Protocol for a cross-sectional study on factors affecting health-related quality of life among Afghan refugees in Pakistan [version 2; peer review: 1 approved, 2 approved with reservations]

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Abstract

Background

Pakistan served as a host for more than 1.4 million Afghan refugees for more than 40 years. Access to health care is the most important issue faced by refugees, because they might be at a higher risk for certain diseases. This risk can be attributed to a lack of awareness of health care facilities, health beliefs, inadequate hygiene, cultural differences, and malnutrition. Health of individuals is closely associated with their quality of life. Quality of life over the whole lifespan is pivotal to overall life satisfaction. It includes physical wellbeing, mental health, education, occupation, income, personal safety, as well as (religious) freedom. Until now, the health status of Afghan refugees has never been comprehensively investigated in Pakistan. Therefore, an assessment in this regard is needed to explore their health-related quality of life, for securing their human right to health.

Methods

A cross-sectional study has been designed to describe and explain the
health-related quality of life of Afghan refugees in Pakistan. Multistage cluster sampling was applied for selection of study participants. The number of respondents from two regions in Pakistan was drawn through a proportionate sampling technique. A quantitative research method using pre-validated questionnaires was used for data collection. The questionnaire included items to assess well-being, mental health, health literacy, and factors affecting health and health care. Descriptive analysis was used, whereas inferential statistical tests (binary logistic regression model) was also performed. The study received ethically permission by the Advanced Studies and Research Board of the University of the Punjab, Lahore, Pakistan.

Discussion

The assessment of Afghan refugee’s quality of life in Pakistan should lead to recommendations disseminated to public and health care officials. This evidence is needed for policymaking related to adequate measures for improving health conditions of Afghan refugees in Pakistan.

Keywords
Afghanistan, refugees, migration, health, quality of life

This article is included in the Human Migration Research gateway.
Abbreviations
AAHLS: All Aspects of Health Literacy Scale
QOL: Quality of life
SPSS: Statistical Package for the Social Sciences
UNHCR: United Nations High Commissioner for Refugees
WHO: World Health Organization

Introduction
The World Health Organization (WHO) advocated health as a fundamental human right in its constitution of 1946. The availability of health care facilities to all individuals – irrespective of gender, religion, race, political, economic and social conditions – are essential to attain this right. However, war is considered as a serious threat to this human right. War may lead to displacement and refugees are usually most vulnerable in host countries and, therefore, are at high risk of developing certain diseases. Refugees might face exploitation, prejudice and violence during travelling and stay in host countries which may negatively impact on their health.

For about 40 years, Pakistan served as a host for more than 1.4 million Afghan refugees. Health care is one of the most important issues faced by refugees during migration. Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health of individuals living in a particular society is dependent on their quality of life. According to the WHO, quality of life is defined as “the individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals”. It describes well-being of individuals and society considering the positive and negative features of life. Quality of life across the whole span is pivotal to satisfaction in life. That includes physical well-being, mental health, academic achievements, job, income, personal safety, and (religious) freedom.

Health disparities are prevalent in almost all societies across the globe. Health inequalities and financial constrains may result in psychological health problems.

Refugee’s health is mostly dependent on living conditions and health facilities in host countries. Refugees might be at a higher risk for getting certain diseases because of lack of awareness of health facilities, health beliefs, inadequate hygiene, cultural differences, and malnutrition. Their health problems and needs may vary over time. At the time of arrival, refugees might face health problems related to injuries, gastrointestinal disorders, infectious diseases, cardiovascular disorders, hypothermia, skin diseases, mental health disorders, malnutrition and women’s health needs during pregnancy and delivery. After resettlement, refugees are at risk of mental health problems, communicable diseases, and non-communicable diseases. Particularly women and children are vulnerable populations. They may experience exposure to violence during their stay in refugee camps from local population as well as from other refugees.

The pattern of migration has changed over time, but the factors affecting the quality of life and psychological well-being remain the same. The large influx of Afghan refugees has affected neighbouring countries such as Pakistan. Afghan’s presence in the labour market directly affects their quality of life, because they are often informally employed without access to social protection. Although Afghan refugees are present in Pakistan for more than four decades, there is a lack of research to assess their quality of life. The quality of life of refugees affects not only their ability to fully participate in society but also acts as a barrier to learn new skills. Health-related quality of life is influenced by individual factors (age, sex, genes), lifestyle factors (socioeconomic, cultural, linguistic barriers and substance abuse), living conditions (access to clean water, sanitation and housing), working conditions (access to work, job), social and community factors (discrimination, social inclusion) and governance (documentation). Knowledge about the health care system as well as health literacy are also important factors.

Mental health and psychological well-being are the basis for social functioning of any human being. Health care professionals used the terminology well-being to relate health-related quality of life and mental health. Overall, major depression was found in 30.8% of refugees, whereas post-traumatic stress disorder prevalence rate was 30.6%. Investigations on war-influenced youths have identified changes in psychological well-being on social encounters. Trauma memories, mental health, and resilience were investigated by Panter-Brick et al. in Afghan youths (11–16 years old) with their caregivers in Kabul (Afghanistan) and Peshawar (Pakistan). This study provided evidence on the
association between posttraumatic distress and depression in Afghan youth. Furthermore, it showed that posttraumatic distress was less frequently observed in males as compared to females.17

Badshah et al.18 investigated maternal risk factors in Pakistani mothers compared to Afghan-refugees in Peshawar, Khyber Pakhtunkhwa, Pakistan. The study showed a 2.6 times higher likelihood for low birth weight of neonates among the Afghan refugees. The reasons for low birth weight include living in tribal areas, no access to fresh water, low income, abortion/miscarriages, unregistered pregnancies, short inter-pregnancy intervals, and old age. However, there is a need for further research to assess the factors impacting on maternal health in Afghan refugees to overcome their health risks.18 This assessment is needed to explore the determinants of health-related quality of life, health beliefs, and the current health status of refugees in Punjab and Khyber Pakhtunkhwa, Pakistan.

The literature from developed countries, including the European Union, United States, and Australia focuses on various aspects of refugee health assessment, such as health-related quality of life, mental health screening, and access to healthcare, food insecurity, and language proficiency in the host country. However, the specific type of health assessment conducted may vary depending on the country’s policies and the author’s research focus as presented in Table 1.19–42

Table 1. Summary of review of literature from developed countries.

| Author          | Year & Country | Research Method & Sample size | Research Aim                                                                 | Main Outcomes                                                                 |
|-----------------|----------------|-------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Solberg et al   | 2022 Sweden    | Quantitative 10,000           | Socio demographics relationship with health-associated quality of life was explored | Refugee targeted population had low scores in social & peer support and psychological health in comparison to the European population |
| Matsangos et al | 2022 Europe    | Review of literature          | Review of literature on policy and practical recommendations to enhance Afghan refugees’ existing health status | The most prevalent diagnoses in terms of psychological disorders were post-traumatic stress disorder and depression |
| Borho et al     | 2022 Germany   | Quantitative 116              | Psychological health assessment of Syrian migrants in Germany using the Refugee Health Screener versions 13 and 15 | Refugee health screener Versions 13 and 15 both detected psychological distress in 57% and 66% of subjects, respectively |
| Feinberg et al  | 2022 USA       | Quantitative 136              | To assess the relationship between refugee general health, linguistic ability, educational achievement, and time consumed in the host country | The amount of time spent in the host country was modestly associated with general health. Language ability and health literacy were both highly predictive of overall health |
| Riggs et al     | 2020 Australia | Qualitative 64                | To determine how easily accessible prenatal and postnatal healthcare information was to Afghan households and healthcare professionals | The inadequate information provided was likely the root cause of Afghan couples’ poor health literacy as well as the poor neonatal and maternal health outcomes |
| Husby et al     | 2020 Denmark   | Mixed Quantitative and Qualitative 92 | To investigate intervention acceptance by using WHO-5 | The marked increase in the WHO-5 indicates a beneficial effect on depressed mood and general wellbeing |
| Kohlenberger et al | 2019 Austrian   | Quantitative 500              | To assess psychological well-being and their perceptions of medical services | Two out of ten men and four out of ten women refugees reported experiencing underserved healthcare needs |
| Author            | Year & Country | Research Method & Sample size | Research Aim                                                                 | Main Outcomes                                                                                                                                 |
|-------------------|----------------|-------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Im et al          | 2018 USA       | Qualitative 25                | To assess the level of critical health literacy among Congolese and Afghan immigrants to the United States | This research highlighted the significance of health education confirming social awareness in a group environment for the development of social support networks |
| Yaser et al       | 2017 Australia | Qualitative 150               | To investigate the level of mental health literacy among Afghan refugees      | Thematic assessment of qualitative conversations revealed that several respondents categorically classified trauma as a result of pre-arrival experience with conflict and harassment |
| Kaltenbach et al  | 2017 Germany   | Quantitative 86               | To identify psychological health issues in Germany by using a Refugee health screener (15) | The refugee health screener 15 revealed existing psychological problems in 52% of the refugee population                                          |
| Slewa-Younan et al| 2017 Australia | Quantitative 150              | To evaluate the mental health status with related help-seeking behavior of Afghan refugees in Adelaide, Australia | The results of the study revealed that 14.7% of participants had symptoms of depression. General practitioners were contacted mostly for help-seeking |
| Khakpour et al    | 2017 Switzerland | Quantitative 25               | To examine the effect of cultural and socioeconomic predictors on food insecurity among Afghan refugee households in Switzerland | The outcomes of the survey indicated that because of economic and cultural differences, severe food insecurity exists among Afghan asylum-seeker families. More than 70% of the Asylum-seekers were food insecure |
| Stempel et al     | 2017 USA       | Quantitative 259              | This cross-sectional survey explored the influence of apparent discrimination on the psychological wellness of Afghan refugees | The findings indicated that discrimination was a major stress contributor for Afghan refugees, which may aggravate stress related to post-migration resettlement factors |
| Shabaik et al     | 2016 USA       | Review of literature 26       | This investigation aimed to thoroughly review existing literature that highlights those aspects of the health-sickness transition condition that refugees experience during migration | Qualitative data indicated the role of gender, family issues, and aging as factors in the health-sickness transition state whereas quantitative data described high lipid profile, the incidence of cancer, and the increased possibility of psychological complications as determinants of health-sickness transition condition |
Methods

Hypotheses and aims
Firstly, we consider that individual and lifestyle factors are associated with health-related quality of life among Afghan refugees in Pakistan. Secondly, we presume that there are differences in health-related quality of life due to living and working conditions among Afghan refugees in Pakistan. Thirdly, we expect that there is an association between social and community factors affecting health-related quality of life among Afghan refugees in Pakistan.

The main objectives of the study are:

1. to determine the health-related quality of life among Afghan refugees in Punjab and Khyber Pakhtunkhwa, Pakistan,

2. to examine the factors affecting health-associated quality of life and study their association among Afghan refugees in Punjab and Khyber Pakhtunkhwa, Pakistan,

The results should support to suggest measures to improve the health status of Afghan refugees in Punjab and Khyber Pakhtunkhwa, Pakistan.

Study design
The investigation design was cross-sectional. The sampling frame for the current investigation was refugee’s population in Khyber Pakhtunkhwa and Punjab, Pakistan. based on data from the United Nations High Commissioner for Refugees (UNHCR).^43 Khyber Pakhtunkhwa is accommodating more than 58% of the Afghan refugee population. Punjab is the largest local educated population province with maximum human development index in the country. Thus, both provinces qualify as a favorable setting for Afghan refugees’ survey. We used validated instruments to collect information from Afghan refugees.

Sampling technique
Multistage sampling was used to collect on-site data. In the first stage, clusters of Afghan refugees (District) were selected from each province by online data available. Clusters were selected on the basis of both sexes’ participation in the pilot survey, because in some districts husbands did not allow their wives to take part in the study due to sociocultural factors. In the second stage, the number of Afghan participants were estimated from each district through proportionate sampling technique based on the population in each district. Finally, in the third stage, the calculated sample size was completed

| Table 1. Continued |
|---------------------|
| **Author** | **Year & Country** | **Research Method & Sample size** | **Research Aim** | **Main Outcomes** |
| Alemi *et al* | 2015 USA | Quantitative 135 | To identify the mental distress indicators among Afghan refugees in California State, USA | The outcome of this investigation highlighted the social determining factors of mental distress among Afghan refugees in the USA and proposed further assessment for better mental health outcomes |
| Wångdahl *et al* | 2015 Sweden | Quantitative 360 | To determine whether interactions between refugees and healthcare professionals during their medical evaluation for refugees were influenced by their level of health literacy | The 36% of participants reported inadequate communication, 55% reported little understanding of health, 41% reported limited new information, and 26% reported receiving some assistance |
| Wångdahl *et al* | 2014 Sweden | Quantitative 455 | To assess functional and comprehensive health literacy rates in refugees | Most of the refugees who participated in the research had either insufficient or deficient functional and comprehensive health literacy |
systematically due to non-data (refugee list) sharing policy of organizations working with the refugees. From the first ten refugee household’s, the second was selected through random number generator. The desired sample size was achieved through visiting the households at a regular interval. The Afghan Proof of Registration (PoR) card was observed as a proof of their refugee status in the resident area.

Sample size calculation
Sampling formula for known population was used:

\[
\text{Size of Sample } n = \frac{N}{1 + N(e^2)}
\]
\[
= \frac{35,082}{1 + 35,082(0.03)^2}
\]
\[= 1,077\]

N is total population of refugee families 35,082 and e \(\pm 3\%\) level of precision (sampling error). The chances of rejection were assumed as 10%. Therefore, the sample size was estimated at 1,185.

Proportionate random sampling technique was used to calculate actual sample size. The formula used to calculate the number of sample families in each province is:

\[\text{Formula (Sampling)} = \frac{n}{N} \times 100\]

Table 2 illustrates the selection of Afghan refugees within the provinces.

Inclusion and exclusion criteria
The refugee families accessible in the study area during the time of data collection willing to participate were included in the study. Refugees with inability to understand consent procedures and to reply a questionnaire were excluded from the investigation. The objectives of the study were clearly explained to the families before the questionnaires were administered and written informed consent was obtained. Sampled families were guaranteed confidentiality and anonymity of the data throughout the study.

Tools of data collection
Data was collected by using pre-validated questionnaires (Table 3). Quality of life was assessed with the World Health Organization Quality-of-Life Scale (WHOQOL-BREF) by applying standardized age and gender sampling quota.

Table 2. Selection of sample size among the provinces.

| Province (City)       | Total families | Sample size | Proportion |
|-----------------------|----------------|-------------|------------|
| Khyber Pakhtunkhwa    | 32674          | 1104        | 0.93       |
| Haripur               | 11731          | 396         | 0.36       |
| Mardan                | 2226           | 75          | 0.07       |
| Peshawar              | 11662          | 394         | 0.36       |
| Nowshera              | 7055           | 239         | 0.21       |
| Punjab                | 2408           | 81          | 0.07       |
| Kot Chandana Mianwali | 2408           | 81          | 0.07       |
| **Total families**    | **35082**      | **1185**    | **1.0**    |

Table 3. Measurement instruments of research variables.

| Variables                      | Measurement tool                                      |
|--------------------------------|-------------------------------------------------------|
| Quality of life                | WHOQOL-BREF                                           |
| Well-being                     | WHO-Wellbeing index                                   |
| Mental health                  | Refugee Health Screener                               |
| Health literacy                | All Aspects of Health Literacy Scale                  |
| Factors affecting health and health care | Syrian Refugee Health Access Survey in Jordan and Lebanon |
According to sampling quota, 50% of the participants must be female and age-wise 50% of the participants must be older than 45 years of age. Psychological well-being was assessed by WHO-Wellbeing index and mental health by the Refugee Health Screener. The All Aspects of Health Literacy Scale (AAHLS) was used to measure health literacy. Questionnaires related to factors affecting health and health care were developed from Syrian Refugee Health Access Survey in Jordan and Lebanon according to local needs of the population. The existing internationally used instruments version with documented validity and reliability of English, Urdu and Afghan national Dari language was used. Permissions to use the tools were given by the stakeholders/authors. Afghan national bilingual research assistants were engaged for the data collection and linguistic interpretations of the Afghan national language according to the guidelines of WHO. Forward and backward translations were conducted under supervision of the principal investigator. The paper-based research questionnaires were administered to male respondents by Afghan national bilingual research assistants under the supervision of the first author and to female respondents by the fourth author with the help of research assistants in the research area. A team of two principal investigators and four trained research assistants supported the participants to fill in the questionnaires where needed. The research assistants were trained for two weeks before the field work.

Data analysis
The data of the filled-out forms has been entered in SPSS version 24 for data analysis. Descriptive analysis includes calculation of frequencies and percentages, whereas inferential statistical tests were applied to measure the level of association between variables. Logistic regression was performed to examine the relationship between variables at a 0.05 level of significance. The power $1-\beta$ of the test is 0.80 at 95% confidence level. The relevant differences should be observed by odds ratios.

The data of the current investigation will be shared with scientific journals and associated data repositories. The data was coded and sub-coded to ensure that participant identification may not be revealed. The analysis was carried out by the principal investigator who is trained. The supervisors and team members also supported and guided during the analysis.

Sources of bias
We tried to remove selection bias from the project by choosing a representative sample by utilizing WHO quality of life standard age and gender sampling quota. According to this, 50% of the participants must be female and age-wise 50% of the participants must be older than 45 years. As the final sample was collected by applying systematic random sampling, we make sure that the randomization of the participants in terms of age and gender must be followed to complete the sample size from the selected cluster. Although the refusal rate was quite high in the refugee population, we tried to include at least 50% of the respondents that responded to any survey for the first time. Appropriate probability sampling techniques and internationally accepted questionnaires are used to avoid recall bias. Interviewees were given sufficient time for recall of memory. The sample size calculated was 1,185 so that maximum responses should be available to conclude the results. Specific inclusion and exclusion criteria were established at the design stage so that our outcomes are correctly identified.

Ethical considerations
The study is ethically permitted by the Advanced Studies and Research Board of the University of the Punjab, Lahore. Written informed consent for voluntary participation was obtained from respondents. The objectives of the study had been clearly explained to the participating families before the questionnaires were administered and written informed consent was obtained. Sampled families were guaranteed voluntary participation, confidentiality, and anonymity of the data throughout the study.

Plans for dissemination of the study outcome
The results are going to be disseminated to the public by open defence and health care officials via outcome sharing, as this evidence is needed for policymaking related to adequate measures for improving health conditions of Afghan refugees in Pakistan. This investigation results will be submitted in the form of draft to the University of the Punjab, Lahore, Pakistan and Higher Education commission library, Islamabad for the record and guidance for the future investigations. The research will be submitted in the form of research papers to international journals.

Study status
Data collection was initiated in March 2020 and completed in May 2021. Currently, the data is analyzed. A first manuscript draft will be finished by October 2021.

Discussion
The Pakistani health care system met a number of public health challenges over the past decades. Afghan refugees are a significant population group which has to be served by provincial health facilities. In the 1980s and 1990s,
the government of Pakistan focused mainly on addressing basic health care needs of refugees related to epidemics like malaria. More recently, the attention shifted to providing antenatal care and child health immunization coverage among refugees in Pakistan. The strong focus on infectious diseases relates to a study by UNHCR in 2012, which emphasizes that the main health problems faced by refugees were skin diseases, typhoid, malaria, diarrhoea, measles, dysentery, hepatitis C, thalassemia, cholera and tuberculosis. Afghan refugees experience several health risks which may increase the risk of infectious diseases. For that reason, Afghan refugees contributed to the spread of polio in Pakistan. However, their health status has never been comprehensively evaluated.

This study will provide an overview of the health-related quality of life of Afghan refugees in Punjab and Khyber Pakhtunkhwa. A comprehensive approach using pre-validated questionnaires was used for assessment. The outcomes of families in different provinces and clusters will be compared for living conditions and social inclusion in their host areas.

Limitations
Study limitations are that participants with inability to response to consent procedures and questionnaires were not included in the investigation. As for all epidemiological surveys, the inclusion of marginalised groups, such as refugees, is a major challenge for all kinds of surveys, particularly for health surveys. Although a random sampling technique was included in the investigation, various sampling procedures have shown limited success in migrant health research. Despite these limitations, the findings of the study will provide information on the current health status of Afghan refugees. There is a need for research in this regard to provide better health care facilities to refugees.

Data availability
No data are associated with this article.

Acknowledgments
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References

1. Lougarre C: Using the Right to Health to Promote Universal Health Coverage: A Better Tool for Protecting Non-Nationals’ Access to Affordable Health Care? Health Hum Rights. 2016; 18: 35–48.
2. Yusuf S, Anand S, MacQueen G: Using the Right to Health to Promote Universal Health Coverage: A Better Tool for Protecting Non-Nationals’ Access to Affordable Health Care? Health Hum Rights. 2016; 18: 35–48. PubMed Abstract | Free Full Text
3. Kuhn S, Rieger UM: Health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity. Surg Obes Relat Dis. 2017; 13: 887. PubMed Abstract | Publisher Full Text
4. Abbas M, Aloudat T, Bartolomei J, et al: Health problems of newly arrived migrants and refugees in Europe. J Travel Med. 2017; 24. PubMed Abstract | Publisher Full Text
5. UNHCR: Operational Portal Refugee Situations. Brussels: United Nations High Commissioner for Refugees; 2020.
6. Kuhn S, Rieger UM: Health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity. Surg Obes Relat Dis. 2017; 13: 887. PubMed Abstract | Publisher Full Text
7. Ghomali A, Jahromi LM, Zarei E, et al: Application of WHOQOL-BREF in Measuring Quality of Life in Health-Care Staff. Int J Prev Med. 2013; 4: 809–817. PubMed Abstract | Free Full Text
8. Martinez-Martin P, Prieto-Flores ME, Forjaz MJ, et al: Components and determinants of quality of life in community-dwelling older adults. Eur J Ageing. 2012; 9: 255–263. PubMed Abstract | Publisher Full Text | Free Full Text
9. Magklara K, Skapinakis P, Niatkas D, et al: Socioeconomic inequalities in general and psychological health among adolescents: a cross-sectional study in senior high schools in Greece. Int J Equity Health. 2010; 9: 3. PubMed Abstract | Publisher Full Text | Free Full Text
10. Pavli A, Maltezou H: Health problems of newly arrived migrants and refugees in Europe. J Travel Med. 2017; 24. PubMed Abstract | Publisher Full Text
11. Daynes L: The health impacts of the refugee crisis: a medical charity perspective. Clin Med. 2016; 16: 457–460. PubMed Abstract | Publisher Full Text | Free Full Text
12. Morgan WA: Experience of a clinic for Afghan refugees in Pakistan. West J Med. 1998; 168: 234–238. PubMed Abstract | Free Full Text
13. Braverman P, Gottlieb L: The social determinants of health: it’s time to consider the causes of the causes. Public Health Rep. 2014; 129(Suppl. 2): 19–31. PubMed Abstract | Publisher Full Text | Free Full Text
14. Wadghali J, Lytoy P, Martensson L, et al: Health literacy and refugees’ experiences of the health examination for asylum seekers - a Swedish cross-sectional study. BMC Public Health. 2015; 15: 1162. PubMed Abstract | Publisher Full Text | Free Full Text
15. Soutter AK, O’Steen B, Gilmore A: Trauma memories, mental health, and resilience: a prospective study of Afghan youth. J Child Psychol Psychiatry. 2015; 56: 814–825. PubMed Abstract | Publisher Full Text
16. Steel Z, Chey T, Silove D, et al: Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. JAMA. 2009; 302: 537–549. PubMed Abstract | Publisher Full Text
17. Panter-Brick C, Grimon MP, Kalin M, et al: Trauma impacts of torture and other potentially traumatic events. Int J Equity Health. 2010; 9: 3. PubMed Abstract | Publisher Full Text | Free Full Text
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In general, provides a clear and comprehensive overview of the study's objectives and methodology. The introduction effectively highlights the importance of addressing the factors that impact the health-related quality of life of Afghan refugees in Pakistan, setting a strong foundation for the research. The logical flow of information and the detailed explanation of the study design and methods demonstrate thorough planning and preparation for the study. Overall, the introduction is well-written and engaging, effectively capturing the reader's interest and setting the stage for the rest of the research.

The good approach to data collection and analysis, including the use of standardized instruments and statistical software, is commendable and will likely yield reliable and valid results. The inclusion of key variables such as socio-demographic characteristics, health status, and socio-economic factors will provide a holistic understanding of the factors influencing health-related quality of life among Afghan refugees in Pakistan.

Is the rationale for, and objectives of, the study clearly described? Yes

Is the study design appropriate for the research question? Yes

Are sufficient details of the methods provided to allow replication by others? Yes

Are the datasets clearly presented in a useable and accessible format? Partly

Competing Interests: No competing interests were disclosed.
Reviewer Expertise: Psychology, immigration issues

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 05 Oct 2024

Florian Fischer

Thank you very much for this positive feedback.

Competing Interests: No competing interests were disclosed.

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Shraddha Kashyap

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Thank you for the opportunity to review this protocol, which describes the methodology of a study aiming to assess the health status (including wellbeing, mental health, health literacy, and factors affecting health and health care) among Afghan people with refugee backgrounds, living in Pakistan.

This paper describes rigorous sampling techniques in a complex environment, and it is clear and well written. It is an important area of work.

- I note that the study (for which this is a protocol) has already been conducted. Could authors provide a justification for publishing the methodology as a separate protocol rather than publishing the methods together with results, and a discussion of the implications of the findings?
- The cross-sectional nature of the design is limiting in that causal associations between environmental factors and wellbeing cannot be made, however, the results will provide helpful information as a snapshot of the health status of Afghan refugees living in Pakistan.
- Given the time frame in which data was collected (March 2020-May 2021), can authors clarify whether there were any measures directly related to the impacts of COVID on participants' wellbeing?

The following queries for authors are more conceptual and are suggestions to consider for this and/or future studies.

Authors have acknowledged that factors such as literacy levels have led to certain groups of people being excluded from the study, and this is understandable given that the study requires participants to complete written surveys. At the same time, is it possible that the people excluded...
from the study are the most vulnerable, and find themselves frequently excluded from such efforts to provide appropriate support?
As a quantitatively trained researcher myself who has worked on similar projects using similar methodologies, my question is as follows; is our understanding of factors such as wellbeing, mental health, and health among refugee populations limited by how we have chosen to measure them? That is, by only using quantitative methodologies, which requires participants to complete written surveys as the only option.
Could authors discuss whether or not they considered collecting qualitative data, to complement the quantitative findings (e.g., by collecting data relating to narratives about wellbeing, told by people who may not be able to complete surveys)? This would account for all literacy levels, potentially enhance the cultural sensitivity of the project, and improve the validity of findings.
  ○ If this was considered, could authors describe any barriers faced in doing this?
Further, despite rigorous forward and back translation of surveys, can factors as culturally and contextually bound such as concepts of mental health, distress, quality of life, and wellbeing, be accurately and fully captured for diverse Afghan communities, from adaptations of measures designed from a Western paradigm of mental health and wellbeing? The following are examples of papers which discuss this issue:
1) Culture and reform of mental health care in central and eastern Europe. WHO, (2017 ¹)
2) Carpenter-Song et al. (2010 ²)
3) Parker H. et al. (2003 ³)
  ○ Could authors provide some reflections on this?

References
1. Culture and reform of mental health care in central and eastern Europe. WHO. 2018. Reference Source
2. Carpenter-Song E, Chu E, Drake RE, Ritsema M, et al.: Ethno-cultural variations in the experience and meaning of mental illness and treatment: implications for access and utilization. Transcult Psychiatry. 2010; 47 (2): 224-51 PubMed Abstract | Publisher Full Text
3. Parker, R., & Milroy, H.: Schizophrenia and Related Psychosis in Aboriginal and Torres Strait Islander People. Aboriginal and Islander Health Worker Journal. 2003; 27 (5): 17-19 Reference Source

Is the rationale for, and objectives of, the study clearly described?
Yes

Is the study design appropriate for the research question?
Partly

Are sufficient details of the methods provided to allow replication by others?
Yes

Are the datasets clearly presented in a usable and accessible format?
Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Mental health
I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 05 Oct 2024

Florian Fischer

Registering the research protocol at the national level helps establish project novelty and priority. This is crucial as similar studies might be initiated simultaneously at different institutions. If another study on the same topic and population is published before ours, protocol registration can demonstrate our research's originality and timeline. This process ensures that our project's unique contributions are recognized despite overlapping research.

Research article on Health related quality of life of Afghan Refugees was published before our detailed article from Pakistan.

The survey adopted a quantitative research method because it provides the advantages of large sample size, more accurate, rapid numerical data collection, presentation of collected data in the form of graphical display, and results interpretation to generate useful information for decision-making (Conroy et al., 2008). The cross-sectional survey design was selected because it allowed researchers to instantly gather information from a large number of respondents at one point in time and compare group variations in a time-efficient and economical way (Kesmodel, 2018). This cross-sectional investigation only gives a snapshot of limited factors affecting the health-associated quality of life among Afghan refugees in a precise time and environment and the number and nature of determinants may vary over the period. A standard causal relationship between sociodemographics characteristics, predictors, and the outcome variable could not be established due to the cross-sectional design of the current investigation. The longitudinal investigation was not planned due to the time and financial limits.

The fact that this research relies on refugee interviewed/self-documented data during the COVID-19 pandemic, which might not fully reflect real behavior, was also one of the survey's main limitations.

The survey was executed by a team of two principal researchers and four bilingual Afghan refugee research associates who assisted the sampled Afghan refugees in filling out the questionnaires on paper and performed in-person interviews with respondents who were illiterate or requested interviews. Only refugees who were unable to understand consent procedures or respond to a survey questionnaire due to cultural hesitancy were not included in the investigation.

A survey on Afghan refugees' health care in Pakistan was challenging to conduct due to a diverse range of issues. The individuals contacted by organizations working with refugees declined to share refugee lists with contact numbers because of the non-data sharing policy about refugees due to security and confidentiality concerns. Instead, we used online statistics about refugees in Pakistan to approximate about population in each area and contacted the locals in charge of refugee regions to assist in surveys. Afghan refugee
research associates were reluctant to reveal their identity at any stage of the project due to unknown security concerns. Hiring bilingual Afghan refugees and traveling to these areas to meet locals in charge of survey permission and fieldwork were big challenges. It took almost 18 months to complete the desired sample size with high nonresponsive rates in these areas. The response rate for the current investigation was 55.45%. The 2137 respondents were approached to complete the sample size of 1185 participants. The population was quite sensitive and emotional if they did not like any question, facial expression, and clothing of the investigator, conversation with the female investigator, or use of mobile they abruptly abandoned the questionnaire or interview before it was even halfway completed. Our team members adhere to the local dress code and ethical guidelines and stay away from everything that would interfere with the research study. In the majority of the districts, only one female was permitted to approach a female at home for the research, and men were more likely to give interviews outside of their homes, in camps, or tea shops.

Qualitative data complement quantitative results by providing deeper insights into the subject matter. This combination enhances the validity of findings and offers a more comprehensive understanding of the research topic. Qualitative data collection was initially planned but University DPCC based on the conceptual framework only permitted the Quantitative Survey.

**Competing Interests:** No competing interests were disclosed.
I would suggest the authors include some of the results of a large-scale project in Europe. The first one is a scoping literature review, the second one an analysis of the health status and needs, and the third one is an analysis of the accessibility by perceived discrimination in healthcare settings and availability of translation services:

- Lebano et al. (2020).  
- Riza et al. (2020).  
- Gil-Salmerón et al. (2021).

References
1. Lebano A, Hamed S, Bradby H, Gil-Salmerón A, et al.: Migrants' and refugees' health status and healthcare in Europe: a scoping literature review. *BMC Public Health*. 2020; 20 (1): 1039 PubMed Abstract | Publisher Full Text
2. Riza E, Karnaki P, Gil-Salmerón A, Zota K, et al.: Determinants of Refugee and Migrant Health Status in 10 European Countries: The Mig-HealthCare Project. *International Journal of Environmental Research and Public Health*. 2020; 17 (17). Publisher Full Text
3. Gil-Salmerón A, Katsas K, Riza E, Karnaki P, et al.: Access to Healthcare for Migrant Patients in Europe: Healthcare Discrimination and Translation Services. *International Journal of Environmental Research and Public Health*. 2021; 18 (15). Publisher Full Text

Is the rationale for, and objectives of, the study clearly described?
Yes

Is the study design appropriate for the research question?
Yes

Are sufficient details of the methods provided to allow replication by others?
Yes

Are the datasets clearly presented in a useable and accessible format?
Not applicable

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** integrated care; health services research; social and preventive medicine; social determinants of health

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.
for one survey could become a dependent variable in another depending on the research survey (Flannelly et al., 2014). This assumption should be kept in mind while analyzing the survey's results because predictors were utilized in previous surveys as both independent and dependent variables, such as self-rated health (Vogel et al., 2021; Williams et al., 2017), substance abuse (Abernathy et al., 1966), cultural compatibility (Iivari & Iivari, 2011), linguistic barriers, face discrimination (Salleh et al., 2021), social inclusion (Nihinlola, 2020), access to clean water, access to sanitation (Purba & Budiono, 2019), access to education, access to healthcare information via social, print or electronic media, access to health care, chronic health illness (Grønning et al., 2018), last time visited health facility, socioeconomic support from government or donor agencies (Nihinlola, 2020), health care cost affordability. Confounders were adjusted at the design stage with demographic randomization of the sample in all the selected regions. Age group, gender, and health illness quota matching of all the selected strata was done to minimize the confounder effect. Multivariate statistical models were applied to control the confounders at the analysis stage.

Health-related quality of life (HRQoL) encompasses various aspects of an individual’s overall well-being, including physical, mental, and social health. Accessibility plays a crucial role in determining HRQoL, as it directly influences how individuals can interact with their environment and access necessary resources and services. Accessibility impacts health-related quality of life (HRQoL) by affecting physical, economic, social, and psychological aspects. Limited physical access to environments and services can hinder mobility and independence, while economic barriers can restrict access to healthcare and employment. Social accessibility affects inclusion and participation, while inadequate communication access can lead to isolation. Improving accessibility helps enhance HRQoL by ensuring individuals can fully engage in daily activities and maintain overall well-being. All the domains are discussed in detail in final result as mentioned in link below:
https://www.researchsquare.com/article/rs-3925465/v1

As per suggestion relevant literature was added as mentioned in table 1. The literature from developed countries, including the European nations, United States, and Australia focuses on various aspects of refugee health assessment, such as health-related quality of life, mental health screening, and access to healthcare, food insecurity, and language proficiency in the host country. However, the specific type of health assessment conducted may vary depending on the country’s policies and the author’s research focus.

**Competing Interests:** No competing interests were disclosed.
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