either from the fear of losing control or through the hyperarousal state that it generates (Soffer-Dudek, 2014). Depressive disorders are much harder to study because of the clear overlap between dissociative experiences with normal depressive symptoms such as

detachment, emotional flattening and responsiveness in which even low sleep quality distorts reality (Feeny et al., 2000).

Lisa Lyssenko et al. (2017) study has strengthened the notion that dissociation in borderline personality disorder must be one of the nine core diagnostic criteria in DSM, with a mean DES score of 27.9. Substance abuse disorders seem to have a higher DES score, mainly because most of them have related comorbidities with PTSD, borderline personality disorder, and dissociative disorders (Evren et al., 2007). OCD and dissociation have gained more traction in the research field, although this study places the disorders at middle to lower range with a DES mean score of 15.3 (Lyssenko et al., 2017; Rufer et al., 2006).

Conclusions:

Dissociation remains an unfinished chapter in psychology and psychiatry, the term still being a semantically open notion that leads to confusion even among mental health care professionals. There is a significant benefit in a careful assessment of dissociative symptoms in the entire spectrum of mental disorders with a major need in raising awareness in all mental health facilities, of the value that this has for the current clinical setting. Quantifying dissociation within different categories of mental disorders can be used to predict symptom severity and nonresponse to psychotherapeutic treatments. Future studies should use a transdiagnostic perspective to enhance the development of treatments and other proactive measures to help manage dissociative symptoms.

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