World ▮ Cultural ▮ Psychiatry ▮ Research ▮ Review
OFFICIAL JOURNAL OF
WORLD ASSOCIATION OF CULTURAL PSYCHIATRY

Original Paper

Transcultural comparison of quality of life in somatoform pain patients

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Abstract ***Introduction:*** *Quality of life (QoL) has become an important outcome criterion in psychiatry. The present study was designed to identify and compare the QoL in somatoform pain patients from Austria and migrants from the former Yugoslavia as diagnosed by DSM-IV criteria.* ***Method:*** *This study examined 100 consecutive patients of Austrian ethnic origin, as well as 100 consecutive patients from the former Yugoslavia. All patients fulfilled the DSM-IV diagnostic criteria for somatoform pain disorder as ascertained by SCID-I. The patients were administered the WHOQOL-BREF questionnaire, assessing QoL, and the Beck Depression Inventory (BDI), measuring depressive symptomatology. Patients were assessed according to their background either in German or in Bosnian/Croatian/Serbian language.* ***Results:*** *Patients from the former Yugoslavia showed a significantly lower score of overall QoL (A: 34; ex-Yu: 29; p = 0.014). In addition to that, all of their WHOQOL-BREF domain scores were lower, as compared to the Austrian patient group: psychological health (A: 57; ex-Yu: 36; p < 0.001), physical health (A: 50; ex-Yu: 31; p < 0.001), social relations (A: 60; ex-Yu: 42; p < 0,001), and environment (A: 66; ex-Yu: 52; p < 0.001). Depressive symptomatology, as measured on the BDI, also showed a significant gap between these two groups (A: 17.9; ex-Yu: 31.3; p < 0.001). Even when subtracting the impact of depressive symptomatology from the QoL scores, the differences still remain significant as overall QoL (p = 0.048), physical health (p = 0,008), and psychological health (p = 0.02) are concerned.* ***Discussion:*** *The results of this study show clear quality-of-life differences between somatoform pain patients from Austria and the former Yugoslavia. In addition to that, the two groups also reported significant differences with regard to psychopathological factors (depressive symptomatology) which have in turn a major impact on QoL.*

Key words: somatoform pain disorder, quality of life, transcultural comparison, migrants, former Yugoslavia, depressive symptomatology, WHOQOL-BREF, Beck Depression Inventory

WCPRR Apr/Jul 2007: 57-62. © 2007 WACP
ISSN: 1932- 6270

INTRODUCTION Contemporary developments such as globalization or migration have put into focus questions of mental health of minorities. Based on the bio-psycho-social model, quality of life (QoL) has become an important outcome criterion in transcultural psychiatry. The present study was designed to identify and compare the QoL levels between somatoform pain patients from Austria and migrants from the former Yugoslavia, as diagnosed by DSM-IV criteria (American Psychiatric Association, 1994). A previous study by Aigner and Bach (1999) revealed that a substantial subgroup of chronic pain patients who had attended the Behavioural Medicine Outpatient Pain Clinic at the Vienna General Hospital also fulfilled the diagnostic criteria for depression, with about two thirds of all patients meeting the DSM-IV criteria for somatoform pain disorder. Furthermore, most research has observed an apparent inverse correlation between depression and QoL (Wells et al., 1989; Bonicatto et al., 2001). This inverse correlation is clearly more pronounced when compared to other common chronic medical conditions which are

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Received November 9, 2006. Accepted April 16, 2007.

associated with lower quality of life. In order to determine the QoL level we have to take into consideration factors such as our patients' cultural and social backgrounds, their subjective well-being, occurring transient emotions or persistent moods, as well as their distinctive pleasures and pains (Kahneman et al., 1999). The WHOQOL-BREF Questionnaire (WHOQOL Group, 1998) was developed specifically to be a cross-cultural quality-of-life measurement tool. It has been previously used for several medical conditions such as rheumatoid arthritis (Taylor et al., 2004), back pain (Müller et al., 2001), epilepsy (Amir et al., 1999), chronic regional pain, as well as depression (Amir et al., 2002), bipolar disorder (Chand et al., 2004) and psychosis (Herrman et al., 2002). WHOQOL-BREF has also been used to observe changes after effective treatment of pain conditions (Müller et al., 2001), to determine the effects of post-stroke rehabilitation (Bölsche et al., 2003), and to evaluate the correlation between QoL and depressive symptomatology (Aigner et al., 2006a).

METHOD The study was conducted at the Behavioural Medicine Outpatient Pain Clinic, Dept of Psychiatry, Medical University of Vienna, and examined 100 consecutive patients of Austrian ethnic origin, as well as 100 consecutive patients from the former Yugoslavia. All patients fulfilled the DSM-IV diagnostic criteria for somatoform pain disorder as ascertained by the Structured Clinical Interview for Axis I Disorders (SCID-I) (German: Wittchen et al., 1996; Bosnian/Croatian/Serbian: First et al., 2000). The patients were administered the WHOQOL-Bref Questionnaire determining QoL (WHOQOL Group, 1998), the Beck Depression Inventory (BDI) measuring depressive symptomatology (Beck & Steer, 1987), a comprehensive pain questionnaire including visual analogue scales (VAS) for pain and disability assessment, and a structural interview for gathering sociodemographic background data (*vide* Table 1). Patients were assessed according to their background either in German or in Bosnian/Croatian/Serbian language. Full written informed consent was given by all patients.

Table 1 Sociodemographic data: patients with somatoform pain disorder with Austrian vs former-Yugoslav background

	Austrian (N=100)	Former-Yugoslav (N=100)
Age, mean (S.D.)	46,4 (11,4)	49,2 (10,1)
Female (%)	58	70
Primary school (%)	30	61
Secondary school (%)	53	30
High school (%)	10	2
University(%)	7	7
Employed (%)	32	21
Housework (%)	7	10
Unemployed (%)	35	51
Pension (%)	26	18
Married/like married (%)	60	86
Divorced (%)	21	4
Singles (%)	17	10

World Health Organisation Quality of Life Assessment - Short Version (WHOQOL-BREF)

The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. The aim was to develop an international cross-culturally comparable QoL assessment instrument. It assesses individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centres worldwide, and have been widely field-tested (World Health Organization, 1993). The World Health Organisation Quality of Life Assessment-Bref has 26 items derived from the WHOQOL-100 and is a multilingual, multicultural, generic quality of life instrument, developed across 15 field centres (WHOQOL Group, 1998). For the purpose of our study, the WHOQOL-BREF questionnaire was administered in German (Angermeyer et al., 2000) as well as in Bosnian/Croatian/Serbian language. WHOQOL-BREF measures four broad domains

related to QoL: physical health, psychological health, social relationships and environment. Moreover, it includes one facet covering overall QoL and general health. The items are rated on a 5-point Likert scale. A higher score indicates better quality of life. Analysis of the WHOQOL-Bref items shows that domain scores were very similar to those found for the WHOQOL-100; around 95% of the total facet score variance was explained by the four domains (Skevington et al., 2004b). The WHOQOL-Bref domain scores show good discriminant validity (physical health, psychological health, social relationships, and environment), content validity, internal consistency (Cronbach alpha: physical health 0.80, psychological health 0.76, social relationships 0.66 and environment 0.80) and test-retest reliability (WHOQOL Group, 1998; Skevington et al., 2004a). Test criteria were found to be good to excellent, justifying the use of this instrument also with a range of chronic and acute pain patients (Skevington, 1998). Reliability, validity, test-retest and sensitivity to change analyses show that the WHOQOL-BREF performs according to international standards (Skevington et al., 2004b).

Beck Depression Inventory (BDI)

The revised BDI is a 21-item self-assessment scale for eliciting severity of depression. Items score from 0 to 3. Reliability of internal consistency is good for mixed diagnoses as well as single and recurrent-episode major depression (Beck & Steer, 1987). Total scores of 19 and above point to severe and very severe depressive symptoms. For our study, we used the German BDI (Hautzinger et al., 1995) and a Bosnian/Croatian/Serbian version.

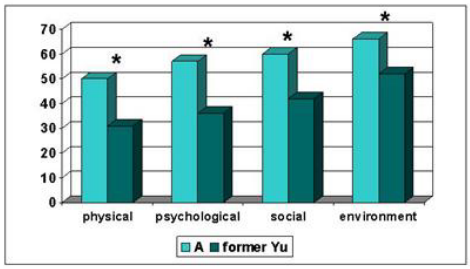
Visual Analogue Scales (VAS)

Operationally a VAS is usually a horizontal line, 100 mm in length, the figure 0 standing for no, the figure 10 for maximum pain/disability. Three dimensions of pain intensity, from the patient's perspective of the previous month, were assessed by means of three different Visual Analogue Scales (VAS): the first one showing average pain intensity, the second one indicating maximum pain intensity, and the third one determining minimum pain intensity. Additionally, disability was also assessed by means of three different VASs: disability at work, disability at leisure and disability in family life.

STATISTICS For statistical analysis we used the t-test to compare the means of pain severity and disability according to VAS, and the Mann-Whitney-U test for nonparametric sociodemographic data. A multivariate model with cultural background (former YU vs. Austria) as fixed factor, overall quality of life and quality of life domains (WHOQOL-BREF) as dependent factors und depressive symptomatology (BDI) as co-variate was calculated.

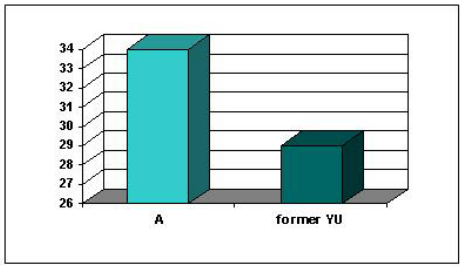
RESULTS Patients from the former Yugoslavia showed a significantly lower score of overall quality of life (A: 34; ex-Yu: 29; $p = 0.014$). In addition to that, all of their WHOQOL-BREF domain scores were lower, as compared to the Austrian patient group: psychological health (A: 57; ex-Yu: 36; $p < 0.001$), physical health (A: 50; ex-Yu: 31; $p < 0.001$), social relations (A: 60; ex-Yu: 42; $p < 0.001$), and environment (A: 66; ex-Yu: 52; $p < 0.001$). Depressive symptomatology, as measured on the BDI, also showed a significant gap between these two groups (A: 17.9; ex-Yu: 31.3; $p < 0.001$). Even when subtracting the impact of depressive symptomatology from the quality of life scores, the differences still remain significant as overall quality of life ($p = 0.048$), physical health ($p = 0.008$), and psychological health ($p = 0.02$) are concerned.

Figure 1. QoL domain scores (WHOQOL-BREF).



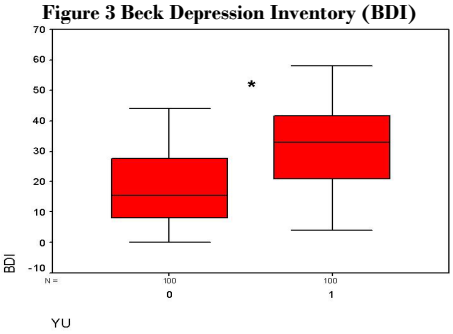
A: Austrian background; former Yu: from former Yugoslavia
*) p < 0,001

Figure 2. Overall QoL (WHOQOL –BREF)



A: Austrian background; former Yu: from former Yugoslavia;
p = 0,014

Figure 3 Beck Depression Inventory (BDI)



A: Austrian background; former Yu: from former Yugoslavia;
***) p < 0.001**

DISCUSSION The present study sought to advance the understanding about the conceptual relationship of somatoform pain disorder and QoL with particular reference to transcultural aspects. The results of this study show clear quality-of-life differences between somatoform pain patients from Austria and the former Yugoslavia. Additionally, the two groups also reported significant differences with regard to psychopathological factors (depressive symptomatology) which have in turn a major impact on QoL. Generally speaking, the results show a high correlation with depressive symptomatology which may be due to two different reasons: Firstly, a depressed person will usually see his or her well-being, social functioning and living conditions worse than they appear to an independent observer or to patients themselves after recovery – the so called "affective fallacy"; and secondly, a conceptual and measurement overlap between quality of life and depressive symptomatology, as observed by Aigner et al. (2006a), has to be taken into account. High PTSD prevalence rates (Aigner et al., 2006b) may be regarded as one of the potential causes for the high comorbidity with affective disorders, especially depression, among patients from the former Yugoslavia. This has to be put in context with the war in the Balkans during the 1990s. Moreover, socio-economic factors such as substandard accommodation or poor housing conditions, low income and limited financial resources, as well as low QoL scores can be considered as compounding factors for somatoform pain patients from the former Yugoslavia. Inadequate education and prolonged unemployment seem to have an additional negative effect on the chronification of psychiatric diseases. In order to improve therapeutic treatment all of these aspects will have to be taken into account.

CONCLUSION Somatoform pain patients from the former Yugoslavia are less formally educated and more likely to suffer from PTSD, as compared to the Austrian patient group. These findings were associated with a stronger depressive symptomatology, an increased pain perception, and a lower psychological quality of life score in the patients from the former Yugoslavia. Finally, migration-related aspects may be regarded as compounding factors, although this issue still requires further research.

ACKNOWLEDGEMENTS The project *Transcultural Aspects of Somatoform Pain Disorder* was supported by a research grant from *City of Vienna's Jubilee Fund for The Austrian Academy of Sciences*, and co-sponsored by the *City of Vienna's Department for Social and Health Planning*.

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