The Evaluation of Mental Health of Turkish Immigrants Living in Germany

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Abstract
This study aimed to identify if there is a difference between the Turkish people living in Turkey (TPTs) and the Turkish immigrants living in Germany (TIGs) regarding the social anxiety level. It is hypothesized that the TIG group would score higher on the subscales avoidance and anxiety level of the Liebowitz Social Anxiety Scale (LSAS) compared to the other group. For this study, 120 subjects were recruited through the Facebook official website of the Psychiatry department of the Harran University. In this study, participants filled out a questionnaire on sociodemographic properties and score on LSAS. The results of this data displayed a non-significant outcome on subscales, social anxiety (t (n) = 1.15, p = 0.25) and social avoidance (t (n) = 1.67, p = 0.1) compared to the other group. For this study, 120 subjects were recruited through the Facebook official website of the Harran University. In this study, participants filled out a questionnaire on sociodemographic properties and score on LSAS. The results of this data displayed a non-significant outcome on subscales, social anxiety (t (n) = 1.15, p = 0.25) and social avoidance (t (n) = 1.67, p = 0.1). It is demonstrated that TIGs had higher scores in the items related to telephoning in public, speaking up at a meeting, expressing a disagreement or disapproval to foreign, giving a report to a group, but these findings were not significant. Further studies with larger sample size are needed.

Keywords: Cross-cultural psychiatry, social anxiety, social avoidance, Turkish immigrants, Germany

INTRODUCTION
Since the 1950s, Turkish workers were moved to Germany, and they persist the highest quote among all minorities.1 Integration, acculturation, and socialization are the basic concepts of migration.2 Integration is a concept with social, economic, psychological and political dimensions. It can be seen that immigrants who do not have social adaptation experience individual problems in their social identities and adopt more than the culture of the society in which they settle.3 Acculturation is the process of adopting the beliefs, norms, and practices of a host culture. Acculturation may be presented with major life changes can result in acculturative stress which can manifest itself in poor mental well-being and symptoms of anxiety.4 Socialization is the process of...
internalizing the ideologies of society. Problems associated with socialization may result in anxiety disorders. A recent cross-cultural finding, declares increased likelihood for developing anxiety disorder and social phobia when moving from Mexico to United States which might underline the negative effect of migration on the mental health status. With respect to a transcultural analysing study including the data of older people whose mean age was 54.7 years, the Turkish immigrants showed the highest degrees of symptoms for mental health complaints among other immigrant groups evaluated in the study. According to a study about social anxiety level in Turkish adolescent from Cakin-Memik et al., Turkish students reported higher social anxiety and avoidance than the American, Chinese, and Spanish adolescents. On the other hand, social anxiety problems of immigrants are related to which generation are you from. The most important issues that determine the social status and social relations of all TIGs, especially the first generation of Turkish immigrants (FGTI) in Germany, are the professional position, the level of education and the level of culture. The FGTI in Germany were socially subordinate; operated at lower fee rates; and because he has saved a significant portion of the money he earns, he has had difficulty in adaptation to social life. It is accepted that there are two main stages in the socialization process: the primary stage, the secondary stage. The primary stage defines a process in which children form their personalities by internalizing a language and culture. The second stage includes the training process and professional relationships. Schrader et al. developed a tripartite model used in various studies in the analysis of the socialization processes of Turkish children living in Germany: schoolboy, preschool boy and little boy. Preschool boy is the most problematic group because of the interruption of the primary stage in the socialization process. Social anxiety problems of individuals are directly related to the age of migration. The migration phase is also directly related to language development. In the determination of the mental development of the child, the language structure of the close environment in which it grows is very important. Language is an important tool in the first socialization stage and acculturation in the family. In the second (SGTI) and subsequent generations, the general school education and language learning process is at a better level than FGTI. According to Mackey, the internalisation of a language is a social prison, as well as freedom of access to information sources. Language is also seen as a measure of psychological development. In immigrants, especially in the FGTI and SGTI; there are various language problems such as bilingualism, accent differences, inability to use correct words, and fluency difficulties.
The cultural differences, language and ethnic problems, differences of religion, education level, social status differences can result in social anxiety and social avoidance. Immigration process can potentially affect anxiety symptoms. Anxiety disorders tend to be highly prevalent in immigrants many years after resettlement due to post-migration socioeconomic factors. 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. A study done by Cakin-Memik et al. regarding to the association between sociodemographic parameters and Liebowitz Social Anxiety Scale (LSAS) scores demonstrates relation between social anxiety/avoidance and sociodemographic characteristics. Based on the above mentioned studies, we thought to compare the various features related to the anxiety of different groups. Therefore, the purpose of this study is to measure the social anxiety and avoidance level by means of LSAS and define the comparison between the Turkish people living in Turkey (TPTs) and the TIGs.

MATERIALS AND METHODS

Study Group

Participants were recruited through social network (Official Facebook Website of Harran University Hospital of Psychiatry Department). Forty-nine subjects were from Turkey (female: 36; male: 13) and seventy-one subjects were from Germany (female: 59, male: 12). The mean age of the TPT group was 26.81 ± 7.56 (minimum: 18, maximum: 46). The mean age of the TIG group was 25.37 ± 5.78 (minimum: 18, maximum: 44) (p=0.567). No fees were requested from the participants and no fees were paid to the participants. This study protocol was approved by the Harran University Faculty of Medicine Ethical Committee (Date: 29.11.2011; Number: 07), and informed consent was obtained from all participants. In this study, Declaration of Helsinki was applied.

Exclusion and Inclusion Criteria

TPT respondents were randomly selected from among subjects who follow the website. GP, one of our colleagues, who resides in Germany, has encouraged many people to follow our website voluntarily, and TIGs have been randomly selected among the members of the website. One hundred twenty subjects were randomly selected via the website and interviewed with web cam. All of the TIGs are in the SGTI. Those with disease other than anxiety disorders according to the Diagnostic and Statistical Manuel of Mental Disorders, 5th Edition (DSM-5) and the Symptom Check List 90-R (SCL-90-R) were excluded from the study. Subjects with insufficient or incomplete data
were not included in the study. Subjects with organic and psychological disease or those with the potential to affect the measured parameters are excluded. Subjects with other current psychiatric comorbidities including substance use disorder, major depressive disorder and psychotic disorders were not included in the study even though their primary diagnosis were social anxiety disorder (SAD). SCL 90-R and DSM-5 were taken into consideration in the inclusion and exclusion of individuals.

**Flow Chart**
The study sample consisted of one hundred eighty-eight subjects. Forty subjects from the TIG group were excluded from the study. Fourteen of them met the criteria for major depressive disorder (MDD) according to DSM-5. Five subjects had psychotic depression. Seven subjects had alcohol use disorder, five subjects had cannabis use disorder, a subject had cocaine use disorder. The data of eight subjects was incomplete. Twenty-eight subjects from TPT group were excluded from the study because of MDD (eight subjects), psychotic depression (a subject), alcohol use disorder (four subjects), and cannabis use disorder (six subjects). The data of nine subjects was incomplete in TPT group. As a result, one hundred twenty subjects were included in the study (71 for TIG, 49 for TPT).

**Materials**
For this screening study, participants filled out a questionnaire on sociodemographic characteristics includes age, gender, marital status, education status, working status, having kid, internet use, religion, smoking status, alcohol use, which was written specifically for this study. Smoking status and alcohol use reflected the lifetime prevalence. Those who completed twelve years of basic education, i.e. high school graduates, were accepted as educated. Only those with regular jobs were accepted to be working. Two groups were formed as those with one or more children and those without children. Moreover, the LSAS was also used to screen the social anxiety and avoidance level in these two samples. Additionally, there were four questions used especially for TIGs about their attitude related to migration in Germany. These were integration, returning to home town, German friends, and discrimination on against immigrants. We performed an interview via the web cam and evaluated the subjects according to the DSM-5 and SCL 90-R. We computerized the LSAS and all the questions through Google document toolbox and send it through the Official Facebook website of the Psychiatry Department of the Harran University Hospital to Facebook users. After questionnaires were filled out, they were saved automatically.

**Liebowitz Social Anxiety Scale**
Liebowitz Social Anxiety Scale was developed in 1987 by Liebowitz. It is a self-rated questionnaire and is divided in two subscales namely social anxiety and social avoidance.
Each subscale includes 24-item with 4-point Likert-Scale for screening of social phobia. The validity and reliability study of the Turkish version of the LSAS was performed by Soykan et al.\textsuperscript{17}

**Statistical Analysis**

SPSS for Windows statistical package version 22 (SPSS Inc., Chicago, IL, United States) was used for all statistical analyses. The numerical data were expressed as means and standard deviations, and the categorical data were expressed as frequencies and percentages. Independent-samples t-test was used to make comparisons between two groups, TPT and TIG, to determine significant differences between groups according to the LSAS scores. Pearson correlation test was used to evaluate the relationship between scale score and sociodemographic data. A value of less than 0.05 was considered statistically significant.

**RESULTS**

TIG group consisted of seventy-one subjects and TPT group forty-nine subjects. In terms of sociodemographic data, binary comparisons were made between TIGs and TPTs (Table 1). TIGs (63.8%, 12.53 ± 2.83) were significantly higher in high school graduates than in TPTs (45.8%, 11.12 ± 2.97) (p=0.038). According to TPTs (48.7%), the rate of marriage was significantly higher in TIGs (62.9%) (p=0.032). TIGs (69.6%) had significantly more children than TPTs (48.7%) (0.029). The percentage of internet use in TIGs (61.9%) was higher than those of TPTs (48.8%). In the internet users in both groups, there was a significant difference between TIGs (6.46 ± 2.67) and TPTs (5.54 ± 2.48) (p=0.037). Alcohol use was significantly higher in TIGs (59.9%) than in TPTs (47.9%) (p=0.039). Smoking rate was significantly higher in TIGs (60.8%) than in TPTs (47.8%) (p=0.036). Substance use rate was significantly higher in TIGs (61.6%) than in TPTs (46.8%) (p=0.019). The diagnosed psychiatric disorder history was significantly higher in TIGs (62.8%) than in TPTs (49.0%) (p=0.035). The treatment history of mental disorder was significantly higher in TIGs (60.0%) than in TPTs (49.1%) (p=0.036). The parameters such as alcohol use, smoking status, and substance use indicate the lifetime prevalence (Table 1).

The questions of integration in to society, return to Turkey, having German friends, discrimination on against immigrants were directed to the TIGs. Eighty-five point nine percent (85.9%) of TIGs reported that they are integrated in to Germany society, 52.0% of them perceive themselves as a part of the German society, but at the same time they are having discrimination (86.1%) against to them. Eighty-four point five (84.5%) of TIGs reported that they would like to return to Turkey. Eighty-eight point seven (88.7%) of TIGS had German friends. Seventy-two of TIGs (72.3%) were born and raised in Germany, so these people may consider Germany as their homeland.
According to their language skills, 81.7% of participants labelled their German speaking ability as good at. Liebowitz-Scale Anxiety (Lanx) and Liebowitz-Scale Avoidance (Lavo) are the subscales of LSAS and we have added the results of this subscales (Table 1). Table 1 displays that TIGs scored (60.12 ± 21.86 point) higher than the TPTs (45.22 ± 14.64 point) for the subscale of Lanx and TPTs scored (34.34 ± 9.68 point) higher than the TIGs (30.98 ± 12.44 point) for the subscale of Lavo. Whereas, this difference was not significant in either Lanx (t (n) = 1.15, p = 0.250) or Lavo (t (n) = 1.67, p = 0.100) subscales of TIGs and TPTs. Considering the subscales separately, it was noticed that some items such as item 1 (telephoning in public), item 16 (speaking up at a meeting), item 18 (expressing a disagreement or disapproval to people you don’t know very well), item 20 (giving a report to a group), item 21 (trying to pick up someone) present higher scores for TIGs compared to TPTs either in social avoidance or social anxiety. Respectively, the Pearson correlation coefficient value did not point out significant correlation of sociodemographic characteristics and LSAS scores (r<0.2).

DISCUSSION
The results indicate statistically non-significant effects of the migration on the social anxiety and social avoidance. This might have been related with some of the parameters which measuring the attitude about the immigration in Germany. For instance, almost all of TIGs were born and raised in Germany, so these people may consider Germany as their homeland. The TIGs stated that they are well integrated into the German community, they perceive themselves as a part of the German society and that they have good German speaking skills. Considering these findings, the non-significant outcomes might be explainable because TIGs do not perceive themselves as immigrants and even probably rejecting being a part of migration process. The migration phase is also directly related to language development. Language is an important tool in the first socialization stage and acculturation in the family. Language is also seen as a measure of psychological development. It is stated that having satisfactory language skills may be interlaced with being a part of the society and leave a crucial educational fingerprint. In the second (SGTI) and subsequent generations, the general school education and language learning process is at a better level than FGTI. In our study, 81.7% of TIGS labelled that their speaking abilities of German language were good. These findings regarding adaptation may be considered as a reason why there was no significant difference between the two groups in terms of social anxiety and social avoidance. It has been suggested by the researchers that the social anxiety and social avoidance levels of
immigrants are affected by many variables. The migration trajectory can be divided into three components: pre-migration, migration and post-migration resettlement. Topics related to post-migration resettlement such as employment, social status concerns, loss of community social supports, difficulty in learning, accumulation and adaptation, which primarily affect the FGTI, can cause any anxiety complaints in immigrants. Although some items presented higher scores for TIGs compared to TPTs either in social avoidance or social anxiety, there was no significant difference between the social anxiety and avoidance scores. We have associated this results with the entire TIG group in our study consisted of SGTI. Morawa and Erim searched the acculturation and psychological symptoms among TIGs and found significantly higher culture of origin, lower host culture, and higher levels of psychologic symptoms in FGTI in comparison to SGTI. Socialization is the process of internalizing the ideologies of society. Problems associated with socialization may result in anxiety disorders. Although the first generations experienced various difficulties, it is thought that the next generations lived in better conditions. Considering these, the results Morawa and Erim suggest that orientation towards both the heritage and the host culture has a positive effect on the psychosocial parameters of TIGs. If we interpret our sociodemographic findings in more detail, we can see a significant difference in education level, marital status, having kid/s, internet use, alcohol and substance use, smoking rate, diagnosed psychiatric disorder history, and the treatment history of mental disorders between the groups. Müller and Koch reported that a significantly higher proportion of unemployment indicating poorer psychosocial adjustment as well as lower education were found in TIGs compared with native German patients. According to the Janssen et al.'s study, Turkish immigrant adolescents reported more problems in comparison to their Dutch and native Turkish peers. Again, they emphasized that different patterns of parent-child interaction, family values and delay of Dutch language skills are considered to be responsible for these differences in scores. The difference between Dutch and TIGS in this study was thought to be due to socioeconomic reasons. This result confirms the study of Müller and Koch. Additionally, withdrawn, anxious/depressed, and social problems are more common in the TIGs than in the Dutch group. The somatic complaints, social problems, attention problems, delinquent behaviour, aggressive behaviour, externalizing, and total problems are more common in the TPTs than in the TIGs. These results do not include the same parameters directly but are incompatible with the findings of our study. This may be related to generation differences, differences in socioeconomic status, age of patients, and
patient selection. Alcohol use was another parameter evaluated in our study (Table 1).

Social anxiety disorder is widely considered to be causally related to alcohol craving and consumption, as well as development and maintenance of alcohol use disorder.\textsuperscript{22-24} Especially social phobic and agoraphobic patients may try to cope with anxiety using alcohol prior to social engagement.\textsuperscript{25,26} Additionally, according to the study of Grant et al.\textsuperscript{27} in ethnic minorities, alcohol-related problems are seen greater than majorities. Similar things can be said for substance use.\textsuperscript{24} In our study, there was no significant difference between the two groups in terms of social anxiety and social avoidance. In this study, alcohol use indicated the lifetime prevalence. Because social anxiety scores did not differ between the two groups and because we investigated the prevalence of lifetime, our findings related to alcohol use suggested that significant and higher scores of TIGs can be explained by the adaptation of TIGs to German social life. According to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) report\textsuperscript{28}, the lifetime prevalence of alcohol use in Germany (2015) and in Turkey (2011) is 96.8\% and 28.3\%, respectively. The data for the year 2014 also reported that alcohol use in German society\textsuperscript{29} is higher than in Turkish society.\textsuperscript{30} The burden of psychiatric illness caused by living in a foreign country may be greater in immigrants.\textsuperscript{8} Findings about the psychiatric disease history and treatment history confirm this information. The marital status and number of children in our study are thought to be related to each other (Table 1). This difference between TIGs and TPTs may be related to patient selection, income status, a protection to externalisation. One of the most important things affecting internet use is the level of development of the country. Additionally, psychological factors were found to be the strongest predictors of excessive use of the internet. The use of internet may be high in TIGs, which have a negative outlook for some LSAS items and live in a more developed country.\textsuperscript{17,18} The most important limitation of our study is that our sample size is low. This experiment might have actual and potential confounds in subjects which probably impacted the results. Subjects may have been not highly motivated or distracted, thus affecting their focus on the questionnaire. In addition, it would presumably be beneficial if we measured cognitive factors, social skill factors, occurring of negative life events, and presenting highly interrelated relation with social phobia susceptibility. Most importantly, a large set of factors influence the developing of the social phobia and among those, individual personality traits represent a huge crucial role in anxiety disorder susceptibility. Besides LSAS, using personality test and comparing the results of LSAS and
personality test with each other, would constitute more profitable equipment. It is another limitation that patients' income status is not known. In addition to the working status, job satisfaction could be measured and compared to the level of social anxiety. Another scale could be used to measure social anxiety. Before the study, it may be important to equalize sociodemographic variables such as marital status, having child status and alcohol-substance use status between the two groups.

**Conclusions**

As a result, despite the non-significant results about social anxiety and social avoidance, TIGs had on some items of LSAS higher scores than TPTs. These non-significant conclusions are attributed to integration and SGTI. The items related to these items were thought to be related to socialization. In order to better understand the social anxiety disorders in immigrants and their comparisons, we need to conduct research on larger groups of patients with less limitations.

**Disclosure statement:** No potential conflict of interest and financial disclosure were reported by the authors.

**REFERENCES**


### Table 1. Sociodemographic Characteristics of the Participants from Germany and Turkey.

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<td>(Female: 36; Male: 13)</td>
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<td>Mean ± SD</td>
<td>%</td>
<td>Mean ± SD</td>
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*p<0.05

Notes: TIG: Turkish Immigrants Living in Germany; TPT: Turkish People Living in Turkey; SD: Standard Deviation; Lanx: Liebowitz-Scale Anxiety; Lavo: Liebowitz-Scale Avoidance.