# DISSOCIATIVE SYMPTOMS IN A POPULATION SAMPLE OF HUNGARY

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## ABSTRACT

The purpose of this study was to explore the presence of dissociative experiences in a population sample of Hungary (a former communist country). The Dissociation Questionnaire (DIS-Q) was administered to a sample of the population (N = 311), representative for sex, age, and educational level. In general, the findings corroborate the data of all previous population studies on the prevalence of dissociative experiences: these experiences are more frequently present in adolescents and young adults, and they decline with age. The results further show that an alarming high number of subjects of the Hungarian sample, namely 10.6%, reports scores above the cutoff score of 2.5 on the DIS-Q, while 2.6% of this group even reports scores as high as the scores of European and American DID patients. More research is needed to gain more insight in those transcultural or other factors contributing to the differences in dissociative experiences between different population samples.

## INTRODUCTION

Encouraged by the interesting pioneering work of Bernstein and Putnam (1986) and since a European dissociation questionnaire was lacking (socio-cultural factors may play an important role in the experience of dissociative phenomena), Vanderlinden and colleagues decided to construct a new dissociation questionnaire (DIS-Q) (Vanderlinden, 1993; Vanderlinden, Van Dyck, Vandereycken, Vertommen, & Verkes, 1993a). To study the prevalence of dissociative experiences in the general population in Belgium and the Netherlands, the DIS-Q has been administered at two occasions to two different population samples (Vanderlinden, Van Dyck, Vandereycken, & Vertommen, 1991; Vanderlinden, Van Dyck, Vandereycken, & Vertommen, 1993b). The results were showing that approximately 0.5 to 1 percent of the population scores as high as patients with dissociative identity disorders, hence suggesting that dissociative disorders are seriously underdiagnosed by mental health professionals.

Recently, the DIS-Q has been translated to the Hungarian language by Katalin Varga, a psychologist and researcher at the Eötvös Lorand University in Budapest. The goal was to replicate the DIS-Q studies carried out in the general population of Belgium and the Netherlands in an Hungarian population sample. The results could give more insight into the presence of dissociative phenomena in an other European country with a very different sociocultural and political background (a former communist country) compared to Belgium and the Netherlands.

#### **METHOD**

Firstly, the DIS-Q was translated from the English language to the Hungarian language by two different translators. Next, the two Hungarian DIS-Q versions were again translated from the Hungarian to the English language. After comparing the differences between the translations, a definitive Hungarian translation was made.

The DIS-Q was administered to a population sample in Hungary. The DIS-Q consists of 63 items with five different answer categories: The subjects have to circle one of the five numbers, indicating to what extent that item or statement is applicable to that particular subject (1 = not at all; 2 = a little bit; 3 = moderately; 4 = quite a bit; 5 = extremely). All DIS-Q scores are average scores and can vary between 1 and 5. The DIS-Q gathers also data on the age, sex, educational level, and demographic status of the subject involved. Besides a total score, the DIS-Q contains four subscales: 1) identity confusion/fragmentation (referring to experiences of dere-

TABLE 1 Demographic Characteristics of the Hungarian Sample

Demographic Status	N	%
Age		
10 - 20	49	15
21 - 30	46	16
31 - 40	76	24
41 - 50	51	16
51 - 60	46	15
>61	43	14
Educational Level		
Elementary	68	22
Junior High	156	50
Higher School		
(Non-University)	56	18
University	25	8
Other Form	6	2
Marital Status		
Single	91	30
Married	162	52
Living Together	22	7
Divorced	19	6
Widowed	17	5

alization and depersonalization); 2) loss of control over behavior, thoughts, and emotions (referring to experiences of loosing control over behavior, thoughts, and emotions); 3) amnesia(referring to experiences of memory lacunas); and 4) absorption (referring to experiences of enhanced concentration, which are thought to play an important role in hypnosis).

Psychometric studies of the DIS-Q (Vanderlinden, 1993; Vanderlinden et al., 1993a), show that the DIS-Q has 1) a clear factorial structure; 2) a good to excellent internal consistency and test-retest reliability; 3) differentiates clearly between patients with dissociative disorder and other subjects; and 4) has good construct- and criterion-related validity. Recently

the reliability and validity of the DIS-Q have also been studied in a North American setting (Sainton, Ellason,

Mayran, & Ross, 1993). The DIS-Q and DES were administered to subjects with a clinical diagnosis of DID (n=87), inpatients with a primary chemical dependency diagnosis (n=26), and undergraduate students (n=83). Cronbach's alpha for the DIS-Q was above 0.90 in all three subject groups. The Pearson correlation between DES and DIS-Q was 0.87 (p < .0001). The average DIS-Q scores of American undergraduate students and DID patients closely resembled the average scores of European students and DID patients: respectively 1.79 (SD = 0.58) versus 1.70 (SD = 0.50) for the students and 3.63 (SD = 0.58) versus 3.50 (SD = 0.4) for the DID patients. Sainton et al. (6) concluded that the DIS-Q can be assumed to be a valid measure of dissociation in North America also.

Hungarian psychology students were asked to get DIS-Q data for about 400 subjects from the general population, according to the Hungarian age and sex distribution. The students could give the DIS-Q questionnaire to anyone who wanted to participate in the study. The only restriction was that the subject "was not under hospital care currently or in the past five years." Hence, most subjects came from the psychology student's families and friends. No money or other reward was given to the subjects. At the time the research was done (the beginning of 1993) no other methods were available to select a sample from the population, mostly due to economic reasons. Using SPSS-PC 6.0 (1993), T-tests and analysis of variance (ANOVA) were used in the statistical analysis of the results.

#### RESULTS

#### Subjects

In all, 456 DIS-Q questionnaires were collected. Since the distribution of age of this sample was not fully representative for the Hungarian population, and a representative sample was chosen. Three hundred and eleven subjects were selected. The sample was representative of the Hungarian population for the variables of age, sex (166 females and 145 males), and education (see Table 1).

## Mean Scores

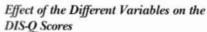
Several findings of the Dutch and Belgium DIS-Q studies (Vanderlinden, et al., 1991; Vanderlinden, et al., 1993b) were confirmed: The subscales loss of control and absorption had the highest variation (SD) in the Hungarian population, while the subscales identity confusion and amnesia had the lowest frequency.

### Frequency Distribution.

To make a judgment about the severity of the dissociative symptoms, we used the same DIS-Q cut-off score as we did in the Flemish and Dutch population: a cut-off score of

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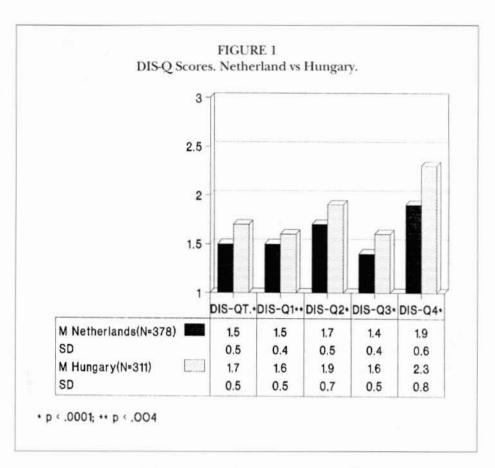
2.5 yielded an excellent sensitivity (the ability to correctly identify true positive cases or subjects with dissociative disorder) and specificity (ability to correctly identify true negative cases or subjects without dissociative disorder): sensitivity was 91% and specificity 97%. In the Belgian and Dutch population sample, respectively 3% and 2% of the subjects gained DIS-Q scores above the 2.5 cut-off score (see Vanderlinden, et al., 1991; Vanderlinden et al., 1993b). In Hungary, the frequency distribution shows that 10.6% of this sample scores above the cut-off score and reports severe dissociative symptoms, while 2.6% scored as high as patients with a dissociative identity disorder. This result is much higher when compared to the previous studies in Belgium and the Netherlands (Vanderlinden, et al., 1991; Vanderlinden, et al., 1993b) where, respectively, 1% and 0.5 % gained scores as high as patients with a dissociative identity disorder.



By means of ANOVA, the effects of the variables sex, educational level, and age on the DIS-Q scores were studied. Whenever the ANOVA was significant, the Bonferroni procedure for multiple comparisons was done (alpha was set at p < .05). Again the results showed that age was the only variable significantly influencing the DIS-Q total score (DF = 5, 310; F = 26.22; p < .0001). Younger respondents (age 10-20) scored significantly higher on the DIS-Q total scores (mean = 2.1; p < .05), and on the subscales identity confusion (mean = 2.0; p < .05) and loss of control (mean = 2.5; p < .05), as compared to all the other age categories. When comparing the scores of the male and female subjects, no significant differences were found. Again, these results confirm the data from our previous studies (Vanderlinden, et al., 1991; Vanderlinden et al., 1993b).

#### SUMMARY AND DISCUSSION

In this study the prevalence of dissociative symptoms in a population sample of Hungary was explored by means of the dissociation questionnaire (DIS-Q). In general, the findings correspond with the data of all previous population studies on the prevalence of dissociative experiences: These experiences are more frequently present in adolescents and young adults, and they decline with age (Ross, 1991; Ross & Ryan, 1989; Ross, Joshi, & Currie, 1990; Ross, Joshi, & Currie, 1991).



An important subgroup, namely 10.6% of the total sample, scores above the cut-off score of 2.5 of the DIS-Q, while 2.6% of this group reports scores as high as the scores of European and American patients with a dissociative identity disorder (DIS-Q score > 3). Data from a recent epidemiological study (Rathner, et al., 1995), comparing the prevalence of eating disorders and psychological health in Hungary and Austria, also showed that more psychiatric problems are present in the Hungarian population. Rathner and colleagues (1995) found that Hungarian female and male students reported the highest test scores, indicative of disturbed eating attitudes and behavior and psychological disturbances. Hungarian women and men indicated a significantly higher rate of high risk "caseness" to develop psychiatric problems. These findings, together with our Hungarian DIS-Q data, are in line with the finding that Hungary has the highest worldwide suicide rate.

How can the high prevalence of pathological dissociative symptoms in the Hungarian population be understood? Before a definitive answer can be given to this question, first DIS-Q cut-off scores for the Hungarian population are needed. It is possible that different DIS-Q scores need to be employed in different sociocultural environments and countries. Hence, DIS-Q scores of Hungarian psychiatric patients are needed to assess appropriate cut-off scores for the DIS-Q in Hungary. Notwithstanding this consideration, we are still

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impressed by the high number of subjects scoring above the cut-off score, namely four to five times more when compared with the subjects from the Dutch and Belgian sample!

One other possible explanation for this finding, that certainly needs further investigation, might be the fact that Hungary is a former communist country, currently struggling with a major economic crisis and is searching for a new identity. During the past decades, generations had grown up under political oppression, without the right to free speech. Were dissociative phenomena more often used in this culture as a way to escape from or cope with the consequences of the former communist regime? Do these higher scores show that sociocultural factors influence the DIS-Q scores or are the higher scores caused by the aftermath of the communistic political regime in Hungary? Although this study does not permit us to answer these questions, we found this finding intriguing and deserving of further exploration. Studies are now planned to investigate DIS-Q scores in relationship with a reliable measure on all kind of trauma experiences (self-report questionnaire and/or interview). This kind of study can give more insight into those factors contributing to significant differences in dissociative experiences and symptoms among subjects of different countries and sociocultural environments.

#### REFERENCES

Bernstein, E.M., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-735.

Rathner, G., Tury, F., Szabo, P., Geyer, M., Rumplod, G., Forgécs, A., Söllner, W., & Plöttner, G. (1995). Prevalence of eating disorders and minor psychiatric morbidity in Central Europe before the political changes in 1989: A cross-cultural study. *Psychological Medicine*, 25, 1027-1035.

Ross, C.A. (1991). Epidemiology of multiple personality disorder and dissociation. *Psychiatric Clinics of North America*, 14, 503-517.

Ross, C.A., & Ryan, L. (1989). Dissociative experiences in adolescents and college students. *DISSOCIATION*, 2, 239-242.

Ross, C.A., Joshi, S., & Currie, R. (1990). Dissociative experiences in the general population. *American Journal of Psychiatry*, 147, 1547-1552.

Ross, C.A., Joshi, S., & Currie, R. (1991). Dissociative experiences in the general population: A factor analysis. *Hospital and Community Psychiatry*, 42, 297-301.

Sainton, K., Ellason, J., Mayran, L., & Ross, C. (1993). Reliability of the new form of the Dissociative Experiences Scale (DES) and the Dissociation Questionnaire (DIS-Q). In B.G Braun & J. Parks (Eds.), Dissociative disorders 1993: Proceedings of 10th International Conference on Multiple Personality/Dissociative States (p.125). Chicago: Rush.

SPSS PC: SPSS Inc./M.J. Norusis (1993). SPSS for Windows Release 6.0. Chicago: SPSS Inc.

Vanderlinden, J. (1993). Dissociative experiences, trauma and hypnosis. Research findings and clinical applications in eating disorders. Delft: Eburon.

Vanderlinden, J., Van Dyck, R., Vandereycken, W., & Vertommen, H. (1991). Dissociative experiences in the general population of Belgium and the Netherlands. *DISSOCIATION*, *4*, 180-184.

Vanderlinden, J., Van Dyck, R., Vandereycken, W., Vertommen, H., & Verkes, R.J. (1993a). The Dissociation Questionnaire (DIS-Q). Development and characteristics of a new self-report questionnaire. *Clinical Psychology and Psychotherapy*, 1, 1-27.

Vanderlinden, J., Van Dyck, R., Vandereycken, W., & Vertommen, H. (1993b). Trauma and psychological (dys)functioning in the general population of the Netherlands. *Hospital and Community Psychiatry*, 44, 786-788.