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UNDERSTANDING GENDER AND URBAN/RURAL DIFFERENCES IN DEPRESSIVE SYMPTOMS: INSIGHTS FROM UNIVERSITY STUDENTS IN TURKEY

DEPRESİF SEMTOMLARINDA KENTSEL-KIRSAL VE CİNSİYET FARKLILIKLARI: TÜRKİYE'DE ÜNİVERSİTE ÖĞRENCİLERİNİN BAKIŞI

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Abstract

Women have higher rates of depression and report more depressive symptoms than men, in diverse societies and contexts. Typical explanations make reference to hormonal aspects of being female, and to women's lower social status, which occurs in every culture. However, gender differences are absent or reduced in rural contexts and in non-Western cultures.

The current paper sought to contribute to the literature on both gender differences and urban-rural differences in depression with data from a rapidly developing society, Turkey.

The Beck Depression Inventory was administered to college students in rural and urban regions of Turkey, along with questions about personal achievement, parental control, and individualism-collectivism scales.

Males and females reported similar amounts of depressive symptoms in both urban and rural areas, with symptom report being lower in the urban sample compared to the rural sample.

These findings cast doubt on the proposal that women are inevitably more depressed than males. It is useful to consider what factors exist in Turkish society, or in the lives of Turkish college students, that equalize stressors for males and females.

Keywords: Turkey, University students, depression, individualism-collectivism, rural-urban

Öz

Farklı toplumlarda ve bağlamlarda kadınlar erkeklere göre daha çok depresif semtompları beyan etmekte olup depresyon oranları daha yüksektir. Tipik açıklamalar her kültürde ortaya çıkan kadınların düşük sosyal statüsü, kadın olmanın hormonal yönleriyle ilgilidir. Ancak, cinsiyet farklılıklar batılı olmayan kültürlerde ve kırsal bağlamlarda yoktur veya azalmıştır.

Bu makale hem cinsiyet farklılıkları hem de hızla gelişen bir toplum olan Türkiye'den elde edilmiş verilerle depresyonda kentsel-kırsal farklılıklarıyla literatüre katkıda bulunmayı amaçlamaktadır.

Türkiye'de kırsal ve kentsel bölgelerde yaşayan üniversite öğrencilerine beck depresyon envanteriyle birlikte kişisel başarı, ebeveyn kontrolü ve bireycilik-toplulukçuluk ölçekleri uygulanmıştır.

Hem kentsel hem de kırsal alanlardaki erkek ve kadınlar, kentsel örneklemde kırsala göre daha az semptom rapor etmekle birlikte birbirine benzer miktarda depresif belirtiler rapor etmişlerdir.

Bu bulgular, kadınların erkeklere göre kaçınılmaz olarak daha fazla depresif oldukları fikrine şüpheyle karşılanmaktadır. Türk toplumu veya Türk üniversite öğrencilerinin yaşamlarında, kadın ve erkeklerde hangi faktörlerin strese neden olan durumları dengelediğini bulmak yararlı olacaktır.

Anahtar Kelimeler: Türkiye, Üniversite Öğrencileri, Depresyon, Kentsel-Kırsal, Bireycilik-Toplulukçuluk

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Introduction

Depression is on average twice as common among women as men in the developed world, with the explanation still under debate. However, gender differences are not as apparent in the developing world and rural contexts, and may even be absent in some societies (Astbury 2001; Tsai &Chentsova-Dutton2002). Regarding rural/urban regions, it has been observed that depression is higher in urban areas compared to rural (Crowell, George, & Landerman 1986). These findings invite questions. Why are women usually more depressed than men? Do rural areas offer protection from depression? Exploring the puzzle of why depression varies with gender and urban/rural residence will be helped by examining data from diverse cultures and types of populations. The current study presents data on depressive symptoms from male and female university students, who were reared in either urban or rural Turkey.

Gender differences in depression may reflect reporting bias, due to gender stereotypes of women as fragile and needing help, men as sturdy (Belle 1982). However, consensus has emerged that gender differences exist independently of biased diagnoses, following a thorough multi-country study conducted by the World Health Organization (Astbury 2001). The dominant explanation is the diminished opportunities and greater stress accompanying women's lower social status and reduced opportunities for autonomy (Belle 1982; Nolen-Hoeksema 2001). "Women face a number of chronic burdens in everyday life as a result of their social status and roles relative to men, and these strains could contribute to their higher rates of depression" (Nolen-Hoeksema 2001, p. 174). We will refer to this as "social status theory." Low rank is a powerful predictor of depression. Women's subordinate social status is reinforced in the workplace as they are more likely to occupy insecure, low status jobs with little authority. Regardless of gender, people with reduced income have higher levels of negative life events, insecure housing, more chronic stressors and reduced social support, but women generally have less income than man. In addition, traditional gender roles increase susceptibility to depression by emphasizing passivity, submission and dependence (Dion & Giordano 1990).

A second explanation for the greater incidence of depression in women compared to men is that women are more sensitive to, and dependent on, social relations than are men. They thus suffer more from relationship problems and ruptures. This has been labeled "social sensitivity theory" by Hammen and Watkins (2008). The social and hormonal mechanisms of puberty stimulate affinitive needs for females, according to Nolen-Hoeksema (2001). Heightened affinitive needs interact with adolescent transition difficulties to increase risk for depression for females after puberty.

The gender gap in depression consistently emerges by the mid-teens in Canada, Great Britain, and the U.S., and other countries, irrespective of how depressive symptomatology is measured (Wade, Cairney, &Pevalin 2002). However gender differences are reported to be weaker or non-existent in both rural areas and non-Western countries.

In early studies from the 1980s, rural residence was viewed as a buffer against major depressive disorder (Crowell, George, & Landerman 1986). It was noted that rates of depression were lower for young people in rural areas compared to urban areas, and that rural residence was more protective for young women than for young men (see review in Judd, Jackson, Komiti, Murray, Hodgins, & Fraser 2002).

Investigators inferred that higher rates of psychiatric disorders in urban areas are a result of stress, crime, fast pace and social dislocation (Judd et al. 2002). In contrast, rural areas were viewed as environments of social stability and supportive interpersonal networks. Reduced gender differences in depression in rural areas could thus be a result of better social networks.

An open question is the reasons for the absence of sex differences in some parts of Africa (Dhadphale, Ellison, & Griffin 1983) and India (Ananth 1978). Theorists referred to culturallydefined attitude of acceptance of pain and discomfort by women in traditional societies. Women in these cultures accept their situation, realizing that it is unchangeable, given societal norms and expectations. In some rural regions in the developed world, women's social roles may protect them from depression. African women in traditional settings often fulfill the life expected of them, by raising children and caring for family members, in addition to bringing in resources for their families by tending crops and farm animals.

Judd and colleagues (2002) were instrumental in developing the view that urban/rural differences in prevalence of depression do not depend on the typical qualities of these regions, but reflect which urban and which rural populations are being sampled. What really matters for depression is poverty, low social status, unemployment, not being married, alcohol and drug-related problems, history of childhood sexual abuse, poor social networks, and stressful life-events during the prior year. In any given study with a rural/urban comparison, depression rates will be higher in whichever area has a greater preponderance of these factors. For example, psychiatric disorder rates were higher in the 1990s in Korean rural areas compared to cities (Judd et al. 2002). A plausible explanation is enhanced economic opportunity in urban Korea.

In recent years, a growing body of work has emerged on depressive symptoms in college students, with a considerable number of studies being conducted in the developing world (Adewuya, Ola, Olutayo, Mapayi, &Oginni 2006; Bayram&Bilgel 2008; Bostanci, Ozdel, Oguzhanoglu, et al. 2005; Sarokhani, Delpisheh, Veisani, Sarokhani, Manesh, &Sayehmiri 2013; Steptoe, Tsuda, Tanaka, & Wardle 2007). University students present a convenience sample, allowing large samples to be surveyed. Depression increases with the stresses that accompany low socioeconomic status (SES) (Hammen & Watkins 2008). Studying university students has the advantage that education, a key aspect of SES, is relatively similar across respondents. University students experience a competitive, demanding environment, as well as the transitions of leaving home and accommodating to new a type of life (Sarokhani et al. 2013). Another reason to study university students is that depressive symptoms can also interfere with learning (see review in Steptoe et al. 2007).

A rich source of information about cultural factors impacting depressive symptoms is contained in the literature connecting culture and subjective well-being (Diener & Suh 2000). Lack of stable and supportive social relationships is associated with heightened levels of depressive symptoms across cultural groups in the U.S. and in other countries. Extended family structures are believed to protect against depression by reducing isolation and providing social support (Lay et al. 1998; Marsella et al. 1985). At the level of individuals, the relationship between idiocentrism (i.e., the personality trait which emphasizes individualist values) and wellbeing is negative, at least in some cultures, because more allocentric (i.e., collectivist) persons receive more social support (Diener&Suh 2000). Verkuyten and Lay (1998) also found that allocentricism is related to subjective well-being.

As part of investigating urban/rural and gender differences in depressive symptoms in our current study, conducted in Turkey, we measured individualism and collectivism. Several categories of collectivism were measured. Vertical collectivism is characterized by subordination of one's own goals to in-group goals, and acceptance of the need for obedience to authority figures (Triandis 1995). Individuals with vertical collectivist values may thus be at risk of depression, stemming from conflicts in pursuing and achieving goals. We thus expected that

possessing values of vertical collectivism would be associated with depressive symptoms. Horizontal collectivism emphasizes an egalitarian attitude, with an emphasis on helping and sharing horizontally within the group, and conformity to group values. A final type of collectivism, also studied in the current project, is familialism, a measure of connection to and identification with one's family. Familialism emphasizes the obligation to care for family, and also one's expectation of being cared for and supported by family members. It is plausible that familialism may protect against depressive symptoms, especially in a culture like Turkey, where family connectedness is an important cultural value (Kagitcibasi 1997).

As in other countries, depression has long been recognized as a major health problem in Turkey (e.g., Bostanci et al. 2005). As a rapidly developing nation, urban Turkey shares features with Europe, such as modern conveniences, high literacy, and a fast-paced life-style. But in contrast to Europe, traditional values remain strong in rural Turkey, and family cohesiveness is strong in both rural areas and cities (Kagitcibasi 1997). Rural areas in Turkey have lower literacy and school completion rates for women, and have reduced financial opportunities for young people in general relative to urban areas (Bostanci et al. 2005).

Like other collectivist cultures, Turkish culture emphasizes a high degree of connectedness and interdependence between family members and close friends. According to some scholars, this emphasis holds equally for males and females (Kagitcibasi 1997). Turkish males may thus suffer more than American males when confronted with social isolation and loss of intimacy. This may reduce gender differences in depressive symptoms in Turkey, compared to what scholars have typically found in research on American samples. An absence of gender differences in report of depressive symptoms among Turkish young adults would thus support "social sensitivity theory." However, "social status theory" makes the opposite prediction. Turkish women have lower status relative to Turkish males. The prediction is thus that Turkish university students will resemble samples from the West, where women report more depressive symptoms than men. Indeed, the gender gap in depression may be largest in rural areas, where the stress of women's confinement to traditional roles is most pronounced.

We note that two studies of depressive symptoms in university students in Turkey have been already been completed. Gender differences were absent in both samples. Bayram and Bilgel (2008) reported depression in 27% of Turkish university students in Bursa, an urban area with a population of over 1 million. Bostanci et al. (2005) surveyed university students in Denizli, a predominantly rural area in western Turkey, with approximately 26% of students reporting symptoms consistent with major depression. Our work adds to these two prior studies, with the addition of the rural/urban comparison being carried out in the same study.

Materials and Method

Questionnaires were completed by students at Istanbul University and at Yüzüncü Yıl University, located in Van, a city in Turkey's rural east. We queried students for whether they spent all their years before age 18 in another geographical region. The result was three residential groups: those reared in Van or surrounding rural regions and who continue to reside there (n=145, 31% female), those reared in Van or surrounding rural areas who relocated to Istanbul as university freshman (n=67, 44% female), and those reared in and studying in Istanbul (n=247, 65% female). Students were recruited from psychology classes. The mean age of the three residential groups was similar (18.7-19.9 years of age), as was the average years of education (13.0-13.1 years). The present study received ethics committee approval and verbal informed

consent was obtained from participants.

Measures

1. Beck Depression Inventory (BDI; Turkish translation, Hisli 1988). This inventory has been widely used in nonclinical samples both to measure rates of depressive disorder and, as in our study, to quantify the amount of depressive symptoms in adolescents and young adults as a continuous variable (Teri 1982; Sarokhani, et al. 2013).

2. Individualism/Collectivism Scenarios. The 16 short vignettes (scenarios) developed by Triandis, Chen and Chan (1998)] were modified to be appropriate for Turkish culture (see appendix).

3. The Family Allocentrism Scale of Lay, Fairlie, Jackson, Ricci, Eisenberg et al. (1998) measures familialism, a type of collectivism centered on reciprocal obligations to family members. Items include "The opinions of my family are important to me" and "Once you are no longer living with your parents, they should no longer be involved in major life decisions" (reverse scored). Lay et al. (1998) reported that the 21-Likert items with 5-point scale measure a single underlying construct, as indicated by factor analysis.

4. Questions about family control and personal achievements using a Likert 5-point scale. These were developed by the authors for exploratory purposes and are listed in Table 1.

The English versions of the Family Allocentrism Scale and the Individualism/ Collectivism Scenarios were translated into Turkish by the authors and verified via backtranslation. These versions had acceptable internal reliability and test-retest reliability and were successfully used in prior work (Aycicegi-Dinn& Caldwell-Harris 2013).

Results

Differences in Beck Depression Inventory (BDI) scores between residential groups and gender were investigated with a 3 X 2 ANOVA. A main effect was obtained for residential group, F(2,451)=11.8, p < .001, eta- squared=.05. Scheffe post-hoc tests revealed that the students living in Van had higher BDI scores than did students living in Istanbul. The students who moved to Istanbul from Van did not differ from the other two groups, p > .2; their intermediate status is apparent in Figure 1 and Table 2. Males and females did not differ in depressive symptoms and gender did not interact with residential group, both Fs< 1.

To investigate how endorsements of collectivist values varied by residential groups and gender, a 3 X 2 MANOVA was conducted with the dependent variables of familialism score and vertical collectivism (VC). This multivariate analysis revealed reliable effects of residential group but no effect of gender and no group X gender interaction. This permits us to examine the univariate main effects for residential group. Both measures of collectivism differed across residential groups, all F's > 11; familialism eta-squared=.12, and VC eta-squared=.10. Scheffe post-hoc tests revealed that students reared in Istanbul had lower familialism and VC scores than did students who were reared in Van or surrounding rural regions, ps < .0001. It appears that rural upbringing is what influenced collectivism, regardless of whether students stayed in Van or moved to Istanbul to attend university (see Figures 2 and3). For subsequent analyses, we combined all students reared in Van or surrounding regions into a single rural group which includes participants reared in Van, but who relocated to Istanbul to attend university.



Figure 1. Total scores on the Beck Depression Inventory, plotted separately for respondents who have lived their whole life in Istanbul, were reared in Van and then moved to Istanbul, or lived their whole life in Van. In this graph and elsewhere, error bars indicate standard error of the mean.



Figure 2. Total scores for the Family Allocentrism Scale, plotted according to residential group.



Figure 3. Percentage of choices of the vertical collectivism option for the Cultural Orientation Scenarios, plotted according to residential group.

Rural and urban students had highly similar average ratings of agreement with our exploratory questions (see Table 1). They tended to disagree with the family control items, with average ratings 2.2 and 2.0 for urban and rural students, respectively (a rating of 2 indicates 'disagree''). On the personal achievement items, the average ratings for urban and rural students were 3.8 and 3.7, respectively, indicating that average agreement is between 'neutral' and 'agree' (see Table 1).

Table 1: Correlations between depressive symptoms and (lack of) satis	faction
with specific issues	

Items	Urban	Rural
Family Control subscale		
My family disapproves of my friends		.31**
My parents exert too much control over my life		
My parents compare me negatively to my friends		
My parents frequently criticize me or my life style		
My parents don't give me enough freedom		.39**
My parents disapprove of my girlfriend/boyfriend		.25*
Personal achievement subscale		
I'm satisfied with my appearance	27**	34**
I'm able to achieve my desired goals		39**
I have sufficient money or other resources to meet my goals		
I have sufficient opportunities to enjoy myself	23*	.29*
I'm satisfied with my performance at school/job	32**	37**
I'm happy with my school/job	32**	41**
Table note. Blank cells had nonsignificant correlations.	* p< .05	** p < .01

Region	<u>n</u>	Mean	<u>SD</u>
Van			
Female	46	14.5	8.04
Male	98	14.96	9.26
Van then Istanbul			
Female	30	11.43	
Male	37	12.57	8.68
Istanbul			
Female	160	10.28	7.64
Male	86	10.24	8.32
Total			
Female	236	11.25	7.82
Male	221	12.72	9.03

Table 2. Residential groups and gender: Beck Depression Inventory (BDI) scores

Three of the questions about family disapproving of friends and girlfriend/boyfriend, and parents failing to give sufficient freedom, correlated with depressive symptoms for rural students, but not for urban students. For the personal achievement items, ratings for 5 of 6 items correlated significantly with depressive symptoms for rural students; 4 of 6 items correlated for urban students.

Discussion

Rural-urban differences in Beck Depression Inventory scores

Small but statistically robust differences in depressive symptoms were found, with Turks reared in Van or surrounding rural areas reporting more symptoms than those reared in Istanbul. This contrasts with studies in the developed world, where depression is greater for urban areas (Astbury 2001; Judd et al. 2002; Sundquist, et al. 2004). Moreover, in the present study, no gender differences in depressive symptoms were found.

Many researchers have used a Beck Depression Inventory score of 17 or higher to categorize respondents as having levels of depressive symptoms that are clinically relevant, thus allowing one to estimate prevalence of depression in one's sample. For example, in a metaanalysis of 35 studies of depression in Iranian students, the average prevalence of depression was 33% (Sarokhani et al. 2013). In the rural area of Van, rates of depression are similar to those reported in studies of Turkish university students in Bursa and Denizli (ranging from 24% to 31%). The Istanbul rates are more similar to rates of depression reported for Europe and North America (e.g., Grant, Marsh, Syniar., et al. 2002; Steptoe et al. 2007). Steptoe et al. (2007) found lower levels of depression in Western Europe and America, intermediate levels in Central and Eastern Europe, and higher levels in Pacific-Asian samples.

Lower prevalence of depressive symptoms for university students from Istanbul could be due to the greater wealth and economic opportunity in Istanbul and absence of the negative aspects of urban poverty among our respondents. We draw on observations in Sarokhani et al. (2013) to suggest additional reasons why our Van/rural respondents reported more depressive symptoms than students reared in Istanbul. Although those authors did not compare rural and urban groups, they offered explanations for why university students across Iran are more likely to be depressed than the general population. They noted that attending university involves academic, financial and interpersonal stressors. Students may be leaving their homes for the first time, and are thus without support and supervision from family. It is plausible that these stresses apply to our two samples, but are more pronounced for students who were reared in Van or surrounding rural areas.

Our exploratory questions on high family control and lack of satisfaction with achievement are also relevant here. For the rural Turks, depressive symptoms correlated most strongly with family control and secondly with failures in personal achievement, as reported in Table 1. This suggests that one cause of depression among rural Turks may be stress over family control and conflicts. Students who grew up in Istanbul had lower collectivism scores, indicating a more individualist, Western approach, which can facilitate adjustment to studying at a university.

Lack of gender differences in depressive symptoms

Higher scores on the BDI among females compared to males were not observed. As reviewed earlier, this is consistent with "social sensitivity theory" (Hammen & Watkins 2008).

On this view, Turkish males are as depressed as females because sensitivity to relationships is culturally valued for both genders. Support for this was our finding that males and females were comparable in their endorsement of individualism-collectivism values.

The lack of gender effects in either the eastern rural or urban regions is consistent with other studies inTurkey (Bayram&Bilgel 2008; Bostanci et al. 2005) and other analyses outside of the developed world (Sarokhani et al. 2013; Steptoe et al. 2007). To explain lack of gender differences among students at Pamukkale University, Denizli, Turkey, Bostanci et al. (2005, p. 100) wrote, "female students at our university express themselves better, are more self-confident, and are aware of having equal rights." Another way to phrase this speculation is that the female university students sampled are an elite group of women. This may be particularly true of those in Van, who attend university at lower rates than males. However, it is harder to make the case that women attending Istanbul University are more elite than males, since the student body of Istanbul University is 49%female.

Conclusions

Our finding of higher report of depressive symptoms for respondents from a rural area is consistent with Judd et al.'s (2002) view that the causes of depression are the macro factors associated with whatever population is targeted in a particular urban or rural region. These include poverty, employment possibilities, parenting styles, and perceived social support.

One direction for future research is thus to collect data on these macro factors. Students in Turkey can be queried about socioeconomic factors, academic stressors and social support as in Steptoe et al. (2007). It will be useful to understand the hurdles facing students who are the first generation in their family to attend university.

It would be useful to learn more about gender differences in Turkey. Specifically, there are many reliable gender differences in personality, development and self- concept documented in Western samples. Consistent with lack of gender differences in depression among Turkish university students, are other gender differences also absent or diminished?

More research needs to be done on whether university students in Turkey are an elite group and how similar Turkish female students are to those in the West. Women who go against gender norms to attend university (and are encouraged by their families to do so) may have high levels of self-confidence and ability. But depression rates among female students in the U.S. are high even among females who have high ability and self-confidence. Depression among young Western females appears to derive partly from pressure from parents and media, including the hard-to-attain standards of attractiveness and social success (6, 16). It remains possible that in rapidly changing Turkey, traditional values retain their power and protect young women from the stress of beauty standards and teen social life, while modernization allows them to aspire to a brilliant future by pursuing their education.

Referances

- Adewuya, A.O., Ola, B.A., Olutayo, O.A, Mapayi, B.M., &Oginni, O.O. (2006). Depression amongst Nigerian university students: Prevalence and socio-demographic correlates. Social Psychiatry and Psychiatric Epidemiology, 41, 674-678.
- Ananth, J. (1978). Psychopathology in Indian females. Social Science and Medicine, 12B, 177-178.
- Astbury, J. (2001). Gender disparities in mental health. In: Mental health. Ministerial Round Tables 2001, 54th World Health Assembly. Geneva, World Health Organization.
- Aycicegi-Dinn, A., & Caldwell-Harris, C.L. (2013). Vertical collectivism, family-consciousness and urbanization in Turkey. Electronic Journal of Social Sciences, 12, 235-251.
- Bayram, N., &Bilgel, N. (2008). The prevalence and sociodemographic correlations of depression, anxiety and stress among a group of university students. Social Psychiatry and Psychiatric Epidemiology, 43, 667-672.
- Belle, D. (1982). Lives in stress: Women and depression. Beverly Hills, CA: Sage Publications.
- Bostanci, M., Ozdel, O, Oguzhanoglu, N.K., et al., (2005). Depressive prevalence and sociodemographic correlates. Croatian Medical Journal, 46, 96-100.
- Crowell, B.A., George, L.K., &Landerman, R. (1986). Psychosocial risk factors and urban/rural differences in the prevalence of major depression. British Journal of Psychiatry, 149, 307-314.
- Dhadphale, M., Ellison, E.H., & Griffin, L. (1983). The frequency of psychiatric disorders among patients attending semi-urban and rural general out-patient clinics in Kenya. British Journal of Psychiatry, 142, 379-383.
- Diener, E., &Suh, E.M. (2000). Culture and subjective well-being. Cambridge, MA: MIT Press.
- Dion, K.L., & Giordano, C. (1990). Ethnicity and sex as correlates of depression symptoms in a Canadian university sample. International Journal of Social Psychiatry, 36, 30-41.
- Grant, K., Marsh, P., Syniar, G., et al. (2002). Gender differences in rates of depression among undergraduates: measurement matters. Journal of Adolescence, 25, 613-617.
- Hammen, C., & Watkins, E. (2008). Depression. New York, NY: Psychology Press. & Hall
- Hisli, N. (1988). Depresyonenvanteriningecerliligiuzerinebircalisma. PsikolojiDergisi, 6, 118-122.
- Judd, F.K., Jackson, H.J, Komiti, A., Murray, G., Hodgins, G., & Fraser, C. (2002). High prevalence disorders in urban and rural communities. Australian and New Zealand Journal of Psychiatry, 36, 104-113.
- Kagitcibasi, Ç. (1997). Individualism and collectivism. In J.W. Berry, M.H. Segall, & Ç. Kagitcibasi (Eds.), Handbook of cross-cultural psychology, Volume 3: Social behavior and applications. Needham Heights, MA: Allyn& Bacon.
- Lay, C., Fairlie, P., Jackson, S., Ricci, T., Eisenberg, J., Sato., T., et al. (1998). Domain-specific allocentrism-idiocentrism: A measure of family connectedness. Journal of Cross-Cultural Psychology, 29, 434-460.

- Marsella, A., Sartorius N., Jablensky, A., & Fenton, R. (1985). Cross-cultural studies of depressive disorders: An overview. In A. Kleinman& B. Good (Eds.), Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder (pp. 299-324). Berkeley: University of California Press.
- Nolen-Hoeksema, S. (2001). Gender differences in depression. Current Directions in Psychological Science, 10, 173-176.
- Sarokhani, D., Delpisheh, A., Veisani, Y., Sarokhani, M.T., Manesh, R.E., &Sayehmiri, K. (2013). Prevalence of depression among university students: A systematic review and meta-analysis study. Depression Research and Treatment 2013.
- Steptoe, A., Tsuda, A., Tanaka, Y., & Wardle, J. (2007). Depressive symptoms, socio-economic background, sense of control, and cultural factors in university students from 23 countries. International Journal of Behavioral Medicine, 14, 97-107.
- Sundquist, K., Frank, G., &Sundquist, J. (2004). Urbanisation and incidence of psychosis and depression: Follow-up study of 4.4 million women and men in Sweden. The British Journal of Psychiatry, 184, 293-298.
- Teri, L. (1982). The use of the Beck Depression Inventory with adolescents. Journal of Abnormal Child Psychology, 10, 277-284.
- Triandis, H. C., Chen, X. P., & Chan, D. K. S. (1998). Scenarios for the measurement of collectivism and individualism. Journal of Cross-Cultural Psychology 20, 275-289.
- Triandis, H.C. (1995). Individualism and collectivism. Boulder, CO: Westview Press.
- Tsai, J., &Chentsova-Dutton, Y. (2002). Understanding depression across cultures. In I. H. Gotlib& C. Hammen (Eds.), Handbook of depression (pp. 467-491). New York: Guilford Press.
- Verkuyten, M., & Lay, C. (1998) Ethnic minority identity and psychological well-being: The mediating role of collective self-esteem. Journal of Applied Social Psychology, 28 1969-1986.
- Wade, T.J., Cairney, J., &Pevalin, D.J. (2002). Emergence of gender differences in depression during adolescence: national panel results from three countries. Journal of the American Academy of Child & Adolescent Psychiatry, 41 190-198.

Appendix Individualism-collectivism Scenarios

Scoring and administration notes. Produces 4 scales which are percents, ranging from 0 to 100%. Scoring category is provided after each response option (e.g., HI=Horizontal Individualism; VC=Vertical Collectivism, etc.). The instructions here specify to make a first and a second choice, but some researchers may prefer to ask respondents to make a single choice. Scores can be based on just the first choice, in which case each of VI, VC, HI and HC will be the number of VI, VC, HI, or HC choices made divided by the total number of scenarios (16, or fewer if a given participant omitted an answer to one or more scenarios. To use both the first and second choice, as done in the current study, give the first choice two points, the second choice 1 point, and divide the total obtained by each subscale by 48.

Instructions. Please read each of the following scenarios. Imagine yourself in these situations. P lace a 1 next to the item that would be your first choice, and a 2 for the item that would be your second choice.

- 1. You and your friends decided spontaneously to go out to dinner at a restaurant. What do you think is the best way to handle the bill?
 - 2 Split it equally HC
 - 2 Those who earn more may pay slightly more if they want to be generous VI
 - 2 The group leader (or whoever is most senior) pays the bill or decides how to spilt it VC
 - 2 Each person pays for approximately what their meal cost HI
- 2. You are buying a piece of art for your office. Which one factor is most important in deciding whether to buy it?
 - 2 It is a good investment VI
 - 2 Your coworkers will like it HC
 - 2 You just like it HI
 - 2 Your supervisor will approve of it. VC
- 3. Suppose you had to use one word to describe yourself. Which one would you use?
 - 2 Unique HI
 - 2 Competitive VI
 - 2 Cooperative HC
 - 2 Respectful VC
- 4. Happiness is attained by
 - 2 gaining respect and admiration from others VC
 - 2 having meaningful friendships HC
 - 2 pursuing your own goals HI
 - 2 winning in competitions VI
- 5. Imagine you are selecting a band for a fund-raising event given by your organization. Which are the most important factors in making your decision?
 - 2 Picking the band I think is the best HI
 - 2 My co-workers will be in general agreement that the band is good. HC

- 2 The administration of my organization will approve of the band VC
- 2 The band will help generate the most money. VI
- 6. Which one of these four self- help books are you most likely to read?
 - 2 How to have high-quality, enduring friendships HC
 - 2 How to succeed in business VI
 - 2 How to enjoy yourself inexpensively HI
 - 2 How to manage your time so that you can meet all your obligations to others. VC
- 7. Which would you most like to be recognized for in your workplace?
 - 2 loyalty to the corporation VC
 - 2 being the expert. VI
 - 2 being a good team player. HC
 - 2 being innovative HI
- 8. When you buy clothing for the annual office party, you would be most satisfied if your outfit
 - 2 expresses your own unique style HI
 - 2 is similar to the type of clothing chosen by your coworkers HC
 - 2 will make you look good to your supervisors VC
 - 2 is so elegant that it will dazzle everyone VI
- 9. In an ideal society, national budgets will be determined so that
 - $\label{eq:2} \ \ \text{all people have adequate incomes to meet basic needs HC}$
 - 2 some people will be rewarded for making brilliant contributions VI
 - 2 there will be maximal stability, law and order VC
 - 2 people can follow their own path to a fulfilling life HI
- 10. When I reflect on what makes me the person I am, I think about:
 - 2 The values my parents (and/or teachers) have instilled in me VC
 - 2 How I have learned and grown from exposure to friends and peers HC
 - 2 What I have achieved in the past, and what I expect to achieve in the future VI
 - 2 talk about what makes me unique HI
- 11. For designing the prototype for a new product, you and your 4 co-workers have been awarded a bonus of \$500. You and another person did 75% of the work to develop the prototype. How should the \$500 be distributed among the 5 of you?
 - 2 Split it equally among the 5 co-workers HC
 - 2 The other person and I get 75% of the money and the rest goes to the

- 2 other 3 co-workers. VI
- 2 The group leader decides how to split the money VC
- 2 Use all (or most) of the money to help the whole group start on a new project. HI
- 12. When voting for candidates in elections (e.g., school, city), you will vote for:
 - 2 The one whose views are most similar to those of me and my peers HC
 - 2 The one whose personality and policies appeal to me the most HI
 - 2 The one whose policies will reward me personally VI
 - 2 The one whose policies will be most rewarding to my organization (or my group)VC
- 13. On your last visit to your parents' house, you noticed that it is becoming increasingly difficult for them to manage on their own. How would you approach this situation?
 - I would offer to have them come live with me (and my family). HC
 - _ I would start looking for retirement homes or assisted living communities that would meet their

needs. HI

- _ I would wait for them to approach me about the matter. VI
- _ It's my duty to take care of them; I would insist they live with me. VC
- 14. You have your own job with a steady income, and you finally have enough for a place of your own. What do you think your parents will say when you tell them that you're moving out?
 - My family would be disappointed. HC
 - _ My parents would be proud and impressed. HI
 - _ My parents would not approve of this unless I were getting married. VC

_ My parents would not be overly impressed because they had always assumed I would be able to take

care of myself. VI

- 15. Imagine you are the parent of a teen-age child: Your teenage child comes to you and says s/he's found a really good part-time job and wants to know if it's okay to accept it. What would you say?
 - 2 Sure, a job will teach you independence and responsibility. HI
 - 2 Go ahead, it's about time you started contributing to the family income! VI
 - 2 No, you're still a child and your obligations to help around the house and do schoolwork come

first. VC

- 2 What do you need a job for? Don't I provide for you well enough? HC
- 16. It's a Saturday afternoon and you have nothing to do, so you think of visiting a friend. How would your friend react to this?2 They won't mind if you show up without warning HC

- 2 You should at least call ahead and let them know you're on your way. HI
- 2 It would be rude of you not to ask if it was all right beforehand. VC
- 2 You should have given your friend a few day's notice that you wanted to get together. VI