

ARTICLE



Reliability of the Dissociative Trance Disorder Interview Schedule: A preliminary report

Colin A. Ross, MD^a, Eli Somer, PhD^b, and Caitlin Goode, MA^a

^aThe Colin A. Ross Institute for Psychological Trauma, Richardson, Texas, USA; ^bSchool of Social Work, University of Haifa, Mt. Carmel, Haifa, Israel

ABSTRACT

One hundred inpatients in a hospital-based Trauma Program in the USA were interviewed with the Dissociative Trance Disorder Interview Schedule (DTDIS). There were no significant differences for the DTDIS total score or any of the subscale scores on test–retest: all *t*-values comparing the two administrations of the DTDIS were below 0.7, and all *p*-values were above 0.5. Cronbach's alpha for the US sample was 0.966 and for the Israeli sample it was 0.971. The findings indicate that the DTDIS has good reliability and may be suitable for use in cross-cultural research; however, the results require replication by independent researchers in a variety of cultures and languages, and in both clinical and nonclinical samples.

ARTICLE HISTORY

Received 14 December 2016
Accepted 10 March 2017

KEYWORDS

Cross-cultural psychiatry;
dissociative trance;
structured interview

Research has been conducted on dissociation in a variety of countries including the USA, Canada and Europe (Ross, Duffy, & Ellason, 2002), Turkey (Tutkun et al., 1998), China (Kleindorfer, 2005; Xiao et al., 2006), Uganda (Van Duijl, Cardena, & De Jong, 2005; Van Duijl, Nijenhuis, Komproe, Gernatt, & De Jong, 2010), Puerto Rico (Kirmayer & Lewis-Fernandez, 1994; Martinez-Taboas, 2005), India (Saxena & Prasad, 1989), and Israel (Dominguez, Cohen, & Brom, 2004; Somer, Ross, Kirshberg, Shawahdy, & Ismail, 2015). The relationship between dissociation and possession states in a variety of cultures, and how to approach them therapeutically, has also been a subject of considerable study (Bhavsar, Ventriglio, & Bhugra, 2016; Boddy, 1988; Cardena, Van Duijl, Weiner, Lupita, & Terhune, 2009; Delmonte, Lucchetti, Moreira-Almeida, & Farias, 2016; During, Elahi, Taieb, Moro, & Baubet, 2011; Huskinson, 2010; Kianpoor & Rhoades, 2005; Kirmayer, 2011; Şar, Alioğlu, & Akyüz, 2014; Suryani & Jensen, 1993; Swartz, 2011; Van Duijl et al., 2010). This literature highlights the need for a standardized structured interview for studying trauma, trance, dissociation, and possession in a cross-cultural context (Hecker, Braitmayer, & Van Duijl, 2015; Van Duijl, Kleijn, & De Jong, 2013).

DSM-III (Diagnostic and Statistical Manual of Mental Disorders) (American Psychiatric Association, 1980), DSM-IV (American Psychiatric Association, 1994), and DSM-5 (American Psychiatric Association, 2013) all discuss cross-cultural issues concerning mental health in general, and trance, dissociation, and possession in particular. DSM-IV and DSM-5 also discuss the classical cross-cultural syndromes such as amok, latah, bebainan, pibloktoq, and ataque de nervios. Possession was for the first time incorporated into the diagnostic criteria for dissociative identity disorder (DID) in DSM-5. Despite an extensive literature on cross-cultural psychiatry (Georgiopoulos & Rosenbaum, 2005; Guzder & Rousseau, 2013; Hays, 2007; Krippner, 1997), however, there has until recently been no structured interview for diagnosing the classical cross-cultural syndromes or DSM-IV trance possession disorder. The Dissociative Trance Disorder Interview Schedule (DTDIS) was developed for this purpose and has been used in three previous studies (Ross, Ferrell, & Schroeder, 2014; Ross, Schroeder, & Ness, 2013; Somer et al., 2015).

The DTDIS was constructed to capture what its developers thought were important dissociative symptom domains from a cross-cultural perspective. Ataque de nervios was included in the DTDIS for completeness, since it is one of the cross-cultural diagnoses described in DSM-IV (American Psychiatric Association, 1994), even though it is not a form of possession or dissociative trance. There are two sections for dissociative trance in the DTDIS: one contains the DSM-IV diagnostic criteria for dissociative trance disorder, while the other contains dissociative features associated with that DSM-IV diagnosis but not described in the actual diagnostic criteria.

The Dissociative Disorders Interview Schedule (DDIS) (Ross et al., 2002; Xiao et al., 2006) is a widely used structured interview that makes DSM-5 (American Psychiatric Association, 2013) diagnoses of the dissociative disorders, but also diagnoses somatic symptom disorder, major depressive disorder, and borderline personality disorder. Thus, although it is called the DDIS, the interview also inquires about nondissociative disorders, non-dissociative symptom clusters, and childhood physical and sexual abuse. The DDIS diagnoses DID and also includes a section called Secondary Features of DID that inquires about additional symptoms not included in the DSM-5 criteria for DID. Similarly, the DTDIS inquires about both dissociative trance disorder and a set of related symptoms and diagnoses that are not themselves elements of dissociative trance disorder. The name of the structured interview does not imply that everything in it is an element of dissociative trance disorder. The sections of the DTDIS are described further below.

To date, no data on the reliability of the DTDIS have been reported. The purpose of the present study was to gather test-retest data on the DTDIS from a clinical sample of psychiatric inpatients in a hospital-based Trauma Program in the United States. Additionally, this clinical sample was

compared to a previous nonclinical sample from Israel (Somer et al., 2015) to determine if the DTDIS can differentiate a highly dissociative clinical sample from a nonclinical sample. The importance of asking North American respondents about dissociative trance and related symptoms and disorders is illustrated by a prior DTDIS study (Ross et al., 2013) in which these symptoms and disorders were shown to be common. The study sample in Ross et al. (2013) was drawn from the same hospital Trauma Program as the sample in the present study. Thus, this set of dissociative “cross-cultural” syndromes occurs among English-speaking, Caucasian Americans with high levels of trauma and dissociation, not just in other parts of the world. This in itself is a useful finding made possible by the existence of a structured interview for dissociative trance.

Method

Participants

One hundred and thirty-three psychiatric inpatients in a hospital-based Trauma Program were interviewed with a structured interview, the DTDIS; of these, 100 completed a second retest interview conducted by the same interviewer prior to discharge. The two interviews were conducted, on average, within 10–12 days of each other, since the average length of stay in the Trauma Program is 12 days. The 100 participants interviewed twice with the DTDIS also completed the DDIS (Ross et al., 2002) and the Dissociative Experiences Scale (DES) (Bernstein & Putnam, 1986). The participants were consecutively admitted individuals who agreed to be interviewed, and whose interviews could be completed during an average length of stay of 12 days. All participants gave written informed consent. The study was approved by the Medical Staff Committee of the hospital. All participants were English-speaking American citizens; in a previous sample from the same Trauma Program, 87 out of 89 participants who responded to a question about the place of birth were born in the USA and two were born in Spanish-speaking countries; all were Caucasian. Although race and ethnicity were not inquired about systematically in the current sample, fewer than five participants were born outside the USA and all were Caucasian.

Instruments

The DTDIS is a structured interview that inquires about the classical cross-cultural syndromes of amok, latah, bebainan, pibloktoq, and ataque de nervios. These syndromes overlap with each other and involve discrete episodes of behavioral dyscontrol, shouting, echolalia, confusion, crying, exaggerated startle, and, in the case of amok, attempts to kill others, which

may be successful. Each is described in DSM-IV (American Psychiatric Association, 1994) as being culture bound, for instance, pibloktoq is limited to Arctic Inuit populations, ataque de nervios occurs primarily in Puerto Rico, and latah occurs in Malaysia and Indonesia.

The DTDIS is divided into eight sections with a score that varies from zero to a maximum possible in each section, which is equal to the number of items in that section. The number of items in each section is: Traditional Treatment, 25; Identity Changes, 15; Environmental Precipitants, 16; Memory, 7; Dissociative Trance, 10; Cognition, 5; Physical and Somatic Symptoms, 16; DSM-IV Dissociative Trance Disorder, 6; DTDIS Total Score, 84; and DTDIS Symptom Score, 43. Seven of the section scores are added together to yield a DTDIS Overall Score that ranges from 0 to 84. The Symptom Score is calculated as: Total Score – (Traditional Treatment + Environmental Precipitants). The rationale for this way of calculating the Symptom Score is that treatment and environmental items are not symptoms. The diagnostic criteria for the classical culture-bound syndromes are imbedded in the seven symptom sections. The DTDIS makes DSM-IV diagnoses of dissociative trance disorder, trance subtype and dissociative trance disorder, and possession trance subtype. The questions are close to verbatim transcriptions of the DSM-IV criteria.

The DTDIS Overall Score was initially included in the scoring scheme in order to examine whether it correlated with the Symptom Score, and whether it correlated differently with the other section scores than did the Symptom Score. In the initial DTDIS study, the Total Score and Symptom Score correlated with each other at above $r = 0.90$, and the two correlated very similarly with the other section scores (Ross et al., 2013). The DTDIS total score also correlated with the DES score at $r = 0.48$, and with the secondary features of DID section of the DDIS at $r = 0.55$, indicating that it is capturing a dissociative symptom domain.

The DDIS is a structured interview that has been used in a series of studies (Ross et al., 2002; Xiao et al., 2006). It has good reliability and validity. The DDIS inquires about childhood physical and sexual abuse and a number of different symptom clusters and makes DSM-IV diagnoses of somatization disorder, major depressive episode, borderline personality disorder, and the five dissociative disorders.

The DES is a 28-item structured interview with a good reliability and validity that has been used in hundreds of different studies (Bernstein & Putnam, 1986; Carlson et al., 1993; De Maynard, 2010; Van Ijzendoorn & Schuengel, 1996). It yields an overall score that ranges from 0 to 100.

Procedure

The DTDIS was administered to the participants as soon as possible after admission and then again prior to discharge. The average length of stay in the Trauma

Program is 12 days: 33 participants were discharged before they could be re-interviewed. The DES and DDIS were administered at the time of initial interview. Data were also obtained from the results of a previous study in which a total of 103 nonclinical participants in Israel completed the DTDIS (Somer et al., 2015).

Data analyses

One hundred participants completed the DTDIS twice. The initial test and the retest results were compared for the DTDIS Total Score and for each of the subscale scores using *t*-tests. The initial test scores for the 100 Trauma Program participants were also compared to those for 103 nonclinical Israeli participants from a previous study, for DTDIS Total Score, and for each of the subscale scores using *t*-tests. Cronbach's alpha for DTDIS Total Score was calculated for the 133 US participants and separately for the 103 Israeli participants. Significance was set at $p = 0.05$. Cohen's kappa was not a suitable statistic for comparing the test-retest of the DTDIS because the data were continuous not categorical.

Results

Demographic data were available on only 69 of the 100 participants due to the DDIS demographics page being misplaced for 31 participants: of these 69 participants, 60 were women; the average age was 41.8 years ($SD = 12.1$); 48 were married; and the average number of children per participant was 1.3. In comparison, for the 103 participants in the Israeli sample, demographic data were: 68 were women; the average age was 34.8 years ($SD = 10.4$); 45 were married; and the average number of children per participant was 0.7.

DES and DDIS data were available on all 100 participants. The average DES score was 35.8 ($SD = 23.8$). Concerning childhood abuse, 54 participants reported physical abuse, 57 reported sexual abuse, and 64 reported physical and/or sexual abuse. On the DDIS, 63 participants were positive for major depressive episode, 29 for somatization disorder, 38 for borderline personality disorder, 43 for substance abuse, 52 for dissociative amnesia, 13 for dissociative fugue, 38 for depersonalization disorder, 37 for DID, and seven for dissociative disorder not otherwise specified. The average number of dissociative disorders per participant was 1.4 ($SD = 1.5$).

On the symptom clusters of the DDIS, the average number of symptoms was: somatic symptoms, 8.9 ($SD = 8.7$); Schneiderian first rank symptoms, 2.9 ($SD = 3.2$); borderline personality disorder criteria, 3.3 ($SD = 3.0$); secondary features of DID, 4.6 ($SD = 5.1$); and ESP/paranormal experiences, 2.6 ($SD = 2.9$). In the present sample, the DTDIS Total Score correlated significantly with the DES ($r = 0.248$, $p = 0.03$) and with the secondary features of DID on the DDIS ($r = 0.206$, $p = 0.007$), while the DES and secondary features of DID correlated with each other more strongly ($r = 0.570$, $p = 0.0001$).

Table 1. Test–retest results for the dissociative trance disorder interview schedule symptom sections ($N = 100$) using t -tests.

	t	p
Identity Changes	0.420	0.68
Memory	0.462	0.65
Dissociative Trance	0.434	0.67
Physical/Somatic Symptoms	0.609	0.54
Dissociative Trance Disorder	0.341	0.73
Cognition	0.447	0.66
Symptom Score	0.498	0.62
Total Score	0.518	0.60

Table 2. Comparison of American trauma program inpatients to an Israeli nonclinical sample on the dissociative trance disorder interview schedule.

	US mean (SD) ($n = 133$)	Israeli mean (SD) ($n = 103$)	t	df	p
Traditional Treatment	2.3 (3.8)	0.2 (0.1)	5.604	234	0.0001
Environmental Precipitants	2.7 (3.9)	0.1 (0.1)	6.761	234	0.0001
Identity Changes	3.5 (3.2)	0.4 (0.1)	9.823	234	0.0001
Memory	2.1 (3.0)	0.2 (0.1)	6.421	234	0.0001
Dissociative Trance	1.8 (2.8)	0.3 (0.1)	5.431	234	0.0001
Physical/Somatic Symptoms	3.7 (5.2)	1.0 (0.1)	5.266	234	0.0001
Dissociative Trance Disorder	1.3 (2.1)	0.3 (0.1)	4.826	234	0.0001
Cognition	1.5 (2.2)	0.4 (0.1)	5.068	234	0.0001
Symptom Score	13.9 (17.6)	2.6 (0.3)	6.512	234	0.0001
Total Score	18.9 (23.3)	2.8 (0.3)	7.444	234	0.0001

Cronbach's alpha for the DTDIS was 0.966 for the Trauma Program patients and 0.971 for the Israeli nonclinical sample. There were no significant differences between the initial Trauma Program sample and the retest sample on overall DTDIS score or any of the subscale scores. The test–retest results for the symptom sections of the DTDIS are shown in Table 1: for Traditional Treatment the findings were ($t = 0.352$, $p = 0.73$), and for Environmental Precipitants they were ($t = 0.483$, $p = 0.63$). The DTDIS was able to differentiate the Trauma Program patients from the Israeli nonclinical sample on total score, symptom score, and all of the subscale scores (Table 2).

Discussion

The findings of the present study indicate that the DTDIS is reliable and can differentiate a highly dissociative inpatient sample from a nonclinical sample. In a previous study in Israel (Somer et al., 2015), the structured interview differentiated two clinical groups from the nonclinical sample described in the present article: these were a group of 80 Arab women who were victims of spousal battery and a group of 68 Israeli individuals in treatment for substance abuse. Similarly, in another study (Ross et al., 2014), the DTDIS was able to differentiate 37 psychiatric inpatients with both DID and

borderline personality disorder from 19 psychiatric inpatients with neither disorder. Thus, the evidence to date indicates that the DTDIS can differentiate clinical populations from nonclinical ones and can differentiate highly dissociative clinical populations from clinical samples that are low on dissociation.

The authors are aware that it is unusual to compare a clinical sample to a nonclinical sample from another study, and more unusual yet when the nonclinical sample was obtained in a different country. This was done because no North American nonclinical sample has been interviewed with the DTDIS in any other study, and because the authors did not have the resources to gather a nonclinical sample for the present study. Clearly, in future research, it would be desirable to compare clinical and nonclinical samples as part of a single study in a single country and culture.

The DTDIS has been used in three languages (English, Arabic and Hebrew) and with three different samples (Caucasian Americans, Israeli Jewish respondents, and Arab women). Although more research is needed in a variety of languages, cultures, and settings, it appears from the evidence available to date that the DTDIS may be used in different cultures, which is the purpose for which it was designed. This conclusion is preliminary because the present study has several limitations. Only one clinical sample was reported; the nonclinical comparison group was not matched demographically; only one hospital was involved; the sample was not random; and all respondents were English-speaking. In future research, these limitations should be addressed. Evidence from a variety of samples in a variety of cultures will be required to confirm the reliability and validity of the DTDIS, and the findings of the present study should be replicated by independent researchers. The structured interview is a public domain document and can be obtained from the authors along with its scoring rules.

Funding

This study was funded by a grant from the Jude Jordan Foundation.

References

- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727–735. doi:[10.1097/00005053-198612000-00004](https://doi.org/10.1097/00005053-198612000-00004)

- Bhavsar, V., Ventriglio, A., & Bhugra, D. (2016). Dissociative trance and spirit possession: Challenges for cultures in transition. *Psychiatry and Clinical Neurosciences*, 70, 551–559. doi:[10.1111/pcn.2016.70.issue-12](https://doi.org/10.1111/pcn.2016.70.issue-12)
- Boddy, J. (1988). Spirits and selves in northern Sudan: The cultural therapeutics of possession and trance. *American Ethnologist*, 15, 4–27. doi:[10.1525/ae.1988.15.1.02a00020](https://doi.org/10.1525/ae.1988.15.1.02a00020)
- Cardeña, E., Van Duijl, M., Weiner, A., Lupita, A., & Terhune, D. B. (2009). Possession/trance phenomena. In P. F. Dell, & J. A. O’Neil (Eds.), *Dissociation and the dissociative disorders: DSM-V and beyond* (pp. 171–181). New York, NY: Routledge.
- Carlson, E. B., Putnam, F. W., Ross, C. A., Torem, M., Coons, P., Bowman, E. S., . . . Braun, B. G. (1993). Predictive validity of the dissociative experiences scale. *American Journal of Psychiatry*, 150, 1030–1036.
- de Maynard, V. A. (2010). The impact of ‘racism’ on the dissociative experiences scale. *International Journal of Culture and Mental Health*, 3, 77–95. doi:[10.1080/17447143.2010.488321](https://doi.org/10.1080/17447143.2010.488321)
- Delmonte, R., Lucchetti, G., Moreira-Almeida, A., & Farias, M. (2016). Can the DSM-5 differentiate between nonpathological possession and dissociative identity disorder? A case study from an Afro-Brazilian religion. *Journal of Trauma and Dissociation*, 17, 322–337. doi:[10.1080/15299732.2015.1103351](https://doi.org/10.1080/15299732.2015.1103351)
- Dominguez, D. V., Cohen, M., & Brom, D. (2004). Trauma and dissociation in psychiatric outpatients. *Israel Journal of Psychiatry Related Sciences*, 41, 98–110.
- During, E. H., Elahi, F. M., Taieb, O., Moro, M.-R., & Baubet, T. (2011). A critical review of dissociative trance and possession disorders: Etiological, diagnostic, therapeutic, and nosological issues. *Canadian Journal of Psychiatry*, 56, 235–242. doi:[10.1177/070674371105600407](https://doi.org/10.1177/070674371105600407)
- Georgiopoulos, A. M., & Rosenbaum, J. F. (2005). *Perspectives in cross-cultural psychiatry*. New York, NY: Lippincott, Williams & Wilkins.
- Guzder, J., & Rousseau, C. (2013). *Cultural consultation: Encountering the other in mental health care*. New York, NY: Springer.
- Hays, P. A. (2007). *Addressing cultural complexities in practice: Assessment, diagnosis, and therapy*. Washington, DC: American Psychological Association.
- Hecker, T., Braitmayer, L., & van Duijl, M. (2015). Global mental health and trauma exposure: The current evidence for the relationship between traumatic experiences and spirit possession. *European Journal of Psychotraumatology*, 6, 29126. doi:[10.3402/ejpt.v6.29126](https://doi.org/10.3402/ejpt.v6.29126)
- Huskinson, L. (2010). Analytical psychology and spirit possession: Towards a non-pathological diagnosis of spirit possession. In B. A. Schmidt, & L. Huskinson (Eds.), *Spirit possession and trance* (pp. 71–96). New York, NY: Continuum International.
- Kianpoor, M., & Rhoades, G. F. (2005). “Djinnati,” a possession stare in Baloochistan, Iran. In G. F. Rhoades, & V. Sar (Eds.), *Trauma and dissociation in a cross-cultural perspective* (pp. 133–145). New York, NY: Haworth Press.
- Kirmayer, L. (2011). Defining and delimiting trauma-related dissociation: A view from cultural psychiatry. *Journal of Trauma and Dissociation*, 12, 465–468. doi:[10.1080/15299732.2011.570235](https://doi.org/10.1080/15299732.2011.570235)
- Kirmayer, L. J., & Lewis-Fernandez, R. (1994). Culture and dissociation: A comparison of ataque de nervios among Puerto Ricans and possession syndrome in India. In D. Spiegel (Ed), *Dissociation: Culture, mind & body* (pp. 123–167). Washington, DC: American Psychiatric Press.
- Kleindorfer, S. O. (2005). Dissociative experiences in the People’s Republic of China: An empirical and cross-cultural study. In G. F. Rhoades, & V. Sar (Eds), *Trauma and dissociation in a cross-cultural perspective* (pp. 81–94). New York, NY: Haworth Press.

- Krippner, S. (1997). Dissociation in many times and places. In S. Krippner, & S. Powers (Eds.), *Broken images, broken selves: Dissociative narratives in clinical practice* (pp. 3–40). Washington, DC: Brunner-Mazel.
- Martinez-Taboas, A. (2005). *Multiple personality: An Hispanic perspective*. San Juan, Puerto Rico: Puente Publications.
- Ross, C. A., Duffy, C. M. M., & Ellason, J. W. (2002). Prevalence, reliability and validity of dissociative disorders in an inpatient setting. *Journal of Trauma and Dissociation*, 3, 7–17. doi:[10.1300/J229v03n01_02](https://doi.org/10.1300/J229v03n01_02)
- Ross, C. A., Ferrell, L., & Schroeder, E. (2014). Co-occurrence of dissociative identity disorder and borderline personality disorder. *Journal of Trauma and Dissociation*, 15, 79–90. doi:[10.1080/15299732.2013.834861](https://doi.org/10.1080/15299732.2013.834861)
- Ross, C. A., Schroeder, E., & Ness, L. (2013). Dissociation and symptoms of culture-bound syndromes in North America: A preliminary study. *Journal of Trauma and Dissociation*, 14, 224–235. doi:[10.1080/15299732.2013.724338](https://doi.org/10.1080/15299732.2013.724338)
- Şar, V., Alioğlu, F., & Akyüz, G. (2014). Experiences of possession and paranormal phenomena among women in the general population: Are they related to traumatic stress and dissociation? *Journal of Trauma and Dissociation*, 15, 303–318. doi:[10.1080/15299732.2013.849321](https://doi.org/10.1080/15299732.2013.849321)
- Saxena, S., & Prasad, K. V. S. R. (1989). DSM-III subclassification of dissociative disorders applied to psychiatric outpatients in India. *American Journal of Psychiatry*, 146, 261–262. doi:[10.1176/ajp.146.2.261](https://doi.org/10.1176/ajp.146.2.261)
- Somer, E., Ross, C. A., Kirshberg, K., Shawahdy, R., & Ismail, S. (2015). Dissociative disorders and possession experiences in Israel: A comparison of opiate use disorder patients, battered Arab women and a non-clinical group. *Transcultural Psychiatry*, 52, 58–73. doi:[10.1177/1363461514552584](https://doi.org/10.1177/1363461514552584)
- Suryani, L. K., & Jensen, G. D. (1993). *Trance and possession in Bali*. Oxford, England: Oxford University Press.
- Swartz, L. (2011). Dissociation and spirit possession in non-western countries. In V. Sinason (Ed), *Attachment, trauma and multiplicity: Working with dissociative identity disorder* (pp. 63–71). London, UK: Routledge.
- Tutkun, H., Sar, V., Yargic, L. I., Ozpulat, T., Yanik, M., & Kiziltan, E. (1998). Frequency of dissociative disorders among psychiatric inpatients in a Turkish university clinic. *American Journal of Psychiatry*, 155, 800–805.
- van Duijl, M., Cardeña, E., & de Jong, J. T. V. M. (2005). The validity of DSM-IV dissociative disorder categories in south-west Uganda. *Transcultural Psychiatry*, 42, 219–241. doi:[10.1177/1363461505052666](https://doi.org/10.1177/1363461505052666)
- van Duijl, M., Kleijn, W., & de Jong, J. (2013). Are symptoms of spirit-possessed patients covered by the DSM-IV or DSM-5 criteria for possession trance disorder? A mixed-method exploratory study in Uganda. *Social Psychiatry and Psychiatric Epidemiology*, 48, 1417–1430. doi:[10.1007/s00127-012-0635-1](https://doi.org/10.1007/s00127-012-0635-1)
- van Duijl, M., Nijenhuis, E., Komproe, I. H., Gernatt, H. B. P. E., & de Jong, J. T. (2010). Dissociative symptoms and reported trauma among patients with spirit possession and matched healthy controls in Uganda. *Culture, Medicine and Psychiatry*, 34, 380–400. doi:[10.1007/s11013-010-9171-1](https://doi.org/10.1007/s11013-010-9171-1)
- van Ijzendoorn, M. H., & Schuengel, C. (1996). The measurement of dissociation in normal and clinical populations: Meta-analytic review of the dissociative experiences scale. *Clinical Psychology Review*, 16, 365–382. doi:[10.1016/0272-7358\(96\)00006-2](https://doi.org/10.1016/0272-7358(96)00006-2)
- Xiao, Z., Yan, H., Wang, Z., Zou, Z., Xu, Y., Chen, J., ... Keyes, B. B. (2006). Trauma and dissociation in China. *American Journal of Psychiatry*, 163, 1388–1391. doi:[10.1176/ajp.2006.163.8.1388](https://doi.org/10.1176/ajp.2006.163.8.1388)