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## Chapter 3

# **Ethnic differences in symptom profiles and health beliefs of outpatients with depressive and/or anxiety disorders**

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Submitted

## ABSTRACT

**Objective:** Expression of symptoms of depressive and/or anxiety disorders and health beliefs may vary across cultures. This study addresses ethnic differences in symptom profiles and health beliefs of outpatients with depressive and/or anxiety disorders.

**Method:** Patients were recruited at outpatient clinics for depressive and/or anxiety disorders in Amsterdam, The Netherlands. 54 patients with a Moroccan or Turkish background were matched with 108 indigenous Dutch patients on age and gender. Symptom severity, pain, disability, locus of control and trust in care were compared at treatment start. Data were analyzed with chi square and independent t-test methods.

**Results:** Ethnic minority patients had a lower score on depression severity ( $t=2.26$ ,  $p=.02$ ) but anxiety severity scores were higher ( $t=-5.90$ ,  $p<.001$ ). Pain intensity was also significantly higher in the ethnic minority group. Furthermore, functional disability in communication, mobility, self-care, and participation was significantly more pronounced, while trust in care was significantly lower in the ethnic minority groups.

**Conclusion:** This study showed that ethnic differences exist in outpatients' affective disorder profiles and in trust in care. Possibly, treatment should more than is usual in regular depression treatment, be targeted at the anxiety, pain and disability symptoms in these groups. Psycho education, information on the treatment options and benefits, as well as case management can most probably improve trust in care.

## BACKGROUND

Depressive and/or anxiety disorders are highly prevalent among all cultures. The enormous effect on public mental health is also well established in studies in different cultures across the world [30,33,45]. The definitions and criteria of depression and anxiety disorders are described in the Diagnostic and Statistical Manual (DSM-IV) [2], but this manual has been criticized because it is based on western and universalistic assumptions [23,27]. It is known that across cultures the symptomatic expression and clinical presentation of depression and anxiety may vary. Several ethnic differences in depression and/or anxiety symptom profiles, illness presentation and health beliefs have been described in the literature [5,8,9,16,21,22,26]. Some researchers found that the tendency to express somatic symptoms and pain is stronger in non-western cultures and ethnic minorities than in western groups with depression and anxiety [7,14,16,20,38], but overall, the literature on this topic is scarce. Concerning health beliefs it is assumed that internal locus of control is weaker in persons from a more collectivistic and religious culture than in persons who are more individualized and non-religious [34,36,46]. Yet, insight in ethnic differences in symptom presentation and health beliefs of patients with depressive and/or anxiety disorders is important, because this may have consequences for diagnosing, treating and treatment outcome of these patients.

In the Netherlands two of the largest groups of non-western ethnic minorities are labour migrants from rural areas of Morocco and Turkey. Predominantly male migrants settled down since the 1960's and reunited later with their families in the Netherlands. Return-migration often did not occur. Because the migration mostly concerned unskilled-labour migration the socio-economic status was and still is in general much lower compared to that of the indigenous population. This lower socio-economic status might be an explanation for the higher prevalence of depressive and/or anxiety disorders among these ethnic minority groups, but findings are inconsistent [13,18,19,24,26]. Probably the migration and accompanying acculturation stress also play a role in the high prevalence of depressive and/or anxiety disorders [6]. Acculturation processes developed slowly, due to the large groups that remained together, low integration pressure of former policies, and enduring marital migration (many of the children of the first generation migrants married with partners from Morocco or Turkey who also came to live in the Netherlands) [9,29]. Therefore, the influence of the Moroccan and Turkish culture on mental health presentation and health beliefs remains considerable. Several recent

mental health studies have been published about these Dutch ethnic minority groups. Little evidence was found for ethnic differences in depression symptom profiles in a population based study [37]. In other studies it was found that depressive and somatic symptoms were more strongly associated in Turkish and Moroccan persons than among western persons [14,16,26,39]. One general population study found a more pronounced association between external locus of control and depression in Turkish and Moroccan respondents than in the indigenous Dutch group [41].

The aim of the current study was to compare Turkish and Moroccan patients with indigenous Dutch outpatients with depressive and/or anxiety disorders. We were able to study not only differences in symptom severity, somatic symptoms (pain), disability, and locus of control, but also in trust in western mental health care. Trust in care is important as it reflects commitment to the treatment that is offered. The outcome of this study can help to give more insight in this field of knowledge and to find cues for improvement of depression and anxiety treatment of migrants in the Netherlands.

Based on the literature we hypothesized that, when compared to indigenous Dutch patients, Turkish and Moroccan patients:

1. Have comparable levels of depression and anxiety severity
2. Experience more pain and more disability of functioning
3. Express a more external locus of control
4. Express less trust in mental health care

## **METHOD**

### **Sample and response**

To test a clinical significant difference for 5 variables, with an effect size of 0.70 and a power of 0.80, at least two groups of 50 respondents were needed ( $\alpha=0.01$ ) [3].

Data for the current study were extracted from two research samples. Both samples consisted of patients who were recruited in the same outpatient clinics for depression and anxiety in Amsterdam. The first research sample, the Migrants with Depression and Anxiety disorders study (MIDA study), consisted of Turkish and Moroccan patients recruited between January 2009 and February 2012. The design of this study was described elsewhere [42]. In this randomized controlled trial 40 out of 201 eligible

patients were motivated to fill out the questionnaires. Data from these 40 patients were used in the current study. From the second research sample, the Netherlands Study of Depression and Anxiety (NESDA) wave 1, data of 14 Moroccan or Turkish patients were available, resulting in a total ethnic minority sample of 54 Moroccan and Turkish patients for the current study. The recruitment period took place from September 2004 through February 2007. These patients were matched on age and gender with 108 indigenous Dutch patients from the same NESDA wave 1 dataset. The NESDA study is a multi-site naturalistic cohort study, details of the study are described elsewhere [32].

In both studies ethnicity was defined on the basis of country of birth. Respondents were classified as Turkish or Moroccan when they, or at least one of their parents, were born in Turkey or Morocco [1]. Respondents were considered ethnic Dutch if they and both of their parents were born in the Netherlands. Patients were excluded from both studies if their main problem was one of the following disorders: a psychotic disorder, bipolar disorder, organic brain syndrome, substance dependence, or a severe borderline, schizotypal, or antisocial personality disorder. All respondents were assessed after written informed consent was given. The study was approved by the Medical Ethical Committee of the VU University medical Center.

### **Assessments**

In the MIDA study research questionnaires used were matched with those used in the NESDA study to make the current comparison possible. Patients from the MIDA sample were questioned with translated questionnaires (if necessary) and interviewed by bilingual (Dutch-Turkish or Dutch-Moroccan Arabic) research assistants. Patients from the NESDA were assessed in Dutch. The assessments took place at the clinic sites at treatment start. Groups were compared with regard to socio demographic factors (marital status, education, income).

Besides socio demographic data, both clinical characteristics of the affective disorder and health beliefs were explored. This includes socio demographic data, severity of depressive symptoms (Inventory of Depressive Symptoms self-report version (IDS) [35]); severity of generalised anxiety and panic symptoms (Beck Anxiety Inventory self-report version (BAI) [4]); disability (World Health Organisation-Disability Schedule II, WHODAS II) [11]); pain (Chronic Graded Pain Scale [44]); locus of control (Pearlin and Schooler Mastery Scale [31]); and trust in care (Consumer Panel Questionnaire on Confidence

in Health Care [32,43]). IDS, BAI and WHODAS II are designed for use in cross-national evaluations and have shown to be reliable and valid instruments. From the Pain Scale two items were included: pain intensity (0 for no pain to 100 worst pain) and disability caused by pain (0 not disabled to 100 totally disabled). In our study we found for Locus of control a Chronbach alpha of 0.83 and the Trust in care a Chronbach alpha of 0.92, both questionnaires showed a good internal consistency. The assessment existed of two parts: a self-report part (BAI, IDS, WHODAS, consumer Panel Questionnaire on Confidence in Mental Health Care) and an interview (Pain Questionnaire and Locus of Control).

### ***Translation of the instruments***

For respondents who preferred the Turkish language, the MIDA study used translated and validated Turkish instruments (IDS ([www.idsquids.com](http://www.idsquids.com)), BAI [40]) and translated instruments used in the Amsterdam Health Monitor (AHM) study [12] (socio demographic, WHODAS II, locus of control, trust in care) [35]. The Pain Scale was translated at our institute. Bilingual (Dutch and Turkish speaking and writing) mental health professionals translated the Dutch version into Turkish and this Turkish version was translated back into Dutch by other bilingual mental health professionals. Because the Moroccan and Berber language is a collection of dialects (not a written language), no validated and translated versions of the instruments were available. Therefore, for the verbal part of the interview, only key-terms in each question were translated into Moroccan Arabic (socio demographic, locus of control, pain scale). This strategy was previously used in the Amsterdam Health Monitor (AHM) study [13] for the socio demographic and locus of control questionnaires. In our institute we did the same for the Pain Scale with help of a focus group of bilingual students (Dutch-Moroccan-Arabic). However, several respondents were able to understand a written modern Moroccan Arabic (most commonly used among migrants in the Netherlands). For this group a complete translated version of the self-report questionnaires was accomplished (BAI, IDS, WHODAS II, trust in care), translated by the Dutch public translation centre (Tolk Vertaal centrum Nederland or TVcN). A focus group of bilingual students (Dutch-Moroccan-Arabic) translated it back into Dutch and adapted the Moroccan translation when necessary.

### **Data analyses**

Questionnaires of both datasets were entered twice in our database and compared for inconsistencies. Differences between migrants and indigenous Dutch patients were

analyzed with chi-square method and independent t-tests with SPSS version 20. Also differences between all ethnic groups (Turkish, Moroccan and indigenous Dutch) were analysed by use of ANOVA and post-hoc Tukey's method.

## RESULTS

### Socio-demographic and clinical characteristics of the sample

The ethnic minority group and the indigenous Dutch group were successfully matched on age and gender. They were recruited in the same areas of Amsterdam, in the same outpatient clinics for depressive and anxiety disorders. There were no differences in income and social security use. However, the migrant outpatients had significantly more children. Also their educational level was significantly lower and they were more often religiously engaged (92.6% Islamic) compared to the indigenous Dutch outpatient group (see Table 3.1). Both migrant groups showed comparable socio-demographic

**Table 3.1 Characteristics of enrolled patients by ethnic background**

	Moroccan or Turkish		Indigenous Dutch		t/ $\chi^2$	df	p
	N	%	N	%			
Age, Mean $\pm$ SD	41.22 $\pm$ 9.33		42.00 $\pm$ 11.16		0.47	161	.64
Female	32	59.26	60	56.60	0.16	1	.69
Married or living together	34	62.96	64	59.23	0.65	1	.42
Having children	42	77.77	29	6.85	38.46	1	<.001
Number of children, Mean $\pm$ SD	2.30 $\pm$ 1.41		1.45 $\pm$ 0.63		-3.06	70	.003
Religious	51	94.44	23	21.29	81.11	1	<.001
Social-economic status							
Educational level							
Primary school	15	27.77	6	6.66	16.43	1	<.001
Intermediate	32	59.26	63	59.43	0.04	1	.85
High education	7	12.96	39	36.79	10.19	1	.001
Income of household*							
< 1600 euro net each month	33	61.11	56	52.83	1.43	1	.23
Salary	30	55.55	71	66.98	1.48	1	.22
Social security use	31	57.41	48	45.28	2.61	1	.11
Pension	1	1.85	6	6.66	1.22	1	.27

characteristics. Of the total migrant outpatient group 49 (90.7%) were first generation migrants and five from the second generation (3 with a Moroccan and 2 with a Turkish background). Of the total migrant outpatient group 17 (31.5%) preferred to be interviewed in Turkish or Moroccan Arabic. As there were no differences between the two migrant groups on our key variables they were considered as one group in the further analyses.

## Symptom profiles

The migrant patients had a lower mean total score on depression severity but a higher score on anxiety severity (see Table 3.2). The migrant group showed also a higher intensity of pain and more experiences of disability caused by pain (Table 3.3). All of these differences were significant. Furthermore, all migrants showed significantly more disability in functioning at the WHODAS II factors "communication", "mobility", "household", "participation" and "total scores" (with work and without work). The factors "self-care" and "work" were comparable with the indigenous Dutch patients (Table 3.4).

## Health beliefs

Locus of control was comparable for both groups (see Table 3.5). Trust in therapists and friends care was significantly lower for the migrant patients compared to the indigenous

**Table 3.2 Depression severity (IDS-SR30) and Anxiety severity (BAI)**

	Moroccan and Turkish	Ethnic Dutch	t	df	p
Depressive severity					
Total score, M ± SD	25.24 ± 16.01	30.88 ± 14.49	2.26	157	.02
Anxiety severity					
Total score	31.70 ± 14.59	19.54 ± 11.15	-5.90	159	<.001
Somatic score	19.20 ± 8.21	11.33 ± 7.57	-5.71	159	<.001
Subjective score	11.91 ± 6.86	8.21 ± 4.61	-4.07	159	<.001

**Table 3.3 Pain intensity and disability (scores 0-100 from no to total pain)**

	Moroccan and Turkish	Ethnic Dutch	t	df	p
Intensity M ± SD <sup>a</sup>	62.14 ± 16.81	41.87 ± 19.41	-6.47	161	.001
Disability M ± SD <sup>b</sup>	55.56 ± 27.86	33.24 ± 27.28	-4.85	161	.001

**Table 3.4 Disability in functioning (WHO-DAS II) n=159**

M ± SD	Moroccan and Turkish	Ethnic Dutch	t	df	p
Communication	40.51 ± 21.28	28.74 ± 19.11	-3.54	159	.001
Mobility	33.88 ± 23.06	17.98 ± 18.37	-4.61	159	<.001
Self care	23.95 ± 19.03	10.26 ± 12.48	-5.38	159	<.001
Social Functioning	28.51 ± 17.92	28.85 ± 16.95	0.20	159	.84
Household	35.87 ± 18.73	26.49 ± 21.66	-2.76	159	.006
Work/study	30.01 ± 20.82	26.04 ± 20.94	-0.79	76	.43
Participation	38.72 ± 19.07	29.28 ± 19.68	-3.17	159	.002
Total score without work/study	49.61 ± 19.89	39.26 ± 19.89	2.23	81	.03
Total score with work/ study	37.15 ± 90.96	26.21 ± 17.64	-3.02	76	.003

**Table 3.5 Locus of Control Mastery Scale (total score between 5, "external control" and 25 "internal control")**

	Moroccan and Turkish	Ethnic Dutch	t	df	p
Total score, M ± SD	10.28 ± 6.38	12.45 ± 7.56	1.81	161	.07

Dutch patients. Dutch outpatients disagreed significantly more often to keep mental health problems to themselves. Turkish and Moroccan outpatients were significantly more neutral in choosing to keep mental health problems to themselves. Both groups had comparable low trust in care of their family (Table 3.6). No significant differences were found between the two migrant groups.

## DISCUSSION

The aim of our study was to test for ethnic similarities and differences in symptom profile and health beliefs of outpatients with depressive and/or anxiety disorders. In the first place we compared depression and anxiety severity and expected no differences. However, the results showed that depression severity was significantly lower while the levels of anxiety significantly higher among the migrant group. Furthermore, we found that pain intensity and disability caused by pain were significantly higher for the ethnic minority group. This finding confirmed the hypothesis that non-western outpatients express somatic symptoms more often. Also migrants reported significantly more functional disability compared to indigenous Dutch patients. This is in contrast with

**Table 3.6 Outpatients' trust in care**

	Moroccan and Turkish (total N=46)		Ethnic Dutch (total N=91)		$\chi^2$	p
	N	%	N	%		
1. The therapist helps people to cope with their problems						
agree	28	60.87	83	92.22	18.29	<.001
disagree	13	28.26	3	3.33	18.46	<.001
neutral	5	10.87	5	5.55	1.31	.25
2. I prefer to discuss mental health problems with friends						
agree	10	21.74	48	53.33	12.03	.001
disagree	29	63.04	31	34.44	10.42	.001
neutral	7	15.22	12	12.22	0.11	.75
3. The help of the therapist helps people to cope difficult situations						
agree	27	58.69	75	83.33	8.07	.004
disagree	15	32.61	9	9.99	11.38	.001
neutral	3	6.52	7	7.77	0.46	.83
missing	1	2.17	-	-	-	-
4. I prefer to keep mental health problems for myself						
agree	7	15.22	10	11.11	0.50	.48
disagree	28	60.87	79	87.78	12.03	.001
neutral	11	23.91	2	2.22	16.77	<.001
5. I prefer to discuss mental health problems with family						
agree	11	23.91	29	32.22	0.17	.68
disagree	21	45.65	45	50.00	0.21	.65
neutral	7	15.22	19	17.78	0.15	.70
missing	7	15.22	-	-	-	-

the findings of Schrier et al. [37] in a population based study. They found comparable disability at WHODAS II rates for migrants and indigenous Dutch respondents with depression. The higher disability rates we found among migrants may be explained by the corresponding higher levels of pain and pain related disability that our ethnic minority patients reported. Concerning health beliefs we hypothesized a more external locus of control among migrant outpatients but this was not confirmed. In the population based study of van Dijk et al. [41] (external) locus of control and the presence of depressive symptoms were most pronounced especially among Turkish and Moroccan ethnic groups compared to the Dutch group. Our last hypothesis that trust in care is lower in the migrant outpatient groups was confirmed. The non-western ethnic minority patients reported less confidence that specialized mental health care may help them overcome their mental and physical problems. As a consequence treatment adherence may be

at stake and treatment dropout may be more likely. In a USA study among depressed ethnic minority outpatients it was demonstrated that more psycho-education and case management improved treatment adherence and outcome [28]. Possibly a more adapted treatment with additional case management can overcome this lack in trust.

The strength of our study is that we focused on a difficult to reach sample of migrant outpatients with depressive and/ or anxiety disorder. Patients with a non-western background are less willing to participate in mental health care research [10,15,17,25]. Therefore, much effort was necessary, including the use of bilingual assistants and multiple calls to reach patients.

A limitation of this study is that the response in both data sets among this group was very low (<20%), compared to an overall response for the NESDA specialized mental health patients of 57%, all patients. The ethnic minority patients we were able to include may be more acculturated, and because of that, more willing to participate, which may have diluted differences between ethnic minority and Dutch patients. Nevertheless we still found considerable ethnic differences. Mental health institutions have to focus more on anxiety symptoms, pain, disability, and on trust in treatment of migrants with depressive and anxiety disorders. Possibly a more adapted treatment with additional psycho-education and case management can improve treatment adherence and outcome.

## Conclusion

This study demonstrated ethnic differences in depression and anxiety symptom profiles, pain, disability, and in trust in care. Given a higher risk of unfavourable treatment outcomes in these patients, treatments may be more effective when targeting anxiety, pain, disability and factors that may help improving trust in mental health care.

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