

Effect of Language Proficiency in the Well-being of Syrian Refugees in Türkiye

Ceren Argın

Received September 01, 2023

Accepted November 04, 2023

Electronic access November 15, 2023

This study examines the effect of Turkish language proficiency on the well-being of Syrian refugees living in Türkiye. The well-being of the refugees is observed through scales of post-trauma stress disorder and life satisfaction. It is hypothesized that Syrian refugees in Türkiye who have a higher level of proficiency in Turkish will experience less stress and more life satisfaction. The data was collected from Syrian refugees living in the Fatih area of Istanbul (N=33) through an online anonymous survey. The research suggests that while language proficiency does not have statistically significant explanatory power over post-traumatic stress disorder, the effect of language proficiency, with education as a controlling variable, on the life satisfaction of Syrian refugees is statistically significant. The controlling variable, education, is observed to be a significant factor in the life satisfaction level of the refugees. Despite the small sample size of the study and the fact that the sample consists of participants living in the same area of Istanbul, the findings of the study offer valuable insights for refugee policymakers. The weak correlation between Turkish language proficiency and refugee well-being may underscore the potential for the development of an isolated community. This emphasizes the need for intervention aimed at enhancing the language proficiency of refugees to establish a more integrated society. Future research could produce a more comprehensive model if conducted with a larger and more diverse sample size while also controlling for other factors, such as employment status and various social issues when explaining stress and satisfaction levels.

Keywords: *Syrian Refugees, Stress, Satisfaction, Language*

Introduction

Syrian people fled their country due to the ongoing civil war in their country, which started 12 years ago. On April 29, 2011, the initial group of Syrian refugees, comprising 252 individuals, arrived in Türkiye. The Turkish government, adopting an open-door policy, initially anticipated the displacement to be a short-term process with Syrians residing under temporary protection status, expecting their eventual return to their home country. However, by the end of 2011, the Syrian population had already surged to 14,000, and this figure skyrocketed to 224,000 by the end of 2012. The situation took a significant turn with the subsequent intensification of the conflict in Syria in 2014, marking a substantial rise in the number of Syrian refugees in Türkiye, reaching 3.6 million Syrian refugees, according to the United Nations Refugee Agency (“UNHCR.”) The UNHCR characterizes the ongoing events in Syria as “the largest humanitarian and refugee crisis of our era.” Given its proximity to Syria, Türkiye stands out as one of the most profoundly impacted parties in this tremendous crisis¹. Although in the beginning, Turkish people presumed that Syrian refugees would return to their country when things settled down, it is clear that considering the complicated political is-

suess and the psychology of the refugees who settled down in Türkiye for more than ten years now, Syrian refugees can no longer be regarded as temporary visitors of this country. According to the study of Syrians Barometer (“SB”) 2019, which involved a survey conducted on large representative samples and was complemented by focus group discussions and is a continuation of two previous studies conducted in 2014 and 2017, it becomes evident that Syrians’ determination to return to their homeland is rapidly diminishing. In SB-2017, 59.6% of respondents indicated their willingness to return to Syria if the problems were solved in their homeland. However, in SB-2019, this proportion significantly dropped to a mere 30.3%. Essentially, while the desire to go back to their homeland is fading, the determination to build a lasting life in Türkiye is gaining strength. This suggests that even if a swift resolution is achieved in Syria, it is probable that it will have a restricted influence on their desire to return. On the other hand, while in 2014, nearly 58 percent of Turkish respondents disagreed with the notion of repatriating refugees to their home country, a survey conducted in July 2019 showcased a significant change. During this period, more than 83 percent of Turkish respondents in the survey advocated for the return of all refugees while opposing the government’s hosting policy². Therefore,

in order to prevent the formation of a parallel society, Türkiye needs to develop the right measures and interventions to integrate Syrian refugees into society, necessitating a multifaceted research approach.

While disciplines of economy and sociology stand out in observing the situation as a whole, the psychology of individuals also needs to be scrutinized in order to understand their stress and well-being level and underlying causes. Syrian refugees have faced a multitude of challenges after displacement, including economic difficulties, language barriers, and discrimination, all while they strive to adapt to a new culture. Taken together, potentially traumatic events experienced in their war-torn home countries and the stressful circumstances following displacement increase the likelihood of refugees developing common post-traumatic stress disorders and experiencing lower levels of well-being³. The picture does not get better considering the negative impact of the tension between the local communities⁴.

Refugees find themselves caught in a vicious cycle where problems with their psychological well-being lead to a delayed and more complex process of social adaptation⁵. Social integration plays an important role in increasing life satisfaction by changing the perception of stressful life conditions and thus having a diminishing effect on the stress level of individuals⁶. While immigrant acculturation is a psychologically stressful process, in the case of refugees, such as Syrians, their immigration to a new country is not even a matter of choice. Therefore, it is essential to delve into every aspect of the adaptation process to comprehend the psychology of these individuals.

Economic difficulties, discrimination, and language difficulties rank as some of the foremost challenges affecting the well-being of refugees during resettlement⁷. Inadequate fluency in the language of the host society can pose a mental health risk. Proficiency in the language plays a protective role in mental well-being by facilitating social interactions, reducing dependence on others, fostering the development of new social networks, and enhancing refugees' sense of belongingness. A lack of language skills hampers employability and access to essential services, limiting participation in crucial aspects of civic life⁸.

Language has an important role in social integration by not only enabling effective communication but also acting as an intermediary in overcoming negative feelings and attitudes among different communities, being one of the most important attributes in the social categorization process of individuals⁹. Research suggests that fluency in the language of the host country can enhance the refugees' feeling of being accepted and thus increase their adaptation, which in turn results in an increase in their psychological well-being¹⁰. Hence, possessing the ability to communicate effectively in the language is a significant asset and tool for integration. It empowers refugees to more effectively participate in and connect with society, in-

creasing their employability and reducing the risk of social isolation. Furthermore, the Turkish participants of SB 2019 noted that fluency in Turkish is viewed as evidence of integration and can help mitigate biases and stereotypes against the individual². The findings indicate that as proficiency in the dominant language increases, loneliness tends to decrease¹¹.

The main purpose of this study is to conduct an analysis in order to understand the impact of language proficiency on refugee well-being among Syrian refugees. According to the Centers for Disease Control and Prevention, while there isn't a universally accepted definition of well-being, there is a broad consensus that it, at the very least, encompasses the existence of positive emotions and feelings (such as satisfaction and happiness), the absence of negative emotions (like depression and anxiety) and satisfaction with one's life¹². In line with this approach, in this study, the well-being of refugees is designed to be interpreted with a decrease in post-traumatic stress disorder and an increase in life satisfaction levels. This study aims to contribute to the existing literature by examining the direct relationship between language proficiency and the well-being of individuals. While there are comparable studies in different geographical regions^{8,13}, this study will be the initial investigation exploring this direct connection specifically for Syrian refugees in Türkiye. The study is presented in four sections: Introduction, providing the base for the research question; Hypothesis Development, presenting the research question along with a clear explanation and illustration of the hypotheses; Results, explaining the steps and results of the statistical analysis; Discussion, interpreting the results of the statistical analysis together with the limitations and future research suggestions and Method, describing the research design.

Hypothesis Development

The study aims to investigate the relationship between the Turkish Language Proficiency of Syrian refugees living in Türkiye and their well-being. The increased Turkish Language Proficiency (TLP) of Syrian refugees is expected to have a diminishing effect on Post Traumatic Stress Disorder (PTSD) of refugees and an enhancement effect on the life satisfaction of refugees measured through the Personal Wellbeing Index (PWI) when education is controlled. Figure 1 provides the visualization of the hypotheses.

Hypothesis 1: Turkish Language Proficiency (TLP) has a negative relationship with Post-Traumatic Stress Disorder (PTSD) among Syrian refugees residing in Türkiye, as measured through the Post-Traumatic Stress Disorder Checklist (PCL). This means that an increase in Turkish Language Proficiency (TLP) is associated with a decrease in the prevalence of PTSD, indicating that becoming fluent in Turkish can alleviate PTSD symptoms in refugees.

Hypothesis 2: Turkish Language Proficiency (TLP) has

a positive relationship with the life satisfaction of Syrian refugees living in Türkiye, as measured through PWI. This means that an increase in Turkish Language Proficiency (TLP) is associated with an increase in the Personal Wellbeing Index (PWI), meaning getting fluent in Turkish will increase the life satisfaction of refugees.

Results

Statistical analysis was run with IBM SPSS v29, benefiting from the free one-month trial opportunity of IBM, and an SPSS guide was used in the statistical analysis of SPSS findings¹⁴. The steps of the analysis are summarized below:

1. The first step was to download the data from survey-monkey.com and copy it to SPSS to make the necessary changes and get the data ready for analysis. The controlling variable of education was turned into numerical values so that it could be properly included in the analysis. The measure types in the variable view sheet of SPSS were controlled to be set in “scale” for the items of the variables TLP, PCL, and PWI and “ordinal” for the controlling variable “Education.”
2. Secondly, the model fit was checked through the calculation of standardized residual values in SPSS to detect outliers. No outliers were detected after examining the standardized residual values of each item in accordance with the instruction that standardized residual values above 3.3 or less than -3.3 can be considered outliers. The normal probability plot of the regression standardized residuals also allows us to observe that the points lie fairly close to a straight diagonal line, suggesting no major deviations from normality. Although no values fell outside the acceptable range, indicating a normal distribution, Cook’s Distance was also calculated to determine if there were any case values larger than 1, which would indicate a problem. No Cook’s Distance exceeded 1 (the highest being 0.159), thus supporting the findings that there were no significant issues with the distribution of the standardized residual values¹⁵.
3. The third step was to run a reliability analysis for the items in the scales of TLP, PCL, and PWI in order to control the covariance among the items in the scales.
4. Fourthly, the total figures of the items in the scale were summed up to come up with total scale scores for TLP, PCL, and PWI to be used in the analysis.
5. The fifth step was to conduct the correlation analysis to observe the relationship between the variables in the analysis. The correlation analysis gives us an idea of

the effect of the independent variable, Turkish Language Proficiency, on the dependent variables of PCL and PWI.

6. The sixth step, hierarchical multiple regression, was run in order to understand how much of the variance in the dependent variables of PCL and PWI can be explained by the independent variable of Turkish Language Proficiency by controlling the education level of the participants.
7. The last step, multicollinearity, was checked through the Variance Inflation Factor (VIF) in order to make sure that the independent variables of TLP and education are not highly correlated and that the regression model was not jeopardized. VIF provided a figure of 1.02. Since a VIF of 1 indicates that variables are not correlated, the model does not have any multicollinearity issues¹⁶.

Mean Score, Intercorrelations, and Reliability Analysis

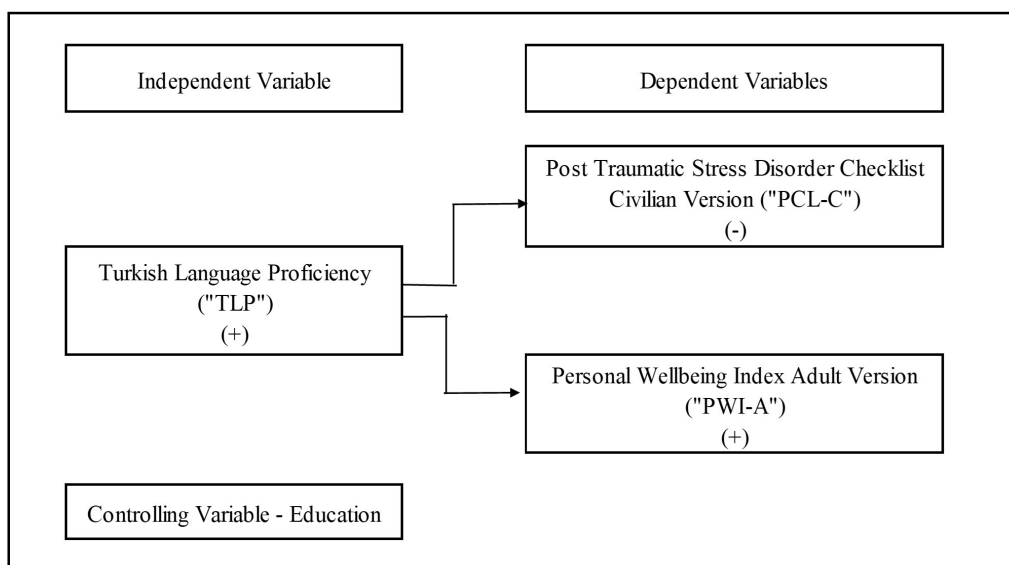
The mean, standard deviation, and intercorrelations among variables, along with Cronbach alpha values, are presented in Table 1 below. The mean figure of 11.93 in TLP, providing an average score of the responses, shows that many of the participants are not fluent in Turkish. The data indicates that the questions on reading and writing had a negative effect on the Turkish Language Proficiency score. The mean figures in understanding, speaking, reading, and writing of the languages are 3.39, 3.00, 2.96, and 2.58 out of 5.00, respectively.

The mean figure of 49.06 out of 85.00 for PCL indicates an above-average level of PTSD among the participants, and the mean of the subheadings of reexperience, avoidance, negative alteration, and hyperarousal are 14.39 out of 25.00, 6.34 out of 10.00, 16.64 out of 30.00 and 11.69 out of 20.00, respectively. The mean scores of subheadings of the scale point out that the most significant factor in PTSD among refugees is the avoidance of thinking and talking about their experiences and refraining from activities and situations that remind them of their traumatic experiences.

The mean figure of 49.55 out of 90.00 for PWI shows an above-average level of life satisfaction. The analysis of the means of the items separately showed that the main satisfaction areas for Syrian refugees are health, relationships, and spirituality, and the least satisfaction areas are safety, security, and group belongingness.

The lower intercorrelation figures among TLP and PCL provide us with a clue that the change in PTSD may not be significantly affected by Turkish Language Proficiency. On the other hand, the high negative figure of 0.71, showing the correlation between two dependent variables of PCL and PWI, supports the reliability of the participant responses.

The reliability of the scales was controlled by checking the Cronbach alpha values. The Cronbach alpha values were



Note: (+) stands for the increase in the variable, and (-) stands for the decrease in the variable.

Fig. 1 Summary of the Hypotheses

Table 1: Means, Standard Deviations ("SD"), and Intercorrelations among Study Variables

Variable	Mean	SD	1	2	3	4
1 Education	3.48	0.80	--			
2 TLP	11.93	4.32	.14	.95		
3 PCL	49.06	14.52	-.21	-.26	.92	
4 PWI	49.55	22.78	.39	.34	-.71	.89

Note. (1) Education (1= Primary School, 2= Middle School, 3= High School, 4= University, 5= Graduate)

(2) Highest possible scores for variables: TLP = "20.00", PCL = "85.00", and PWI = "90.00"

N=33, Reliabilities (alphas) are on the diagonal in bold.

between 0.89 and 0.95 for study variables, showing a good amount of reliability for the scales in the study and are also in compliance with the Cronbach alpha values of these scales from the previous studies mentioned in the Methods section.

Hierarchical Regression Analysis

Hierarchical regression analysis was run in order to analyze the extent of the relationship between the independent variable, TLP, and dependent variables of PCL and PWI while keeping education as a controlling variable. Two sets of hierarchical regression analyses were run, and in each set of re-

gression analyses, Turkish Language Proficiency was the dependent variable. Firstly, the controlling variable, education, and secondly, the dependent variable, TLP, was entered into the regression model.

Table 2 provides the results from the hierarchical regression analysis examining the extent and significance of the effect of Turkish Language Proficiency on PCL and PWI. The first step of hierarchical regression indicated that Turkish Language Proficiency explains 10% of the post-traumatic stress disorder (PTSD) measured through PCL, together with education, and does not have a significant effect on PTSD. Therefore, Hypothesis 1 was not supported by the research.

The analysis of Turkish language proficiency on the life satisfaction levels of refugees, measured through PWI, pointed out that TLP, together with education, has a significant effect on the life satisfaction levels of refugees, explaining 24% of the change in the life satisfaction levels of refugees. Thus, Hypothesis 2 is supported. However, it should be considered that TLP does not have a significant effect on life satisfaction on a stand-alone basis, explaining 8% of the change in life satisfaction. Education is observed to be the main determinant in the life satisfaction level of refugees, while TLP increases the explanatory power of the model.

The unstandardized regression coefficient of 0.78, displayed in Table 2, also points out the weak relationship of TLP in explaining PTSD. On the other hand, the explanatory power of education on life satisfaction can also be observed from the unstandardized regression coefficient of 10.10. The results show that being highly educated has a significant effect on life satisfaction but not on the post-trauma stress disorder of refugees.

As a result, the main finding of the study is that while the hypothesized model fell short in explaining the PTSD level of refugees, the significance of the model in explaining life satisfaction paves the way for further analysis of the association between language proficiency and life satisfaction among refugees. Nevertheless, it's important to highlight that although the TLP enhances the model's explanatory capacity concerning life satisfaction, it still lacks a statistically significant relationship when considered independently.

The effect size of the statistically significant relationship between TLP and life satisfaction was calculated in order to measure the magnitude of the relationship by using Cohen's f^2 , a measure of effect size for regression models, providing a result of 0.31 (Effect size(f^2): 0.31), which falls into the category of medium effect size¹⁷.

Discussion

This study intended to contribute to the literature by scrutinizing the effect of language proficiency, which is an important factor in social integration, on the psychological well-being

of Syrian refugees. The findings suggest that while language proficiency does not exhibit a statistically significant impact on reducing PTSD levels in individuals, it does have a statistically significant effect on individuals' life satisfaction, primarily when combined with the influence of education.

The effect of education on life satisfaction is in line with the findings of the previous studies in the literature. The extent to which immigrants can effectively access employment and healthcare may hinge on their educational background. Consequently, immigrants possessing a higher degree of education may undergo a more seamless adaptation process than those with lower educational qualifications¹⁸. The predominant influence of education may mitigate the adverse impact of low TLP levels in the current study, particularly given that the sample consists of highly educated individuals compared to the general education level of the Syrian refugee population¹⁹.

The research conducted in the UK found the importance of language proficiency on the well-being of refugees through its effect on intergroup relationships¹³. There may be some possible reasons that the current research has not provided such strong results. First of all, Türkiye, as a mostly Muslim country, has Middle Eastern influences in food, culture, family, and social life, providing a positive environment for Syrian refugees. Therefore, language barriers may lag behind the main identity of religion and similar cultural approaches²⁰. Supporting this approach, while the results of SB 2017 and SB 2019 suggest that Turkish society tends to reject the notion of cultural closeness with Syrians and often maintains a considerable social distance between the two communities, the attitude of Syrians in Türkiye paints a very different picture. Not only do Syrians perceive themselves as very closely linked to Turkish society, but they are also drawing even closer. Furthermore, the findings indicate that Syrians in Türkiye do not appear to be significantly affected by the negative attitudes and concerns held by the broader society towards them. This can be interpreted as an indication of a "high level of social acceptance." Despite the growing concerns of Turkish society and the social distance, Syrians assert that they feel better, particularly in terms of safety, peace, and overall happiness in Türkiye².

Secondly, refugees in Turkey face numerous challenges, encompassing employment difficulties and economic hardships. All these issues can influence their stress and satisfaction levels and, consequently, their mental health. This makes the development of intergroup relations a secondary concern in determining their psychological well-being. However, it should be noted since language is also an important factor in employability, it may affect the refugee well-being indirectly. There are also other studies that have produced contradictory outcomes on the link between a lack of language fluency and symptoms of psychological distress. Some studies have

Table 2: Summary of multiple hierarchical regression analysis for variables predicting PCL and PWI

Predictor	PCL	PWI
Education	-3.22	10.10
R2 unique to control variable	.04	.15 *
TLP	-.78	1.53
R2 unique to TLP	.05	.08
Total R2	.10	.24 *

Note. (1) Education (1=Primary School, 2=Middle School, 3= High School, 4= University, 5= Graduate)

N=33, Unstandardized regression coefficients are presented.

* $p < .05$

shown the expected link between a lack of language fluency and symptoms of psychological distress, while others have revealed no apparent associations. The failure to explore the potential indirect effects of language fluency on mental health may contribute to the variations observed in the literature, as in the case of this study. For instance, limited language skills may increase the risk of unemployment, subsequently jeopardizing mental well-being⁸.

Thirdly, Syrian refugees in Türkiye are a big community, and depending on where they live, they may be able to continue to communicate in Arabic in their circle without experiencing any feeling of being left out. The reluctance of Syrian refugees to answer an online anonymous survey gives us a clue of how much a closed community they are living in. The findings from SB 2019 substantiate this perspective, as over half of the participants expressed their reluctance to marry a Turkish citizen. While the specific reasons were not extensively explored, key concerns touched upon included cultural disparities, potential family reactions, and language-related communication challenges. This hints at the tightly-knit social structure among Syrian refugees. Such an approach may result in a reduced emphasis on the necessity of language proficiency for their overall well-being².

Fourthly, the large number of Syrians living together forms their own social support mechanism, letting them live in a socially isolated environment and still have a social support circle for themselves, resulting in a weak association between Turkish language proficiency and their well-being. There is research suggesting that a robust ethnic identity provides a protective shield against the potentially harmful effects of not acquiring the language of the host country. Nevertheless, when contrasted with individuals who held a more detached perspective on their ethnic heritage, refugees displaying a strong commitment to their ethnic identity appeared to face a higher risk of discrimination and unemployment⁷. The feeling of social identity continuity was subsequently posi-

tively associated with mental health and well-being⁴, which in this case, reduces the effect of language proficiency on the well-being of refugees.

As a result, Syrian refugees in Türkiye are, to some extent, satisfied with living in a predominantly Muslim country. The issues related to not being fluent in Turkish and thus facing integration challenges with the Turkish community may not be prioritized, given the overarching problem of economic hardships. Being emotionally protected within their small circles, which allows them to continue communicating in their native language and receive social support from their Syrian peers, may further complicate the model in terms of both life satisfaction and post-traumatic stress, potentially deviating from the hypothesized results. Therefore, while improved Turkish fluency may increase their life satisfaction to some extent (Hypothesis 2), it may not necessarily alleviate their post-traumatic stress (Hypothesis 1). The presence of a sizable Syrian community in Türkiye offers them comfort on multiple levels, helping them manage various challenges.

This research has a limitation in its small sample size, and this may prevent it from demonstrating an accurate picture of the hypothesized relationships. It is hard to have a generalized result with small samples, and in the case of this research with 33 participants, although it may be concluded as a sufficient sample size for multiple regression analysis in accordance with the recommendation of “for social science research, about 15 participants per predictor are needed for a reliable equation”²¹, the results should be interpreted considering the small sample size.

One other limitation of the research was that the data was obtained from the refugees living in the same area as a big refugee community; thus, they may suffer less from low levels of proficiency in Turkish. In addition to that, living in a big refugee community may help them experience less PTSD and more life satisfaction, considering that they have good social support mechanisms within their own community.

The study also has limitations concerning control variables. Since the correlations between variables are not strong, there may be other factors playing significant roles in explaining PTSD and life satisfaction. Given the challenging nature of accessing Syrian refugees, the number of survey items was intentionally limited to maintain the motivation of respondents to complete the survey. Future research could consider incorporating variables related to employment status and the economic conditions of participants, as these factors may also exert an influence on the well-being of refugees.

The primary challenge of the research was reaching out to the refugees. Extensive efforts were made to establish communication with relevant non-governmental organizations in order to facilitate contact with Syrian refugees. However, the majority of them did not respond, and some reported that they were unable to participate. Therefore, teaming up with governmental institutions and non-governmental organizations may allow the researcher to reach out to a larger and more diverse participant set. A small motivational gift to increase participation may also be considered within the ethical standards.

Despite the limitations arising from the small sample size in this study, mainly due to challenges in accessing the broader population of Syrian refugees and recognizing that the sample size represents a group of individuals living in the same area of Istanbul, where a significant number of Syrian refugees reside, to the best of my knowledge, this study is among the first to focus on the direct relationship between language proficiency and stress, as well as life satisfaction, among Syrian refugees in Turkey. The findings of this study provide insights into the isolated nature of Syrian refugee communities, where individuals are content within their own community and show less concern about adaptation, including their proficiency in the Turkish language. These findings provide valuable insights for policymakers involved in refugee adaptation efforts.

As a result, the current study, against all its limitations, provides valuable information in terms of understanding the impact of one important element of adaptation, language, on refugees' psychological well-being. As the biased approach of the Turkish community towards Syrian refugees intensifies, language fluency may serve as a mitigating factor. If social relations continue to weaken, there is a notable risk of social exclusion, segregation, and the emergence of parallel societies, which occupy the same physical space but exist in isolation rather than together. Therefore, it is important for future studies to prioritize this subject while addressing and overcoming its limitations.

Future studies may include more diverse refugee profiles from different parts of Türkiye so that the opinions of the refugees who are eager to be socially integrated and are not comfortable with being isolated from the Turkish people are incorporated into the analysis. Furthermore, incorporating ad-

ditional controlling factors, such as employment status and access to support networks, into the research will enhance the development of a more comprehensive model, ultimately leading to a model with greater explanatory power. Policymakers should take into account the challenges of collecting data on refugees and focus on developing policies that facilitate data collection to support research efforts. This approach is crucial for the successful implementation of integration policies benefiting both parties.

Methods

The data was collected from Syrian refugees living in the Fatih area of Istanbul, ($N=33$) through an online anonymous survey of 31 items. Survey questions included four questions on understanding Turkish proficiency level and one question on the education level of the respondent, and 26 items of the two reliable scales were used to measure the post-trauma stress disorder and life satisfaction of the participants. An introduction letter was shared with the participant before the survey questions, explaining who the researcher is and what the research aims to measure.

Participants and Procedure

The data was collected from Syrian refugees living in Türkiye through an online questionnaire over [surveymonkey.com](https://www.surveymonkey.com), which is a paid survey platform subscribed to for a month for 90 TL. The subscription amount was paid by the researcher, no payment has been made to the participants or by the participants. Considering the psychology of refugees, it was thought that they might find it intimidating to be a respondent to a survey distributed by a Turkish high school student; the responses were collected anonymously. The survey was distributed through a link, and a barcode was also created for the participants who did not want to share their contact information with anyone. The participants were living in the Fatih area of İstanbul, a heavily Syrian refugee-dominated area. The research was shared with more than a hundred potential participants, and the number of participants who completed the survey was 33.

One notable characteristic of Syrians in Türkiye is their transition into "urban refugees," with just 1.77% of the total 3.6 million Syrians residing in camps. Consequently, it's important to highlight that internet access is not a concern for urban refugees². In order to increase the participation rate, the survey was shared both in Turkish and Arabic languages, and only two participants responded to the Turkish version. In addition to the survey items prepared to test the hypothesis, the education level of the participants was asked in order to control this variable since education may also be an effective

factor for the hypotheses and prevent the observation of the stand-alone effect of language proficiency.

Measures

The whole questionnaire included 31 questions and took 5 minutes to complete. Turkish versions of the measures were translated to Arabic by Kar Tercüme, an independent certified translator located in Istanbul, and 800 TL was paid for the translation by the researcher. Arabic versions were then translated back using Google Translate in order to check if there was any loss of meaning in the items.

Given the substantial population of Syrian refugees residing in Istanbul, independent translators, such as Kar Tercüme, have gained significant experience in Turkish-English translation.

Turkish Language Proficiency (“TLP”)

Language proficiency of respondents is based on their self-assessed language skills in understanding, speaking, writing, and reading of Turkish and was rated on a five-point Likert scale with 1 being “very bad” and 5 being “very good.” Therefore, the higher the total score, the more fluent the participant was considered.

Post Traumatic Stress Disorder (“PTSD”) Civilian Version (PCL-C)

PCL-C is a self-reported scale developed to measure the level of stress disorder after any kind of traumatic life event²². The scale consists of 17 questions and aims to measure the stress level of the individual experienced in the last month against the traumatic life events they were exposed to by categorizing the psychological responses into four main domains. These domains are reexperiencing (questions 1-5), avoidance (questions 6-7), negative alterations in mood (questions 8-13), and hyper-arousal (questions 14-17) The scale has a very high internal consistency score (alpha = 0.94) showing that PCL-C is a psychologically sound measure of post-traumatic stress symptoms²³. The Turkish translation of the scale also provided a very strong Cronbach alpha level of 0.92, as well²⁴. The Turkish version was used in the questionnaire, and the Arabic version was translated from the Turkish version. The scale is rated on a five-point Likert scale, with 1 being “not at all” and 5 being “extremely.” Therefore, the higher the total items’ score, the more PTSD was considered to be experienced by the participant.

Personal Wellbeing Index-adult (PWI-A)

PWI-A is a self-assessment of the well-being of an individual under nine different dimensions of general life satisfaction, the

satisfaction of living standards, health, success, relationships, safety, security, spirituality, and belongingness to the community²⁵. The index was used in different surveys in Australia, and the Cronbach alpha occurred between 0.75 and 0.85²⁶. The Turkish-translated version of the questionnaire provided a Cronbach alpha of 0.87²⁷. Turkish version was used in the questionnaire, and the Arabic version was translated from the Turkish version. The scale is composed of nine items and rated on an eleven-point scale, with 0 being “no satisfaction at all” and 10 “being completely satisfied”. Therefore, the higher the total items’ score, the participant was considered to be more satisfied with their life.

Controlling Variable

Since education may have a direct effect on the adaptation level of refugees to the community in terms of its positive effect on social status and relationships, it was considered a controlling variable so that the effect of the targeted variables can be measured solely. Education was classified as primary school, middle school, high school, university, and graduate. Participants can be considered to be highly educated compared to the Syrian refugees in Türkiye¹⁹, where more than 33% of them are high school graduates and more than 48% are university graduates. The education levels were numbered in order to include the statistical analysis, and higher education corresponded to a higher figure for the participants. The frequency analysis on the education level of participants is summarized in Table 3.

Table 3: Frequency Analysis on the Education Level of the Participants

Education	Frequency	% in Total
Middle School	4.00	12.10
High School	11.00	33.30
University	16.00	48.50
Graduate	2.00	6.10
Total	33.00	100.00

References

- 1 M. Erdoğan, K. Kirişçi and GUysal, *World Refugee Migration Council Research Report*.
- 2 M.Erdoğan, *Syrians barometer 2019: A framework for achieving social cohesion with Syrians in Turkey*.
- 3 C. Acarturk, M. McGrath, B. Roberts, Z. Ilkkursun, P. Cuijpers, M. Sijbrandij, E. Sondorp, P. Ventevogel, M. McKee and D. Fuhr, *Social Psychiatry and Psychiatric Epidemiology*, **56**, 475–484.
- 4 M. A.Smeekees, C. E.Çelebi and SONkun, *Social Psychiatry and Psychiatric Epidemiology*, **52**, 1317–1324.
- 5 A. Yalim, *Journal of Social Service Research*, **47**, 104–117.

-
- 6 HSAI-Srehan, *Journal of International Studies*, **13**, 85–97.
 - 7 M. Beiser and F. Hou, *Social Science Medicine*, **63**, 137–150.
 - 8 M. Beiser and F. Hou, *Social Science Medicine*, **53**, year.
 - 9 RBourhis, *Sociolinguistics: An International Handbook of the Science of Language and Society*; W. de Gruyter: Berlin, p. 1587–1601.
 - 10 H.-R. Z.E.Buchanan, S. E.Kashima and DLSam, *International Journal of Intercultural Relations*, **63**, 105–112.
 - 11 J. F.Neto, *Social Behavior and Personality: An International Journal*, **28**, 193–205,.
 - 12 *Well-being concepts. Centers for Disease Control and Prevention.*
 - 13 R. L.K.Tip, M. L.Morrice and MJEasterbrook, *Social Psychological and Personality Science*, **10**, 144–151.
 - 14 JPallant, *In SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*, McGraw-Hill, London, UK, p. 154–174.
 - 15 B. Tabachnick, *Using Multivariate Statistics*, Pearson; Pearson Education Limited: Harlow, p. 128.
 - 16 JHKim, *Korean Journal of Anesthesiology*, **72**, 558–569.
 - 17 JCohen, *Statistical Power Analysis for the Behavioral Sciences: Jacob Cohen*, Psychology Press.
 - 18 *Perspectives on Psychological Science*, **14**, 619–632.
 - 19 *Study: Educated Syrians in Europe, illiterate ones in Türkiye*, <https://www.dailysabah.com/T>.
 - 20 JSchon, *Journal of Peace Research*, **56**, 12–27.
 - 21 JStevens, *Erlbaum: Mahwah, NJ*, **72**, year.
 - 22 *PTSD Checklist – Civilian Version (PCL-C) - veterans affairs*, https://www.mirecc.va.gov/docs/vsn6/3_PTSD_CheckList_and_Scoring.pdf, .
 - 23 C. Blevins, F. Weathers, M. Davis, T. Witte and J. Domino, *Journal of Traumatic Stress*, **28**, 489–498.
 - 24 N. Kocabasoglu, A. Ozdemir, I. Yargic and G. Pakize, *Yeni Symposium*, **43**, 126–134.
 - 25 *Yaşam Doyumu ölçeği satisfaction with life as a whole and the PWI a scale*, <https://www.acqol.com.au/uploads/pwi-a/pwi-a-turkish.pdf>, .
 - 26 I. W. Group, *Personal wellbeing index-adult (PWI-A)*, Australian Centre on Quality of Life, Deakin University <http://www.acqol.com.au/uploads/pwi-a/pwi-a-english.pdf>, Melbourne, 5th edn.
 - 27 E. Simsek, *Örgütsel iletişim ve kişilik özelliklerinin yaşam doyumuna etkileri*.