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Review Article

INVESTIGATING LIFE SATISFACTION: THE CASE OF REFUGEES IN ETHIOPIA

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Abstract

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As several vulnerable groups in societies such as elderly people, people with disabilities, and children, refugees also draw attention to address their wellbeing due to increasing number of people seeking refuge across the world. The wellbeing of them is considered by either international institutions or national authorities since they are likely to need assistance to have a decent life. In this respect, this study focuses on life satisfaction which refers to a broad scope of elements of quality of life in the context of refugees in Ethiopia since this country provides an important shelter to considerable number of refugees in Africa. Using microdata from the World Bank's Ethiopia *Skills Profile Survey (ESPS-2017)*, this study finds that basic human needs, safety concerns, and financial concerns play significant role on refugees' life satisfaction in Ethiopia.

Keywords: Ethiopia, Life satisfaction, Microdata, Ordered Probit Model, Refugees.

Jel Codes: C81, D01, F22.



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1. Introduction

Life satisfaction in a society might be a useful indicator to understand the quality of life there. It can be high or low depending on the conditions of society. Vulnerable groups in societies such as elderly people, people with disabilities, children, or refugees draw more attention to investigate as they are likely to need assistance to have a decent life.

Life satisfaction depends on a wide range of factors and has not been understood clearly. Limited data availability is a big concern in the field. While life satisfaction literature mostly focuses on developed country cases, this study tries to understand how life satisfaction was shaped in a developing low-income country, Ethiopia. To do so, publicly available microdata from the World Bank's Ethiopia *Skills Profile Survey (ESPS-2017)*, *A Refugee and Host Community Survey* (Pape, 2017) was utilized. This survey was conducted in 2017 and there is no more up-to-date version of it. This cross-sectional household survey is based on a sample of 5317 households originally; however, following the procedure of dropping missing observations and those who constitutes local population, 3,222 refugee households were investigated in this analysis. Findings of this study is expected to understand the concerns of refugees in Ethiopia and probably the way to improve their life satisfaction.

This study particularly focuses on refugees to investigate the determinants of life satisfaction in this group. Several developed and developing countries host refugee population due to safety through war, natural disaster, discrimination, and other. Ethiopia provides a shelter to a considerable number of refugees in the region. As the third-largest refugee hosting country in Africa, 844,589 refugees/asylum seekers who mostly fled from Sudan, Somali, and Eritrea registered in the country by the end of March, 2022 (UNHCR, 2022). These refugees/asylum seekers have largely come from neighbor countries. While refugees seek a safe shelter in Ethiopia, Ethiopia itself sometimes might be an unsafe place considering violence against Eritrean refugees in camps, for example. The country has experienced a severe conflict influence both locals and refugees. OHCHR (Office of the United Nations High Commissioner for Human Rights) provides a detailed report on human rights violations and abuses in the country (see OHCHR (2021) for more details). Therefore, many people who are either local or refugee need assistance to have adequate food, nutrition, water, healthcare, and more to maintain their lives. Nonetheless, it is hard to say all those basic necessities are accessible to more or less all refugees as a disadvantaged group in society. Therefore, this study aims to shed some light on the determinants of life satisfaction of this group in the case of Ethiopia.

The remainder of this paper is as follows. Section 2 introduces the literature on life satisfaction distinguishing between a general overview and Ethiopia case. In Section 3, sampling and variables that are used in the estimation are presented, along with the methodology of the empirical investigation. Next, empirical findings are given in Section 4. Section 5 is the conclusion.

2. Literature Review

The values of happiness and self-actualization has become important in human life starting from the Age of Enlightenment in 18th century towards the 20th century with the attempts of social reforms which pave the way for Welfare State (Veenhoven, 1996). According to Veenhoven (1996), life satisfaction is “*the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person likes the life he/she leads.*” (Veenhoven, 1996: 6). There exists variety of factors influences individuals’ life satisfaction. Considerable numbers of attempts in the literature try to understand the impact of these factors in several case countries, groups of people, and time periods. However, it is hard to conclude a unique solution that would enhance life satisfaction of people across the world. Besides, measures of life satisfaction vary a lot across studies.

Measuring life satisfaction through surveys was first attempted in the US in 1960s. An early attempt of life satisfaction studies was given by Neugarten et al. (1961). In this study, authors used data from 177 women and men whose age were between 50 and 90. The purpose of this study was to generate an appropriate index to measure pleasant aging. In this study, life satisfaction term was adopted to represent five components of psychological well-being that are “he: A) takes pleasure from the round of activities that constitutes his everyday life; B) regards his life as meaningful and accepts resolutely that which life has been; C) feels he has succeeded in achieving his major goals; D) holds a positive image of self; and E) maintains happy and optimistic attitudes and mood.” (Neugarten et al., 1961: 137). Based on the data, two life satisfaction indexes (i.e., index A and index B) were generated. These indices covered 20 and 12 questions, respectively. In Index A, individuals were asked to answer the questions if they agree, disagree, or not sure. However, in Index B, they were asked to score those questions. These self-reported indexes were used to rate life satisfaction.

Another attempt was made by Palmore & Luikart (1972) that investigated life satisfaction using data from Duke Adaptation Study which is an interdisciplinary longitudinal study with 502 individuals who were aged from 45 to 69. In this study, they used a satisfaction

ladder that numbered from 0-the worst possible life to 9-the best possible life, and respondents were asked to choose where they currently feel. Health, activity, social-psychological, and socio-economic variables were included in the model. Findings reveal that self-rated health variable is the most significant variable to explain life satisfaction. Besides, organizational activity (i.e., attended meetings), social activity, income, and education were found to have some impact on life satisfaction though it is not always a large impact.

Life satisfaction of elderly individuals has also been examined by Edwards & Klemmack (1973) that studied life satisfaction within Virginia 4-county area with 507 mid age and older males and females via 22 variables. The measurement of life satisfaction came from 10 items from the Life Satisfaction Index. Socioeconomic status, informal participation with non-kinsmen, and perceived health status were found to be the best predictors of life satisfaction in this sample. Differently, Spreitzer & Snyder (1974) used categorical happiness variable where options are very happy, pretty happy, or not too happy to measure life satisfaction. The pooled data of 1972 and 1973 from the National Data Program was utilized to examine indicators of life satisfaction in United States. They showed that economic sufficiency and self-assessed health are the strongest predictors of life satisfaction, particularly for elderly people whose age is over 65. Building on this study, Clemente & Sauer (1976) used the 1973 General Social Survey of NORC at the University of Chicago for 1,504 individuals in the US. Two important implications were emerged from this study. Firstly, the relationship between Socioeconomic Status and satisfaction was found to be spurious if the effects of the other independent variables were removed. Secondly, traditional explanatory framework of life satisfaction needs to be expanded considering both sociological and psychological dimensions.

Apart from the US cases, Rojas (2006) conducted a survey in five states of Mexico in 2001 with 579 individual observations to investigate the relationship between life satisfaction and domains of life satisfaction. Findings in this case shows that life satisfaction is more complex than only a weighted average of domain satisfaction. The author argued that additive specification is a very restrictive particularly if the objective is to understand it.

Although happiness was thought as a key variable to measure life satisfaction (see for example Spreitzer & Snyder (1974)), the concept of it is likely to be more complicated than

subjective happiness of individuals. Different scales have been created to measure it even if the reliability of them has still been debated (see Diener et al. (2013)²).

2.1. Life Satisfaction of Refugees

Integration of refugees in host countries is an important concern for several nations. Life satisfaction of those refugees might contribute into the process of integration. Literature from different country cases provide some evidence on the determinants of life satisfaction. Bajwa et al. (2019), as one example, investigated psychological capital and life satisfaction of refugees in Canada case. In their empirical analysis which is based on 51 survey participants (i.e., 41 refugees and 10 service providers), they concluded that resilience and optimism might be associated with life satisfaction. If those components of psychological capital are improved, then life satisfaction of refugees may improve.

In a very recent study, Haindorfer et al. (2022), in the case of Austria, studied the effects of integration sources on the life satisfaction of refugees from Afghanistan, Syria, Iran, and Iraq. Using data from the Integration Survey 2017 that includes 1,710 newly arrived refugees, they analyzed their 11-point scale life satisfaction measure through home country and host country-specific factors, as well as sociodemographic controls. Findings revealed that there is a positive and statistically significant relationship between host-country-specific integration resources (e.g., language proficiency, social contacts with natives etc.) and life satisfaction of refugees. However, home-country-specific resources (e.g., social contacts related to home country) are not correlated with life satisfaction of those refugees in Austria.

Another country case is given by Noh et al. (2018) examined how stress and discrimination influence life satisfaction of North Korean refugees. 500 socially vulnerable refugees living in South Korea were investigated. Findings showed that discrimination experience among refugees indirectly influences life satisfaction among North Korean refugees, while stress has moderator effect between life satisfaction and discrimination. In the same case country, Choi et al. (2017) also provided evidence on North Korean refugees in South Korea. Accordingly, those who had experienced more traumatic events were less satisfied with their economic status. Psychiatric symptoms like severe depression, PTSD symptoms, somatization, or anxiety influence overall satisfaction negatively.

² Diener et al. (2013) highlight that although the scales are useful to investigate individuals' well-being, they are sensitive to the conditions surrounding individuals.

Adaptation to the host country is a difficult experience for most of the refugees in different parts of the world. In the case of Turkey, it can be said that the Syrian refugees have not experienced the adaptation difficulty as they mostly relocated into places close to Syrian border and Arabic language spoken in these places. However, if they relocate far from their home border, then they may experience difficulty to adapt, and this may influence their life satisfaction as investigated by Maqul et al. (2021). Study aimed to examine life satisfaction of Afghan, Iranian, and Syrian refugees residing in Denizli which is an industrialized western city of Turkey. 150 observations were interviewed in person. A seven-scale life satisfaction was used in the analysis. Accordingly, more educated and female refugees were found to have lower life satisfaction. Besides, life satisfaction among different refugee groups varies depending on economic, politic, and social conditions of those refugees. In their study, Karaman et al. (2022) aim to understand life satisfaction of a sub group of refugees: Syrian students in Turkey. 99 university students were participated in the quantitative study, and 5-item Satisfaction with Life Scale is used to assess individual satisfaction with life. Findings showed that happiness and future plans such as a college degree, following a graduate degree, starting a family, and finding a job are important factor of life satisfaction for this group of refugees.

Life satisfaction of former refugees who fled Australia from Ethiopia, Democratic Republic of Congo and Myanmar were investigated by Khawaja & Hebbani (2019). The study that was based on voluntarily completed questionnaires of those, 197 former refugees, who have resided in Australia for 1 year or longer examined whether life satisfaction differs with demographic factors via analysis of variance. Authors concluded that country of origin and language proficiency matter for life satisfaction. However, gender, age, employment status, and education were found not to be significantly related to life satisfaction. Similarly, Colic-Peisker (2009) explores the experiences of 150 recently arrived refugees in Western Australia (i.e., ex-Yugoslavs, black Africans and people from the Middle East). Job satisfaction, social support, and financial satisfaction were found to be the strongest predictors of life satisfaction, though it varies between different groups.

United States (US) is an important refugee destination. Several groups of refugees and immigrants are hosted in the country. Considering life satisfaction of these groups, literature provides valuable examples. Birman et al. (2014), in this respect, investigated life satisfaction of 391 refugees from Former Soviet Union in US through a 14-question measure asking about different aspects of life such as health, family, job, etc. Findings reveal that American

acculturation contributes to life satisfaction and reduces distress among those refugees. Also, occupational adjustment, and co-ethnic social support were found to be important contributors to the life satisfaction. Vietnamese consists of another group of refugees in the country. Lam (2003) in his dissertation investigates life satisfaction of Vietnamese, as well as spirituality, coping strategies of them. 119 males and 113 females from Vietnamese temples, churches, and community organizations in Colorado participated in the survey that covers demographic information and special topics such as beliefs and satisfaction with life in separated questionnaires. Life satisfaction was found to be related with high income, good health, lower stress level, and more rational problem-solving coping strategy.

Using data from 4325 adult refugees in Germany, Walther et al. (2020) investigated the relationship between living conditions and life satisfaction via linear regression model. Their findings show that separation from family, living in refugee housing facilities, and uncertain legal status are related to decreased life satisfaction, while contact to members of the host society, better host country language skills, and being employed are related to higher levels of life satisfaction.

Many people in Bosnia fled to European countries following the war in Yugoslavia. Van Selm et al. (1997) explored life satisfaction of 106 Bosnian refugees who fled to Norway mostly in 1993. Both person related variables and other variables related to acculturation process in the host country were considered. They found that persons with a high internal locus of control have a higher life satisfaction. Additionally, positive reactions from the majority group contributes life satisfaction of Bosnian refugees in Norway.

2.2. Ethiopia Case

According to the World Bank (2022), Ethiopia is one of the fastest growing economies (with an average of 9.5 % annual economic growth), and it has the second largest population in the African continent. More than 70 percent of the population is employed in the agriculture sector, and despite a slight improvement nearly a quarter of its population is living under the poverty line of the country (World Bank, 2022). This fact on the country's economy shows that there exists a considerable population pressure in the country. Job creation in the national economy becomes very important. However, considering large numbers of people living under poverty, and dominance of agriculture sector in the economy that relies on climate conditions, Ethiopia seems to experience challenges in the near future.

Beside country's own population pressures, conflicts particularly in the Northern part of the country, climate-related production issues, and so on, Ethiopia is an important shelter for thousands of people mostly from nearby countries. The government of Ethiopia works together with international organizations such as International Organization for Migration (IOM) and the United Nations High Commissioner for Refugees (UNHCR). As a result of a collaboration of Ethiopian government and UNHCR, there are 24 refugee camps across five states operating in Ethiopia. According to the UNHCR (2019), three major challenges are faced by refugees in Ethiopia, that are access to water, education, and employment opportunities.

The literature on life satisfaction on Ethiopia case is rather limited. Alem & Colmer (2022) present an example of life satisfaction study in Ethiopia by examining income uncertainty through rainfall variability in the country if it has any impact on individual well-being. Two years (i.e., 2004 and 2009) of the Ethiopian Rural Household Survey (ERHS) were used in the analysis. As measure of subjective well-being, they use life satisfaction of individuals. The results of analysis show that increase in the rainfall variability is associated with a decrease in the life satisfaction in rural Ethiopia.

Rural Ethiopia as many developing regions has high level of fertility which is necessary to sustain households' economic activities (Conzo et al., 2017). However, this high fertility rates may adversely affect life satisfaction. In their study, Conzo et al. (2017) investigated this situation by using last 2004 and 2009 waves of the ERHS. A 10-ladder life satisfaction measure was used, and accordingly it was found that having a new child affects young females' life satisfaction negatively. On the contrary, it is positively associated for male whose age is between 50 and 60.

Food prices in Ethiopia is a big concern for its society. This concern is likely to influence well-being of individuals. Alem & Köhlin (2014) questioned whether food price inflation has any impact on subjective well-being of urban households in Ethiopia. Using ordered probit model, they found that being negatively affected by food price inflation has a large negative impact on subjective well-being of households. Besides, per capita consumption and international remittances were found to increase reported life satisfaction.

Using three rounds (i.e., 2000, 2004, and 2009) of panel data from the Ethiopian Urban Socio-economic Survey (EUSS) that was conducted in seven major cities of Ethiopia, Alem & Köhlin (2012) investigated the correlates of life satisfaction. Both individual and household

determinants of life satisfaction were examined. Findings showed that the impact of basic variables such as marital status, unemployment, health, etc. works in a similar way as it is in developed countries. Moreover, household level variables such as per capita consumption, expectations on the future, remittances, the share of educated members, and the share of members with health problems were found to be significant determinants of life satisfaction.

Apart from these few attempts on life satisfaction, to the best of my knowledge, there is no study in the literature that investigates life satisfaction of refugees in Ethiopia. Therefore, the current study is likely to provide considerable insights of this vulnerable group in this country.

3. Data and Methodology

In this paper, publicly available microdata from the World Bank's ESPS, 2017 (Pape, 2017) was utilized. This survey was conducted in 2017 and there is no more up-to-date version of it. This cross-sectional household survey is based on a sample of 5317 households originally. As part of aim of this study, those households who were belong to the host community were dropped from the sample. Besides, missing observations across the variables used in this analysis were also dropped. Eventually, this study ends up with 3,222 refugee households to be investigated.

The dependent variable is life satisfaction of refugees that is generated through a survey question asking overall life satisfaction nowadays. This question originally has 11 ordered response categories from 0-not satisfied at all to 10-completely satisfied. To have more observations in categories and to make the presentation easier, three broader categories of life satisfaction were generated. The first 4 answer categories were coded as 0 (referring not satisfied at all); mid 3 categories were coded as 1 (referring neither satisfied nor unsatisfied); and the last 4 categories coded as 2 (referring completely satisfied).

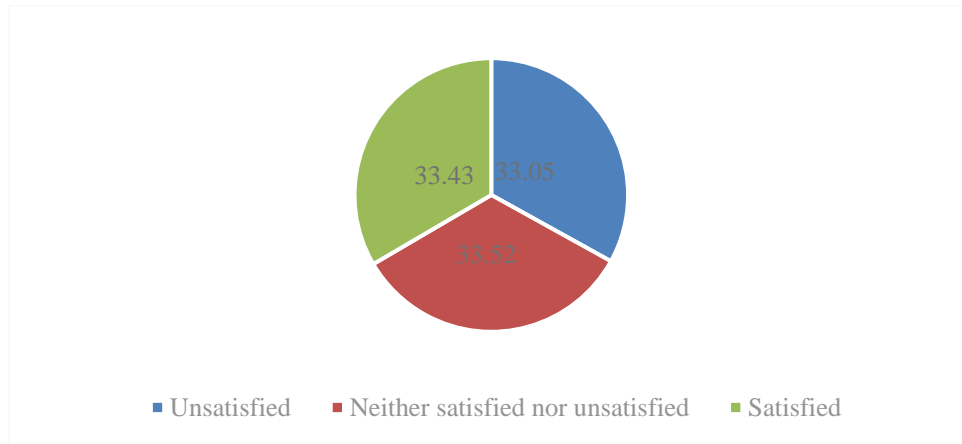


Figure 1.

Reported Satisfaction, Percentage

Source: Own calculation based on the World Bank’s microdata

In this sample, refugees live in 19 camps. The distribution of refugee population across those camps are presented in Figure 2 below. Accordingly, the largest refugee hosting camp is Tsore camp that hosts 13.07 percent of refugees in the sample. The second largest refugee population is in Sherkole camp with almost 12 percent. Rest of the camps hosts less than 10 percent of refugees. The lowest share is observed in Kebribeyah camp that hosts 1.3 percent of all refugees.

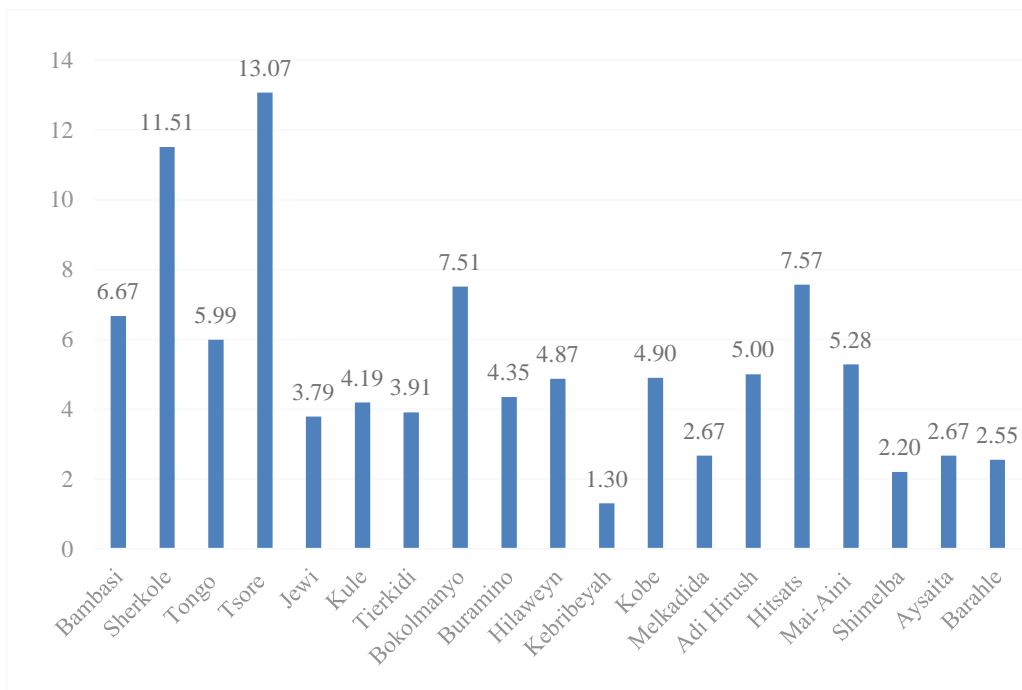


Figure 2.

Distribution of Refugees Across Camps

Source: Own calculation based on the World Bank’s microdata

The households investigated in this paper vary in size as seen in Figure 3. The most common size of household is those with 5 members (with 14.84 percent). Households with 4 members constitute the second largest group with 13.75 percent. This is very similar to the households with 6 members (with 13.38 percent). Generally speaking, one can say that more than half of the households have 5 or fewer members. Even if there are households with more than 10 members, this constitutes only a very small share in total.

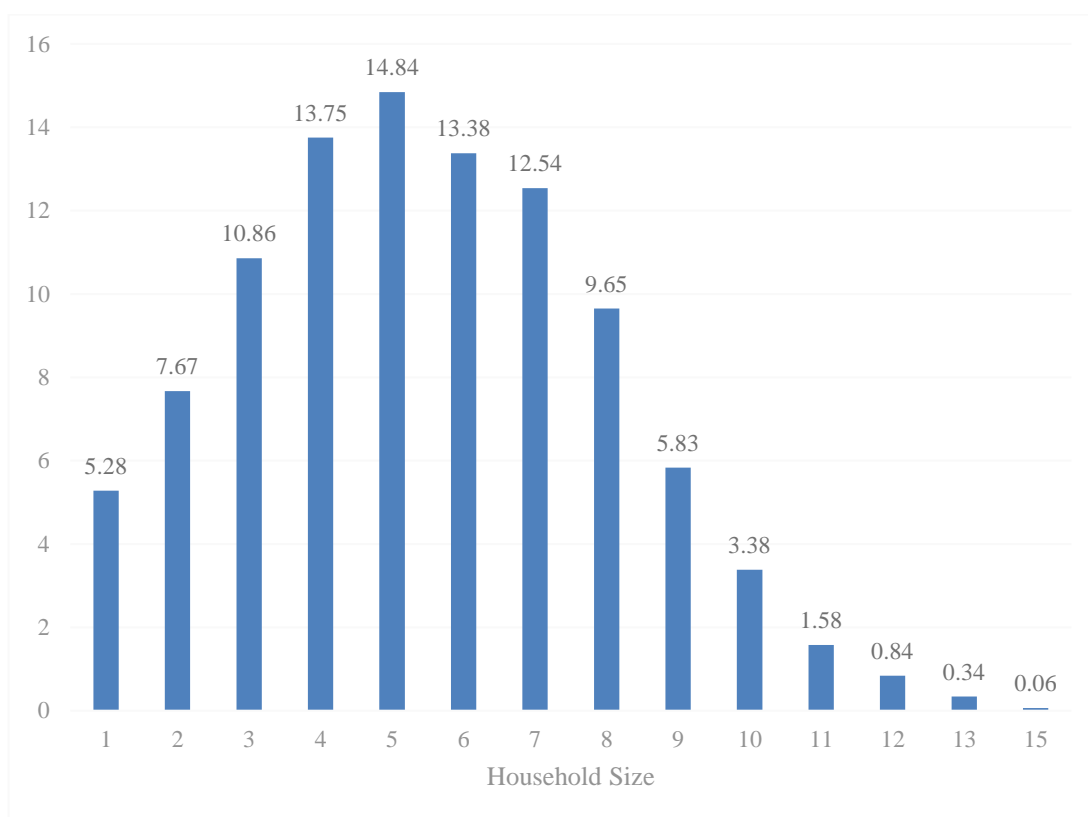


Figure 3.

Household Size, Percentage

Source: Own calculation based on the World Bank’s microdata

Related with the life conditions refugees live in, there are some measures used in this investigation. First, their access to food is measured through the survey question of “*When was the last time that any of the household members ate some food?*”. Based on the answers by respondents, which is presented in Figure 3, it is seen that most of them (about 73 percent) had food today. 20 percent of them did not have any food today but had it yesterday. Although it’s

a small share, almost 7 percent of refugees (218 individuals) have not had any food for 2 or more days.

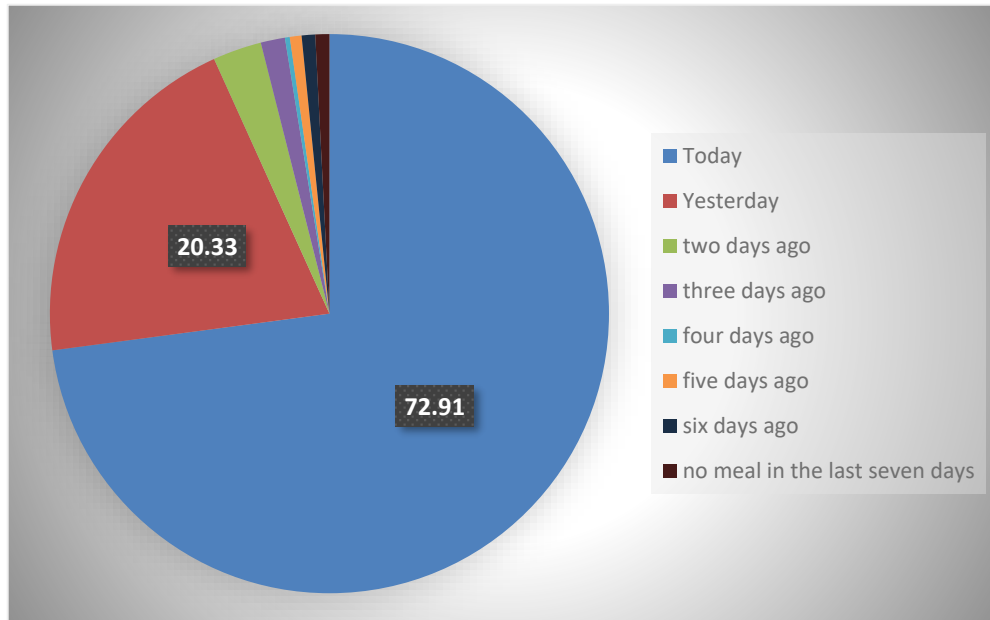


Figure 4.

Having Food Recently, Percentage

Source: Own calculation based on the World Bank’s microdata

Apart from having food recently, there are several measures such as receiving compensation, easiness to borrow money, receiving remittances, having a mobile money account, financial difficulty, distance from the closest food market/health centre/water source, and safety. Summary statistics for these variables are given in Table 1 below. As might be seen from the table most of the variables are categorical variables, although there are a few continuous explanatory variables such as household size and distance from food market/health centre/water source.

Table 1.
Summary Statistics of the Variables used in the Analysis

Variable	Obs	Mean	S.D.
1. Satisfaction			
<i>Unsatisfied</i>	3222	0.331	0.470
<i>Neither satisfied nor unsatisfied</i>	3222	0.335	0.472
<i>Satisfied</i>	3222	0.334	0.472
2. Household size	3222	5.468	2.536

3. Refugees in this area have receive compensation			
<i>Strongly agree</i>	3222	0.110	0.313
<i>Slightly agree</i>	3222	0.147	0.355
<i>Neither agree nor disagree</i>	3222	0.156	0.363
<i>Slightly disagree</i>	3222	0.295	0.456
<i>Strongly disagree</i>	3222	0.292	0.455
4. Easiness to borrow the money			
<i>Very Easy</i>	3222	0.014	0.119
<i>Easy</i>	3222	0.010	0.101
<i>Neither easy nor difficult</i>	3222	0.046	0.209
<i>Difficult</i>	3222	0.143	0.350
<i>Very difficult</i>	3222	0.787	0.409
<i>No</i>	3222	0.892	0.310
<i>Yes</i>	3222	0.108	0.310
6. Having a mobile money account?			
<i>No</i>	3222	0.993	0.082
<i>Yes</i>	3222	0.007	0.082
7. Did household not have enough money in the last seven days?			
<i>No</i>	3222	0.382	0.486
<i>Yes</i>	3222	0.618	0.486
8. Time to walk to the closest food market: minutes			
	3222	17.652	13.383
9. Time to walk to the nearest health centre: minutes			
	3222	18.201	11.881
10. Time to walk to closest water source: minutes			
	3222	4.905	4.787
11. When was the last time that any of the household members ate some food?			
<i>Today</i>	3222	0.729	0.445
<i>Yesterday</i>	3222	0.203	0.403
<i>Two days ago</i>	3222	0.028	0.166
<i>Three days ago</i>	3222	0.014	0.117
<i>Four days ago</i>	3222	0.003	0.053
<i>Five days ago</i>	3222	0.007	0.082
<i>Six days ago</i>	3222	0.008	0.088
<i>No meal in the last seven days</i>	3222	0.008	0.089
12. In general, how safe from crime and violence do you feel when you are alone			
<i>Very safe</i>	3222	0.546	0.498
<i>Moderately safe</i>	3222	0.316	0.465
<i>Neither safe nor unsafe</i>	3222	0.054	0.227
<i>Moderately unsafe</i>	3222	0.054	0.227
<i>Very unsafe</i>	3222	0.029	0.167

This published microdata includes sampling weights. This was scaled to equal the number of households per strata as per the sampling frame provided by UNHCR (Pape, 2019). The analysis, therefore, contains the weight given in the source.

As done in several researches on life satisfaction or happiness, respondents' satisfaction (or well-being/happiness) is assumed to be an unobserved latent outcome that was a proxy of their reported response among an ordered scale of answer categories. Analysing ordered

outcomes through linear regression approaches versus ordered probit gives rise to some undesirable consequences which is discussed by Daykin & Moffatt (2002). First, the difference between given categories is assumed to be the same in linear regression which is not in ordered probit model. Second issue is about an implicit assumption in linear model that of two respondents who gave the same response to have the same attitude which could lead biased estimation. Finally, the focus of analysis in ordered response models is distribution over the population of underlying attitude which should be invariant to wording of question. However, responses models are modelled directly in which results cannot be invariant to wording in linear regression. Therefore, to consider this nature of the dependent variable (i.e., LS that takes a value of 0-unsatisfied; or 1-neither unsatisfied nor satisfied; or 2-satisfied, I apply an ordered probit estimation for the following model.

$$LS_h^* = \beta_0 X_h + \delta_c + \varepsilon_h$$

Where LS^* is dependent variable that measures life satisfaction in a 3-scale categorization. Subscript h refers to household. X presents a vector of household characteristics that are likely to influence life satisfaction. δ_c is to control for camp areas where those refugees live in. Finally, ε_h is random error term.

LS^* is unobserved, but the following is observed instead:

$$LS_h = \begin{cases} "0" & \text{if life satisfaction is reported as "unsatisfied" } (LS_h^* < \mu_0) \\ "1" & \text{if life satisfaction is reported as "neither unsatisfied nor satisfied" } (\mu_0 < LS_h^* \leq \mu_1) \\ "2" & \text{if life satisfaction is reported as "satisfied" } (\mu_1 < LS_h^* \leq \mu_2) \end{cases}$$

Different than a standard OLS estimation, marginal effects are calculated to interpret findings as widely suggested in the literature. These marginal effects show the percentage point change in the probability of belonging in a particular satisfaction response category for a marginal change in an explanatory variable, when it is multiplied by 100.

4. Empirical Findings

In Table 2, empirical findings of this paper were presented. The dependent variable is 3-scale life satisfaction (i.e., dissatisfied, neither dissatisfied nor satisfied, and satisfied). As a convenient way of interpretation of ordered probit model, marginal effects were used. In the column 1 of table, the raw coefficients were presented, while further columns presented marginal effects that are calculated for each response category.

Table 2.
Empirical findings, dependent variable is satisfaction

Variables	Original	Dissatisfied	Neither Dissatisfied nor Satisfied	Satisfied
Household size	0.007 (0.018)	-0.002 (0.005)	0.000 (0.001)	0.002 (0.004)
Refugees in this area have receive compensation (RC: Strongly agree)				
Slightly agree	-0.499*** (0.139)	0.129*** (0.036)	-0.001 (0.005)	0.129*** (0.037)
Neither agree nor disagree	-0.771*** (0.131)	0.204*** (0.034)	-0.012 (0.008)	-0.192*** (0.034)
Slightly disagree	-0.688*** (0.134)	0.181*** (0.034)	-0.008 (0.007)	-0.173*** (0.035)
Strongly disagree	-0.278** (0.128)	0.071** (0.032)	0.003 (0.004)	-0.073** (0.035)
How easy would it be to borrow the money? (RC: Very easy)				
Easy	1.242* (0.685)	-0.287** (0.125)	-0.041 (0.067)	0.328* (0.181)
Neither easy nor difficult	0.419 (0.267)	-0.111 (0.072)	0.005 (0.009)	0.105 (0.065)
Difficult	-0.104 (0.265)	0.028 (0.072)	-0.004 (0.010)	-0.024 (0.063)
Very difficult	0.007 (0.244)	-0.002 (0.066)	0.000 (0.009)	0.002 (0.058)
In the past 12 months, did this household receive remittances (money or good) (RC: No)				
Yes	0.378*** (0.116)	-0.101*** (0.031)	0.007** (0.003)	0.094*** (0.030)
Does your household have a mobile money account? (RC: No)				
Yes	-0.170 (0.428)	0.046 (0.116)	-0.007 (0.019)	-0.039 (0.096)
In the past 7 days, were there times when your household did not have enough money (RC: No)				
Yes	-0.187 (0.128)	0.051 (0.036)	-0.006 (0.004)	-0.045 (0.032)
Time to walk (one way) to the closest food market	-0.002 (0.004)	0.001 (0.001)	-0.000 (0.000)	-0.001 (0.001)
Time to walk (one way) to the nearest health centre	0.000 (0.004)	-0.000 (0.001)	0.000 (0.000)	0.000 (0.001)
Time to walk (one way) to closest water source	0.003 (0.008)	-0.001 (0.002)	0.000 (0.000)	0.001 (0.002)

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: RC refers to Reference Category

Table 2.
Cont.

Variables	Original	Dissatisfied	Neither Dissatisfied nor Satisfied	Satisfied
When was the last time that any of the household members ate some food? (RC: Today)				
<i>Yesterday</i>	-0.195 (0.134)	0.054 (0.038)	-0.009 (0.007)	-0.045 (0.031)
<i>Two days ago</i>	0.854*** (0.267)	-0.215*** (0.058)	-0.010 (0.016)	0.225*** (0.070)
<i>Three days ago</i>	0.540 (0.465)	-0.143 (0.114)	0.004 (0.012)	0.138 (0.125)
<i>Four days ago</i>	-0.046 (0.450)	0.013 (0.124)	-0.002 (0.019)	-0.011 (0.105)
<i>Five days ago</i>	-0.006 (0.287)	0.002 (0.079)	-0.000 (0.011)	-0.001 (0.068)
<i>Six days ago</i>	0.403 (0.364)	-0.108 (0.093)	0.007 (0.005)	0.102 (0.095)
<i>No meal in the last seven days</i>	-0.304 (0.258)	0.084 (0.071)	-0.016 (0.017)	-0.068 (0.055)
In general, how safe from crime and violence do you feel when you are alone? (RC: Very safe)				
<i>Moderately safe</i>	0.567*** (0.118)	-0.151*** (0.030)	0.023*** (0.006)	0.129*** (0.026)
<i>Neither safe nor unsafe</i>	0.631** (0.251)	-0.168*** (0.064)	0.023*** (0.006)	0.145** (0.061)
<i>Moderately unsafe</i>	0.522* (0.296)	-0.140* (0.078)	0.022*** (0.008)	0.118* (0.071)
<i>Very unsafe</i>	-0.619** (0.250)	0.156** (0.061)	-0.043** (0.020)	-0.112*** (0.041)
Observations	3,222	3,222	3,222	3,222
McFadden's Pseudo R2	0.252			

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: RC refers to Reference Category

Accordingly, it was found that household size does not have a significant impact on life satisfaction. Estimated marginal effects show that being in the category of those who slightly agreed that refugees in the area received compensation for the violations suffered and lost property and assets because of conflict increases the probability of reporting dissatisfaction by 12.9 percentage points, while it decreases reporting satisfied by the same range. This finding is statistically significant at 1 percent significance level. For the other categories of whether to agree/disagree to receiving compensation, the sign and significance is similar across categories.

As another financial indicator, easiness to borrow the money was used to explain life satisfaction. Findings showed that finding money borrowing easy, rather than very easy, decreases the probability of reporting dissatisfied by 28.7 percentage points which is statistically significant at 10 percent level, while it increases the probability of reporting satisfied with life by 32.8 percentage points. Moreover, being a remittance receiver reduces the

probability of reporting dissatisfied with life by 10.1 percentage points and increases the probability of reporting satisfied by 9.4 percentage points.

Having food as a basic human need was also considered as it can affect satisfaction for refugees. The only significant effect was found in the category of households in which any member of it ate some food 2 days ago. So, being in this category reduces the probability of reporting dissatisfaction by 21.5 percentage points, while it increases the probability of reporting satisfaction with life by 22.5 percentage points.

Safety concern is the final factor that was thought to explain satisfaction with life. Calculated marginal effects show that choosing moderately safe rather than very safe decreases the probability of reporting dissatisfaction by 15.1 percentage points and increases the probability of reporting satisfaction by about 13 percentage points. Expectedly, feeling very unsafe increases the probability of reported dissatisfaction with life by 15.6 and decreases the probability of reported satisfaction by 11.2 percentage points. These findings are also statistically significant.

It should be noted that distance to the closest food market, distance to the nearest health centre, and distance to the closest water source were found not to be significant predictors of life satisfaction in Ethiopia case. Besides, having a mobile money account does not influence life satisfaction significantly.

5. Conclusion

Ethiopia as a developing nation faces several challenges regarding its economy, political situation, climate change related issues in the dominant sector (i.e. agriculture), and increasing migration inflows into the country. Even though this country achieves considerable economic growth as one of the fastest growing economies, still there are issues needed to be tackled with such as sustainability, conflicts in different parts of the country, job creation, poverty, education, access to basic services etc.

As third largest refugee hosting country, welfare of refugees is as much important as native Ethiopians. Life satisfaction is one key indicator of welfare of individuals. This paper is probably the first study of life satisfaction of refugees in Ethiopia that investigates the determinants of it using micro level data from a unique survey (i.e., Skills Profile Survey-2017). The sample consisted of 3,222 refugee households and only one third of them was satisfied with their life nowadays.

It was shown that receiving compensation for the violations suffered and property and assets lost due to conflict is an important indicator of life satisfaction of refugees in Ethiopia camps. Being able to borrow money easily, access to food, and safety matters to explain satisfaction with life. Therefore, one can say that refugees in Ethiopia camps are likely to be satisfied when basic needs such as food and safety were provided. Additionally, financial resources such as remittances and easiness of borrowing also contribute life satisfaction positively.

From policy point of view, authorities should consider security concerns of refugees. Their safety should be ensured to improve their wellbeing. It is evident that different types of violence are experienced by particularly women. Women are likely to face gender-based violence during their journey when they are out of camps/villages to find water for household. Therefore, security officers should be aware of potential issues that might be experienced by vulnerable groups of refugees such as women, or children. Additionally, income sources such as remittances and easiness of money borrowing seem to improve refugees' life satisfaction as expected. Considering the importance of this channel, any transaction costs or difficulty in the borrowing system should be eliminated.

It should be born in mind a few limitations of this study. First, this study is not able to consider changes over time as only available data belongs to year 2017. Also, more household characteristics that are likely to explain life satisfaction could be included in the analysis. This can be considered as a future direction of this study. Nevertheless, this study provides useful insights to understand refugees' life satisfaction in refugee camps in Ethiopia.

Appendix

Table 2.
Correlation Coefficients

Variable Codes	1	2	3	4	5	6	7	8	9	10	11	12
1	1.000											
2	0.084*	1.000										
3	-0.262*	-0.024	1.000									
4	-0.064*	0.059*	0.014	1.000								
5	0.077*	-0.070*	0.021	-0.184*	1.000							
6	0.004	0.006	-0.026	-0.092*	0.117*	1.000						
7	-0.213*	0.037**	0.163*	0.122*	-0.302*	-0.067*	1.000					
8	0.150*	0.020	0.037**	0.003	0.114*	0.043**	-0.139*	1.000				
9	0.134*	0.077*	-0.046*	0.014	0.035**	0.012	0.009	0.261*	1.000			
10	0.062*	0.036**	-0.100*	0.001	0.025	0.006	-0.010	0.101*	0.103*	1.000		
11	0.019	0.003	0.048*	-0.085*	-0.002	-0.007	0.120*	-0.031*	-0.046*	0.031*	1.000	
12	-0.249*	-0.048*	0.077*	0.100*	-0.044**	-0.006	0.138*	-0.166*	-0.107*	-0.009	0.112*	1.000

* $p < 0.01$, ** $p < 0.05$

Note: Numbers in the rows and columns of the table refers to the variables as given in Table 1.

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