Original Article

Depressive and anxiety symptoms of Iranian immigrants in Denmark: a comparison

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(Received: 14 Sep 2016; Revised: 30 Sep 2016; Accepted: 24 Jun 2016)

Abstract

Introduction: The first aim of the present study was to compare the differences in anxiety and depressive symptoms among Iranian immigrants in Denmark, Iranians living in Iran and native Danes. The second aim was to investigate interactions between ethnicity/location, gender and employment in depressive and anxiety levels of participants.
Methods: The study design was causal comparative. The sample size was 720 individuals, aged 18 to 45 selected through convenience sampling. All participants filled SCL-90 and demographic questionnaire. Data were analyzed using three-way ANOVA.
Results: Native Iranians reported higher levels of depression and anxiety than immigrant Iranians and native Danes. Unemployed and female participants reported higher levels of depression and anxiety than employed and male participants. Interaction between ethnicity/location, employment and gender was significant in depressive and anxiety symptoms of participants.
Conclusion: Lower level of anxiety and depression among Iranians immigrants in Denmark and native Danes in comparison of Iranians living in Iran can be related to better social welfare system and high levels of flourishing in Danish society.
Declaration of Interest: None.

Key words: Anxiety, Depression, Employment, Cultural difference, Immigrants

Introduction

Depressive and anxiety symptoms are prevalent in general population. It is estimated that 5 to 18 percent of general population experience signs of depression and anxiety (1, 2). Different factors like gender and employment contribute to prevalence of psychiatric symptoms in general population. Girls are more prone to depression than boys (2). It is also indicated that the prevalence of depression and anxiety increases with unemployment (3).
Immigration can be a stressful experience. Cultural differences, financial problems and discrimination are some obstacles that immigrants face in the host country (4). On the other hand, immigrants usually come from developing and relatively poor countries. These countries are replete with social and economic problems that could influence immigrants in their homelands. These background problems and stress of immigration can lead some immigrants to psychiatric disorders. One study demonstrated more psychiatric problems for refugees who have faced traumatic experiences (5). Furthermore, isolation in the host country can increase the risk of some psychiatric disorders. It is demonstrated that psychotic disorders were elevated among immigrants living in the neighborhoods where their own ethnic group was in minority (6).
Iranians are one of the immigrant groups in European countries such as Denmark. Some immigrated to Denmark for economic reasons and some were asylum seekers and refugees for political or social reasons. Cultural difference can be a source of psychological stress for Iranians. These cultural differences can even be found in different styles of parenthood. Child rearing practices in collectivistic societies are

focused on subordination of the self to the group, interdependence and harmony but child rearing practices in individualistic societies are focused on independence, self-expression and assertiveness (7). These cultural differences can make some problems for immigrant families and can make them vulnerable for psychiatric problems. In harmony with this assumption, different studies demonstrated that immigrants have more psychiatric problems than host population (8, 9). Nevertheless, it should be noted that immigrants usually have higher standards of living in the host country in comparison of source country (this is the reason of immigration in the first place). They enjoy more freedom and have more opportunities to flourish due to the fact that immigration is usually from developing to developed countries. Consistent with this assumption, some studies demonstrated that immigrants even had lower depression/anxiety and other psychiatric problems than host population (10, 11). It seems that if immigrants integrate with host country, they can benefit from immigration. Employment can be a good sign of integration (at least economically). It can be assumed that employment reduces depressive and anxiety symptoms among immigrants. Gender can also be associated with depressive and anxiety symptoms among immigrants. One study demonstrated that immigrant adolescent boys reported higher levels of depression/anxiety than immigrant adolescent girls (8).

To our knowledge, no study has compared depressive/anxiety symptoms of Iranian immigrants with Iranian and host population in any country. Therefore, the aim of the present study is to examine the depressive and anxiety symptoms of immigrants in Denmark with Iranian origin, Iranians living in Iran and individuals with Danish origin with consideration of other factors including gender and occupation.

Methods

Native Danish individuals, immigrants with Iranian origin, and native Iranian individuals aged 18 to 45 were participated in present study. From March to August 2015, adults living in Copenhagen and Isfahan were collected through convenience sampling. In order to collect the data, public cites in both cities of Copenhagen and Isfahan including cultural centers, parks, and public libraries were approached with co-investigators of present research. Participants were informed about the aim of the research then they filled a couple of questionnaires after signing the consent form. Total sample size was 720. There were 240 Iranians living in Iran, 176 immigrants with Iranian origin living in Denmark and 304 native Danish individuals living in Denmark. Inclusion criteria for Danish and Iranian groups were 18 to 45 years of age, birth in Denmark (from Danish parents for Danish group) and Iran (for Iranian group). Inclusion criteria for group of immigrants with Iranian origin were 18 to 45 years of age, and being resident of Denmark for more than five years. We also had an exclusion criterion for the Iranians that were permanent residents in Denmark but they were mostly living in Iran due to family or job reasons (at least 6 months per year). Demographic statistics of three studied groups are demonstrated in the table below.

Table 1. Three groups according to gender, employment and marital status

Variable		Iranian in Iran	Iranians in Denmark	Danes in Denmark
Gender	Female	120 (50%)	108 (61.4%)	156 (51.3%)
	Male	120 (50%)	68 (38.6%)	148 (48.7%)
Employment	Employed	204 (85%)	120 (68.2%)	224 (73.7%)
	Unemployed	36 (15%)	56 (31.8%)	80 (26.3%)
Education	Diploma and under	88 (36.7%)	64 (36.4%)	72 (23.7%)
	B.Sc	136 (56.7%)	52 (29.5%)	200 (65.8%)
	M.Sc and over	16 (6.7%)	60 (34.1%)	32 (10.5%)
Marital status	Married	60 (25%)	112 (63.6%)	36 (11.8%)
	Single	176 (73.3%)	48 (27.3%)	252 (82.9%)
	Divorced	4 (1.7%)	16 (9.1%)	16 (5.3%)

As it is demonstrated in the table above, percentage of employment of Iranians living in Denmark was lower than Iranians living in Iran and native Danes. The data also demonstrated

that Iranian living in Denmark had higher percentage of higher education (M.Sc and over) than Iranians living in Iran and native Danes. Percentage of singles was higher among Iranians living in Iran than other two groups. Mean age of participants was 26.56, 32.27, and 26.97 years for Iranians, immigrants with Iranian origin, and native Danes respectively.

The SCL-90 is an instrument to measure symptomatic behavior of a broad spectrum of populations ranging from non-patient normal populations, medical patients to psychiatric outpatients (12). This measure is consisted of nine subscales including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychotism. This scale has 90 items and requires 12-20 minutes to complete. Internal consistency of this measure ranges from 0.77 to 0.90 (13). Test-retest reliability for 94 mixed psychiatric out-patients had a range of 0.78 to 0.9 (14). Danish and Persian versions of SCL-90 had good psychometric properties (15, 16). Two subscales of anxiety and depression were used in present research.

Results

Prevalence of depressive and anxiety symptoms was indicated in table 2 and 3. Three-way ANOVAs was used to analyze the data. Independent variables were ethnicity/location, employment, and gender. Results demonstrated that there was a significant difference between depressive symptoms in three studied groups (F= 71.06, p<0.001). Female participants had significantly higher depressive symptoms than male participants (F=9.34, p=0.002). Unemployed participants had also higher depressive symptoms than employed participants (F=14.65, p=0.001). Interaction between ethnicity/location and employment was significant (F=8.71, p=0.001). Another significant interaction was between ethnicity/location, employment and gender (F=11.81, p=0.001). Other interactions were insignificant.

Table 2. Depressive symptoms in three studied groups

Iranians in Iran					**Iranians in Denmark**					**Native Danes**				
Male		Female		Total	Male		Female		Total	Male		Female		Total
Emp	Unem	Emp	Unem	18.79*	Emp	Unem	Emp	Unemp	11.96*	Emp	Unemp	Emp	Unemp	9.68*
13.91[a] (10.33)[b]	27.00 (6.82)	21.10 (7.82)	20.66 (12.33)	(9.95)	10.43 (10.01)	11.00 (7.08)	11.06 (7.72)	17.75 (14.21)	(9.86)	8.66 (6.06)	7.30 (5.54)	11.34 (7.37)	10.60 (5.84)	(6.58)

a= mean b=St.dev *,**represent means that are significantly different with each other Emp= Employed, Unemp= Unemployed

Tukey HSD was used for multiple comparisons. As demonstrated in table 2, Iranians living in Iran had significantly higher depressive symptoms than immigrants in Denmark with Iranian origin (p=0.001) and native Danes (p=0.001).

Table 3. Anxiety symptoms in three studied groups

Iranians in Iran					**Iranians in Denmark**					**Native Danes**				
Male		Female		Total	Male		Female		Total	Male		Female		Total
Emp	Unem	Emp	Unem	10.59**	Emp	Unem	Emp	Unemp	6.67*	Emp	Unemp	Emp	Unemp	6.09*
8.24[a] (7.25)[b]	19.16 (6.36)	10.51 (5.71)	13.00 (5.58)	(7.09)	6.70 (8.85)	3.01 (2.94)	5.77 (4.10)	10.33 (9.63)	(7.86)	4.41 (3.77)	4.30 (5.71)	9.03 (7.35)	4.80 (3.00)	(5.87)

a= mean b=St.dev *,**represent means that are significantly different with each other Emp=Employed Unemp= Unemployed

As demonstrated in table 3, there is a significant difference between three studied groups in anxiety symptoms (F= 49.59; 0.001). Tukey HSD was used for multiple comparisons. Results demonstrated that Iranians living in Iran had higher anxiety symptoms than immigrants in Denmark with Iranian origin (p=0.008) and native Danes (p=0.001). Unemployed participants had significantly higher anxiety symptoms than employed participants (F=7.50; p=0.006). Female participants demonstrated higher anxiety symptoms than male participants (F=4.42; p=0.03). Interaction between ethnicity/location and employment demonstrated significant difference (F=18.40; p=0.001). Another significant interaction was between ethnicity/location, employment and gender (F=15.83; p=0.001). Interaction between gender

and ethnicity/location was also significant (F=6.08, p=0.002).

Conclusion

In this study we have investigated the variations in depressive and anxiety symptoms among Iranians livings in Denmark, Iranians living in Iran and native Danes. Results demonstrated that Iranians living in Iran had higher depressive and anxiety symptoms than Iranians living in Denmark and native Danes. On the other hand there was no significant difference between Iranians living in Denmark and native Danes in depressive and anxiety symptoms. Findings indicated that depressive and anxiety symptoms were higher among unemployed and female participants in comparison of employed and male participants. These findings are consistent with previous research that demonstrated higher prevalence of depression and anxiety symptoms among unemployed individuals (3). It is also demonstrated that female participants are more prone to depression and anxiety than male participants (2).

There are controversial results about the prevalence of psychological problems in host and immigrant populations. One study reported more depressive symptoms among immigrant students in Norway in comparison of host students (8). Another study demonstrated that asylum seekers and refugees from Iran and Afghanistan are more prone to depression/ anxiety than Somali refugees in Netherlands (17). It is also indicated that psychiatric symptoms of Turkish immigrants in Netherlands are higher than general population (9). Nevertheless, one study reported lower prevalence of mental illness among Latino immigrants than U.S born Latinos (11). Another study demonstrated that Vietnamese immigrants had lower depressive/anxiety symptoms than host population (10).

Lower levels of anxiety/depression among Iranian immigrants in comparison of host population can be interpreted as a sign of good integration with the Danish society. Statistics strengthen this assumption as Iranians are more likely to get married with Danes than other immigrant groups (18). Activity rate (either working or studying) among Iranians was close to general population and descendants of Iranian origin had even higher activity rate than general population in Denmark (18). They have more tertiary education than general population and Gender gap in employment rates of Iranians was also close to general population and much lower than other immigrant groups (18). The data shows that Iranians could accept modern gender roles and integrate with Danish society.

Findings of present research also demonstrated that interaction between status of employment, gender and location/ethnicity is significant for anxiety and depressive symptoms of participants. Another significant interaction is between employment and location/ethnicity for anxiety and depressive symptoms. Given these interactions and the data indicated in table 3, unemployed Iranian men living in Iran had the higher rate of anxiety and depression in comparison of others. It seems that employment did not make much difference on anxiety and depressive measures of native Danish men and women.

In order to interpret these results, social factors associated with depression and anxiety should be considered. It seems that Danish participants were less anxious and depressed as there are better social welfare system in Denmark in comparison to Iran (particularly in stressful conditions like unemployment). Wilkinson & Pickett (2009) indicated that economic inequality is correlated with health and social problems (19). They argued that inequality results to health and social problems due to "status anxiety". The living context of the individual has the psycho-social impact on them (20). Inequality places people in a hierarchy which increases status competition and insecurity (20). These insecurities can cause psychological problems (19). In order to find out the extent of inequality in Iran and Denmark, an economic factor called Gini index should be considered. Gini-coefficient is a factor showing equality/inequality in economy (21). It ranges from 0 to 1 and the lower number indicates the lower inequality (22). Gini-coefficients of Denmark and Iran were 0.25 (2008) and 0.41 (2005) respectively (23). This shows that Iran is a more unequal country than Denmark. Therefore, lower anxiety and

depression of Danish sample in comparison with Iranian sample can be related to more inequality of Iranian society.

Mental health of the population can be represented in a spectrum. At one end of the spectrum are the common psychological symptoms like anxiety and depression. If these are severe enough and have clinical criteria can be classified as mental disorder but most people have moderate mental health and some people are at another end of the spectrum called flourishing. Flourishing is based on a subjective report of well-being (24). Core features in operational definition of flourishing are positive emotions, engagement, interest, meaning and purpose (24). It is demonstrated that Denmark has the highest prevalence of flourishing across European countries (24). Therefore, low levels of anxiety and depression can be related to high levels of flourishing in Danish society. Prevalence of Flourishing is not clear in Iranian society but we guess that it might be lower than Danish society.

The present research had some limitations that low sample size was the most important one. We recommend repeating the study with a larger sample size in future research. Our participants were selected through convenience sampling due to limitations in time and researchers. We recommend repeating the study with random sampling. Qualitative methods like interview can make a better understanding about acculturation and integration of immigrants in host societies. We recommend including qualitative methods in future research. Some other variables like flourishing have not been examined in present research. It might be a good idea to examine these variables in future studies. Present study had also some implications for practitioners. As noted before, higher levels of flourishing can be assumed as a protective factor to lower anxiety and depression among participants. In order to strengthen flourishing, some techniques are introduced in positive psychology. Practitioners can use such techniques in the process of psychotherapy to help the clients with anxiety and depression.

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