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Healthcare utilization among North Korean refugees in South Korea: a mixed methods study

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Introduction

South Korea is facing a growing North Korean (NK) refugee population. By March 2016, the number of NKs residing in South Korea numbered more than 29,000, with nearly two thirds of them (65%) residing in the Central Seoul area.¹ NKs are fleeing to neighbouring countries such as China, Thailand, or Vietnam because of worsening food shortages and poor living conditions. Upon arrival in South Korea, NK refugees receive not only financial and social resources, but also medical support. However, these resources may not be sufficient to assist in the promotion of health care among NK refugees who often experience poor physical and emotional health.² Further, NK refugees tend to experience higher unemployment rates than their South Korean counterparts due, in part, to insufficient skills and knowledge (e.g. computer and English skills) that are required to successfully integrate into modern South Korean communities.³

North Korea has a publicly funded socialist system which assumes free medical care for all its citizens. Yet, the system's ability to provide necessary health services to NK people is questionable particularly because of the economic downturn since the 1990s.⁴ The health system in South Korea builds on universal, mandatory healthcare coverage through national health insurance with physician ratio per head of population being 2.1 per 1000 (in comparison to 2.5 per 1000 for the USA; data not available for North Korea).⁵ The extent and pattern of healthcare utilization among NK refugees have been investigated in a small yet increasing number of studies. Available studies of NK refugees in South Korea have

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Ethical approval

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Competing interests

None declared.

reported inadequate or underutilization of healthcare services, polypharmacy, or overdosing.^{6–8} Nevertheless, the studies used either a small sample⁶ or qualitative⁶ or quantitative methods exclusively,^{7,8} limiting the scope of our understanding of the topic. Comprehensive research and knowledge is lacking regarding adverse risk factors and the extent to which these factors affect the ability of NK refugees to utilize adequate health care and achieve an optimal health status for a productive life in South Korea.

The aims of the current study were twofold: 1) to examine the extent and pattern of healthcare utilization among NK refugees prior to leaving North Korea and after they arrived in South Korea and 2) to conduct in-depth individual qualitative interviews to explore facilitators of and barriers to NK refugees' healthcare service utilization. The focus of this study is particularly relevant to understanding the issues of NK health beliefs and healthcare service utilization, given the vast differences between North and South Korea in healthcare structure, let alone political grounds, ideological systems, and culture.

Methods

This exploratory sequential mixed methods study⁹ employed an individual survey followed by an in-depth qualitative interview. Based on our experience with NK refugees and their frequent concerns about safety—often associated with any documentation—we decided not to seek written informed consent. The Johns Hopkins Institutional Review Board approved oral consent and other study procedures to conduct this study. Trained staff at Global Together—a non-profit, community organization dedicated to NK refugee issues—made initial contacts with 350 NK refugees in the Central Seoul area. A total of 331 eligible NK refugees (18+ years at the time of departure from North Korea; had lived in South Korea for 1+ year) agreed to participate but two dropped out before the survey due to scheduling conflicts. Survey participants ($n = 329$) were mostly women (81%) and middle aged (range 22–87 years, mean 57 years). Participants had lived in South Korea for 6 years on average; 44% lived alone.

One or two weeks following the survey, a purposive sample was drawn from the pool of survey participants based on gender, age, and medication taking status. Of 20 invitees, 11 agreed and completed 1½- to 2-h individual in-depth interviews in Korean in a private office at the Global Together site. Reasons for refusal included lack of interest ($n = 4$), no show ($n = 3$), and inability to reach ($n = 2$). As was the case for the survey sample, the interview participants tended to be middle aged (range 37–74 years, mean 52 years) and women (73%). A trained research assistant (RA) had a refresher consent discussion before each interview began. Using a topic guide, the RA asked a series of open-ended questions about health-seeking experiences and cultural descriptors. More specific questions were derived from the unfolding discussion. Each qualitative interview was audio taped and transcribed verbatim.

We first used descriptive statistics to summarize the sample characteristics and examine the pattern and extent of healthcare utilization among the survey sample. We then analyzed the qualitative in-depth interview data. Specifically, all transcripts were examined for accuracy; two trained bilingual RAs with an understanding of Korean culture read each transcript and

field notes several times to fully understand each interview. They independently performed the initial coding process using inductive coding—without an a priori coding scheme. Discrepancies between the two RAs were reconciled after discussion among the research team. A codebook was developed based on the codes of the first three interviews; the codebook was subsequently applied to the rest of the interviews. Using qualitative content analysis, the RAs sorted the initial codes into subthemes; subthemes were then grouped into themes by the research team. Themes and subthemes were finalized following iterative team discussions (see Table 1).

Results

Healthcare utilization while in North Korea

The survey of 329 NK refugees revealed that about a third (33.1%) of participants or their household members had become ill or injured prior to leaving North Korea. Most common conditions included common cold (32.5%), followed by gastritis (17%) and arthritis (11.2%). Forty percent of the survey respondents indicated that during the year prior to leaving North Korea, they were in need of health care but unable to get one with most common reasons including: being unable to get medication or treatment (47%), being unable to afford (42%), or other (27%) such as no pass (issued by Labor Party) to go see a doctor. Several barriers were noted including hardships of life and lack of/limited medications—particularly after the NK Famine (the Arduous March) between 1994 and 1998—in addition to ineffective treatment due in part to limited and old medical equipment, distance (limited number of hospitals within reach)/lack of transportation, and criticism from the Labor Party (nation). Facilitators while in North Korea included support and care from family and no concern about healthcare costs (despite lack of resources) particularly before the NK Famine (Table 1).

Healthcare utilization after arriving in South Korea

After arrival in South Korea, NK refugees reported that they had visited a doctor's office on average 12 times during the last 6 months. Twenty percent reported that they were currently taking three or more prescribed medications (range 0–7, mean 1.6 prescribed medications). Most common conditions for prescribed medications were hypertension (19%), followed by gastritis (14%) and arthritis (8%). The average number of hospitalizations and emergency room visits were small (<1 for both), but the ranges were wide (0–5 and 0–15, respectively). Qualitative interview participants acknowledged abundant healthcare resources after arriving in South Korea. When asked about barriers, most said that there was no identifiable barrier; however, some noted lack of personal resources, feeling of illegitimacy to receive free health care, concern about healthcare costs, and unfamiliarity with or an inconvenient healthcare system in South Korea. For example, one mother who was in her 30s and had children with several health conditions complained:

When I go to a medication hospital [pharmacy] for my kids, it takes one or two hours [to get medication]. If I fill the prescription via phone, I think I can save time. But things like that are a bit difficult for me (SID 317).

Key facilitators of healthcare utilization included a culture of health promotion, supportive and convenient health care, affordable health care for NK refugees, and effective treatment. For example, one male participant in his 40s recognized a culture of health promotion as a facilitator of healthcare utilization, ‘*The TV ads constantly say we need to take care of our body when we turn 40. So I realized I needed to go checked ... (SID 34)*’.

Discussion

This study is among the first to focus exclusively on the healthcare utilization of NK refugees both prior to leaving North Korea and after their arrival in South Korea. NK refugees in the study sample had often experienced limited access to and utilization of healthcare services while in North Korea. Subthemes emerged from the qualitative interviews offered intimate individual encounters on NK refugees’ experience with healthcare utilization while in North Korea. These included some participants noting that doctors in North Korea had to sell medications on the black market for food to survive and that acquiring medications to treat disease became an individual responsibility. Although North Korea has a national medical service and health insurance system that are claimed to be offered for free, the NK famine in 1994–1998, followed by flooding in 2006–2007, were some of the devastating incidences which caused massive death and starvation,^{3,4} contributing to the poor access and ineffective healthcare experienced by the NK refugees in the study.

After arriving in South Korea, NK refugees utilized healthcare services quite often (e.g. outpatient visits almost twice every month) with frequent reports of prescription medication use. While the appropriateness of the utilization is not completely clear, the average number of outpatient visits found in the NK sample was higher than that among Korean individuals 15 years of age or older: In a recent analysis of data from the 2008–2012 Korean Welfare Panel Study, outpatient visits averaged 14 visits per year.¹⁰ The average number of prescribed drugs among NK refugees was also higher than that reported in the national Korean sample (1.6 vs 0.7).¹¹

The frequent utilization of healthcare services reported among NK refugees in South Korea may be related to multiple factors such as public health insurance coverage offered by the country’s Medical Aid Act.⁵ The findings might also have been that the NK refugees had had longstanding medical needs that were left untreated which required more visits and medications now that they had access. In particular, as noted by some of the qualitative interview participants, public health centres in South Korea—state-run medical institutions where primary care services are offered at a lower cost than at private medical institutions—appear to have improved access for NK refugees.

While most qualitative interview participants were unable to identify a barrier to healthcare service use in South Korea, some noted barriers which hindered their use of healthcare services. In particular, certain systemic barriers (e.g. unfamiliarity with or an inconvenient healthcare system in South Korea) combined with a pattern of healthcare-seeking behaviour stemming from past experiences with the health-care system in North Korea discouraged some NK refugees’ utilization of health care. The results are similar in part to those reported

in studies of refugees (mostly from African countries) in which social assimilation barriers such as difficulty navigating the healthcare system was noted as a significant barrier.¹² The results suggest that a more tailored approach needs to be taken to help NK refugees, particularly those with limited understanding about the South Korean healthcare system or those who maintain an old pattern of healthcare-seeking behaviour which may act against adequate utilization of health care.

This study has limitations. First, our study sample was obtained primarily from a list of NK refugees available through one community organization who maintained years of close working relationship with the NK community in central Seoul. The existing relationship between the community organization and the NK community might likely have yielded a high response rate shown in this study that may not be present in other settings. Second, the NK refugees in the study mostly resided in subsidized housing in central Seoul. NK refugees living in inner city, subsidized housing are relatively new to South Korea and may be at a disadvantage for developing supportive social networks. Future research needs to expand to involve longer-term NK refugees with more years living in South Korea that may have an impact on social processes and general healthcare utilization and behaviour. Third, the study sample had an overrepresentation of female compared to the South Korean government's demographic profile of NK refugees (81% vs 71%).¹ Nevertheless, other demographic profiles such as education in North Korea, living arrangements, and marital status were generally comparable to those reported in a recently published study of NK refugees in which all NK refugees who entered South Korea were approached and surveyed for self-rated health status.⁸ Finally, utilization of health care prior to departure (while in North Korea) may have been over- or under-reported due to recollection bias.

Our study findings point to the need for additional research to broaden our knowledge and understanding of the benefits of a tailored approach to better help NK refugees adjust in South Korea. Future efforts should be directed towards promoting adequate utilization of health care among NK refugees by providing an enhanced support network and education about the South Korean healthcare system.

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Quotes regarding facilitators of and barriers to healthcare utilization.

While in North Korea			
Facilitators	<p><i>Support and care from family</i></p> <p>'Even if I left my kids [at home], grandma was there, so I could ask her to take care of them. What is there to worry since it's their grandma?' (SID 72, F, 50s, 3 years, 3 meds)^a</p>	<p><i>No concern about costs (despite lack of resources)</i></p> <p>'Even if I had ten surgeries, I did not have to pay, not even a little. It was free of charge (SID 215, F, 70s, 8 years, 3 meds)'.</p>	
Barriers	<p><i>Hardships of life</i></p> <p>'My monthly salary was 120 won (about US 10 cents) ... It was hard to live with that so even if I was sick, I didn't think of going to the hospital (SID 267, M, 60s, 5 years, 3 meds)'.</p>	<p><i>Lack of/limited medication (individual responsibility)</i></p> <p>'Food rations were no longer available after Kim Il Sung [a former ruler of North Korea] died ... Doctors needed to make money for living ... when medicines were distributed, they sold them at the market. Once sold, they were able to buy food rations [foods for living] (SID 215, F, 70s, 8 years, 3 meds)'.</p> <p>'Only basic medications were available and no medication to treat disease. That is why we had to buy medications at the [black] market ... we did not have the money, so unless we were dying, we didn't go. To the hospital (SID 72, F, 50s, 3 years, 3 meds)'.</p>	<p><i>Distance (limited number of hospitals within reach)/lack of transportation</i></p> <p>'In cities it's easier to find a hospital but in the rural area, it is hard for us to find a hospital. ... As we did not have transportation, we usually walked for 3 h ... (SID 317, F, 30s, 6 years, 1 med)'</p> <p>'Sometimes, if someone is on the verge of dying, they took the person to the hospital by car (SID 34, M, 40s, 12 years, 2 meds)'.</p>
After arriving in South Korea			
Facilitators	<p><i>Culture of health promotion</i></p> <p>'The TV ads constantly say we need to take care of our body when we turn 40. So I realized I needed to go checked ... (SID 34, M, 40s, 12 years, 2 meds)'.</p>	<p><i>Supportive and convenient health care</i></p> <p>'The hospital staff are very kind ... doctors in South Korea help us understand what they are saying. (SID 215, F, 70s, 8 years, 3 meds)' ... The [healthcare] system is really well done here. I noticed that there is already an appointment made for me when I call the hospital (SID 226, F, 40s, 3 years, no med)'.</p>	<p><i>Effective treatment</i></p> <p>'I feel like medication here works very well (SID 317, F, 30s, 6 years, 1 med)'.</p> <p>'...there are plenty of medications and advanced medical equipment here (SID 267, M, 60s, 5 years, 3 meds)'.</p>
Barriers	<p><i>Lack of personal resources</i></p> <p>'I actually don't go to a hospital that often. Once, I was taken to a hospital by an ambulance because of severe cold. ... I had a fever and it was 39 °C (about 102.2 °F). I was alone ... I did not know where the hospital was</p>	<p><i>Concern about healthcare costs</i></p> <p>'Not all services are free at public health centers ... I actually never used a public health center. One time, remember SARS or flu? It's not free and they [public health center] asked us to pay [for a shot]. I don't have money, so no</p>	<p><i>Unfamiliar/inconvenient health system</i></p> <p>'I usually have to wait to see a doctor. When I go to a medication hospital [pharmacy] for my kids, it takes one or two hours [to get medication]. If I fill the prescription via phone, I think I can save time. But things like that are a bit</p>

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... (SID 34, M, 40s, 12 years, 2 meds)	vaccination. (SID 89, F, 50s, 7 years, 2 meds)	difficult for me (SID 317, F, 30s, 6 years, 1 med) . 'I know we're supposed to get health check-ups but I am not used to [South Korean healthcare system] ... (SID 273, F, 30s, 3 years, 1 med)
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^aStudy ID, gender, (F: female; M: male), age group, years in South Korea, and number of prescribed drugs.