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Health Related Quality of Life of refugees, and barriers to their access to healthcare services

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OBJECTIVE **To assess the Heath Related Quality of Life (HRQoL) of refugees and migrants living in a temporary camp in Greece, and to identify their healthcare needs and the barriers they face in access to health services.** METHOD **A quantitative cross-sectional study was conducted from June to July 2020. The accessibility and healthcare barriers questionnaires, developed by Ay and colleagues, and the Short-Form-36 (SF-36) to assess HRQoL were administered to 132 residents of the Skaramangas temporary refugee camp in Greece. Descriptive statistical analysis and correlation analyses were performed using the Statistical Package for Social Sciences (IBM SPSS), version 21.0.** RESULTS **For health care, the participants visited either social clinics (35.8%) or healthcare centers (23.3%), receiving services mostly free of charge (93.2%) and mostly from a general practitioner (56.7%) or an unspecialized doctor (12.5%). High demand for dental services was observed (39.2%), followed by primary health care (PHC) for acute childhood diseases (29.6%), and emergencies (28%). Less in demand were PHC for chronic diseases (12%), hospitalizations (6.4%), family planning counseling (5.6%), and specialist consultation (3.2%). Difficulty of access was reported for dental services, vaccinations and surgeons. The main obstacles reported were of a structural and economic nature, followed by cognitive issues. Higher scores were reported on the physical health subscales of SF-36 than the mental health subscales. Younger age and Afghan origin appeared to have a positive effect on some of the SF-36 scores.** CONCLUSIONS **Refugees and migrants report moderate barriers and poor access to healthcare services. The assessment of their HRQoL, according to SF-36, suggests that refugees and migrants are in need of additional psychosocial services to improve their mental health status.**

Σχετιζόμενη με την υγεία ποιότητα ζωής των προσφύγων και εμπόδια στην πρόσβαση σε υπηρεσίες υγείας

Περίληψη στο τέλος του άρθρου

Key words

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It has been estimated that 1,200,184 refugees and migrants have arrived in Greece since 2015, mainly crossing the sea passages that lead to the Eastern Aegean islands. Most of them continued their journey, following the Balkan route to the countries of central Europe. Despite the signing of the EU-Turkey Agreement in 2016, and the reduction of flow that followed, it is estimated that 35,000 refugees and migrants are still living on the islands of the Eastern Aegean and 86,500 on the mainland.[1–3] At present, there are 6 reception and identification centers and 32 temporary refugee camps operating in Greece, which provide basic living facilities, food and educational services. Healthcare services are also available, staffed and equipped by the National Organization of Public Health (NOPH).[4–7]

Refugees and migrants have undoubtedly experienced various adverse factors, affecting their mental and physical health on their journey to Greece and the EU,[8] which can be expected to result in deterioration of their overall health status, but the health problems of migrants appear to be consistent with the expected incidence of diseases for these populations. Poor living conditions in the host countries can lead to outbreaks of communicable diseases, and the lack of monitoring, or even absence of medical management of chronic diseases, can have a severe impact on their condition.[9,10] It is documented that 30% of individuals in the various accommodation facilities have already sought healthcare services, mainly for infections, skin diseases and dental problems, and some have been prescribed medication for these disorders. Fever, chills, sore throat and pain have been reported as the main reasons for attending healthcare facilities.[11–15]

Despite the evident healthcare needs of refugees and migrants living in Greece, economic and structural barriers to their access are very common, both in Greece and in several other countries that are faced with a similar situation.[16,17] The high cost of transportation and of healthcare services, living in suburban areas with reduced mobility, lack of interpreters and the difficulty in making appointments at health services have often been reported as critical barriers to access.[18]

The health related quality of life (HRQoL) of this susceptible population is affected by barriers to access, and is also dependent on various other factors, including language, age, and country of origin. These factors have been reported to be determinants of the HRQoL of refugees and migrants in Italy, but no such data have been published for Greece.[19,20]

The main objective of this study was to assess the HRQoL of refugees and migrants living in the Skaramangas Refugee Camp, and to determine which are the critical issues with respect to their access to healthcare services. Secondary objectives of the study were to clarify their needs and the barriers they face in accessing healthcare services, and to document their main epidemiological and demographic characteristics as related to their self-reported HRQoL.

MATERIAL AND METHOD

Data collection

A cross-sectional study design was chosen, as it could provide answers about accessibility to health care services of refugees and migrants, but also their HRQoL after their permanent settlement in Greece.

The study was conducted at the Temporary Refugee Camp of Skaramangas which currently hosts 2,187 refugees and migrants of 28 nationalities, who live in 464 prefabricated container houses. In the camp, a health center provides PHC services with personnel of 5 doctors and 13 other health professionals (nurses, midwives, etc.).

The survey questionnaires were distributed from June to July 2020 to adults in the camp who were permanent residents of the facility and who had the proficiency in English or Arabic to answer the questions. A total of 132 response forms were collected.

Research tools

The questionnaire developed by Ay and colleagues (2016) was used to assess the healthcare needs and accessibility to healthcare services. Based on the Health Care Access Barriers (HCAB) model, this questionnaire investigates measurable and modifiable access factors, classifying them into three main groups, economic, structural and cognitive.

For the study of HRQoL, the internationally recognized questionnaire Short Form-36 Health Survey (SF-36) was used. The SF-36 questionnaire consists of 36 closed-ended questions, which evaluate a model of 8 basic health scales and include both physical and mental factors.[21,22] It covers, among other health factors, behavioral function, stress and well-being.

The study questionnaires were accompanied by information and a consent form, signed by the respondents, with the option to withdraw from the study for any reason at any time.

Statistical analysis

For the HRQoL analysis evaluation of the reliability of subscales with this population was considered necessary. The reliability rating for each subscale was tested using Cronbach's alpha internal consistency index, which showed an acceptable level of >0.7 for all factors, indicating very high reliability.

Categorical variables were presented as frequencies (n) and relative frequencies (%) and quantitative variables were presented as mean, standard deviation (±SD), or median, minimum value and maximum value. The Kolmogorov-Smirnov test and normal distribution tables were used to test the quantitative variables for normality.

Demographic characteristics were used as independent variables, with dependent variables consisting of scores on the SF-36 HRQoL scales, and access to health services.

To investigate correlations between quantitative variables, Student's t-test was used, while to investigate the correlation between a quantitative variable and a categorical variable with more than two categories, analysis of variance (ANOVA) was used.

Pearson's correlation coefficient was used to investigate the correlation between two quantitative variables that followed normal distribution. Spearman's correlation coefficient was used to investigate the relationship between a quantitative variable following normal distribution and categorical variables.

In the case where more than two independent variables were statistically significant at the level of 0.2 (p value <0.2) in the bivariate analysis, multivariate linear regression was applied with the scores as the dependent variable. In this case, the method of multiple linear regression with the backward stepwise linear regression of the variables was applied. With respect to multiple linear regression, coefficients, the corresponding 95% confidence intervals (CI) and p values were estimated. In cases where the dependent quantitative variables did not follow normal distribution, their logarithmic transformation was used in the regressions. For simplicity and clarity, the results are presented as numbered items.

Following bivariate analysis, 14 demographic characteristics and SF-36 scores showed statistical significance of 0.20 (p value <0.20), and multivariate linear regression analysis was applied. Bivariate correlations were tested between demographic characteristics and barriers to access to health services, and accessibility scores for health services, with no statistically significant relationship (p value <0.20). The significance level was set at 0.05. Data

analysis was performed using the Statistical Package for Social Sciences (IBM SPSS), version 21.0.

RESULTS

A total of 132 refugees and migrants completed the questionnaires. The mean age of the respondents was 30.1±8.9 years, 87 (65.9%) were men, and their mean duration of residence in Greece was 1.8±0.9 years. Their countries of origin were Syria (58.3%, n=77), Afghanistan (18.9%, n=25), Iraq (12.1%, n=16), Democratic Republic of the Congo (3.8%, n=5), and Iran (3.0%, n=4), whereas 4.0% (n=5) came from other countries. The majority of respondents were married (61.4%, n=81), and fewer were unmarried (34.8%, n=46), divorced (3.0%, n=4) or widowed (0.8%, n=1). In terms of their educational status, 28 (21.2%) had attended primary school, 57 (43.2%) were high school graduates, 12 (9.1%) had graduated from a vocational high school, 5 (3.8%) were graduates of technological education institutes, 15 (11.4%) were university graduates and 1 held a postgraduate degree, while 14 (10.6%) had received no formal education.

The healthcare facilities most frequently visited by the refugees are shown in table 1, which also shows the specialty of the health professionals who were consulted, and the percentage of refugees who paid for health care.

Regarding the type of healthcare services sought by the respondents, there was increased need for dental care (39.2%), PHC for the treatment of acute childhood diseases (29.6%), the emergency department (28.0%), for the psychologist (23.2%), PHC for acute adult diseases (19.2%), vaccination (18.4%), for obstetric and gynecological care (17.6%), and for surgeons (13.6%). Less in demand were PHC for chronic diseases (12.0%), hospitalization (6.4%), family planning counseling (5.6%), and specialist consultation (3.2%).

Despite the wish to visit a healthcare service, access to care facilities was not always easy. Table 2 shows the services that were reported to have the most difficult and the easiest access.

Based on the results presented in table 2, a score was calculated expressing the refugees' access to healthcare services, rated on a scale from 1 to 4, with the higher values indicating easier access. The average score estimated in this study was 2, which shows that the refugees did not perceive their access to healthcare services as easy.

Table 3 shows the most serious barriers to access to health services. Structural and financial barriers appear to be the greatest, and cognitive barriers were reported as less important. Based on the reported barriers, a score of the barriers to refugees' access to health services was estimated, rated on a scale from 0 to 19, with the highest scores indicating greater barriers. The average score was 6, indicating that the refugees reported moderate barriers to access.

In the open-ended questions, participants indicated that their main inconveniences when they visited the health structures were the difficulties in communication due to language barriers (6.8%), non-observance of appointments and the subsequent delay (6.0%), and long-term appointments (5.3%). They also referred to the lack of specialization of the health personnel (3.8%), the lack of free provision of medicines and vaccines (3.8%), difficulties

Table 1. Healthcare services provided to refugees and migrants in a temporary Greek camp (n=132).

	n	%
Healthcare facilities		
Hospital	27	22.5
Health center	28	23.3
Mobile medical team	10	8.3
Private clinic	4	3.3
Non-governmental organization clinic	8	6.7
Community-based organization clinic	43	35.8
Payment to health facilities (out-of-pocket payment)		
Free	123	93.2
0.01–100.0 €	9	6.8
Time spent in healthcare facilities (hours)	53.4*	54.9**
Healthcare professionals contacted		
Unspecialized doctor	15	12.5
General practitioner	68	56.7
Physician	7	5.8
General surgeon	11	9.2
Pediatrician	24	20.0
Nurse	8	6.7
Social worker	18	15.0
Obstetrician	3	2.5
Psychologist	2	1.7
Dentist	2	1.7
Dermatologist	1	0.8
Neurologist	1	0.8
Psychiatrist	4	3.3

* Mean, ** Standard deviation (SD)

Table 2. Access to healthcare services for refugees and migrants in a temporary Greek camp (n=132).

	No		Yes, but not easily		Yes, easily		Yes, very easily	
	n	%	n	%	n	%	n	%
PHC for acute diseases in children	22	23.9	49	53.3	13	14.1	8	8.7
PHC for acute diseases in adults	22	26.5	41	49.4	16	19.3	4	4.8
PHC for chronic diseases	20	29.0	33	47.8	12	17.4	4	5.8
Emergency	17	20.7	32	39.0	21	25.6	12	14.6
Psychologist/mental health professional	20	28.6	28	40.0	6	8.6	16	22.9
Surgeon	21	36.2	21	36.2	9	15.5	7	12.1
Obstetric and gynecological care	17	25.8	29	43.9	13	19.7	7	10.6
Specialist care (consultation/check-up)	17	29.3	20	34.5	15	25.9	6	10.3
Hospitalization	19	31.1	24	39.3	13	21.3	5	8.2
Family planning	19	31.1	20	32.8	13	21.3	9	14.8
Vaccination	27	36.5	30	40.5	10	13.5	7	9.5
Dentist	34	38.6	42	47.7	6	6.8	6	6.8

PHC: Primary health care

Table 3. Barriers to access to healthcare services for refugees and migrants in a temporary Greek camp (n=132).

	n	%
High cost of the medical service	35	33.3
High cost of the medication	56	50.9
High cost of the transportation	38	34.2
Long distance to health facilities	80	69.6
Long waiting time in facilities	73	67.0
Late appointment date for consultations or tests, etc.	69	61.6
Working hours of the facilities	39	37.9
Long procedures to use services	43	41.3
Need to go to facilities several times for tests, etc.	57	53.3
Multiple locations for tests or doctors	40	40.4
Complex referral system	44	44.0
Rejection by the facilities/health personnel	30	31.9
Don't know where to go	52	49.5
Prefer medication without consultation	22	21.2
Do not trust the doctors/services	25	24.3
Prefer herbal/traditional services	16	17.4
Discrimination by health personnel	29	29.6
Lack of equipment in the facilities	46	44.2
Lack of specialist physicians	46	45.5

in transit to services (3.8%), the poor behavior of health professionals (3.0%), the moderate level of the services (3.0%), the lack of a social insurance number (2.3%) and poor infrastructure (0.7%).

When asked to suggest solutions to the problems they reported, they suggested more healthcare staff and specialized doctors (9.1%), vaccinations within the healthcare center of the camp (8.3%), free provision of medication (6.1%), improvement of health services (4.5%) and reduced waiting time for appointments (4.5%). In addition, better behavior of health professionals (3.0%), issuance of social insurance numbers (1.5%) and general improvement of the services provided (1.5%) were proposed.

The scores on the 8 subscales of the SF-36 are presented in table 4.

The association between various demographic characteristics and the HRQoL, according to the scores on the individual scales of the SF-36 questionnaire is shown in table 5. Refugees from Afghanistan and younger people recorded better scores on some SF-36 scales.

Correlations between the 8 scales of the SF-36 and accessibility to healthcare services showed that worse physical functioning ($p=0.035$), limited role due to physical health ($p=0.01$) and limited role due to emotional problems ($p=0.004$) were associated with greater barriers to accessing healthcare services. Conversely, greater vitality ($p=0.03$), better mental health ($p=0.002$), greater social functioning ($p=0.01$) and better general health ($p<0.001$) were associated with easier access to healthcare services.

DISCUSSION

This study included participants with demographic

Table 4. Scores on the 8 subscales of SF-36 of refugees and migrants in a temporary Greek camp (n=132).

Scale	Mean	SD	Median	Min	Max	Cronbach's alpha
Role functioning	68.6	26.0	75	0	100	0.98
Role physical	58.7	40.0	75	0	100	0.72
Role emotional	49.0	40.7	33	0	100	0.76
Vitality	43.3	21.5	45	0	95	0.84
Mental health	43.3	21.8	44	0	92	0.81
Social functioning	54.8	25.1	50	0	100	0.72
Bodily pain	55.7	31.3	58	0	100	0.73
General health	45.6	18.5	45	10	95	0.84

SD: Standard deviation

Table 5. Multivariate linear regression analysis, with dependent variables the scores on the scales of SF-36 of refugees and migrants in a temporary Greek camp.

Dependent variable	Independent variable	b coefficient	95% CI b	p value
Physical functioning	Afghanistan as a country of origin compared to other countries	18.0	7.8 to 28.3	0.001
Role emotional	Afghanistan as a country of origin compared to other countries	21.0	3.8 to 38.6	0.041
Role physical	Age	-0.8	-1.5 to -0.03	0.04
Vitality	Afghanistan as a country of origin compared to other countries	12.0	2.8 to 21.3	0.011
Mental health	Afghanistan as a country of origin compared to other countries	13.9	4.6 to 23.3	0.004
Bodily pain	Afghanistan as a country of origin compared to other countries	24.0	11.0 to 37.1	<0.001
Bodily pain	Age	-0.6	-1.2 to -0.04	0.035
General health	Age	-0.5	-0.8 to -0.12	0.008

CI: Confidence interval

characteristics similar to those recorded in previous studies conducted in camps located in other Greek regions (Samos and Veria). The residents in the Skaramangas camp are young people, mostly from Syria, Afghanistan and Iraq, which are currently among the top 10 refugee-producing countries in the world.[14,23] For health needs, the study participants visited mainly the social clinics and the NOPH health center, receiving services mostly free of charge. During their visits to the healthcare facilities, the refugees and migrants were most frequently served by a general practitioner or an unspecialized doctor, and only a very few were examined by a specialist for their condition. This is consistent with similar findings from another study which reported the need for improving and enhancing specialized services.[14] The responses highlighted the need of this population for dental services, PHC for acute childhood diseases and emergency and psychological care, in line with the results of a similar study of refugees in Jordan, where the prevailing needs were PHC for acute diseases of children and adults, vaccinations and dental services.[17] Similar findings were also reported in other studies conducted in Greece, with acute physical ailments, such as injuries, infectious diseases, childhood diseases, gynecological problems and mental disorders, being identified as the main problems needing care by health professionals.[11,14]

Various studies have reported the problems encountered by the refugees and migrants, both in the reception facilities on the islands and in temporary accommodation on the Greek mainland. One recent study also emphasized the cost of transportation to and from the healthcare services, the lack of interpreters and the cost of medicines for refugees and migrants.[18] In addition, language and cultural barriers in accessing healthcare facilities, and the lack of interpreters, female healthcare staff and social insurance, have all been previously reported as key problems.[6,11] In a study of Syrian refugees fleeing to Jordan, the main problems reported by the participants were related more to structural and economic issues and less to cognitive barriers.[17] The distant location of the Skaramangas camp, far away from the center of Athens and

from the healthcare facilities, and the cost of medicines and transportation were reported as the main problems in access to optimal health care.

This study is, to date, the first to assess the HRQoL of refugees and migrants in relation to management of the migration crisis. Our results show that refugees and migrants in our sample appear to be in relatively good physical health, but that their psychological health is negatively affected. A relatively recent study also reported that refugees and migrants newly arrived in Greece assess their health as good or very good at a rate of 61.2%, with country of origin and access to health services being associated with better health self-assessment.[8] A study in a similar population in Italy found that language of communication and African descent were positively correlated with HRQoL.[21] In our study, the refugees and migrants from Afghanistan recorded better overall HRQoL scores than to the rest of the study population, and younger age was associated with better scores for some subscales of SF-36, specifically, bodily pain, emotional role and general health.

The main limitation of this study was related to the COVID-19 pandemic and the subsequent health restrictions in the camp, as a result of which the number of participants in the survey was limited. In addition, the results would be more representative and generalizable if other camps had been included, to control for the heterogeneity in the composition of the populations residing in other camps in Greece.

In conclusion, the key challenge for the management of the refugee crisis, from the perspective of healthcare delivery, is to overcome the barriers that refugees and migrants reported in this study. Reducing the barriers to access will provide refugees and migrants with equitable opportunities to seek and receive healthcare services. The HRQoL scores of refugees and migrants indicate the need to improve the provision of mental health services and social support. Our study shows that the health of refugees and migrants must be perceived, not just as the absence of disease, but also as a combination of mental health, of good social conditions and enhancement of their general well-being.

ΠΕΡΙΛΗΨΗ

Σχετιζόμενη με την υγεία ποιότητα ζωής των προσφύγων και εμπόδια στην πρόσβαση σε υπηρεσίες υγείας

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ΣΚΟΠΟΣ Η εκτίμηση της σχετιζόμενης με την υγεία ποιότητας ζωής και ταυτόχρονα ο προσδιορισμός των αναγκών υγειονομικής περίθαλψης και των εμποδίων που αντιμετωπίζουν κατά την πρόσβαση στις υπηρεσίες υγείας οι πρόσφυγες και οι μετανάστες οι οποίοι διαμένουν στη δομή φιλοξενίας του Σκαραμαγκά. **ΥΛΙΚΟ-ΜΕΘΟΔΟΣ** Διεξήχθη μια ποσοτική, συγχρονική μελέτη από τον Ιούνιο έως τον Ιούλιο του 2020. Συμμετείχαν 132 πρόσφυγες και μετανάστες που διέμεναν στη δομή φιλοξενίας του Σκαραμαγκά. Οι συμμετέχοντες συμπλήρωσαν το ερωτηματολόγιο προσβασιμότητας και εμποδίων στην υγεία των Ay et al, καθώς και το ερωτηματολόγιο SF-36. Η στατιστική ανάλυση των μεταβλητών του δείγματος πραγματοποιήθηκε με το λογισμικό πρόγραμμα Statistical Package for Social Sciences (IBM SPSS), έκδοση 21.0. **ΑΠΟΤΕΛΕΣΜΑΤΑ** Οι συμμετέχοντες στην έρευνα επισκέφθηκαν κοινωνικά ιατρεία (35,8%) και κέντρα υγείας (23,3%), λαμβάνοντας στην πλειονότητά τους δωρεάν υπηρεσίες (93,2%) και κατά κύριο λόγο από γενικό ιατρό (56,7%) ή ανειδίκευτο ιατρό (12,5%). Μεγαλύτερη ζήτηση υπήρξε για οδοντιατρικά προβλήματα (39,2%), για πρωτοβάθμια φροντίδα υγείας (ΠΦΥ) οξέων παιδιατρικών παθήσεων (29,6%), καθώς και για επείγοντα περιστατικά (28%). Μικρότερες απαιτήσεις εκφράστηκαν για την ΠΦΥ για χρόνιες παθήσεις (12%), νοσηλείες σε νοσοκομείο (6,4%), οικογενειακό προγραμματισμό (5,6%) και συμβουλευτική από κάποιον ειδικό (3,2%). Δυσκολότερη πρόσβαση εκφράστηκε για τον οδοντίατρο, τους εμβολιασμούς και τον γενικό χειρουργό. Τα κύρια εμπόδια ήταν δομικού και οικονομικού χαρακτήρα, με τα γνωστικά εμπόδια να καταλαμβάνουν την τρίτη θέση. Οι ωφελούμενοι εξέφρασαν καλύτερες βαθμολογίες στη σωματική υγεία σε σχέση με την ψυχική υγεία. Τέλος, τόσο η μικρή ηλικία όσο και η καταγωγή από το Αφγανιστάν φάνηκε να επηρεάζουν θετικά ορισμένες κλίμακες της σχετιζόμενης με την υγεία ποιότητας ζωής. **ΣΥΜΠΕΡΑΣΜΑΤΑ** Οι πρόσφυγες και οι μετανάστες της δομής φιλοξενίας του Σκαραμαγκά εμφανί-

ζουν πτωχή πρόσβαση και μέτριας δυσκολίας εμπόδια στις υπηρεσίες υγείας, καθώς και καλύτερη σωματική υγεία σε σχέση με την ψυχική. Τα αποτελέσματα της σχετιζόμενης με την υγεία ποιότητας ζωής αναδεικνύουν την ανάγκη βελτίωσης των παρεχόμενων ψυχοκοινωνικών υπηρεσιών με σκοπό τη βελτίωση της ψυχικής κατάστασης των αναζητούντων ιατρική βοήθεια.

Λέξεις ευρετηρίου: Εμπόδια, Ποιότητα ζωής, Πρόσφυγες

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