

# Cultural Impact on SAD: Social Anxiety Disorder among Ethiopian and Former Soviet Union Immigrants to Israel, in Comparison to Native-born Israelis

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## ABSTRACT

**Background:** Social Anxiety Disorder (SAD) is linked to social norms and role expectations which are culture dependent, such as the construal of one's self as independent or interdependent in relation to others. The current study is the first to examine SAD symptoms among Ethiopian and former Soviet Union immigrants to Israel compared to a sample of native Israelis. We investigated the relationship between SAD, ethnicity and independent/interdependent self-construals.

**Methods:** A total of 261 students (151 native-born Israelis, 60 Ethiopian immigrants and 50 students from the former USSR) were administered the Liebowitz Scale (LSAS), the Self-construal Scale (SCS), Beck Depression Inventory (BDI) and a socio-demographic questionnaire.

**Results:** Ethiopians exhibited highest SAD scores while no differences were found between the FSU immigrants and native-born Israelis. Additionally, Ethiopians and native-born Israeli students exhibited similar high interdependence scores. Finally, SAD scores were predicted by gender, origin, independent and interdependent self-construals.

**Conclusion:** Immigration per se is not a universal risk factor of SAD and ethnological-cultural factors do

contribute specifically to SAD. A possible psychological mediator between culture and the susceptibility to SAD are the interdependence and independent self-construals. When treating immigrants, clinicians and health care providers are advised to consider the effect of cultural influence on the mental well-being and integration process of immigrants in to their host country.

## INTRODUCTION

Social Anxiety Disorder (SAD) is a chronic anxiety disorder characterized by intense fear of embarrassment and negative evaluation. People with social phobia tend to avoid social and interpersonal activities such as initiating romantic relationships, public speaking and social gatherings, leading to major impairments in one's professional and interpersonal functioning (1, 2). Previous studies suggest that SAD is the third most prevalent psychiatric condition in Europe and North America, with 7-12% lifetime prevalence (1, 3, 4). Similar data were found also in westernized nations, such as Israel (5, 6). SAD can have an early onset, with many cases beginning in childhood or early adolescence and is typically co-morbid with other mood and anxiety disorders (1, 7, 8).

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Several psychological and biological variables have been identified as potential risk factors for developing SAD (2, 9, 10). Family studies confirm that social anxiety traits are heritable, as recent research emphasizes the role of the amygdala and the cortical limbic system in the development of SAD (11, 12). Other studies indicate environmental risk factors that might impact the development and preservation of SAD (9, 13-16).

Demographic and cultural factors are also significant factors associated with the etiology and phenomenology of SAD (17). For example, the rates of SAD among females are slightly higher than males, although men are more likely to seek treatment (1, 3, 18).

It has been suggested that cultural variables may play a role in the manifestation of SAD (17). This is best demonstrated by the *Taijin Kyofusho* (TKS) - a culture-specific expression of SAD which finds its origins in Japanese and Korean cultures and is translated as "the disorder of fear." Individuals suffering from TKS tend to avoid social interactions as they become increasingly distressed regarding how they may affect others as opposed to embarrassing themselves (19-21).

Although cultural norms have long been recognized as important factors associated with interpersonal and psychological dysfunction, the literature assessing their role in regards to SAD is scarce (17). Previous studies suggest that the cultural dimension of individualism versus collectivism is an important factor for understanding the influence of culture on SAD (22).

The term "collectivism" emphasizes a cohesive relationship between members of a particular organization. Whereas the term "individualism" refers to cultures in which the expression of individual desires and personal achievements are valued (23).

An important component of the collectivism/individualism dimension is defining whether one construes the self as independent or interdependent from his social group. Studies show that members of Eastern and other collectivist-traditional cultures are more likely to value and possess interdependent self-concepts. They view the "self" as an extension of the social group to which they belong, and strive to maintain harmony in interpersonal relationships. In contrast, individualistic societies tend to construct and promote independent self-construals which are characterized by the tendency to view one's self as autonomous and separate from the social context (23, 24).

Research has suggested that interdependence is positively correlated and independence is negatively correlated with important components of SAD, such as the fear of nega-

tive evaluations (25) and embarrassment (26, 27). It has been suggested that highly interdependent people are well attuned to social cues and sensitive to evaluation by others, traits which may lead to the development of SAD (26, 27). Okazaki et al. (25) demonstrated the association between ethnicity, self-construal variables, and different measures of SAD. Study results indicated that one's tendency towards an independent self-construal was significantly related to higher levels of SAD. However it was also suggested that self-construal did not account for all the variance in SAD, as ethnicity remained a significant predictor of SAD even while controlling the self-construal variables.

However, the relationship between one's perceived self-construals and SAD remains obscure, particularly among immigrants who undergo complex acculturation processes which may affect the construal of one's self-concept (28).

The Israeli nation consists of multiple ethnic groups, each endorsing its own cultural background, social views and norms (29). This unique context potentially enables examination of the link between ethnicity, self-construal and SAD. In this context, in the last decades Israel has absorbed two major groups of mostly Jewish immigrants ("Olim"): immigrants from the FSU and from Ethiopia. These two ethnic groups differ from each other not only by the circumstances in which they immigrated and were absorbed, but also by the social and cultural norms which characterize them (30).

Previous studies revealed that compared to native-born Israelis who lean towards more liberal and individualistic values, Ethiopian immigrants hold traditional attitudes and are much more collectivist than the Israeli-born population (31), whereas FSU immigrants seem to be more individualists than they are collectivists (32).

Based on previous studies linking cultural norms and SAD manifestation, the aims of this current study were to compare the difference in SAD level between two different cultural groups, and to assess whether this difference is linked to dependent/ interdependent self-concepts.

We hypothesized that: (a) Ethiopians will exhibit highest SAD scores compared to both FSU immigrants and native-born Israelis; (b) SAD would be positively associated with interdependence, and negatively associated with independence; (c) Ethiopians will exhibit highest interdependent scores compared to both FSU immigrants and native-born Israelis; (d) Females will exhibit higher SAD scores across all three origin groups, and (e) Gender, Hebrew proficiency levels, origin and self-concepts will predict SAD scores.

To the best of our knowledge, the current study is the first to examine specifically SAD among Ethiopian and FSU immigrants.

## METHODS

### SUBJECTS

The sample consisted of 261 undergraduate students (age range 25-30, 69.7% women, mean age=25.8 years, SD=3.2; 30.3% men, mean age=27.9 years, SD=3.5) recruited from several academic institutes around the country. Based on birth country the sample was divided into three groups: 151 native-born Israelis, 60 Ethiopian immigrants and 50 students from the former Soviet Union (FSU). Students who indicated (using the self-reported demographic questionnaire) major psychopathology, such as major depression, eating disorders or any anxiety related disorders were excluded from the study in order to maintain cultural homogeneity within the groups.

### MEASURES

LSAS-Social anxiety was assessed using the Hebrew version of the Liebowitz Social Anxiety Scale (LSAS (33), a clinician-rated scale for the assessment of social phobia. It is designed to assess the range of social interaction and performance situations that individuals with SAD may fear and/or avoid. Its 24 items are divided into two subscales that are measured on a 0 (no fear/ avoidance) to 3 (no fear/no avoidance) Likert-type scale and includes items such as: "Eating in public," "Returning goods to a store." The Hebrew version of the LSAS, was found to be efficient in assessing SAD and was shown to have good internal consistency as well established validity in clinical and non-clinical samples (34). The Cronbach's alpha reliability of the LSAS in this study was satisfactory (Alpha=0.94).

BDI-Depression was measured using a Hebrew version of the Beck Depression Inventory (BDI) (35), a widely used 21-item self-report measure designed to assess the severity of depressive symptoms. Each of the 21 items was rated on a 4-point scale ranging from 0 to 3 based on severity. The ratings are then summed up, yielding a total score that can range from 0-63. The original version of this measure has been used extensively in clinical research and demonstrated construct validity and reliability, and has shown high validity and reliability scores and high internal consistency ( $\alpha=.81-.86$ ) (35, 36). Cronbach's alpha reliability of the BDI in this study was .85.

SCS-Self-Construal was assessed by the Hebrew version of the Self-Construal Scale (SCS). The SCS (37) is a

reliable and valid 24-item measure, developed to assess the extent to which participants hold certain beliefs and attitudes, leading them to self-construal as independent or interdependent. It is comprised of a 12-item independence subscale and a 12-item interdependence subscale, both of which are considered separate and independent measures with satisfying psychometric properties measured both in the original (26, 37) and the Hebrew version (38). Participants were asked to indicate their agreement with each item on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The independence subscale includes items such as, "I enjoy being unique and different from others in many respects" and "I am comfortable of being singled out for praise or reward." The internal consistency of the SCS Independence subscale in this current study was  $\alpha=.7$ . The interdependence subscale includes items such as, "I have respect for the authority figures with whom I interact," and "It is important to me to respect decisions made by the group." The internal consistency of the SCS Interdependence subscale in this current study was  $\alpha=.78$ .

*Demographic questionnaire* - Participants were requested to respond to several demographic questions (e.g., age, sex, place of birth of the participant and their parents, length and places of residence, social status and Hebrew proficiency level).

### PROCEDURE

The study was approved by the Ruppin Academic Center Ethics committee. Participants were recruited by two separate procedures. First, we recruited undergraduate students enrolled in mandatory psychology courses at the Ruppin Academic Center, as well as students from the preparatory program. Other participants were recruited via online distribution and advertisements for an online study seeking undergraduate and graduate students only. After signing informed consents, participants were requested to complete several anonymous online self-report questionnaires, including a demographic questionnaire, the Liebowitz Social Anxiety Scale, a Self-Construal Scale and the Beck Depression Inventory.

### DATA ANALYSIS

Data analysis was performed using SPSS software (19.0 version). All significance tests were two-tailed with  $p = .05$  as the significance threshold. We divided each study group according to country of birth, this resulted in three groups: native-born Israelis, Ethiopians and participants from the Former Soviet Union. Data analysis included these main analyses: 1) Between groups comparison of

socio-demographic variables and BDI. 2) Several discrete two-way analyses of co-variance (2\*3 ANCOVA) were conducted with SAD (measured by the LSAS) and self-construal (Interdependence/Independence) as the dependent variables and origin group (i.e., Israel, Ethiopia, FSU) and gender (i.e., male/female) as the independent variables, controlling for depression. 3) A stepwise regression analysis was used to predict SAD scores. The predicting variables were: gender, Hebrew-proficiency levels, ethnicity and self-construal (Interdependence/Independence). 4) We performed causal mediation analysis (39) in order to assess the potential role of SCS variables as mediating factors between ethnicity and SAD.

**RESULTS**

**PRELIMINARY ANALYSES**

Group comparisons indicated that there was no significant difference between the two ethnic groups in Hebrew-proficiency levels [ $t(108)=1.66, n.s$ ] and no differences in BDI scores [ $F(2,258)=.65, n.s$ ] among all three study groups. However, there was significant difference in duration of residence [ $t(96.9)=1.9, p<.05$ ], such that Ethiopians duration of residence in Israel was higher than FSU participants. In addition, significant differences were found for gender [ $\chi^2(2)=16.67, p<.01$ ], religiosity level [ $F(2,258)=35.15, p<.00$ ], and age [ $F(2,258)=17.34, p<0.00$ ] among the ethnic groups. Post hoc analysis revealed that Ethiopians were more religious than FSU and native-Israeli participants, and that both Ethiopians and FSU participants were older than Israeli participants. No other significant differences were found among the groups (see Table 1).

**DIFFERENCES IN LSAS BETWEEN ETHNIC GROUPS AND GENDER**

A discrete two-way analyses of co-variance (ANCOVA) was performed in order to assess the impact of ethnic-

ity and gender on LSAS scores. BDI score was entered as covariate. As predicted, significant main effect for ethnicity was found [ $F(1, 254)= 7.14, p <.01$ ]. Post-hoc analysis revealed that Ethiopian participants had higher LSAS score than native-born Israeli ( $p < .01$ ) and FSU participants ( $p < .05$ ), while native-born Israeli and FSU participants did not differ on their LSAS scores. A significant main effect was also found for gender [ $F(2,254)= 7.00, p <.01$ ], such that females exhibited higher LSAS scores than men. The interaction between origin and gender was non-significant [ $F(2, 254)=2.85, n.s$ ] (see Table 2).

**Table 2.** Differences in LSAS, BDI and Self-construal scales among Ethnic groups (Mean± SD)\*

|                 | Native Israeli (N=151) | Ethiopian (N=60) | FSU (N=50) | F score |
|-----------------|------------------------|------------------|------------|---------|
| LSAS            | 33.95±16.44            | 43.4±23.4        | 34.8±20.35 | 5.5**   |
| Interdependence | 57.3±9.45              | 56.8±9.97        | 52.1±12.68 | 4.9**   |
| Independence    | 60.72±9.25             | 59.66±9.76       | 58.32±8.16 | 1.36    |
| BDI             | 4.83±5.69              | 5.8±5.95         | 5.46±6.49  | .65     |

\* $p<.05$ , \*\* $p<.01$ ,  $p<.0001$

**HIERARCHICAL REGRESSION MODELS - PREDICTING LSAS SCORE**

Table 3 shows the results of the linear regression analyses predicting LSAS score. The overall regression model was statistically significant [ $F(6,254)=19.75, p<.01$ ] and 38% of the variance in LSAS score was explained by the predictor variables. Before being entered to the regression, the “ethnicity” variable was divided and coded into two dummy variables, as the Ethiopian immigrants served as the control group: “Ethnicity Israel” (Israel=1) expressed the comparison between the native-Israeli group to the Ethiopian immigrant group. “Ethnicity FSU” (FSU=1) expressed the comparison between the immigrants from the former USSR to the Ethiopian immigrant group.

Model 1 shows that gender, BDI score, and Hebrew proficiency significantly predicted LSAS score, whereas age, religiosity and income were not significant predictors ( $R^2=.18$ ) (see Table 3). In model 2, FSU and native Israeli ethnicity were added to the regression analyses, and were also found to be significant predictors of LSAS score. However, in this model Hebrew proficiency did not predict LSAS score significantly ( $R^2=.2$ ). In model 3, interdependence and independence self-construal variables were added to the regression analyses and significantly predicted LSAS score ( $R^2=.38$ ). As the

**Table 1.** Demographic Variables

| Demographic variables | Israeli     | Ethiopian  | FSU       | F\(\chi^2 score |
|-----------------------|-------------|------------|-----------|-----------------|
| Gender                | 120 (79.4%) |            | 30 (60%)  | 16.67**         |
| Female                |             | 32 (53.3%) |           |                 |
| Religiosity           | 1.3±.54     | 1.8±.62    | 1.06±.24  | 35.15**         |
| Hebrew level          |             | 1.55±6.5   | 1.36±5.2  | ns              |
| Residence duration    |             | 21.47±4.7  | 20±2.74   | 1.9*            |
| Age                   | 25.5±3      | 28.06±3.46 | 27.5±3.52 | 17.34**         |

\* $p <.05$ , \*\* $p <.01$ , Data are displayed as mean ± SD or %

**Table 3.** Regression analyses: predicting LSAS score from ethnicity group (native Israeli/Ethiopian/FSU), age, gender, Hebrew proficiency, income, depression and SCS scales

| Model                                | B (SE)       | $\beta$ | T        |
|--------------------------------------|--------------|---------|----------|
| <b>Model 1 (R<sup>2</sup> = .18)</b> |              |         |          |
| Gender                               | 6.09 (2.5)   | .14     | 2.4*     |
| BDI                                  | 1.06 (.19)   | .32     | 5.6***   |
| Hebrew proficiency                   | 7.5 (2.5)    | .18     | 3.01**   |
| Age                                  | -3.24 (.35)  | -.57    | -0.94    |
| Income                               | 1.86 (1.37)  | .82     | 1.36     |
| Religiosity                          | 1.34 (1.96)  | .39     | 0.67     |
| <b>Model 2 (R<sup>2</sup> = .2)</b>  |              |         |          |
| Gender                               | 6.84 (2.52)  | .16     | 2.71**   |
| BDI                                  | 1.07 (.19)   | .33     | 5.74***  |
| Hebrew proficiency                   | 5.01 (2.67)  | .12     | 1.89     |
| Age                                  | -.59 (.36)   | -.1     | -1.64    |
| Income                               | 1.6 (1.35)   | .7      | 1.18     |
| Religiosity                          | -1.3 (2.17)  | -.04    | -.6      |
| Ethnicity (FSU)                      | -8.47 (3.8)  | -.17    | -2.22*   |
| Ethnicity (IL)                       | -9.44 (3.39) | -.24    | -2.78**  |
| <b>Model 3 (R<sup>2</sup> = .38)</b> |              |         |          |
| Gender                               | 6.66 (2.43)  | .16     | 2.9**    |
| BDI                                  | 0.78 (.17)   | .24     | 4.57***  |
| Hebrew proficiency                   | 4.05 (2.38)  | .09     | 1.7      |
| Age                                  | -0.54 (.32)  | -.09    | -1.72    |
| Income                               | 1.16 (1.27)  | .05     | .95      |
| Religiosity                          | -1.17 (1.96) | -.04    | -.59     |
| Ethnicity (FSU)                      | -8.76 (3.38) | -.18    | -2.59**  |
| Ethnicity (IL)                       | -9.35 (3.02) | -.24    | -3.09**  |
| Interdependence                      | .24 (.09)    | .13     | 2.5*     |
| Independence                         | -.84 (.1)    | -.4     | -7.77*** |

independence score increased, LSAS score declined. In contrast, interdependence was a significant positive predictor of LSAS score.

### MEDIATION MODEL

The potential role of SCS variables as mediating factors between ethnicity and SAD were assessed. We performed causal mediation analysis (39) and estimated the natural indirect effect of being Israeli, as mediated by the self-perception measures interdependence and independence on LSAS score. First, we considered the sub-population of Ethiopians and investigated the change in their LSAS score if their interdependence and independence values were modified to be such as those of Israelis, the majority of the population in Israel. We considered the change in these two variables separately, since they are independent of each other. The effect was not statistically significant in both cases: if the interdependence value of an Ethiopian was changed to that of an Israeli, then, on average, his or her LSAS score would increase by 0.87

points (95% confidence interval [-.58, 2.86]). Modifying the independence values to those of Israelis will have an estimated average effect of a .95 points increase in LSAS score (95% confidence interval [-3.83, 2.83]). Considering the population of people of Russian ethnicity the results are somewhat surprising. Modifying the interdependence levels to those of an Israeli resulted in an estimated average increase of 2.08 (95% confidence interval [.30, 4.60]) points in the social LSAS score, a statistically significant result, while changing the independence levels to those of Israelis resulted in the statistically insignificant decrease of -1.27 (95% confidence interval [-3.63, .76]) points in LSAS score. All models were adjusted for age, gender, Hebrew proficiency, depression, religiosity and income.

### DISCUSSION

The aim of this current study was to examine the link between culture and SAD among different ethnic groups encompassing the Israeli society. To the best of our knowledge, this is the first research to incorporate Ethiopian participants while studying cross-cultural aspects of SAD.

Generally, our findings indicate that different cultural factors are significant predictors for SAD. Specifically, interdependence and independent self-construals, gender, ethnicity and Hebrew proficiency predicted SAD. The association between gender, self-construals and SAD is consistent with earlier findings (40) indicating that interdependence is positively and independence is negatively correlated with SAD, as interdependent individuals tend to be more sensitive to social nuances (25-27).

Moreover, Ethiopians exhibited the highest levels of SAD compared to both FSU participants and native-born Israelis, nearly approaching clinical levels of the LSAS questionnaire (40+) (41). Thus, it seems that immigration per se is not a universal risk factor for SAD. This finding may be attributed to the unique and adverse absorption process of the Ethiopian immigrants into the Israeli society (42-46), as they are frequently exposed to hostility and racism, which may enhance a greater sense of alienation and threat compared to other immigrants (42). In general, immigrants from non-Western countries suffer not only from the immigration process itself, but also from a plausible cultural gap between that of their homeland and the host country (47). SAD symptoms may be a manifestation of this elevated emotional distress (48).

In addition, our findings revealed that Ethiopians exhibited higher levels of interdependence compared to the FSU immigrants. However, in contrast to our hypothesis

(31), no differences were found between Ethiopians and native-born Israelis on levels of interdependence. Perhaps the Israeli society is unique in that despite it being a culture that is dominated by strong Western liberal values (49), social cohesion and mutual solidarity are also highly valued properties, much more than in other Western individualist countries (50). Thus, when defining a culture as “collectivist” one should consider different aspects of this complex term: not only the role of cultural unity but also the degree of traditional and conservative values characterizing the society features that differ greatly between the Israeli host culture and the Ethiopian immigrants.

Accordingly, another plausible explanation for the high SAD in the Ethiopians can be attributed to the unique features of interdependence in this ethnic group. Ethiopian culture tends to promote rigid moral codes and strict social norms, as even minor behavioral deviations are considered intolerable. This notion is best illustrated by the Ethiopian “code of honor” in which the individuals are committed to comply with authority figures and, in the event of a conflict, are expected to sacrifice their own desires in favor of those of the group (44-45).

Our results emphasize the well-based link between self-construals and SAD (17, 25, 26, 40), although when exploring whether or not ethnicity would influence SAD through the mediating agency of self-construals surprising results emerged. Our results showed that interdependence was in fact a significant mediator, yet only among immigrants from the FSU. These findings could be attributed to the difference between the two immigrant groups in terms of social norms as well as their absorption process into the Israeli society (32, 51). As noted earlier, social cohesion is an integral part of the Ethiopian culture, thus holding an interdependent self-construal does not exclusively constitute a risk factor for SAD. For FSU students, though, being highly interdependent does indeed mediate the effect of ethnicity on SAD.

These results may be explained in terms of self-discrepancy theories that have been previously noted as related to SAD (40, 52, 53). Researchers proposed that emotional distress may be enhanced by discrepancies in self-representations that develop in various social interactions. Thus, it is suggested that the perceived gap between interdependent FSU students to the self-construal which is expected of them by their social group (independence) may result in feelings of anxiety and distress and therefore develop into SAD.

Several limitations of this study should be addressed. First, our study sample consisted of a homogeneous

non-clinical group of students, thus limiting the generalizability of our results to clinical populations. Future studies should examine more diverse backgrounds and to include a clinical group of patients with SAD.

A second limitation addresses the fact that the study population consisted of college and university students only. Considering that the proportion of Ethiopians obtaining higher education is smaller than in the general population future studies should incorporate wider inclusion criteria among the general population of Ethiopian immigrants.

Another limitation relates to aspects of cross-cultural psychiatry research. On one hand, our usage of standard universal tools (such as the LSAS, BDI) enabled us to increase the generalizability of the study. Yet, it has been argued that these methods tend to oversimplify complex narratives of illness (54, 55). A careful examination of the LSAS questionnaire reveals great similarities between the questions aimed to measure SAD and prominent Ethiopians cultural codes. For instance, from a Western perspective, reluctance to speak to a person of authority could be regarded as a component of anxiety whereas in the Ethiopian culture this very behavior would be considered rude and disrespectful (45). Thus, in terms of methodology, future studies with Ethiopian participants are advised to take into account culture-bound tools such as the SRQ-E (Self-Reporting Questionnaire-Ethiopian) which was developed for detecting the expression of specific emotional distress among Ethiopian immigrants in Israel (56, 57).

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## CONCLUSION

The present study examines the complex relationship between ethnicity and SAD considering self-construals as possible mediators. Ethiopians exhibited higher SAD than native-Israeli and FSU participants. Thus, it seems that immigration per se is not a universal risk factor of SAD. Independent and interdependent self-construals were suggested to contribute considerably yet not exclusively to the prediction of SAD. Moreover, one should keep in mind those individuals who trace their roots to traditional-conservative societies (such as Ethiopians and others) are subjected to stronger social restraints which might influence their psychological well-being. When working with immigrants, clinicians and health care providers should consider the effect of cultural influence on the mental well-being and integration process of immigrants into their host country. Finally, our study demonstrates that popular clinical assessment tools and questionnaires (e.g., BDI & LSAS) seem to have clinical value when dealing

with non-Western immigrants immersed in a Western culture. It would be interesting if future research would use these tools to compare the results among members of a non-Western culture in their home land and after immigration.

## References

- Association AP. Diagnostic and statistical manual of mental disorders: DSM-IV-TR®. Washington, DC: American Psychiatric, 2000.
- Wittchen HU, Fuetsch M, Sonntag H, et al. Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study. *Eur Psychiatry* 2000;15:46-58.
- Kessler RC, Stein MB, Berglund P. Social phobia subtypes in the National Comorbidity Survey. *Am J Psychiatry* 1998;155:613-619.
- Ruscio AM, Brown TA, Chiu WT, et al. Social fears and social phobia in the USA: Results from the National Comorbidity Survey Replication. *Psychol Med* 2008;38:15-28.
- Iancu I, Levin J, Hermesh H, et al. Social phobia symptoms: Prevalence, sociodemographic correlates, and overlap with specific phobia symptoms. *Compr Psychiatry* 2006;47:399-405.
- Iancu I, Sarel A, Avital A, et al. Shyness and social phobia in Israeli Jewish vs Arab students. *Compr Psychiatry* 2011;52:708-714.
- Chartier MJ, Walker JR, Stein MB. Considering comorbidity in social phobia. *Soc Psychiatry Psychiatr Epidemiol* 2003;38:728-734.
- Schneier FR, Foose TE, Hasin DS, et al. Social anxiety disorder and alcohol use disorder co-morbidity in the National Epidemiologic Survey on Alcohol and Related Conditions. *Psychol Med* 2010;40:977-988.
- Wittchen HU, Fehm L. Epidemiology and natural course of social fears and social phobia. *Acta Psychiatr Scand Suppl* 2003;(417):4-18.
- Hidalgo RB, Barnett SD, Davidson JR. Social anxiety disorder in review: Two decades of progress. *Int J Neuropsychopharmacol* 2001;4:279-298.
- Furmark T, Tillfors M, Garpenstrand H, et al. Serotonin transporter polymorphism related to amygdala excitability and symptom severity in patients with social phobia. *Neurosci Lett* 2004;362:189-192.
- Stein MB, Goldin PR, Sareen J, et al. Increased amygdala activation to angry and contemptuous faces in generalized social phobia. *Arch Gen Psychiatry* 2002;59:1027-1034.
- McCabe RE, Antony MM, Summerfeldt LJ, et al. Preliminary examination of the relationship between anxiety disorders in adults and self-reported history of teasing or bullying experiences. *Cogn Behav Ther* 2003;32:187-193.
- Knappe S, Beesdo K, Fehm L, et al. Do parental psychopathology and unfavorable family environment predict the persistence of social phobia? *J Anxiety Disord* 2009;23:986-994.
- Eng W, Heimberg RG, Hart TA, et al. Attachment in individuals with social anxiety disorder: The relationship among adult attachment styles, social anxiety, and depression. *Emotion* 2001;1:365-380.
- Bandelow B, Charimo Torrente A, Wedekind D, et al. Early traumatic life events, parental rearing styles, family history of mental disorders, and birth risk factors in patients with social anxiety disorder. *Eur Arch Psychiatry Clin Neurosci* 2004;254:397-405.<http://link.springer.com/article/10.1007/s00406-004-0521-2#page-1>
- Hofmann SG, Anu Asnaani MA, Hinton DE. Cultural aspects in social anxiety and social anxiety disorder. *Depress Anxiety* 2010;27:1117-1127.
- Furmark T. Social phobia: Overview of community surveys. *Acta Psychiatr Scand* 2002;105:84-93.
- Choy Y, Schneier FR, Heimberg RG, et al. Features of the offensive subtype of Taijin-Kyofu-Sho in US and Korean patients with DSM-IV social anxiety disorder. *Depress Anxiety* 2008;25:230-240.
- Kleinknecht RA, Dinnel DL, Kleinknecht EE, et al. Cultural factors in social anxiety: A comparison of social phobia symptoms and Taijin kyofusho. *J Anxiety Disord* 1997;11:157-177.
- Takahashi T. Social phobia syndrome in Japan. *Compr Psychiatry* 1989;30:45-52.
- Heinrichs N, Rapee RM, Alden LE, et al. Cultural differences in perceived social norms and social anxiety. *Behav Res Ther* 2006;44:1187-1197.
- Triandis HC. Individualism & collectivism. Boulder, CO, US: Westview, 1995.
- Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review* 1991;98:224.
- Okazaki S. Sources of ethnic differences between Asian American and white American college students on measures of depression and social anxiety. *J Abnorm Psychol* 1997;106:52-60.
- Singelis TM, Sharkey WF. Culture, self-construal, and embarrassment. *J Cross-Cultural Psychol* 1995;26:622-644.
- Sharkey WF, Singelis TM. Embarrassability and self-construal: A theoretical integration. *Personality and Individual Differences* 1995;19:919-926.
- Walker GJ, Deng J, Diesler RB. Ethnicity, acculturation, self-construal, and motivations for outdoor recreation. *Leisure Sciences* 2001;23:263-283.
- Lerner V, Kanevsky M, Witztum E. The influence of immigration on the mental health of those seeking psychiatric care in southern Israel: A comparison of new immigrants to veteran residents. *Isr J Psychiatry Relat Sci* 2008;45:291-298.
- Kurman J, Eshel Y, Zehavi N. Personal and group acculturation attitudes and adjustment: Russian and Ethiopian immigrants in Israel. *J Applied Social Psychology* 2005;35:956-974.
- Kurman J. Why is self-enhancement low in certain collectivist cultures? An investigation of two competing explanations. *J Cross-Cultural Psychology* 2003;34:496-510.
- Horowitz T. The increasing political power of immigrants from the Former Soviet Union in Israel: From passive citizenship to active citizenship. *International Migration* 2003;41:47-73.
- Liebowitz MR. Social phobia. *Mod Probl Pharmacopsychiatry* 1987;22:141-73.
- Levin JB, Marom S, Gur S, et al. Psychometric properties and three proposed subscales of a self-report version of the Liebowitz Social Anxiety Scale translated into Hebrew. *Depress Anxiety* 2002;16:143-151.
- Beck AT, Ward CH, Mendelson M, et al. An inventory for measuring depression. *Arch Gen Psychiatry* 1961;4:561-571.
- Beck AT, Steer RA, Carbin MG. Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review* 1988;8:77-100.
- Singelis TM. The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin* 1994;20:580-591.
- Kurman J. Self-enhancement: Is it restricted to individualistic cultures? *Personality and Social Psychology Bulletin* 2001;27:1705-1716.
- Valeri L, VanderWeele TJ. Mediation analysis allowing for exposure-mediator interactions and causal interpretation: Theoretical assumptions and implementation with SAS and SPSS macros. *Psychological Methods* 2013;18:137.
- Moscovitch DA, Hofmann SG, Litz BT. The impact of self-construals on social anxiety: A gender-specific interaction. *Personality and Individual Differences* 2005;38:659-672.
- Rytwinski NK, Fresco DM, Heimberg RG, et al. Screening for social anxiety disorder with the self-report version of the Liebowitz Social Anxiety Scale. *Depress Anxiety* 2009;26:34-38.
- Offer S. The Ethiopian community in Israel: Segregation and the creation of a racial cleavage. *Ethnic and Racial Studies* 2007;30:461-480.
- BenEzer G. Group counseling and psychotherapy across the cultural divide: The case of Ethiopian Jewish immigrants in Israel. *Transcult Psychiatry* 2006;43:205-234.
- BenEzer G. A test of honour for Israeli society: Reflection following the absorption of Ethiopian Jews. The heart of the matter: Redefining social and national issues 2005:163-182.

45. BenEzer G. Cross-cultural misunderstandings: The case of Ethiopian immigrants in Israeli society. *International J Adolescent Medicine and Health* 1999;11:21-38.
46. BenEzer G. Like light in a jug: The immigration and absorption of Ethiopian Jews. Jerusalem: Reuven Mass, 1992.
47. Fenta H, Hyman I, Noh S. Mental health service utilization by Ethiopian immigrants and refugees in Toronto. *J Nerv Ment Dis* 2006;194:925-934.
48. Breslau J, Aguilar-Gaxiola S, Borges G, et al. Risk for psychiatric disorder among immigrants and their US-born descendants: Evidence from the National Comorbidity Survey Replication. *J Nerv Ment Dis* 2007;195:189-195.
49. Oyserman D. The lens of personhood: Viewing the self and others in a multicultural society. *J Personality and Social Psychology* 1993;65:993-1009.
50. Almog O. The tzabar: A portrait. Tel Aviv: Am Oved, 1997: pp. 142-44.
51. Amit K. Social integration and identity of immigrants from western countries, the FSU and Ethiopia in Israel. *Ethnic and Racial Studies* 2012;35:1287-1310.
52. Higgins ET. Self-discrepancy: A theory relating self and affect. *Psychol Rev* 1987;94:319-340.
53. Weilage M, Hope DA. Self-discrepancy in social phobia and dysthymia. *Cognitive Therapy and Research* 1999;23:637-650.
54. Kirmayer LJ. Cultural variations in the clinical presentation of depression and anxiety: Implications for diagnosis and treatment. *J Clin Psychiatry* 2001;62 Suppl 13:22-28; discussion 29-30.
55. Kirmayer LJ, Young A. Culture and context in the evolutionary concept of mental disorder. *J Abnorm Psychol* 1999;108:446-452.
56. Youngmann R, Minuchin-Itzigsohn S, Barasch M. Manifestations of emotional distress among Ethiopian immigrants in Israel: Patient and clinician perspectives. *Transcultural Psychiatry* 1999;36:45-63.
57. Youngmann R, Zilber N, Workneh F, Giel R. Adapting the SRQ for Ethiopian populations: A culturally-sensitive psychiatric screening instrument. *Transcult Psychiatry* 2008;45:566-589.