Review paper

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Understanding Dissociative Identity Disorder: A Literature Review

Yudha Prasetyo Utomo[1], Muhammad Luthfi Adnan[2], Eska Agustin Putri Susanti[2]

[1]Faculty of Medicine, Universitas Islam Indonesia, Sleman, Indonesia, [2]Department of Psychiatry, Faculty of Medicine, Universitas Islam Indonesia, Sleman, Indonesia

Abstract - Interest in dissociative identity disorder (DID) in psychiatry has increased rapidly although epidemiologically the cases of patients with DID are still rare, several studies exist trying to understand how DID might occur and the best therapeutic approach. Some of the symptoms of DID can also be found in non-clinical populations even though they are not directly related to the disorder. The findings of DID are often associated with other psychiatric disorders and can complicate the diagnosis. Various studies have tried to understand the case of DID either objectively or subjectively. Diagnosis of DID must be diagnosed by carefully experienced clinicians with clinical interviews with some proper tests that could help to identify various identities. Current DID therapy may be able to strengthen the identity of the patient's control and prevent impaired social functioning of the patient. Many pharmacological and non-pharmacological treatments have been developed to improve symptoms of the disorder, but none of them have been effective due to the quality of the studies conducted. Further research is still needed on DID as a whole to assist in the correct diagnosis and therapy for DID patients.

Keywords: dissociative identity disorder; diagnosis; therapy; review; psychiatry

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Introduction

Dissociative Identity Disorder (DID), also known as Multiple Personalities Disorder (MPD) is one of the controversial disorders since the 20th century. According to the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), DID is an identity disorder that is indicated by the presence of or more personalities with discontinuities in the sense of self-feeling and choices that affect behaviour, awareness, memory, perception, cognition and sensory function [1]. Based on The International Classification of Diseases (ICD) 11th Edition, DID is characterized as disruption of identity in which there are two or more distinct personality states (dissociative identities) associated with marked discontinuities in the sense of self and agency [2]. The classification of DID by both DSM and ICD changes every year along with the development of research on DID [3].

Since the 1970s, there has been an increase in interest in DID cases recorded by MEDLINE as many as 39 research titles, 212 titles during the 1980s, 391 titles during the 1990s, but decreased in the 2000s to 179. One of the DID cases were found in the United States

Correspondence to:
Eska Agustin Putri Susanti, Department of Psychiatry, Faculty of Medicine, Universitas Islam Indonesia, Sleman, Indonesia
E-mail: 077110427@uii.ac.id

and recorded in the 4th edition of the Diagnostic and statistical manual of mental disorders (DSM IV-TR) by the American Psychiatric Association in 2000 [4]. Epidemiological studies of DID have used DSM-III-R or DSM-IV diagnostic criteria. DSM-5 introduces specific forms of pathological ownership into DID criteria [5]. Clinical studies on DID are still few, limited to those carried out in North America, Europe and Turkey where the average level of general inpatient psychiatric unit patients, adolescent inpatient units and programs that deal with substance abuse, eating disorders, and obsessive-compulsive disorder are reaching 1 %-5 % who can meet the criteria according to the DSM IV-TR [6,7].

DID symptoms are often compared to symptoms of Borderline Personality Disorder (BPD), namely amnesia, confusion about self-identity, and memory problems [8]. Physiological effects on the body can be seen with differences in eye sharpness, drug response, allergies, differences in plasma glucose levels, heart rate and immune function [9]. The severity of DID covers a broad spectrum, with mild symptoms as depersonalization and derealization that also occurs in non-clinical populations, due to sleep deprivation, fatigue, stress, or substance abuse. More severe forms of dissociation may involve an inability to access information (e.g., dissociative amnesia) or control motor processes (e.g., tonic immobilization) on voluntary or involuntary sensory, affective, and cognitive processes [10].

Several studies have been conducted to determine the cause of DID and the best approach to its treatment. Currently, DID is associated with traumatic events, particularly in childhood [7]. Research into how the mechanism of DID occurs may improve patient treatment [11]. Treatment efforts for DID patients revolve around understanding how DID affects cognitive and neurological function of the brain with its effects on stress [12]. This study aimed to discuss about DID formation and its effects on brain neurobiology and current therapeutic approaches.

Subjects and Methods

This study uses a literature study method that is based on various literatures and supports the discussion regarding the purpose of this review. The literature search using PubMed and Google Scholar databases using keywords "dissociative', "dissociative identity", and "dissociative identity disorder". Our search inclusion criteria included publications in English, studies in humans, and publications in 2000-2022. After passing the exclusion process, the bibliography in scientific journals that have successfully passed the inclusion and exclusion criteria will undergo the scanning process again to find out any additional publications regarding "dissociative', "dissociative identity", "dissociative identity disorder", "diagnosis of dissociative identity disorder", and "treatment of dissociative identity disorder". In this literature review, we use all scientific journals that discuss DID, diagnoses and therapies that are available today. A scientific journal will undergo an exclusion process if it does not contain one of the keywords or does not support the discussion of this literature review.

Results and Discussion

Model of Forming Identity in DID Patients

Based on the aetiology of Reinders (2008), there are three models of identity formation, namely iatrogenic position, traumagenic position, and pseudogenic position [13]. The iatrogenic position can be formed from the treatment of the patient's consciousness as a result of medical examination or treatment [14]. This condition may be caused by the diagnosis of clinicians who are absent from diagnosing disorders that lead to DID, as a result, treatment is limited to the symptoms that occur [14,15]. This condition can then endanger the patient because sometimes certain awareness can arise in certain situations that are except to be shown to the therapist, so the validity of the diagnosis can be doubted [16,17]. An example of an iatrogenic position is a Sybil case and in one case report that reported an iatrogenic event in a case of a personality disorder patient [18,19].

A traumatic position is a form of the implications of Posttraumatic Stress Disorder (PTSD). Patients experience dissociation from painful experiences of memory about oppres-

sion, causing protective / avoidance actions from psychological disorders [13]. This theory is supported by a collaborative study by Bowman (1985), Dalenberg (2004), Sar (2007) and other studies that link DID with traumatic experiences [5,13,20]. The identity formed from traumagenic positions is in the form of neutral identity states (NIS) which function in the form of functional daily activities and trauma-related identity states that function as a form of defensive expression from trauma [5,13,21].

A pseudogenic position is a form of stimulation without therapy that is formed by a conscious and active stimulation process and in reasons for seeking attention [13]. One of them is in the form of avoiding judicial punishment for crimes committed [22]. A diagnosis that shows the presence of DID will avoid patients from legal decisions or executions [23]. While several cases of using DID have occurred, this approach is rarely successful because the use of insanity reasons often contradicts the testimony of witnesses [23]. However, further training is needed for jurors to recognize DID as the complexity of the disorder can affect courts [24].

Pathophysiology of DID

The pathophysiology of DID is still unanswered. However, several studies have been carried out showing a change in shape in the amygdala, hippocampus, and influence on the orbitofrontal cortex and blood flow to the brain from DID patients [25]. The study shows the connectedness of DID with some personality disorders, such as the most common is disruption of acceptance (76 %), then self-denial (68 %), borderline (53 %) and passive-aggressive activity (45 %) [26]. DID patients have a relationship with Posttraumatic Stress Disorder (PTSD) and BPD that related with childhood trauma, child abuse both physically and sexually [21,26].

A meta-analysis showed that changes in amygdala and hippocampal volume in DID patients on magnetic resonance imaging (MRI) were similar to those with PTSD [27]. This is because the work of the limbic system affects human emotions which work more actively in DID patients [28]. Reduction of the size of the amygdala and hippocampus in DID patients is caused by long-term intensive stress exposure [29]. Traumatic stress exposure in children is known to have an effect on the process of regulating emotions that are played by the amygdala and long-term memory regulated by the hippocampus [30]. The further effects of amygdala and hippocampus reduction in DID patients affect biochemical responses to the limbic system [31]. The biochemical response to the brain that plays a role in stress response is glutamate secretion that affects neuronal circuits in the cortico-limbic resulting in reduced plasticity in neurons in patients with DID [31].

Diagnosis of DID Patients

In establishing the clinical diagnosis of a patient with DID, a careful history and various examinations are required for a correct diagnosis [32]. Some tests can be used to measure the effect of trauma on patients or logical thinking [36]. However, these tests are not intended to diagnose DID [37] 5th Edition (DSM-5. Diagnosis performed on DID patients will show symptoms related to other diseases such as BPD, PTSD, Obsessive Compulsive Disorder (OCD), or schizophrenia [5,38-40].

Current Treatment

DID treatment research has been developed based on case studies, follow-up studies, and clinical trials for development of better treatment [41]. The focus of DID treatment consists of three stages [7]. The first stage is involving patient cooperation to help security and stability [7]. The second stage is to maintain stability while exploring trauma narratives and overcoming emotions, beliefs, and behaviours related to trauma [7]. At this stage, the patient will experience struggles with the realization of a traumatic experiences, so that most patients will avoid the synthesis of traumatic experiences [42]. The third stage is emphasizing the integration of identity and life

without dependence on dissociation [7]. In this phase, patients who are detached from dissociative nature also need special guidance in dealing with daily emotional stress, disappointment and pressure to realize personal and intrapersonal functions [43,44].

Adequate treatment and therapy in patients with DID can suppress symptoms of dissociative events, improve the social function of DID patients and reduce the amount of time for hospitalization and drug use [45,46].

Treatment of DID requires special monitoring of patients when patients feel amnesia and transitional conditions per identity [47]. Control specifically requires cooperation between therapists and primary identity in DID patients [48,49]. Because patients with DID have suicidal tendencies and strong self-destructive habits, it is necessary to have a proper diagnostic process to improve the cure rate of patients with DID [36].

DID therapy requires the role of experienced clinicians in handling DID patients to improve the quality of life of patients in their daily social lives [50]. The use of drugs in handling DID patients is still limited to the treatment of symptoms that appear in DID patients. Drugs that can be used are antidepressants (SSRIs, Non - SSRIs, tricyclic antidepressants, and monoamine oxidase inhibitors), mood stabilizers such as carbamazepine to reduce patient aggressiveness and naltrexone to reduce self-injury [11]. Non-pharmacological treatment such as dialectical behavior therapy, cognitive-behavioral treatment, or scheme therapy can be an alternative therapy, although further research is needed for its long-term effect in DID cases [46,51,52].

Conclusion

Dissociative Identity Disorder (DID) is one of the most controversial disorders and has attracted public attention over the past century. The existence of other identities in patients with DID makes it difficult to enforce the diagnosis, so the correct diagnostic method has not been found and more experience is needed by the clinicians to diagnose the disorder. Some of the tests only show some of the symptoms that lead to DID. Further research is still needed to uncover the mysteries regarding DID. Better therapeutic approaches are needed to improve DID symptoms and improve patients' quality of daily life. However, with technological advances that are always evolving, the various unsolved mysteries of DID will soon be revealed and explain further about the disruption of DID.

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Conflict of interest

None to declare.

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