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Barriers to health care access and service utilization of refugees in Austria: Evidence from a cross-sectional survey

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ABSTRACT

This paper provides evidence on (1) refugees' subjective well-being, (2) their access and barriers to health care utilization and (3) their perception of health care provision in Austria, one of the countries most heavily affected by the European 'refugee crisis.' It is based on primary data from the Refugee Health and Integration Survey (ReHIS), a cross-sectional survey of roughly five hundred Syrian, Iraqi and Afghan refugees. Results indicate that refugees' self-rated health falls below the resident population's, in particular for female and Afghan refugees. Whereas respondents state overall high satisfaction with the Austrian health system, two in ten male and four in ten female refugees report unmet health needs. Most frequently cited barriers include scheduling conflicts, long waiting lists, lack of knowledge about doctors, and language. Although treatment costs were not frequently considered as barriers, consultation of specialist medical services frequently associated with co-payment by patients, in particular dental care, are significantly less often consulted by refugees than by Austrians. Refugees reported comparably high utilization of hospital services, with daycare treatment more common than inpatient stays. We recommend to improve refugees' access to health care in Austria by a) improving the information flow about available treatment, in particular specialists, b) fostering dental health care for refugees, and c) addressing language barriers by providing (web-based) interpretation services.

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1. Introduction

In the wake of the 'summer of migration' in 2015, about one million individuals sought asylum in Europe [1]. Most of them applied for asylum in Germany, fewer but nevertheless substantial numbers in Austria, where about 156,000 asylum applications were filed between 2015 and 2017 [2–4]. From that time span, roughly 58,500 individuals were officially granted asylum. Most of them originated from Syria, Iraq and Afghanistan, which accounted for 80% of granted asylum applications [2–4]. While economic burdens for the host society, implications for the labor market and the welfare system are still controversially discussed at political

and societal levels, decision makers have paid far less attention to refugees' health needs before, during and after the migration experience. Understanding refugees' health needs and access barriers to national health services is key for improving their health [5], one of the most fundamental resources for individuals to fulfill their potential and a key factor for refugees' successful integration into the society, culture and labor market of the receiving country [6,7]. Furthermore, cost savings can be substantial if health needs are adequately addressed and timely primary health care is provided [8,9].

In line with and partly exceeding the minimum reception standards outlined by the EU Commission [10], Austria provides free access to its health services to both recognized refugees and asylum seekers [11]. Once a person has filed an asylum application in Austria, health insurance is granted as part of basic services ("Grundversorgung"). This involves medical help in all areas, including access to public hospitals, psychological treatment, and medication. If the asylum application is positively evaluated,

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refugees receive an e-card (an electronic health insurance certificate that is prerequisite for all consultations and treatments) and are subsumed under the same insurance schemes as Austrian citizens. Persons under subsidiary protection do not receive an e-card, unless they enter an employment contract in Austria, in which case health insurance is regulated via the employer. Like asylum seekers, they receive a substitute voucher in lieu of the e-card for accessing treatment. While asylum seekers are exempt from paying a small prescription fee for medical drugs, refugees, like Austrian citizens, can apply for remission if their monthly income remains below a certain threshold [12]. However, even though formal health access is granted in Austria, research suggests that marginalized groups, in particular asylum seekers and undocumented migrants, encounter manifold barriers to health services, which are partly addressed by NGOs and civil society organizations [13].

The objective of this study is to use national survey data and a new primary data set from a recently conducted cross-sectional survey to determine refugees' service utilization and barriers to health care access. The specific aims of this study are to explore: (1) refugees' subjective well-being, (2) their access to health care providers and most frequent barriers for service utilization and (3) their satisfaction with the quality of health care provision. We hypothesize that after adjusting for age and gender, refugees' self-rated health (SRH) falls below the resident population's, and that health access barriers are related to language, (hidden) costs, and socio-cultural factors. This research is particularly important since refugees' specific health needs are often poorly understood and seldom adequately addressed by health care providers, which perpetuates inequalities in health [14], impedes refugees' integration into society, and leads to substantial costs for secondary and tertiary care.

1.1. Refugees' access and barriers to health care

In most European countries, refugees' access to national health care services is restricted during the asylum application phase. Furthermore, even though legal restrictions are scarce once asylum has been granted, refugees continue to encounter manifold barriers to health care and preventive services, which can roughly be grouped into a) structural, b) financial and c) socio-cultural barriers.

Most noticeably, structural barriers include language and the availability of interpreters [15,16]. For Switzerland, Bischoff and Denhaerynck [17] find that lack of an interpreter significantly affects the early use of health care and may lead to higher follow-up costs. As concerns mental health, adequate language concordance was significantly associated with higher reporting of severe psychological symptoms [18] and according referral to further medical care. Due to language barriers, refugees have been found to make lower use of preventive health care services [19], in particular cancer screenings [20] and use of vaccinations [21]. This can lead to excessive follow-up costs for secondary and tertiary care [e.g. 7,8] and substantial administrative costs [7]. Indeed, migrants in general, and refugees in particular tend to display higher rates of emergency room utilization and hospitalization rates than the native-born population in most European countries [20,22].

Financial barriers are related to direct and hidden costs. They include restricted health care coverage for refugees, lack of accessibility and transportation [23], as well as lack of assessment and support for mental health concerns [24]. Furthermore, underfinanced health systems can lead to knowledge gaps and inadequate information flows between health care providers and refugees, which may result in sustained unfamiliarity with the health care services [25–27]. Insufficient health literacy as well as experiences of social exclusion can contribute to these effects [28]. Limited availability of specialized health centers, especially in rural areas, and their insufficient financial and geographical accessibil-

ity, as well as lack of flexibility in scheduling appointments due to restricted opening hours, may further act as barriers [29].

Finally, cultural differences [30], implicit biases and discrimination play an important role. For the Netherlands, it has been shown that medical consultations with migrants tend to be shorter than with natives, and practitioners are more verbally dominant when treating marginalized groups [31]. Fear of deportation or of negative impacts on one's asylum application may prevent asylum seekers and persons under subsidiary protection from seeking treatment [32], as does fear of care being denied. Socio-cultural barriers, such as stronger stigmatization of mental-health disorders and culturally and/or religiously contingent interpretation of physical symptoms [33], may further contribute to restricted health access, in particular to psychotherapy and preventive treatment. Among refugees from the Middle East and Africa, health symptoms may be read and understood as exclusively somatic symptoms, and hence misdiagnosed by general practitioners rather than psychiatric care providers [34]. Moreover, existing (mental) health resilience may be negatively affected by prolonged asylum application processes in several European countries [35].

Finally, the so-called 'healthy migrant effect' [36,37] may also impact refugees' use of health services and preventive care: Labor migrants have been shown to be healthier than the general population in both the sending and the receiving country due to a self-selection bias among immigrants. Whether this effect also holds for refugees of the 2015 migration movement has not yet been thoroughly assessed, although existing literature for previous refugee inflows suggests that this may not be the case [21,38,39]. Indeed, it has been found that refugees display a higher symptom prevalence of depression and anxiety than labor migrants, irrespective of the receiving country's (economic) conditions [40]. A self-selection bias among refugees in terms of education and qualifications does, however, exist: Since fleeing to Europe is associated with substantial costs, the socio-economic status and human capital of Syrian and Iraqi refugees in Austria, including SRH, has been found to be higher than the general population's in their home countries [41].

2. Materials and methods

This research uses data from the Austrian Health Interview Survey (ATHIS) and the Refugee Health and Integration Survey (ReHIS). ATHIS, a social survey on physical and mental health, need for care and/or support, and health determinants like drug consumption and physical activity, is a nationally representative study of persons aged 15 years and more living in Austria [42]. ATHIS data will be used for the Austrian resident population and limited to 11,425 persons aged 20–59 years (i.e. overlapping age group with ReHIS).

ReHIS was conceptualized as an interim survey incorporated into a panel study on labor market participation of Syrian, Iraqi, and Afghan refugees in Austria (FIMAS+INTEGRATION). ReHIS interviews were carried out in early 2018 as CATIs (computer-assisted telephone interviews) mainly in Arabic, Farsi/Dari and Pashto, to ensure that the majority of respondents could be addressed in their native language. Interviewers used national dialects when contacting respondents, which helped to establish trust and rapport. Given the survey's highly sensitive subject matter, interviewers were offered extensive training, psychological supervision meeting and routine debriefings with the research team.

Participants provided their informed consent to participate in the study. Due to the nature of the survey realized as CATIs, participants' consent was not documented, as only those giving their explicit consent were interviewed. ReHIS was approved by the research commission of the Vienna University of Economics and Business. 'Ethical Guidelines for Good Research Practice' by the

Oxford Refugee Studies Centre [43] were fully subscribed. Among others, ReHIS was based on selected ATHIS items, as well as the European Union Statistics on Income and Living Conditions (EU SILC 2014), the World Health Organization Quality of Life Survey (WHOQOL), and the IAB-BAMF-SOEP-Refugee Survey 2016. It was organized around five main themes, namely SRH, access to health services, satisfaction with health services, psychosocial stress and resulting restrictions, discrimination experiences, and demography (see questionnaire).

The final ReHIS sample comprises 515 persons aged 18–61 years (54% Syrian, 16% Iraqi, 23% Afghan, 7% other citizenship). Gender distribution is unbalanced (73 females, 447 males) and does not match gender distribution for asylum seekers arriving in Austria in fall 2015 and early 2016 [2,3]. Our field phase confirmed previous research which finds low contact, but high cooperation rates in surveys among immigrants and ethnic minorities, compared to the native-born population [44].

2.1. Measurement of study variables

First, for results on SRH, answer options from 1 (“very good”) to 5 (“poor”) were grouped into three categories: “very good” (1), “good” (2), “not good” (3–5). For logistic regressions, a dichotomous variable differentiated between “(very) good” and “less than good”.

Secondly, access to health care providers was measured by “Did you visit a doctor or therapist during the last twelve months on your own behalf?”. If “yes”: “Which of the following doctors or therapists did you visit on your behalf?”. General practitioner (GP), dentist, specialist (e.g. ophthalmologist, internist), psychologist/psychotherapist/psychiatrist and physiotherapist were coded separately. Hospital treatment was captured via “During the past 12 months, have you been in hospital as patient?”, possible answers being “Yes, as an inpatient”, “Yes, as a day patient (i.e. not staying overnight)”, “No”, “Don’t know (DN)”, “Refusal”. Multiple answers were possible. Dichotomous variables were generated for the various health care providers, differentiation between “Yes (i.e. use)” and “No”. A few cases with DN and refusal were excluded from analyses.

The question “Was there any time during the last 12 months when you needed to consult a doctor but did not?” served as a proxy for unmet health needs and an indicator for the existence of barriers to health care access. Those answering with “yes” could choose between the following reasons: “Could not afford to”, “I had to wait too long to get an appointment”, “Treatment/consultation was not possible for me because of my schedule”, “It was not possible for me to physically reach the facility”, “I am afraid of the treatment or the doctor”, “I don’t understand the language, or: I cannot explain what my problem is”, “I don’t know if my problem can be solved”, “I don’t trust the doctors here in Austria”, “I’m waiting to see whether the problem will become better on its own”, “I don’t know a good doctor/therapist”, “Other reason”, “Don’t know”, “Refusal”.

Thirdly, perceptions of health care provision were captured via “How well do you currently feel provided for in terms of health care in Austria?”. Answer options ranged from 1 “extremely badly” to 10 “extremely well”. A dichotomous variable for perception as “very well” was coded, differentiating between 9–10 and 1–8.

2.2. Analysis

First, analyses of SRH were carried out using descriptive analyses. Multivariate modelling then used logistic regression for assessing determinants of SRH as very good, including age, gender, nationality and education. Second, health service utilization was studied by calculating consultations of various health care providers in the last 12 months. To evaluate gender differences among refugees as well as differences between refugees and the

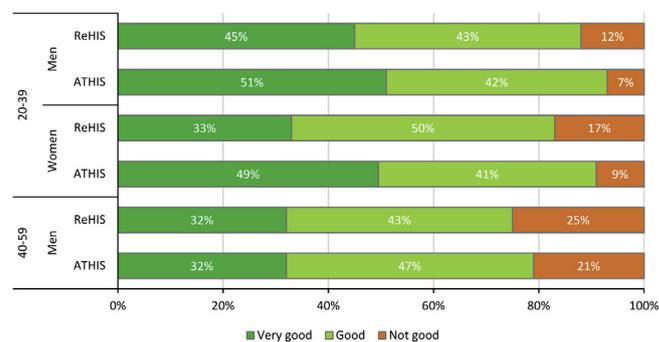


Fig. 1. SRH in ReHIS and ATHIS, by gender and age group.

Source: ATHIS2014 [42], ReHIS.

resident population, 95%-confidence intervals were calculated. Unmet health needs and barriers to health care were explored using descriptive statistics. Third, satisfaction with health care provision was studied by gender. Analyses were performed using STATA.

3. Results

3.1. Self-rated health (SRH)

One in three women in ReHIS assessed their health as “very good”, while 18% rated it as “not good”. This compares to 42% of men with “very good” and 14% with “not good” SRH (Figure A1). Findings corroborate the general tendency of women to self-rate their health worse than men. Contrasting ReHIS with ATHIS results reveals notable differences in the age group 20–39 years (see Fig. 1) between the surveyed refugees and the resident population in Austria. ReHIS participants less often perceive their health as very good than ATHIS respondents (men: 45% versus 51%; women: 33% versus 49%) and more often report not good health (men: 12% versus 7%; women: 17% versus 9%). In the age group 40–59, differences are less pronounced, but still male refugees tend to report not good health more often than male ATHIS respondents (25% versus 21%). Due to small sample size, female refugees aged 40–59 as well as refugees below age 20 cannot be compared with ATHIS.

Multivariate analyses reveal that age and nationality significantly determine the perception of good health (Table A1). Refugees aged 40–59 less often perceive their health as good compared to those in their twenties or thirties. Moreover, refugees from Afghanistan and other countries (e.g. Iran, Jordan, Yemen) less often perceive their health as good than Syrians. Estimated coefficients for Iraqis indicate worse health than Syrians, but coefficients are not significant. Further analysis revealed that contrary to expectations, educational attainment had no significant effect in the multivariate context: Stepwise models show that the association between SRH and education loses size and significance when nationality is included in the model, suggesting that education is a mediator in the relationship between nationality and SRH.

3.2. Health needs and barriers

3.2.1. Health needs and utilization of health services

Nine in ten men and almost all women surveyed in ReHIS had consulted a health care provider (i.e. physician, specialist or therapist) in the last year, which is in line with responses by the Austrian population (Table 1). Both in ReHIS and ATHIS, women reported utilization of health services more often than men. Among refugees, gender differences are particularly large and significant for consultation of specialists (women: 50%; men: 33%). Female refugees more often reported consultation of psychologists, psychotherapists or psychiatrists than male (13% of female versus 5%

Table 1
Access to health care providers in the last 12 months, by gender and age group. (% and 95%-confidence intervals).

	ReHIS (20-59)		ATHIS (20-59)	
	Men	Women	Men	Women
Physician or therapist	0.91 (0.88; 0.93)	0.97 (0.93; 1.01)	0.93 (0.92; 0.93)	0.98 (0.97; 0.98)
General practitioner	0.78 (0.74; 0.82)	0.90 (0.83; 0.97)	0.74 (0.72; 0.75)	0.82 (0.80; 0.83)
Dentist	0.27 (0.23; 0.31)	0.28 (0.17; 0.38)	0.70 (0.69; 0.72)	0.78 (0.77; 0.79)
Specialist	0.34 (0.29; 0.38)	0.51 (0.39; 0.63)	0.50 (0.48; 0.51)	0.74 (0.73; 0.75)
Psychologist, psychotherapy or . . .	0.05 (0.03; 0.07)	0.13 (0.05; 0.21)	0.06 (0.05; 0.07)	0.10 (0.09; 0.11)
Physiotherapist	0.05 (0.03; 0.07)	0.04 (-0.01; 0.09)	0.17 (0.16; 0.18)	0.22 (0.21; 0.24)
Hospital (inpatient or day patient)	0.32 (0.28; 0.37)	0.38 (0.26; 0.49)	0.19 (0.18; 0.20)	0.20 (0.19; 0.21)
Hospital inpatient	0.13 (0.10; 0.17)	0.19 (0.09; 0.28)	0.11 (0.10; 0.12)	0.12 (0.12; 0.13)
Hospital day patient	0.19 (0.15; 0.23)	0.22 (0.12; 0.32)	0.11 (0.10; 0.12)	0.10 (0.10; 0.11)
N	432	69	5,721	5,704

Source: ATHIS2014 [42], ReHIS.
Note: Unweighted numbers for ReHIS, weighted numbers for ATHIS.

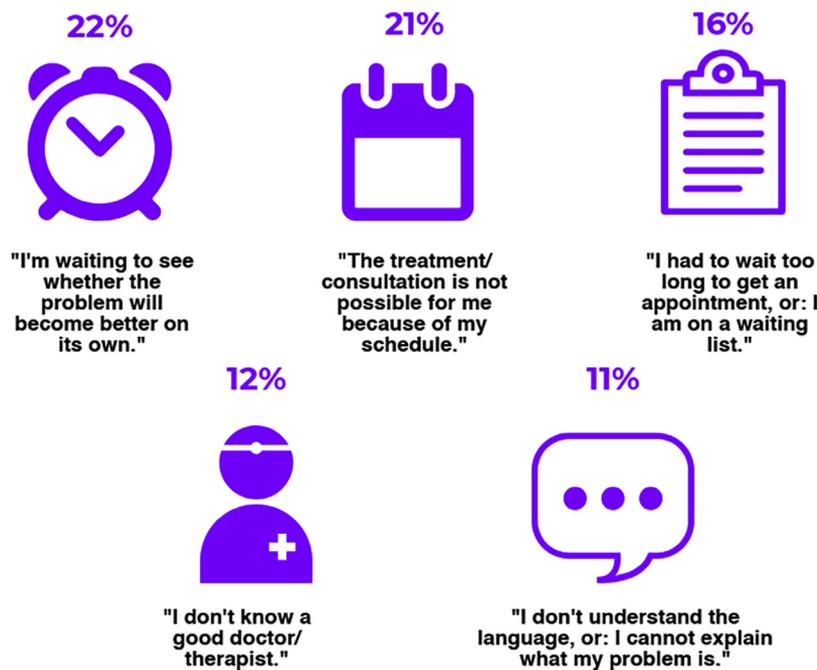


Fig. 2. Barriers to health access for refugees in Austria.

Source: ReHIS.

of male refugees). Dentists were far less often consulted by refugees (27–28%) than by Austrians (70–78%). In general, specialists were less often consulted by refugees than by Austrians (34% of male refugees and 51% of female refugees versus 50% of Austrian men and 74% of Austrian women). In contrast, consultation of psychologists/psychotherapists/psychiatrists was slightly more frequent among female refugees than among their Austrian peers. Physiotherapists were consulted hardly at all by refugees (4%–5%), but rather commonly by Austrians (17%–22%).

About one third of ReHIS respondents reported hospital treatment during the last 12 months. Hospital daycare was more frequent (around 20%) than inpatient stays (13%). Similarly to ATHIS respondents born in non-EU countries (i.e. migrant population in Austria), refugees more often consulted hospitals as day patients than Austrians (19–21% versus 10–11%).

3.2.2. Barriers of health care access

Two in ten male and four in ten female refugees reported unmet health care needs (results available upon request). Multivariate analyses reveal that gender and nationality are significantly associated with unmet needs: Women and Afghan nationals most often reported unmet needs. Higher educational attainment was

associated with more unmet needs: Respondents with a higher secondary education (International Standard Classification of Education (ISCED) 3) reported unmet needs significantly more often than respondents with lower education (ISCED 2 or lower).

Waiting for the condition to improve without treatment ranked as the top answer for leaving medical problems untreated (21–22%) (Fig. 2). Time was a relevant factor for leaving health problems untreated: 23% of female and 20% of male refugees reported the required treatment or consultation to be impossible timewise, while a long waiting list for receiving treatment was seen as a barrier by 19% of women and 15% of men. Insufficient knowledge of suitable health care providers as well as language barriers also ranked among the top five answer options (11–12%). Interestingly, 7% of men, but no women indicated lack of trust in Austrian health care providers as a reason for not utilizing a health service (results available upon request).

3.3. Perception of quality of health care provision

The mean value for perception of health care provision quality amounted to 8.5 on a 1–10 scale, being slightly lower for female refugees than for male (8.1 versus 8.5, results available upon

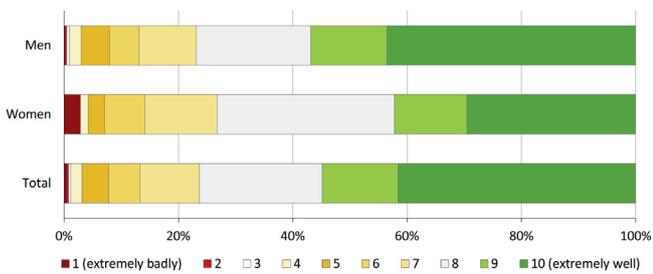


Fig. 3. Perception of health care provision in Austria, by gender.

Source: ReHIS.

request). In particular, refugee women chose the positive extreme value 10 considerably less often than men (29% vs. 43%) (Fig. 3). Regression analyses for the options “very well” and “extremely well” (values 9 and 10) reveal that young refugees below the age of 20 report higher satisfaction with health care provision in Austria than older age groups (results available upon request). Gender and nationality is significant for rating Austrian health care provision very or extremely well: Women and Afghan respondents are less satisfied with health care provision than men and other nationalities.

4. Discussion

Results indicate that the state of health of refugees from the European refugee crisis falls below the resident population in Austria, as determined by SRH. Unmet health needs and barriers to health access are relevant concerns for recently arrived refugees. In particular female refugees below 40 years of age report worse health than Austrian women. In the age group 40–59, differences are less pronounced, and male refugees' SRH roughly matches males in Austria. This may suggest that Austrians experience a greater deterioration of health over time than refugees, whose SRH is already considerably lower to start with. Lifestyle and cultural conditions may be factors to consider, but need further research. Apart from the effect of few elderly Afghans in the sample, this confirms our initial hypothesis, indicating that the experience of war and forced migration results in a deterioration of health and quality of life, particularly for those in their prime age.

Interestingly, education was revealed to have no effect on refugees' SRH and does not seem to constitute a relevant resilience factor. Rather, nationality was found to be significant in determining SRH, with Afghan refugees reporting lower levels than other nationalities. This may be related to several factors: First of all, forced migration stressors can play a significant role, since Afghans' migration experiences tend to be longer, more fractured and complex than those of Syrians, with prolonged, involuntary stays in transit countries under harsh conditions [45]. 20% of ReHIS respondents with Afghan citizenship were not born in Afghanistan, which may indicate experiences of social exclusion, discrimination and lack of rights in their countries of residence. Secondly, post-migration stressors must be considered. In contrast to Syrian refugees, Afghans less often receive full asylum status, but subsidiary protection, which is restricted to one year, but can be prolonged several times after re-evaluation. In combination with a much longer duration of asylum proceedings (and, accordingly, forced inactivity and unemployment) for Afghans than for Syrian, the more insecure legal status and negative outlook may exacerbate health conditions for Afghan refugees [46].

Overall, ReHIS respondents report high satisfaction with Austrian health care provision and low prevalence of financial barriers, i.e. costs and accessibility. In addition to national differences (Afghans again reporting less satisfaction than other groups), gen-

der differences in satisfaction can be noted, with women feeling less well provided for than men, while at the same time utilizing health services more often, in particular specialists. We assume that this particularly includes gynecologists and obstetricians, and can be related to the high birth rate of female refugees after migration [47]. The low rate of consultation of physiotherapists can be a result of obligatory co-payments for the treatment, but may also be attributed to the low prevalence of physiotherapy in origin countries, while infrequent access to dental health care may primarily involve economic factors. Even though high costs were not often given as a reason for unmet health needs, interpretation of results should take into account that the majority of dental treatments, including preventive care, exceed standard Austrian insurance schemes. These hidden costs may explain low consultation rates of dentists, as research has shown that refugees' dental health care is mostly oriented towards pain relief rather than primary prevention, which tends to be cost-intense [48].

Frequently, refugees' first points of contact in case of a medical condition seem to be hospitals, more specifically emergency and day patient treatment. Reasons may be related to the lack of knowledge on treatments provided by specialists, but also the provision of refugee-tailored services in some hospitals, such as (online) interpreters. The higher prevalence for inpatient hospital stays among refugees may be related to their general tendency to consult hospital emergency rooms in case of health issues. Among refugee women, an increased birth rate after migration [47] may also contribute to the comparably high rate of hospital overnight stays. While consultation of psychotherapists by refugees is higher than those of Austrians, the time gap between ATHIS 2014 and ReHIS 2018 could play a role. As a proxy, comparison of ATHIS 2014 with its previous wave, ATHIS 2006/7, indeed reveals an increase of respondents who consulted a psychotherapist (2% vs. 7%, results available upon request). It can thus be expected that the current consultation rate of the resident population in Austria more closely matches those of refugees. Nonetheless, the circumstance that specialists are significantly less often consulted by refugees than Austrians unless it concerns psychotherapists or psychiatrists can be taken as an indicator for refugees' significant mental health needs, in particular when compared to physical health needs.

Consequently, two of the top five barriers for access, i.e. time restraints and long waiting lists, may be particularly attributed to access to psychotherapists, as indeed general practitioners and most specialists do not typically apply waiting lists. Our finding is supported by current mental health care provision standards: In Austria, current average waiting time for psychotherapy for refugees (with an adequate interpreter on site) ranges between six to twelve months for adults. Our data confirms that this constitutes a major barrier for refugees with health needs, which corroborates previous research [28]. The main reason for leaving needs unmet, i.e. waiting for the condition to improve without treatment, can be understood as indirectly influenced by these structural causes. Hence, long waiting times or lack of accessibility may cause respondents to ‘wait’ the problem out. Furthermore, formal educational attainment was found to be significant for reporting unmet health needs: Respondents with lower educational levels report less unmet needs than those with higher education. Since education was not shown to impact SRH, we attribute this result to diverging perceptions of (mental) health needs and their adequate treatment.

5. Conclusions

Refugees' access to health care in Austria can be improved and streamlined by improving information flow. In line with [20], we conjecture that the high utilization of hospital emergency treatments can partly be attributed to a lack of knowledge about

available general practitioners and specialists. Access to the latter reveals a particular imbalance as concerns consultation of dentists, whom refugees consult far less often than Austrians. This is in line with previous research on oral health of refugees [20], which shows that although need for treatment is high, refugees' lack of knowledge, particularly about preventive treatment, results in lower rates of utilization. Moreover, refugees may experience greater difficulties to schedule appointments and pay for treatments. Since specialist treatments like dental health care and physiotherapy typically involve co-payments by the patient, hidden cost burdens may constitute barriers for preventive and primary care and should be minimized. In particular, national health policy should foster dental health access for refugees, which is an important element of primary health care. Research has shown that poor dental health is both exacerbated by and further contributes to multigenerational poverty and ethnic health disparities [48–50].

In general, knowledge of and access to primary health care providers should be improved to unburden hospitals' emergency units, which also contributes to cost savings. Language barriers can be addressed by providing trained interpreters, also via web-based appliances [27]. Moreover, we recommend to implement policies for fostering the inclusion of refugees into the health care sector at all levels to address both language and socio-cultural barriers. Considering Western Europe's need for trained nursing and medical staff due to its aging population, the recognition of medical degrees from sending countries should be prioritized.

Particular focus should be given to female and Afghan refugees, both in terms of access to health services and general well-being. This may exceed actual health care requirements and include more general provisions such as asylum processing, housing, counseling and child care. Our results indicate that barriers to health care are mainly related to lack of availability and supply, which results in long waiting lists or scheduling issues. The limited availability of places in a treatment program may be of particular relevance for not adequately meeting mental health needs, which can exacerbate over time.

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Conflict of interest

The authors have no conflict of interest to declare.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.healthpol.2019.01.014>.

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