



Psychological Profile in a General Population in Central Iran

Hamid Afshar¹, Hamidreza Roohafza², Fatemeh Rajabi³, Abbas Attari⁴, Awat Feizi⁵,
Ammar Hassanzadeh-Keshteli⁶, Mahshid Taslimi⁷, Peyman Adibi⁸

¹ Associate Professor, Psychosomatic Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

² Assistant Professor, Cardiac Rehabilitation Research Center, Isfahan Cardiovascular Research Institute, Isfahan University of Medical Sciences, Isfahan, Iran

³ Assistant Professor, Psychosomatic Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

⁴ Professor, Behavioral Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

⁵ Associate Professor, Department of Biostatistics and Epidemiology, School of Health, Isfahan University of Medical Sciences, Isfahan, Iran

⁶ General Practitioner, Integrative Functional Gastroenterology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

⁷ Research Assistant, Psychosomatic Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

⁸ Professor, Integrative Functional Gastroenterology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

Quantitative Study

Abstract

Background: The description of demographic features and associated risk factors provides a perspective for the development of health and prevention policies for psychological screening or referrals. Thus, updated data on epidemiologic profile of depression and anxiety in the society are necessary. This study aims to describe the psychological profile of a general population in central Iran.

Methods: This community-based, cross-sectional survey was performed as part of the SEPAHAN project (Study on the Epidemiology of Psychological-Alimentary Health and Nutrition). The participants were selected from among the 20,000 non-academic employees of Isfahan University of Medical Sciences working in 50 different centers across Isfahan Province, Iran. The data on 4628 adults who had completed demographic questionnaires and psychological questionnaires for depression and anxiety, coping styles, and stressful life events were included in the analysis. The data collection tools were the Demographic information questionnaire, Hospital Anxiety and Depression Scale (HADS), Coping Strategies Scale (Cope), and Stressful Life Event (SLE) questionnaire.

Results: The frequency and intensity of all considered stressors were found to be significantly associated with both depression and anxiety. Adaptive coping strategies were found to function as protective factors against both depression and anxiety. However, avoidance, as a maladaptive coping strategy, was found to be a risk factor.

Conclusion: The present survey reveals that the prevalence of depression and anxiety was 28% and 14%, respectively. Scholastic education plays a protective role against both depression and anxiety. All coping strategies, except avoidance, function to protect against depression and anxiety.

Keywords: Depression, Anxiety, Stressor, Coping, Hospital Anxiety and Depression Scale, Stressful life event

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Corresponding Author:

Fatemeh Rajabi

Email: fara860@yahoo.com

Introduction

Depression and anxiety are the most prevalent psychological morbidities (Sansone & Sansone, 2010; Ferrari et al., 2013; Pietrzak et al., 2013; Baxter, Scott, Vos, & Whiteford, 2013). Depression was the leading cause of disability as measured by Years Lived with Disability (YLDs) and the fourth leading contributor to the global burden of disease according to Disability Adjusted Life Years (DALYs) in 2000 (World Health Organization, 2016). By the year 2020, depression is predicted to reach the second place in the ranking of DALYs calculated for all ages in both sexes (Sansone & Sansone, 2010; WHO, 2016). The prevalence of anxiety is difficult to determine as nuance in diagnostic criteria, tools, and methodology can affect results; yet, it is very common (Sansone & Sansone, 2010; Baxter et al., 2013). Moreover, anxiety can be very disabling, cause high individual and social burden, and tends to follow a chronic course (Sansone & Sansone, 2010; Baxter et al., 2013; Smit et al., 2006; Kathol et al., 2005). Compared with other psychological issues, people with anxiety place a remarkable strain on health care systems (Smit et al., 2006; Kathol et al., 2005). The burden for both depression and anxiety can be viewed in terms of treatment costs, short-term and long-term disability, days of absence from work, reduced productivity, unemployment, and interpersonal and family problems (Sansone & Sansone, 2010; Baxter et al., 2013; Smit et al., 2006; Kathol et al., 2005). Studies in different populations have reported the various profiles of these states. A study in the US showed that lifetime major depressive disorder (MDD) prevalence estimates were as high as 10.4% to 17.9% (Williams et al., 2007). On the other hand, anxiety disorders afflict about 18% of the US population (Sansone & Sansone, 2010; Williams et al., 2007). In the Middle East, the frequency of depressive symptoms was estimated as 16.1% among men and 58.4% among women, and that of anxiety symptoms as 21.9% among men and 78.2% among women (Al-Gelban, Al-Amri, & Mostafa, 2009; Muhammad Gadit & Mugford, 2007;

Ventevogel, 2005). In Iran, epidemiologic studies on depression and anxiety have reported conflicting results (Noorbala, Bagheri Yazdi, Yasamy, & Mohammad, 2004; Mohammadi et al., 2005; Farhoodian et al., 2007; Sadeghirad et al., 2010; Noorbala, Bagheri Yazdi, Hafezi, 2012). The prevalence of depression and anxiety in central Iran was 32% and 15.4% in 1994 (Ghassemi, Asadollahi, Ahmadzadeh, Najmi, & Palahang, 2000), 8.9% and 4.6% in 1996 (Attari, Naghdi, Farzaneh, Ris-Manchian, & Jaber, 1998), and 7.01% and 17.15% in 2001, respectively, (Mohammadi et al., 2004). Studies on factors associated with depression and anxiety have led to conflicting results (Kessler & Bromet, 2013; Alvi, Assad, Ramzan, & Khan, 2010; Alexander, David, & Grills, 2013).

Although in some studies, female gender, low education, unemployment, socioeconomic problems, poor coping mechanisms, and stressful events were considered as risks for depressive symptoms as well as anxiety (Ferrari et al., 2013; Pietrzak et al., 2013; Williams et al., 2007), others demonstrate rather contrary results (Baxter et al., 2013; Al-Gelban et al., 2009; Muhammad Gadit & Mugford, 2007; Chou & Cheung, 2013).

The description of demographic features and associated risk factors provides a perspective for the development of control programs and planning of primary care provision policies for psychological screening or referrals (Sansone & Sansone, 2010; Noorbala, 2011). Thus, updated data are necessary on the epidemiologic profile of depression and anxiety in the society. This study aims to describe the psychological profile of a general population in central Iran.

Methods

Study design and participants

The present cross-sectional study was performed as part of the SEPAHAN project (Study on the Epidemiology of Psychological-Alimentary Health and Nutrition), which was a community-based epidemiologic study focusing on functional

gastrointestinal disorders (FGIDs) in Iran in 2011. It also addressed the role of different lifestyle, nutritional, and psychological factors in symptoms of FGIDs and their severity. Details of this project have been published recently (Adibi et al., 2012). This work was supported by the Psychosomatic Research Center of Isfahan University of Medical Sciences in Isfahan Province, Iran. The statistical population consisted of all the non-academic staff of Isfahan University of Medical Sciences, working in hospitals, university campus, and health centers affiliated with Isfahan University of Medical Sciences. The academic staff and the personnel of teaching hospitals and research centers were excluded. The participants were selected through cluster random sampling from among 20,000 non-academic employees working in 50 different centers across Isfahan Province.

The data were collected in two separate phases to increase the accuracy of data collection and the response rate; self-reported questionnaires for psychological assessment were applied in the second phase. The data on 4628 adults who had completed demographic questionnaires and psychological questionnaires for depression and anxiety, coping styles, and stressful life events were included in the analysis. The protocol of the study was approved by the Ethics Committee of Isfahan University of Medical Sciences. Individuals were assured of the confidentiality of their information. The study process was clarified for all the participants, and written informed consents were obtained from all participants.

Variable assessment

Demographic Features: Demographic information included age (< 40 or ≥ 40), sex, marital status [married or unmarried (including single, widow, or divorced)], and educational level [undergraduate (0-12 years of education), or graduate (> 12 years of education)].

Hospital Anxiety and Depression Scale: Anxiety and depression were assessed using the Persian validated Hospital Anxiety and

Depression Scale (HADS). The questionnaire consists of 14 items that can be divided into two scales of anxiety ($\alpha = 0.82$), and depression ($\alpha = 0.84$). Each scale consists of seven items, with a total score ranging from 0 to 21. Higher scores reflect higher levels of anxiety and depression. Clinical levels of anxiety and depression were considered for scores equal to or higher than 11 (Adibi et al., 2012; Kaviani, Seifourian, Sharifi, & Ebrahimkhani, 2009). Coping Strategies Scale (Cope questionnaire): Coping with stressors was assessed using the Persian validated Coping Strategies Scale (Cope questionnaire), a multi-component, self-administered questionnaire. The reliability of the scale was determined using Cronbach's alpha ($\alpha = 0.84$). It consists of 23 items in the five scales of positive re-interpretation and growth, problem engagement, acceptance, seeking support, and avoidance. Each item is scored on a three-point scale (never = 0, sometimes = 1, and often = 2). Separate scores are reported for each scale (Adibi et al., 2012)

Stressful Life Event: Stressors were assessed by means of the Persian validated Stressful Life Event (SLE) questionnaire which is a 44-item questionnaire in 11 domains. Its domains consist of home life, personal conflicts, education concerns, sexual life problems, social relation, occupational conflicts, occupational security, loss and separation, daily life, health concerns, and financial problems. The presence of each stressor is indicated through yes/no questions, and the intensity of the stressor is determined on a four-point scale (1 = low, 2 = medium, 3 = high, and 4 = very high). The standardized Cronbach's alpha was 92% (Adibi et al., 2012).

Statistical analysis

Data were analyzed in SPSS software (version 15.0, SPSS Inc, Chicago, IL, USA). A significance level of 0.05 was considered for all P values.

Continuous variables were expressed as mean \pm SD and t-test was used to compare the means between the two groups. Qualitative variables were expressed as frequency, and chi-square test was used to compare frequencies

between the groups. Odds ratios (ORs) were reported with the corresponding 95% confidence intervals (95% CI).

Results

A total of 4657 participants were studied. The mean age of the participants was 36.51 ± 7.91 years. Women constituted 2612 (56.1%) of the studied population. Moreover, 3689 (79.2%) and 2601 (55.8%) of the population were married and graduated, respectively. In addition, the overall number of individuals with depression and anxiety was 1338 (28%) and 654 (14%), respectively.

Results of univariate analysis are displayed in tables 1 and 2. Based on demographic variables, women and undergraduates were at a remarkably higher risk of depression and anxiety. Age was also a considerable risk factor for anxiety (OR = 1.37; 95% CI: 1.12-1.68), but not for depression.

Considering stressful life events, the frequency and intensity of all considered stressors were found to be significantly associated with both depression and anxiety. As to the frequency of stressors, personal conflict (depression: OR = 4.57; 95% CI: 3.91-5.35, anxiety: OR = 5.00; 95% CI: 3.97-6.30), social relation (depression: OR = 3.55; 95% CI: 2.94-4.28, anxiety: OR = 6.34; 95% CI: 4.51-8.90), and health concern (depression: OR = 3.08; 95% CI: 2.70-3.51, anxiety: OR = 4.05; 95% CI: 3.40-4.83) are indicated as risk factors for depression and anxiety. Moreover, occupational security (OR = 4.06; 95% CI: 2.99-5.51) and daily life stress (OR = 3.45; 95% CI: 2.87-4.13) are remarkable risks for anxiety. Considering the intensity of stressors, health concern is significantly associated with depression (OR = 1.41; 95% CI: 1.30-1.53) and anxiety (OR = 1.47; 95% CI: 1.35-1.59), and daily life stress is also a considerable risk for anxiety (OR = 1.41; 95% CI: 1.30-1.53) (Tables 1 and 2).

As shown in tables 1 and 2, adaptive coping strategies were found to function as protective factors against both depression and anxiety. However, avoidance, as a

maladaptive coping strategy, was found to be a risk factor (depression: OR = 1.10; 95% CI: 1.06-1.14, anxiety: OR = 1.09; 95% CI: 1.03-1.14).

The results of multivariate analysis, similar to those of univariate, indicated significant findings (Table 3). However, educational concerns and financial problems were found to be non-significant stressors in both depression and anxiety. Furthermore, among coping styles, acceptance was indicated as a non-significant coping style for depression.

Discussion

The present survey revealed that the prevalence of depression and anxiety was 28% and 14%, respectively. This corroborates with previous studies in the Iranian population (Noorbala et al., 2004; Ahmadvand, Sephrmanesh, Ghoreishi, & Afshinmajd, 2012) as well as surveys in the Middle East (Al-Gelban et al., 2009; Muhammad Gadit & Mugford, 2007; Ventevogel, 2005), and central Africa (Lasebikan, Ejidokun, Coker, 2012). However, it seems to be higher than the reported prevalence in the Far East (Chong, Vaingankar, Abdin, & Subramaniam, 2012; Chang et al., 2013; Radford, 2004) and European/American populations (Sansone & Sansone, 2010; Pietrzak et al., 2013; Baxter et al., 2013; Williams et al., 2007; Radford, 2004). This difference could be explained through diversities in culture, socioeconomic stressors, symptom presentation styles, as well as dissimilarities in methodologies and diagnostic practices (Lasebikan et al., 2012; Radford, 2004). According to our current findings, the prevalence of depression and anxiety is higher among women. This is compatible with previous studies in Iran and other countries (Noorbala et al., 2004; Farhoodian et al., 2007; Radford, 2004), and is explained by biological vulnerabilities, gender roles, and social inconveniences (Ferrari et al., 2013; Muhammad Gadit & Mugford, 2007; Noorbala et al., 2004; Radford, 2004). Moreover, consistent with earlier surveys, scholastic education plays a protective role against both depression and anxiety.

Table 1. Depression and demography, frequency, and intensity of stressors and coping strategies

Variable		Depression	No depression	P-value	OR (95% CI)
Demographic variable		n (%)	n (%)		
Age group	< 40 years	338 (28.9)	878 (30.4)	0.328	Ref
	≥ 40 years	832 (71.1)	2006 (69.6)		
Sex	Male	454 (33.9)	1590 (48.0)	< 0.001	Ref
	Female	884 (66.1)	1725 (52.0)		
Educational level	Graduate	648 (49.9)	1950 (60.3)	< 0.001	Ref
	Undergraduate	650 (50.1)	1283 (39.7)		
Marital status	Married	1030 (78.8)	2656 (82.0)	0.012	Ref
	Unmarried	277 (21.2)	582 (18.0)		
Home life	No	563 (42.1)	2305 (69.5)	< 0.001	Ref
	Yes	775 (57.9)	1010 (30.5)		
Personal conflict	No	234 (17.5)	1632 (49.2)	< 0.001	Ref
	Yes	1104 (82.5)	1683 (50.8)		
Education concerns	No	657 (49.1)	1897 (57.2)	< 0.001	Ref
	Yes	681 (50.9)	1418 (42.8)		
Sexual life	No	898 (67.1)	2717 (82.0)	< 0.001	Ref
	Yes	440 (32.9)	598 (18.0)		
Social relation	No	144 (10.8)	994 (30.0)	< 0.001	Ref
	Yes	1194 (89.2)	2321 (70.0)		
Occupational conflict	No	166 (12.4)	767 (23.1)	< 0.001	Ref
	Yes	1172 (87.6)	2548 (76.9)		
Occupational security	No	157 (11.7)	848 (25.6)	< 0.001	Ref
	Yes	1181 (88.3)	2467 (74.4)		
Loss and separation	No	670 (50.1)	2093 (63.1)	< 0.001	Ref
	Yes	668 (49.9)	1222 (36.9)		
Daily life	No	499 (37.3)	2008 (60.6)	< 0.001	Ref
	Yes	839 (62.7)	1307 (39.4)		
Health concerns	No	567 (42.4)	2300 (69.4)	< 0.001	Ref
	Yes	771 (57.6)	1015 (30.6)		
Financial problems	No	114 (8.5)	521 (15.7)	< 0.001	Ref
	Yes	1224 (91.5)	2794 (84.3)		
Intensity of stressors		Mean (SD)	Mean (SD)		
Home life		4.70 (3.59)	2.98 (2.64)	< 0.001	1.20 (1.16, 1.25)
Personal conflict		5.60 (3.78)	3.29 (2.53)	< 0.001	1.25 (1.22, 1.29)
Education concerns		4.50 (2.94)	3.33 (2.41)	< 0.001	1.17 (1.13, 1.21)
Sexual life		3.03 (1.64)	2.69 (1.68)	< 0.001	1.09 (1.00, 1.18)
Social relation		6.48 (3.45)	4.24 (2.79)	< 0.001	1.24 (1.21, 1.27)
Occupational conflict		5.79 (3.52)	4.07 (2.86)	< 0.001	1.17 (1.14, 1.20)
Occupational security		6.52 (3.67)	4.44 (3.00)	< 0.001	1.19 (1.16, 1.22)
Loss and separation		3.46 (2.19)	2.54 (1.68)	< 0.001	1.30 (1.23, 1.38)
Daily life		2.98 (1.59)	2.30 (1.30)	< 0.001	1.30 (1.22, 1.39)
Health concerns		2.56 (1.59)	1.89 (1.20)	< 0.001	1.41 (1.30, 1.53)
Financial problems		10.42 (5.52)	7.50 (4.90)	< 0.001	1.10 (1.09, 1.12)
Coping Strategies		Mean (SD)	Mean (SD)		
Problem engagement		8.90 (2.36)	9.95 (1.93)	< 0.001	0.80 (0.77, 0.82)
Support seeking		9.16 (3.36)	10.24 (2.97)	< 0.001	0.89 (0.87, 0.91)
Positive re-interpretation and growth		5.85 (1.66)	6.68 (1.35)	< 0.001	0.69 (0.66, 0.72)
Avoidance		3.62 (1.78)	3.32 (1.75)	< 0.001	1.10 (1.06, 1.14)
Acceptance		2.81 (1.05)	3.09 (0.95)	< 0.001	0.75 (0.70, 0.80)

OR: Odds ratio; SD: Standard deviation

Table 2. Anxiety and demography, frequency, and intensity of stressors and coping strategies

Variable		Anxiety	No anxiety	P-value	OR (95% CI)
Demographic variable		n (%)	n (%)		
Age group	< 40 years	140 (24.6)	1078 (30.9)	0.002	Ref
	≥ 40 years	429 (75.4)	2411 (69.1)		
Sex	Male	204 (31.2)	1841 (46.0)	< 0.001	Ref
	Female	450 (68.8)	2162 (54.0)		
Educational level	Graduate	288 (45.4)	2313 (59.3)	< 0.001	Ref
	Undergraduate	347 (54.6)	1587 (40.7)		
Marital status	Married	521 (81.8)	3168 (81.0)	0.629	Ref
	Unmarried	116 (18.2)	744 (19.0)		
Home life	No	215 (32.9)	2658 (66.4)	< 0.001	Ref
	Yes	439 (67.1)	1345 (33.6)		
Personal conflict	No	90 (13.8)	1778 (44.4)	< 0.001	Ref
	Yes	564 (86.2)	2225 (55.6)		
Education concerns	No	296 (45.3)	2258 (56.4)	< 0.001	Ref
	Yes	358 (54.7)	1745 (43.6)		
Sexual life	No	387 (59.2)	3231 (80.7)	< 0.001	Ref
	Yes	267 (40.8)	772 (19.3)		
Social relation	No	37 (5.7)	1103 (27.6)	< 0.001	Ref
	Yes	617 (94.3)	2900 (72.4)		
Occupational conflict	No	62 (9.5)	872 (21.8)	< 0.001	Ref
	Yes	592 (90.5)	3131 (78.2)		
Occupational security	No	47 (7.2)	958 (23.9)	< 0.001	Ref
	Yes	607 (92.8)	3045 (76.1)		
Loss and separation	No	295 (45.1)	2468 (61.7)	< 0.001	Ref
	Yes	359 (54.9)	1535 (38.3)		
Daily life	No	187 (28.6)	2322 (58.0)	< 0.001	Ref
	Yes	467 (71.4)	1681 (42.0)		
Health concerns	No	214 (32.7)	2656 (66.4)	< 0.001	Ref
	Yes	440 (67.3)	1347 (33.6)		
Financial problems	No	47 (7.2)	588 (14.7)	< 0.001	Ref
	Yes	607 (92.8)	3415 (85.3)		
Intensity of stressors		Mean (SD)	Mean (SD)		
Home life		5.44 (3.92)	3.16 (2.71)	< 0.001	1.22 (1.18, 1.27)
Personal conflict		6.52 (4.10)	3.62 (2.75)	< 0.001	1.25 (1.21, 1.29)
Education concerns		4.79 (3.03)	3.50 (2.52)	< 0.001	1.17 (1.12, 1.22)
Sexual life		3.14 (1.60)	2.72 (1.68)	< 0.001	1.14 (1.04, 1.25)
Social relation		7.17 (3.57)	4.54 (2.93)	< 0.001	1.25 (1.22, 1.29)
Occupational conflict		6.72 (3.82)	4.21 (2.88)	< 0.001	1.24 (1.20, 1.27)
Occupational security		7.40 (3.82)	4.66 (3.09)	< 0.001	1.23 (1.20, 1.27)
Loss and separation		3.83 (2.41)	2.65 (1.72)	< 0.001	1.32 (1.24, 1.40)
Daily life		3.22 (1.66)	2.38 (1.34)	< 0.001	1.39 (1.29, 1.50)
Health concerns		2.77 (1.62)	1.98 (1.29)	< 0.001	1.47 (1.35, 1.59)
Financial problems		11.70 (5.56)	7.80 (5.00)	< 0.001	1.14 (1.12, 1.16)
Coping Strategies		Mean (SD)	Mean (SD)		
Problem engagement		8.75 (2.42)	9.79 (2.03)	< 0.001	0.81 (0.78, 0.84)
Support seeking		9.09 (3.33)	10.06 (3.07)	< 0.001	0.91 (0.88, 0.93)
Positive re-interpretation and growth		5.79 (1.72)	6.55 (1.42)	< 0.001	0.73 (0.70, 0.77)
Avoidance		3.64 (1.77)	3.37 (1.76)	< 0.001	1.09 (1.03, 1.14)
Acceptance		2.68 (1.12)	3.07 (0.96)	< 0.001	0.69 (0.64, 0.75)

OR: Odds ratio; SD: Standard deviation

Table 3. Multivariate Analysis of demographic variables, stressors, and coping strategies

Variables	Depression [OR (95% CI)]	Anxiety [OR (95% CI)]
Age group (≥ 40 years)	1.04 (0.89, 1.23)	0.77 (0.62, 0.95)
Sex (female)	2.12 (1.81, 2.48)	2.30 (1.86, 2.83)
Educational level (Undergraduate)	1.83 (1.57, 2.12)	2.09 (1.72, 2.52)
Marital status (Unmarried)	1.14 (0.95, 1.36)	0.84 (0.66, 1.07)
Frequency of stressors		
Home life	1.73 (1.47, 2.04)	2.01 (1.61, 2.49)
Personal conflict	2.67 (2.21, 3.24)	2.19 (1.66, 2.87)
Education concerns	0.83 (0.70, 1.09)	0.87 (0.70, 1.08)
Sexual life	1.42 (1.18, 1.70)	1.64 (1.31, 2.05)
Social relation	1.75 (1.37, 2.24)	2.77 (1.82, 4.21)
Occupational conflict	1.15 (0.905, 1.46)	1.11 (0.787, 1.57)
Occupational security	1.20 (0.940, 1.53)	1.77 (1.21, 2.60)
Loss and separation	1.21 (1.03, 1.42)	1.37 (1.12, 1.69)
Daily life	1.58 (1.34, 1.87)	1.87 (1.49, 2.33)
Health concerns	1.99 (1.69, 2.34)	2.10 (1.70, 2.60)
Financial problems	0.94 (0.72, 1.25)	0.67 (0.46, 1.08)
Intensity of stressors		
Home life	1.19 (1.15, 1.24)	1.22 (1.17, 1.26)
Personal conflict	1.25 (1.22, 1.29)	1.26 (1.22, 1.30)
Education concerns	1.16 (1.12, 1.21)	1.18 (1.13, 1.23)
Sexual life	1.11 (1.02, 1.21)	1.14 (1.03, 1.25)
Social relation	1.25 (1.22, 1.29)	1.28 (1.24, 1.32)
Occupational conflict	1.17 (1.14, 1.20)	1.23 (1.19, 1.26)
Occupational security	1.20 (1.17, 1.23)	1.24 (1.20, 1.27)
Loss and separation	1.28 (1.21, 1.37)	1.31 (1.22, 1.40)
Daily life	1.31 (1.22, 1.40)	1.42 (1.31, 1.53)
Health concerns	1.41 (1.29, 1.53)	1.47 (1.35, 1.60)
Financial problems	1.12 (1.10, 1.13)	1.16 (1.13, 1.18)
Coping strategies		
Problem engagement	0.89 (0.86, 0.93)	0.92 (0.87, 0.97)
Support seeking	0.95 (0.93, 0.98)	0.97 (0.93, 1.00)
Positive re-interpretation and growth	0.74 (0.69, 0.79)	0.83 (0.75, 0.89)
Avoidance	1.22 (1.16, 1.28)	1.19 (1.12, 1.27)
Acceptance	0.94 (0.86, 1.03)	0.82 (0.74, 0.92)

OR: Odds ratio

Low education may interfere with managing stressors as it limits adaptive coping strategies (Noorbala et al., 2004). Unlike many previous studies, age was found to increase the risk of anxiety, but not depression (Ferrari et al., 2013; Baxter et al., 2013; Noorbala et al., 2012; Ahmadvand et al., 2012). However, in a study conducted in China, the age group of above 65 years had the lowest risk for depression (Chong et al., 2012). In addition, in a study in

South Korea, younger age was significantly associated with depression (Chang et al., 2013). Our findings are consistent with the results of earlier surveys, in that, generally all life events and stressors amplify the risk of depression and anxiety. Notably, the frequency of personal conflicts, social relation problems, and health concern increases the risk of both conditions; however, occupational security problems and daily life stress are

found to be associated with anxiety. These findings are to some degree in agreement with studies that focus on the role of workplace issues in intensification of anxiety (Jarczok et al., 2013). Furthermore, the severity of health concern increases the risk for both depression and anxiety, and the intensity of daily life stress can augment anxiety. In terms of coping strategies, our findings correspond to most previous studies. All coping strategies, except avoidance, function to protect against depression and anxiety. In fact, coping strategies can restrict or regulate the maladaptive influence of depression and anxiety (Radford, 2004; Keeler, Siegel, & Alvaro, 2014; Knowles, Cook, & Tribbick, 2013; Gourounti, Anagnostopoulos, & Lykeridou, 2013). Moreover, in individuals with less exposure to social relations and poor social training, coping strategies seem to be limited and the risk for depression and anxiety appears to be higher (Noorbala et al., 2004; Noorbala et al., 2012; Keeler et al., 2014).

We believe that the current findings provide a basis for developing policies and plans for mental health improvement and prevention strategies. Prevention should be targeted at those at risk. Social skills training, coping strategy improvement, academic education, and workplace stress reduction are among the measures that can be taken within the society.

Limitation: In this study, data were gathered only through self-administered questionnaires and not clinical interviews. The subjects were recruited from among university staff and not from a wider society where many are unemployed. The sample did not include children, adolescents, or the elderly.

Conflict of Interests

Authors have no conflict of interests.

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