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Short Review

Concurrent Validity of the Dissociative Disorders Interview Schedule for Diagnosing Major Depressive Disorder in a Highly Dissociative Outpatient Sample

Colin A Ross MD*, Sabina Norova BA and Andrew W Ross DO

Institute for Psychological Trauma 1701 Gateway, #349 Richardson, TX, USA

Corresponding author: Colin A. Ross, Institute for Psychological Trauma 1701 Gateway, #349 Richardson, TX, USA. **Phone:** 972-918-9588 **FAX:** 972-918-9069

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Abstract

The Dissociative Disorders Interview Schedule (DDIS) is a widely used structured interview that makes DSM-5 diagnoses of the dissociative disorders, somatic symptom disorder, major depressive disorder and borderline personality disorder. The Self-Report Dissociative Disorders Interview Schedule (SR-DDIS) asks the same questions as the DDIS but in a self-report format. The SR-DDIS was administered to 132 participants in a partial hospitalization/intensive outpatient program specializing in trauma and dissociation along with several other measures and a clinical interview. Cohen's kappa for the rate of agreement between the SR-DDIS and a clinical interview for the diagnosis of major depressive disorder was 0.66, which is a substantial level of agreement: in comparison, intraclass kappa for major depressive disorder in the DSM-5 field trials was 0.25. The SR-DDIS can be used to make a valid diagnosis of depression.

Keywords: *Major depressive disorder, Dissociative disorders interview schedule, Concurrent validity*

Major depressive disorder is a common comorbidity in dissociative identity disorder (DID). In studies with the Dissociative Disorders Interview Schedule (DDIS) and other measures of depression, it is common for over 90% of people with DID to meet lifetime criteria for comorbid major depressive disorder. For example, in a sample of 107 patients with multiple personality disorder (MPD), 97.2% met criteria for major depressive disorder on the Structured Clinical Interview for DSM-III-R (SCID) [1,2]. The DDIS has established reliability and concurrent validity for the diagnosis of DID and/or dissociative disorder not otherwise specified (DDNOS) versus no dissociative disorder and can differentiate DID from other disorders including DDNOS and schizophrenia [3]. It would be useful to have a single measure that can make valid diagnoses of both DID and depression, since depression is such a common comorbidity among individuals meeting criteria for DID. The DDIS is the only measure that makes both diagnoses. In the two most recent studies of depression in DID, Pan et al. [4] did not make DSM-5 diagnoses but in a sample of 21 patients with DID, they reported an average score on the Beck Depression inventory (BDI) of 30.33 (SD 14.07) which indicates high levels of clinically significant depression [5]; Fedai and Asoglu [6] found that 47 out of 70 (67.1%) patients with DID had a prior clinical diagnosis of a depressive disorder. In order to investigate the concurrent validity of the self-report version of the DDIS (SR-DDIS) for making a diagnosis of major depressive disorder we performed a retrospective chart review on 132 patients admitted to a partial hospitalization/intensive outpatient program over a period of a year, to determine the rate of agreement between a clinical interview and the SR-DDIS for the DSM-5 diagnosis of major depressive disorder. Previous research has demonstrated a high rate of agreement between the DDIS and SR-DDIS [7]. For example, in a sample of 100 inpatients in a program specializing in dissociative disorders, there were no significant differences between the DDIS and SR-DDIS on average scores for somatic symptoms, secondary features of DID, Schneiderian first-rank-symptoms, ESP/paranormal experiences or borderline personality disorder criteria positive. Cohen's kappa for the rate of agreement between the DDIS and SR-DDIS for the diagnosis of major depressive disorder was 0.52. Our theoretical model for understanding the relationship between DID and depression is simple and straight forward but is not tested in the current study: the traumatic childhoods of people with DID induce and reinforce a wide range of fight, flight and freeze responses as discussed at length by van der Hart, Nijenhuis and Steele [8], resulting in a wide range of comorbidities. Major depressive disorder is one of these because the childhoods of individuals with DID induce a sad, depressed, lonely child ego state that persists into adulthood. Put simply, people with DID have a lot of things to be depressed about.

Method

Participants

Participants were 132 patients treated at an outpatient partial hospitalization/intensive outpatient program specializing in trauma and dissociative disorders. The average age of the participants was 36.1 years (SD=12.2); 92 were female, 26 were male, one was trans-male and 3 did not specify their gender; 72 were white, 14 were Hispanic, 7 were African-American, 3 were American Indians, 1 was Asian and

31 did not specify their race; 84 were married, 30 were single, 14 were separated or divorced, and 4 did not specify their marital status. The average length of stay was 48.4 days (SD=38.0). The participants were admitted consecutively from January 28, 2022 to January 30, 2023. All participants provided written informed consent. The study results are presented in compliance with the World Medical Association Declaration of Helsinki ethical guidelines. Average scores on the self-report measures for the participants were: Dissociative Experiences Scale (DES) 32.2 (SD=23.4); Beck Depression Inventory (BDI) 30.4 (SD=11.9); and Patient Health Questionnaire (PHQ-9) 16.5 (SD=5.9). On the DDIS-SR, 22 met criteria for dissociative identity disorder (DID), 27 for dissociative amnesia and 3 for depersonalization-derealization disorder; the SR-DDIS does not diagnose other specified dissociative disorder because that diagnosis requires an interviewer judgment in the interviewer-administered DDIS. On the SR-DDIS, 94 participants met criteria for major depressive disorder. The SR-DDIS does not diagnose generalized anxiety disorder or post-traumatic stress disorder or other forms of comorbidity common in persons meeting criteria for DID. On the SR-DDIS, the average number of somatic symptoms for the participants was 12.4 (SD=8.2); the average number of Schneiderian first-rank symptoms of psychosis was 3.3 (SD=3.7); the average number of secondary features of DID was 5.5 (SD=4.7); the average number of borderline personality disorder criteria positive was 5.3 (SD=2.5); and the average number of ESP/paranormal experiences was 2.7 (SD=2.9). On clinical interview, 50 participants met criteria for DID, 104 for major depressive disorder, 104 for generalized anxiety disorder and 100 for post-traumatic stress disorder.

Materials

All participants completed the Self-Report Version of the Dissociative Disorders Interview Schedule (SR-DDIS), the Beck Depression Inventory (BDI) the Patient Health Questionnaire (PHQ-9), and the Dissociative Experiences Scale (DES), as well as a clinical interview based on DSM-5 criteria for major depressive disorder [9]. All these evaluations were conducted within the same admission (average length of stay, 48.4 days). The clinical interviews were conducted in person by the program nurse practitioner in the first few days of admission and the SR-DDIS interviews were distributed by the second author and then collected after completion.The PHQ-9 [10] is a widely used 9-item measure of depression. In two different studies the PHQ-9 had excellent internal reliability (Cronbach's alpha, 0.86 and 0.89); test-retest reliability for the PHQ-9 was 0.84 [10]. Scores above 15 on the PHQ-9 indicate moderately severe depression [10]. The DES is a 28-item self-report measure that yields an overall score ranging from 0-100 [11,12]. It has been used in a large number of studies and has good reliability and validity; scores above 30 on the DES indicate a strong likelihood of a dissociative disorder [13]. The BDI has likewise been used in a very large number of studies and has demonstrated reliability and validity: scores above 20 are generally taken to indicate clinical depression, while scores above 30 indicate severe depression [14]. The DDIS has been used in a wide range of studies in clinical populations and the general population [3,7,15-17]. The rate of agreement between the DDIS and a clinical interview for the diagnosis of DID and/or dissociative disorder not otherwise specified in a sample of 201 inpatients using Cohen's kappa was 0.71 [15]. The DDIS and SR-DDIS contain 131 items in exactly the same wording: the only difference is that interviewer instructions have been removed from the SR-DDIS. Both make DSM-5 diagnoses of somatic symptom disorder, major depressive disorder, borderline personality disorder and the DSM-5 dissociative disorders based on verbatim versions of the criteria in DSM-5. Both ask about physical and sexual abuse and prior experience in the mental health system including prior medications and psychotherapy. Both yield scores on the subscales of items incorporated in the diagnostic criteria and in separate sections for secondary features of DID and ESP/paranormal experiences. The interviews yield DSM-5 diagnoses plus symptom cluster scores that can be compared to average scores for other diagnostic groups and the general population [3].

Results

Cohen's kappa for the rate of agreement between the clinical interview by the nurse practitioner and the SR-DDIS for the diagnosis of major depressive disorder was 0.66.

Discussion

The 132 participants in the current study were similar to previous samples from an inpatient hospital-based program specializing in trauma and dissociation interviewed with the DDIS [3,7,15,17] and also to outpatient samples of DID interviewed with the DDIS [16], although samples in which all participants have DID score higher on the DDIS symptom scales than those with a mixture of different dissociative disorders in terms of their average scores on the DDIS. For example, in Ross and Ellason [3], the average scores for 296 DID patients interviewed with the DDIS were: somatic symptoms, 15.4 (SD=7.6); Schneiderian first-rank symptoms of psychosis, 6.6 (SD=2.9); secondary features of DID, 10.6 (SD=3.4); borderline personality disorder criteria positive, 5.5 (SD=2.1); and ESP/paranormal experiences, 5.8 (SD=3.5). The DDIS has also been used to study the general population [17]; the full text of the DDIS, the SR-DDIS and their scoring rules are available from the first author. The Cohen's kappa of 0.66 for the diagnosis of major depressive disorder in the present study is much higher than the agreement rate of 0.25 for the diagnosis of major depressive disorder in the DSM-5 field trials [18,19]; Regier et al. [18] rated their intraclass kappa as indicating questionable validity of the disorder. Although these two methodologies are not equivalent, they suggest that the SR-DDIS provides a valid diagnosis of major depressive disorder compared to other evaluation methods. The SR-DDIS and the DDIS had moderate or substantial rates of agreement for the different DSM-5 diagnoses they make in a sample of 100 inpatients [7]. Additionally, the rate of agreement between the DDIS and a clinical interview for the diagnosis of DID and/or dissociative disorder not otherwise specified in a sample of 201 inpatients using Cohen's kappa was 0.71 [15]. The results of these studies with the DDIS and SR-DDIS indicate that both have reliability and validity data supporting their use for diagnosing the dissociative disorders and major depressive disorder. All studies with the DDIS and SR-DDIS have indicated high rates of comorbid major depressive disorder in individuals meeting criteria for DID, usually above 95%. It is useful to be able to make DSM-5 diagnoses of both DID and depression using the same structured interview.

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