Received October 24, 2019

Revised December 15, 2019

Accepted December 16, 2019

Critical Review of North Korean Women and Children's Health, 2000-2019: Physical and Mental Health Challenges with a Focus on Gender

AMANDA WRIGHT* • LYNN PYUN** • EUNHEE HA*** • JUNG SUN KIM**** •

HAE SOON KIM***** • SEOK HYANG KIM***** • INSOO OH***** • EUN MEE KIM*****

Women account for over eighty percent of recent North Korean defectors arriving in South Korea, yet there is dearth of gender-based research. Given the speed with which the dialogue on denuclearization with the Democratic People's Republic of Korea (DPRK, North Korea) has progressed since 2017, there is a surprising gap in research on possible health threats. If sanctions are eased, interactions with these previously isolated people will increase leading to potential health problems. This article reviews studies published since 2000 to understand physical and mental health faced in DPRK, among North Korean defectors to South Korea, and to provide policy recommendations. A content analysis of ninety studies found that mental health challenges are severe for North Korean defectors, and that women suffer differently than men during defection and its aftermath. We recommend a more nuanced and gendered approach for future research in order to devise tangible solutions to improve the health of North Koreans in general, and defector women and children in particular.

Keywords: North Korea, DPRK, women's and children's health, North Korean defectors, mental health, maternal and child health

*Lead author, Ph.D. Candidate, Department of International Studies, GSIS, Ewha Womans University; amandarosewright@gmail.com

**Visiting Professor, Department of International Studies, GSIS, Ewha Womans University; pyun@ewha.ac.kr

***Professor, College of Medicine, Ewha Womans University; eunheeha@ewha.ac.kr

****Professor, Department of Sociology, College of Social Sciences, Ewha Womans University; jungsun@ewha.ac.kr

*****Professor, Department of Pediatrics, College of Medicine, Ewha Womans University; hyesk@ewha.ac.kr

*****Professor, Department of North Korean Studies, College of Social Sciences, Ewha Womans University; feelfree@ewha.ac.kr

*****Professor, Department of Education, College of Education, Ewha Womans University; insoo@ewha.ac.kr

*****Corresponding author, Professor, Department of International Studies, GSIS, Ewha Womans University; emkim@ewha.ac.kr
DOI: 10.16934/isr.20.2.201912.95

I. INTRODUCTION

There is an urgent need to better understand the health of North Korean women and children, whose health status has been largely neglected in research and policy. In 2018, the share of women among the North Korean defectors entering South Korea reached an all-time high of eighty-five percent (Ministry of Unification 2019). With improvements in relations between the Republic of Korea (ROK, South Korea) and the Democratic People's Republic of Korea (DPRK, North Korea), there is a growing need to understand the health of those in the DPRK, in transit, and defectors to South Korea. Given the possibility that interaction among the people of the two Koreas will increase in the near future, having an accurate assessment of the current health on the peninsula is vital.

We need to understand the reclusive nation of DPRK from a humanitarian perspective as well as in light of recent negotiations for denuclearization which could result in a sudden easing of sanctions against the DPRK, and increased interaction of people that could have unpredictable health consequences for both Koreas, not to mention other neighboring countries.

This article critically examines studies published in English or Korean on the topic of North Korean women and children's health from 2000-2019. Women and children are grouped into three categories depending on their location, stage of defection, and settlement: (1) women and children in the DPRK; (2) women and children in transit out of the DPRK; and (3) women and children from the DPRK who have entered South Korea as defectors. We also reviewed reports on the health of women and children in the DPRK and among the defector population, which were published by the United Nations and other international organizations to understand the broader context.

Content analysis of the articles was conducted to examine shared patterns and differences in a systematic manner. Three broad questions guided the analysis: (1) do different groups of North Korean women and children show differences in health patterns; (2) is there any significant difference in studies published in Korean vs. English; and (3) implications for further research and policy recommendations.

II. RESEARCH METHODOLOGY

The health status of North Korean women and children is an intrinsically important topic for basic human rights, and since improvement in relations and increased interactions between the two Koreas will lead to short and long-term health consequences. There were only a few studies on North Korean health, and even fewer on women and children, despite the number of women defectors and

children entering South Korea has rapidly risen in recent years. We will focus on Korean and English sources due to lack of relevant studies in other languages. For example, keyword search on Web of Science for "North Korea Health" returned three hundred and thirty-seven articles, of which only one study was written in neither English nor Korean. Articles published since 2000 were reviewed, since earlier studies had a heavy focus on the 1990s' famine and its impact on health in the DPRK with relatively little attention to broader health issues.

1. English Language Studies

We reviewed English language studies on the health of North Korean women and children in three stages. First, we searched the database PubMed, since this is acknowledged by the biomedical research community as "the primary tool" (Lu 2011, 2) as the most widely used database for studies related to health (Sood and Ghosh 2006). Initial search was conducted using phrases such as, "North Korean women and child health in North Korea" (7 results), "North Korean defector health" (5 results), "North Korean women's health" (5 results), and "DPRK women health" (4 results). Second, the list of references of the studies selected through the PubMed search was used to screen for additional studies. And, finally Google scholar was searched for studies with a broader context including migration and trafficking. We excluded studies from the review if they did not have a specific focus on the health of North Korean women and children.

There were relatively few English studies that dealt with North Koreans directly, which was most likely due to the need for state approval for empirical research in the DPRK. Thus, most studies were about North Korean defectors. The People's Republic of China (China) is an important part of many defectors' migration journey, and a few of the studies are based in China. Although the North Korean defector population is very small in Japan, one article was included that compared North Korean defectors in Japan to Japanese workers of similar socio-economic status as well as to North Korean defectors in South Korea.

Four review articles were included in our analysis. These studies provided useful data on the growth of children in South and North Korea, growth and nutrition of North Korean children, mental health of defectors, and an overall review of health in the DPRK (Park et al. 2019; Lee 2017; Lee, Lee and Park 2017; Schwekendiek and Pak 2009).

In total we reviewed forty-one articles in English, which included twenty-two on mental health, sixteen on physical health, and three on both mental and physical health. There were four review articles among the forty-one, which were useful for cross-reference.

2. Korean Language Studies

Korean language studies were reviewed for the period of 2000-2019 using the following databases (DBs): Korean Studies Information Service System (KISS) with a focus on peer-reviewed journals; Research Information Sharing Service (RISS) with a focus on Master's and Ph.D. theses; and (3) online database of the Korean National Assembly (NANET) which was focused on government reports. Searching these DBs is a standard methodology in review studies for Korean research literature regarding health-related topics (Kwon, Kim and Nam 2019; Sim 2018; Kim, Cho and Jeon 2014).

We selected studies for review as follows: First, the DBs were searched with different combinations of keywords on DPRK women's health which included North Korea, women, and health. Second, keywords describing DPRK refugees were used for the search – i.e., defecting from North Korea, North Korean defectors, and *Saeteomin* (North Korean settlers in South Korea) -- in conjunction with the keywords of North Korea, women and health. Third, we reviewed titles and abstracts of the studies to decide if the paper actually dealt with DPRK women's health. If there was any doubt, we included the article for a full review. In addition, studies that dealt with North Korean defectors as a whole, but mentioned female/children as a meaningful unit of analysis were included. Fourth, studies that were included in the list of references of the studies selected for this review were also examined. Finally, a total of ten review articles were included in our analysis, which met the above standards of inclusion and exclusion.

In total, a total of forty-nine articles written in Korean, including ten review articles, were analyzed. A quick review of the studies indicated that there were relatively few studies on the DPRK and defector women and children's health, and there was a dearth of studies that had a gender focus. Even some studies that covered both women and men's health data pointed out that further female-focused research is needed (Ree, Ku and Han 2011; Keum 2015; Lim, Lee and Yang 2017).

III. KEY TRENDS IN THE STUDIES ON NORTH KOREAN AND NORTH KOREAN DEFECTOR WOMEN AND CHILDREN'S HEALTH

A content analysis was conducted for all the articles. Since the topic of women and children's health has been largely neglected in the study of DPRK residents and North Korean defectors, we started with a breakdown based on the subject group – i.e., (1) North Korean women and children; (2) North Korean women and children in transit (migration); and (3) North Korean defectors who

have settled in South Korea. There were relatively few studies on the defectors who have settled in countries outside of South Korea, and thus, we limited our search to those settled in South Korea (see Figure 1 for selection process).

FIGURE 1. SELECTION PROCESS OF STUDIES REVIEWED

First, we noted that the studies written in English and Korean were different in terms of content and subject group. The studies written in English had a much stronger focus on defectors compared to DPRK residents (Figure 2). Additionally, a comparison of mental vs. physical health studies in English vs. Korean showed that English sources were more on mental health, while there were more Korean studies on physical health (Figure 3).

FIGURE 2. NUMBER OF STUDIES ON DPRK VS. DEFECTORS, BY LANGUAGE

FIGURE 3. NUMBER OF STUDIES ON PHYSICAL VS. MENTAL HEALTH, BY LANGUAGE

In both Korean and English studies, more studies were about North Korean defectors to South Korea than people in DPRK, although Korean sources had a few more studies on DPRK residents compared to English. The reason for a relatively small number of English studies on DPRK is likely due to the need to acquire the DPRK government’s permit for empirical research, which would have been more prohibitive to researchers using English. Table 1 provides a breakdown of the categories of studies reviewed.

TABLE 1. BREAKDOWN OF STUDIES REVIEWED BY STUDY POPULATION AND HEALTH TYPE

		DPRK Residents	In Transit	North Korean Defectors	DPRK Residents & Defectors	Sub-Total
English Language Studies	Physical Health	7		8 (1 Review)	1 (1 Review)	16
	Mental Health		2	20 (1 Review)		22
	Physical & Mental Health		1	1	1 (1 Review)	3
	Sub-Total	7	3	29	2	41
Korean Language Studies	Physical Health	14		5	1	20
	Mental Health		1	15 (1 Review)		16
	Physical & Mental Health	2		10 (9 Reviews)	1	13
	Sub-Total	16	1	30	2	49
	Total	23	4	59	4	90

It was noteworthy that English sources had a relatively small number of studies on physical health compared to mental health. This could be due to the unavailability of disaggregate data on the physical health of North Korean women and children, and/or greater severity of mental health challenges for this group. Further research is required to examine this issue.

1. Physical Health of Women and Children

Analysis from the DPRK official data, and common international data sources, including reports from the UN, World Bank (WB), UNICEF, World Health Organization (WHO), and the World Food Programme (WFP) have indicated that empirical evidence and data on health problems in the DPRK may be underreported since official statistics have been limited to geographical areas where the government allows access. In spite of these limitations, studies revealed that the health status of North and South Koreans are strikingly different, with nearly a ten-year gap in life expectancy in 2018, up from just one-year in 1993 (Bahk, Ezzati and Khang 2018), and residents of DPRK and defectors have significantly shorter average heights (Pak 2010; Pak 2004).

We noted that there are relatively few studies on physical health. In English sources, we found that in gynecological health, forty-two percent of defectors receive cervical cancer screenings (also known as Pap smears or Pap tests), far lower than their South Korean peers for whom about seventy percent were screened (Park, Kim, Yang, Lee and Park 2018). Kim, Kim, and Chung (2017) found that defectors, who were concerned about cancer and had knowledge of free cervical cancer screening programs, were more likely to have

Pap tests. We also noted that although female defectors who had Pap tests were relatively small compared to their South Korean counterparts, they were much greater than the DPRK women for whom only six percent received such screenings (Tran et al. 2011a). A study conducted in the DPRK showed that although there was very little rural vs. urban difference among healthcare providers in their knowledge and practices on cervical cancer and screenings, both areas suffered from inefficiencies and misunderstandings (Tran et al. 2011b). The study on defectors found that ten to twenty percent reported menstrual problems like amenorrhea, changes in the amount of blood clot, polymenorrhea, hypomenorrhea, and menorrhagia, and that these were correlated with anxiety, depression, and somatization (Kim, Kim, and Kim 2017). A recent study of sixty-one female defectors found that a mobile video program could significantly increase knowledge and behavioral confidence regarding vaginitis and cervical cancer (Lee and Shin 2018).

A few studies were conducted on the dental health of children in DPRK, ranging from six to thirteen years old, which showed that dental caries were positively associated with having sweet snacks and were reduced after the children participated in a state sponsored intervention program, but the authors noted that this could have been due to the loss of primary teeth (Tarvonen et al. 2016; Tarvonen et al. 2017).

North Korean defectors showed that their stature was smaller than South Korean counterparts even after spending years in South Korea, since most have defected when they were adults (Cho, Lee, Koh, Kim and Kim 2015; Choi, Park and Joung 2010; Pak 2010; Pak 2004). Height, weight, and body surface area were found to be significantly lower across gender and age, except among female defectors over 50 years old (Cho et al. 2015). An examination of defector children and adolescents upon their entry to South Korea shows similar results (Pak 2010). North Korean defectors also appear to have weaker muscle strength (Cho et al. 2015).

Korean language studies showed a diversity of findings among different surveys of North Korean women and children (Park, Lee and Kim 2014). First-hand data collected from a 2004 study showed that South Koreans are taller and heavier than those in the DPRK, even from before the famine; and the health situation has aggravated in the DPRK since the late 1980s, based on a study of Hanawon¹ residents' Body Mass Index (BMI) (Moon et al. 2004). Another study showed that age was associated with a low risk for Subclinical Hypothyroidism (SCH), the opposite result from South Koreans, which is possibly due to severe famine during their period of growth (Kim et al. 2012). A 2015 study using medical records showed a high occurrence of Hepatitis B and C, parasite, tuberculosis (TB), anemia, sexually-transmitted diseases (STD), and human papilloma virus (HPV) compared to South Koreans (Ahn, Ryou, and Kim 2015;

Moon et al. 2015). A recent study by Wee (2018) showed that a 1981-1990 cohort of women were smaller by 1.1-1.2cm (male 1.9-2.0cm) than those from 1966-1970, who finished growing before the great famine in the DPRK.² It is interesting to note that although we limited our search to studies published since 2000, traces of the great famine were still felt in the health status of North Korean women, children and defectors in South Korea.

2. Mental Health of Women and Children

Most of the English sources were about mental health showing that over half of North Koreans examined exhibited significant mental health problems (Cha, Surkan, Kim, Yoon, Robinson, Cardozo and Lee 2018; Lee, Min and Jeon 2009; Lee, Lee, Chun, Lee and Yoon 2001; Jeon 2000).

Many studies showed that depression is experienced by a large number of defectors (Cha, et al. 2018; Kim, Kim and Kim 2017; Nam, Kim, DeVlylder and Song 2016; Jeon et al. 2009; Lee, Min and Jeon 2009; Lee et al. 2001; Jeon 2000). A few studies went beyond the presence of the symptom of depression and examined its correlates. Um, Chi, Kim, Palinkas and Kim (2015) found that perceived discrimination was positively correlated with depression. Another study found that income was correlated with depression – i.e., families with very low family income of under 1.0 million Korean Won showed six times greater likelihood of depression compared to families with moderately low income of under 1.5 million Korean Won (Jeon et al. 2009). On the other hand, Kim, Kim, Choi and Nam (2017) did not find a significant effect between sexual victimization and depression or post-traumatic stress disorder (PTSD). A study in China of defectors in protective facilities found that females had higher levels of depression, anxiety and schizophrenia compared to males (Yu and Jeon 2008).

Another study showed that defectors with PTSD symptom dropped dramatically in a follow-up study conducted seven years later (Jeon, Eom and Min 2013). The number of traumatic experiences was not always found to be a clear and significant indicator of PTSD (Park, Jun, Lee, Kim, Lee, Yoo and Kim 2015; Jeon et al. 2005). Rather, Park et al. (2015, 81) found that the “role of alexithymia in the development of PTSD is likely to be more prominent in victims of multiple traumatic experiences.” In a study of female defectors, the most prevalent symptom of PTSD was somatization, which was linked with having an income under 1.0 million Korean Won (Shin and Lee 2015).

Experiencing trauma, including the violation of their economic or political human rights, was found to have a significant negative relationship with mental health (Cha et al. 2018; Lim and Han 2016; Kim, Cho and Kim 2015; Lee et al. 2001). The majority of defectors experienced at least one type of trauma, with some studies reporting over ninety percent experiencing trauma (Lee et al. 2001).

Such trauma could be part of the reason why adolescent defectors may greatly internalize their problems and have significantly higher levels than their South Korean peers for anxiety, depression and social dysfunction (Lee, Shin and Lim 2012). Jeon, Yu, Cho, and Eom (2008) found a drop in the trauma rate of recent defectors compared to new defectors to South Korea based on a questionnaire conducted in 2004.

Although most studies did not examine suicidal ideation, income was shown to have a significant effect on suicidal ideation (Kim, Kim, Cho and Nam 2017), while income was shown to be strongly correlated with depression (Jeon et al. 2009), which has previously been noted to be a predictor of suicide (Stack 2000). Comparing suicidal ideation of defectors with South Koreans, Shin, Lee, and Park (2016, 595) found that defectors who “had longer durations of stays abroad, more than two escape attempts from North Korea, and longer durations of stays after entering South Korea all showed higher rates of suicidal ideation.”

Studies also showed that acculturation is a significant problem since stress from integration into their host community can also decrease self-efficacy and mental well-being (Lim and Han 2016; Kim, Cho and Kim 2015).

It is important to understand health from a gendered approach in both mental and physical health, especially in light of the notorious trafficking of North Korean women (Choe 2019; Ochab 2019). Traffickers are said to use rape as well as physical and psychological abuse to control these women, although the long-term effects have not yet been studied thoroughly (Kim, Yun, Park and Williams 2009). Thus, a more nuanced, longer-term, and gender-based research during the experience of leaving the DPRK, in transit as well as settlement in South Korea should be conducted in future research.

A few studies recommended solutions for dealing with mental health challenges. Resilience was shown to be very important for defectors' mental health (Lim and Han 2016; Kim, Cho and Kim 2015), and ego resiliency was shown to mediate acculturation stress among the young defectors (Kim, Cho and Kim 2015). Socio-cultural adjustment has been found to be positively associated with psychological adjustment (Kraeh, Froese and Kim 2016). Um, Chi, Kim, Palinkas and Kim (2015) found higher levels of adaptation correlated with lower levels of depression, and Emery, Lee and Kang (2015) found that higher levels of family order and attachment to both parents were associated with lower levels of self-reported depression in a study of defector youth and adolescents born in China by defector mothers.

Length of stay in South Korea was generally positively correlated with improved mental health (Pak 2010; Pak 2004). However, not much information was provided of the length of stay if it was interrupted with transit through a third country. In some studies, defector women's mental health improved with a stay of over four years in South Korea (Cho et al. 2015), while other studies showed

that mental health variables are negatively correlated with the length of stay (Shin, Lee and Park 2016; Jeon et al. 2005).

In sum, studies written in English investigated a range of psychological characteristics, with depression and PTSD among the most pressing mental health challenges facing the defector community, but did not provide much in the way of policy recommendations (Cha et al. 2018; Kim, Kim and Kim 2017; Nam et al. 2016; Emery, Lee and Kang 2015; Park et al. 2015; Um et al. 2015).

Korean language studies were largely on refugee women and children and assumed that the subjects would have incurred severe trauma in the process of leaving the DPRK, and/or migrating through a third country, and settling in South Korea as a defector. Many studies showed that defectors have overall poor mental health, and this was more acute for women due to sexual violence and trafficking (Yang and Yun 2017; Kang and Chang 2009; Kang 2005; Cho and Jeon 2005). Another study found that 45.5 percent of female defectors had suicidal thoughts in the past year, which was much higher than the South Korean adult average of 3.7 percent (Kim et al. 2013).

An overwhelming share of female defectors (86.4%) had sexual dysfunction, compared to 50-60 percent of South Korean women (Rhee, Ku, and Han 2013). About half of female defectors had depression (48.5% for women defectors vs. 21.5% for South Korean women) (Kim, Ryu, and Kim 2014). However, there was an unexpected finding that married women currently living with a spouse had more mental health difficulties than single women or married women not living with a spouse (Cho and Jeon 2005). Exposure to sexual violence and trafficking was negatively associated with anxiety and fear (Yeun 2005). Long-term adaption was more strongly correlated with depression and anxiety compared to PTSD itself (Cho and Kim 2010), while PTSD mattered more than trauma itself in determining sexual autonomy (Lee and Kim 2019). It was found that defectors with 1-3 years since settlement had the worst levels of depression and guilt (Kim 2012).

It is important to study the defector children's mental health. A growing number of defector children are increasingly born in third countries, and not in the DPRK. According to statistics from the Ministry of Education in 2017, 64.8 percent of elementary defector children were born in third countries. They face additional difficulties since they were born in challenging circumstances that made their parental and family environment very difficult for a normal childhood (Lee 2012). Since most mothers entered South Korea before their children came, the children tended to develop unstable attachment to their mothers once they were reunited, and the trauma and depression experienced by many female defectors during the defection process had a negative impact on their children's mental health (Do 2018). Children often did not receive proper school education in third countries, so they had difficulty adapting to South Korean schools. They

were also exposed to rejection by South Korean students since they had poor Korean language ability (Eun and Cho 2015). Considering these aggravated mental health problems for defector children, Noh and Oh (2018) recommended that school-based mental health programs be established to enhance defector children's mental health.

In sum, although it is true that female defectors suffer severely from mental health challenges, it seems that what matters more is what comes after the trauma than the experience itself. Married female defectors tend to show a higher tendency for mental health problems, possibly due to double marriage or spousal abuse. Thus, more nuanced studies are needed that take into consideration the full context of their life circumstances. In addition, several studies indicated that there are acculturation challenges in settling in South Korea. Although one may assume that the defectors would face less problems in settling in South Korea since they speak the same language, the reality was different. Not only has the Korean language changed in DPRK since the two Koreas were divided which made it challenging for the defectors to easily settle in South Korea, but there were reports of harassment and mistreatment of defectors which contributed to their mental health challenges. Thus, more in-depth studies of defectors' experience settling in South Korea including real and perceived discrimination is needed.

We noted that studies on North Korean women and children's health did not provide much in terms of healthcare delivery and policy recommendations in both the English and Korean studies. Only two Korean studies provided policy recommendations (Hwang 2012; Park and Lee 2013). More multidisciplinary studies are needed since the health challenges are complex and show both physical and mental health difficulties, along with complex circumstances that contributed to the ill health. Perceived discrimination and acculturation stress hurt defectors' mental health, therefore it is important to support defectors with depression, and also to educate South Koreans in order to promote a more welcoming host community environment (Lim and Han 2016; Um et al. 2015; Jeon 2000). Another study called for improvements in how South Korea handles challenges of its entire population – i.e., society-wide problems of high suicide rate and alcohol consumption—since they also affect the defector community (Kim, Kim, Choi and Nam 2017).

IV. CONCLUSION

Our study began with an alarming note that there is a lack of understanding about the health status of North Korean women and children, even when the number of women defecting to South Korea has risen dramatically in recent years. Around eighty percent of defectors arriving in South Korea in the

last five years, and seventy-two percent of all arrivals in the last twenty years are female (Ministry of Unification 2019). This is due to two reasons: first, women dominate in the thriving *jangmadang* (black market), where they can get access to the network of defection brokers and information about the outside world (Maresca 2017; Ernst and Jurowetzki 2016); and second, growing preference for female defectors over males in China, the most popular transit country. Male defectors are increasingly viewed as a source of crime and violence, while females are welcomed as petty laborers and potential spouses to Chinese locals (Yoon, Park, and Im 2014).

Our review of both English and Korean studies showed some interesting patterns. First, there was a greater focus on North Korean defectors to South Korea than women and children in the DPRK. This was likely due to the limits of disaggregated data in the DPRK and the DPRK government's reluctance to allow for empirical research. Second, the impact of the great famine in the DPRK was evident in the small stature and other health status of North Koreans compared to both their South Korean counterparts as well as to North Koreans who were not affected by the famine. Third, there was a clear gender difference in health among the people in the DPRK and defectors, which suggests that gender-based research is needed (Pak 2010; Jeon et al. 2008). In particular, some mental health challenges were significantly higher in female than male defectors, but did not go further to examine why this difference occurred from a gender-based analysis. A gendered approach is also needed for defector women in transit since trafficking is a serious problem (Choe 2019; Ochab 2019). Trafficking has serious consequences on both physical and mental health challenges, and thorough research is needed to examine the current status of the problem, causes, and possible solutions (Kim, Yun, Park and Williams 2009).

Since there is very little known about the health status of North Korean women, it is difficult to assess whether the studies reviewed in this paper reflect correctly the status of mental and physical health of North Korean women. However, empirical studies on North Korean defector women showed that a high level of stress was related to their migration experience and adjusting in the South Korean society. What is clear is that we need more empirical research on the health of North Korean women in the DPRK as well as those in transit and settlement in South Korea. In addition, this paper highlights the importance of including mental health as well as physical health in assessing the health of the North Korean and North Korean defector women.

As the DPRK is in discussions with the US, South Korea, and China, the time for the easing and removal of sanctions against the DPRK may come very quickly, not allowing for much preparation. Our study suggests that we need to have better empirical research on various health variables in the DPRK and defectors from both a humanitarian perspective, and from the viewpoint of

working with the DPRK through global, regional and inter-Korean cooperation. Our review has shown that health challenges faced by North Koreans and defectors are complex, and warrants that further research to be multidisciplinary to tackle the compounded nature of health challenges and solutions. The complexities of international politics, migration, mental and physical health, integration, abuse, and trafficking cannot be looked at in isolation. Finally, with the growing number of North Korean women who are defecting to South Korea, it is critical that more research focus on the health challenges of women and children from a gendered approach in order to understand the context and determinants of their health challenges and to develop tangible policy recommendations to improve their health.

REFERENCES

<English Sources>

- Bahk, Jinwook, Majid Ezzati, and Young-Ho Khang. 2018. "The Life Expectancy Gap Between North and South Korea from 1993 to 2008." *European Journal of Public Health* 28(5): 830-835.
- Cha, Jiho, Pamela J. Surkan, Jaeshin Kim, Isabel A. Yoon, Courtland Robinson, and Hayoung Lee. 2018. "Human Rights as Political Determinants of Health: A Retrospective Study of North Korean Refugees." *American Journal of Preventive Medicine* 55(2): 271-279.
- Choe, Sang-Hun. 2019. "After Fleeing North Korea, Women Get Trapped as Cybersex Slaves in China," in *The New York Times*, last modified Sept. 13, 2019. Accessed Oct. 20, 2019, <https://www.nytimes.com/2019/09/13/world/asia/north-korea-cybersex-china.html>
- Choi, Seul Ki, Sang Min Park, and Hyojee Joung. 2010. "Still Life with Less: North Korean Young Adult Defectors in South Korea Show Continued Poor Nutrition and Physique." *Nutrition Research and Practice* 4(2): 136-141.
- Cho, Sun Wook, So Hee Lee, Eun Sil Koh, Si Eun Kim, and Seok Joong Kim. 2015. "Characteristics of Body Composition and Muscle Strength of North Korean Refugees during South Korean Stay." *Endocrinology and Metabolism* 30(4): 551-556.
- Emery, Clifton R., Jung Yun Lee, and Chulhee Kang. 2015. "Life after the Pan and the Fire: Depression, Order, Attachment, and the Legacy of Abuse among North Korean Refugee Youth and Adolescent Children of North Korean Refugees." *Child Abuse and Neglect* 45: 90-100.
- Ernst, Maximilian and Roman Jurowetzki. 2016. "Satellite Data, Women Defectors and Black Markets in North Korea: A Quantitative Study of the North

- Korean Informal Sector Using Night-Time Lights Satellite Imagery." *North Korean Review* 12(2): 64-83.
- Goe, Leon C., Mary Anne S. Baysac, Knox H Todd, John A Linton. 2005. "Assessing the Prevalence of Dental Caries among Elementary School Children in North Korea: A Cross-sectional Survey in the Kangwon Province." *International Journal of Dental Hygiene* 3(2): 112-116.
- Jeon, Bong-Hee, Moon-Doo Kim, Seong-Chul Hong, Na-Ri Kim, Chang-In Lee, Young-Sook Kwan, Joon-Hyuk Park, Jaehwan Chung, Hanul Chong, Eun-Kyung Jwa, Min-Ho Bae, Sanghee Kim, Bora Yoo, Jun-Hwa Lee, Mi-Yeul Hyun, Mi-Jeong Yang, and Duk-Soo Kim. 2009. "Prevalence and Correlates of Depressive Symptoms among North Korean Defectors Living in South Korea for More than One Year." *Psychiatry Investigation* 6(3): 122-130.
- Jeon, Woo-Taek. 2000. "Issues and Problems of Adaptation of North Korean defectors to South Korean society: An In-depth Interview Study with 32 Defectors." *Yonsei Medical Journal* 41(3): 362-371.
- Jeon, Woo-Taek, Jin-Sup Eom, and Sung Kil Min. 2013. "A 7-Year Follow-Up Study on the Mental Health of North Korean Defectors in South Korea." *Journal of Traumatic Stress* 26(2): 158-164.
- Jeon, Woo Taek, Chang Hyung Hong, Chang Ho Lee, Dong Kee Kim, Mooyoung Han, and Sung Kil Min. 2005. "Correlation between Traumatic Events and Posttraumatic Stress Disorder among North Korean Defectors in South Korea." *Journal of Traumatic Stress* 18(2): 147-54.
- Jeon, Woo-Teak, Shi-Eun Yu, Young-A Cho, and Jin-Sup Eom. 2008. "Traumatic Experiences and Mental Health of North Korean Refugees in South Korea." *Psychiatry Investigation* 5(4): 213-220
- Kim, Eunyoung, Minwoo Yun, Mirang Park, and Hue Williams. 2009. "Cross Border North Korean Women Trafficking and Victimization between North Korea and China: An Ethnographic Case Study." *International Journal of Law Crime and Justice* 37(4): 154-169.
- Kim, Hyo Hyun, Yu Jin Lee, Ha Kyoung Kim, Jung Eun Kim, Seog Ju Kim, Seung-Min Bae, and Seong-Jin Cho. 2011. "Prevalence and Correlates of Psychiatric Symptoms in North Korean Defectors." *Psychiatry Investigation* 8(3): 179-185.
- Kim, Hyun Kyoung, Hee Sook Kim, and Seog Ju Kim. 2017. "Association of Anxiety, Depression, and Somatization with Menstrual Problems among North Korean Women Defectors in South Korea." *Psychiatry Investigation* 14(6): 727-733.
- Kim, Jae Yop, Hee Jin Kim, Kwonho Choi, and Boyoung Nam. 2017. "Mental Health Conditions Among North Korean Female Refugee Victims of Sexual Violence." *International Migration* 55(2): 68-79.

- Kim, Kyounghae, Soohyun Kim, and Yoonkyung Chung. 2017. "A Qualitative Study Exploring Factors Associated with Pap Test Use among North Korean Refugees." *Health Care for Women International* 38(10): 1115-1129.
- Kim, Yeunhee J., Cho, Young-A, and Hyun Ah Kim. 2015. "A Mediation Effect of Ego Resiliency Between Stresses and Mental Health of North Korean Refugee Youth in South Korea." *Child and Adolescent Social Work Journal* 32(5): 481-490.
- Kraeh, Albert, Fabian Jintae Froese, and Sin Gon Kim. 2016. "Does Socio-cultural and Psychological Adjustment Influence Physical Health? The Case of North Korean Refugees in South Korea." *International Journal of Intercultural Relations* 51: 54-60.
- Lee, Chang-ho, Sung-kil Min, Woo-taek Jeon, Mika Kigawa, and Michiya Sugawara. 2009. "Mental Health and Quality of Life of North Korean Defectors Living in Japan." *Asian Journal of Psychiatry* 2(3): 95-99.
- Lee, Min Kyeong and Gisoo Shin. 2018. "A Mobile Video Intervention for Women's Health of North Korean Defectors." *Public Health Nursing* 35(6): 558-562.
- Lee, Soo-Kyung. 2017. "North Korean Children: Nutrition and Growth." *Annals of Pediatric Endocrinology & Metabolism* 22(4): 231-239.
- Lee, Yunhwan Lee, Myung Ken Lee, Ki Hong Chun, Yeon Kyung Lee, and Soo Jin Yoon. 2001. "Trauma Experience of North Korean Refugees in China." *American Journal of Preventive Medicine* 20(3): 225-229.
- Lee, Yeeun, Minji Lee, and Subin Park. 2017. "Mental Health Status of North Korean Refugees in South Korea and Risk and Protective Factors: a 10-year Review of the Literature." *European Journal of Psychotraumatology* 8(2): 1-13.
- Lee, Young Mun Lee, Ok Ja Shin, and Myung Ho Lim. 2012. "The Psychological Problems of North Korean Adolescent Refugees Living in South Korea." *Psychiatry Investigation* 9(3): 217-222.
- Lim, So-Hee, and Sang-Sook Han. 2016. "A Predictive Model on North Korean Refugees' Adaptation to South Korean Society: Resilience in Response to Psychological Trauma." *Asian Nursing Research* 10(2): 164-172.
- Lu, Zhiyong. 2011. "PubMed and Beyond: a Survey of Web Tools for Searching Biomedical Literature." *Database* 2011: 1-13.
- Maresca, Thomas. 2017. "Why the Overwhelming Majority of North Korean Defectors Are Women," in *USA Today*, last modified December 10, 2017. Accessed December 14, 2019, <https://www.usatoday.com/story/news/world/2017/12/10/most-defectors-north-korea-women/923072001/>
- Ministry of Unification. 2019. "Policy on North Korean Defectors." Accessed October 13, 2019, https://www.unikorea.go.kr/eng_unikorea/relations/statistics/

defectors/

- Nam, Boyoung, Jae Yop Kim, Jordan E. DeVlyder, and Ahyoung Song. 2016. "Family Functioning, Resilience, and Depression among North Korean Refugees." *Psychiatry Research* 245: 451-457.
- Ochab, Ewelina U. 2019. "Trafficking of North Korean Women in China," in Forbes, last modified July 1, 2019, accessed October 21, 2019, <https://www.forbes.com/sites/ewelinaochab/2019/07/01/trafficking-of-north-korean-women-in-china/#51a8bf477af0>
- Pak, Sunyoung. 2010. "The Growth Status of North Korean Refugee Children and Adolescents from 6 to 19 Years of Age." *Economics & Human Biology* 8(3): 385-395.
- Pak, Sunyoung. 2004. "The Biological Standard of Living in the Two Koreas." *Economics & Human Biology* 2(3): 511-521.
- Park, John, Ah-Young Lim, Hyung-Soon Ahn, Andrew I Kim, Soyoung Choi, David H.W. Oh, Owen Lee-Park, Sharon Y Kim, Sun Jae Jung, Jesse B Bump, Rifat Atun, Hee Young Shin, Kee B. Park. 2019. "Systematic Review of Evidence on Public Health in the Democratic People's Republic of Korea." *BMJ Global Health* 4(2): 1-9.
- Park, Juhyun, Jin Yong Jun, Yu Jin Lee, Soohyun Kim, So-Hee Lee, So Young Yoo, and Seog Ju Kim. 2015. "The Association Between Alexithymia and Posttraumatic Stress Symptoms following Multiple Exposures to Traumatic Events in North Korean Refugees." *Journal of Psychosomatic Research* 78(1): 77-81.
- Park, Jeongok, Hee Sook Kim, Wonhee Yang, Hae Won Lee, and Sang Min Park. 2018. "Cervical Cancer Screening and Its Associated Factors Among North Korean Defectors Living in South Korea." *Journal of Immigrant and Minority Health* 20(1): 66-72.
- Rim, Hui Yong, Su Huan Kim, Byong Chel Sim, Hae Yong Gang, Ho Yong Kim, Yong Ran Kim, Rak Chel Kim, Mun Hui Yang, and Sang Pil Kim. 2008. "Effect of Iron Fortification of Nursery Complementary Food on Iron Status of Infants in the DPRKorea." *Asia Pacific Journal of Clinical Nutrition* 17(2): 264-269.
- Schwekendiek, Daniel and Sunyoung Pak. 2009. "Recent Growth of Children in the Two Koreas: A Meta-Analysis." *Economics & Human Biology* 7(1): 109-112.
- Shin, Gisoo and Suk Jeong Lee. 2015. "Mental Health and PTSD in Female North Korean Refugees." *Health Care for Women International* 36(4): 409-423.
- Stack, Steven. 2000. "Suicide: A 15-year Review of the Sociological Literature. Part I: Cultural and Economic Factors." *Suicide and Life-Threatening Behavior* 30(2):145-62.

- Sood, Amit and Amit Ghosh. 2006. "Literature Search Using PubMed: An Essential Tool for Practicing Evidence- Based Medicine." *Journal of Association of Physicians of India* 54(4):303-308.
- Tarvonen, Pirkko-Liisa, Kirsi Sipila, GS Yang, JK Kim, M-L Lamidi, and Arho L. Suominen. 2016. "Comparison of two preventive interventions on dental caries among children in Democratic People's Republic of Korea." *International Journal of Dental Hygiene* 14(4):301-306.
- Tarvonen, Pirkko-Liisa, Arho L. Suominen, GS Yang, YS Ri, and Kirsi Sipila. 2017. "Association between Oral Health Habits and Dental Caries among Children in Pyongyang, Democratic People's Republic of Korea." *International Journal of Dental Hygiene* 15(4): 136-142.
- Tran, Nguyen Toan, Song Il, Choe, Richard Taylor, Won Suk Ko, Hae Suk Pyo, and Hyon Chol So. 2011a. "Knowledge, Attitude and Practice (KAP) concerning Cervical Cancer and Screening among Rural and Urban Women in Six Provinces of the Democratic People's Republic of Korea." *Asian Pacific Journal of Cancer Prevention* 12(11): 3029-3033.
- Tran, Nguyen Toan, Song Il, Choe, Richard Taylor, Won Suk Ko, Hae Suk Pyo, and Hyon Chol So. 2011b. "Knowledge, Attitude and Practice (KAP) concerning Cervical Cancer and Screening among Rural and Urban Women in Six Provinces of the Democratic People's Republic of Korea." *Asian Pacific Journal of Cancer Prevention* 12(11): 3023-3028.
- Um, Mee Young, Iris Chi, Hee Jin Kim, Lawrence A. Palinkas, and Jae Yop Kim. 2015. "Correlates of Depressive Symptoms among North Korean Refugees Adapting to South Korean Society: The Moderating role of Perceived Discrimination." *Social Science & Medicine* 131: 107-113.
- Yu, Shi-Eun and Woo-Teak Jeon. "Mental Health of North Korean Refugees in Protective Facilities in China." *Psychiatry Investigation* 5(2): 70-77.

<Korean Sources>

- Ahn, Sun Young, Sung Hyeok Ryou, and Suk Bae Kim. 2015. "Clinical Characteristics Defectors from North Korea Visiting a Single Tertiary Hospital in South Korea(단일 3차 의료기관에 내원한 탈북자 환자들의 임상적 특징)." *Korean Journal of Medicine* 89(1): 54-63.
- Cho, Kyung Sook. 2016a. "Infant/Child Mortality and Humanitarian Aids to North Korea(북한의 영아 및 아동 사망률과 대북 인도적 지원)." *Health and Social Welfare Review* 36(3): 485-515.
- Cho, Kyung Sook. 2016b. "Major Health Indicators in South and North Korea: With Special Reference to West and East Germany(통일 독일의 사례를 통해 본 남북한 주요 건강지표의 현황과 전망)." *Health and Social Welfare Review* 36(2): 33-56.
- Cho, Young A and Woo Taek Jeon. 2005. "A Qualitative Study of North Korea

- Women Defectors' Adaptation to South Korean Life(탈북 여성들의 남한 사회 적응 문제)." *The Korean Journal of Woman Psychology* 10(1): 17-35.
- Cho, Young A and Yeun Hee Kim. 2010. "Predictors of Mental Health Risks in Newly Resettled North Korean Refugee Women(초기 거주 북한이탈여성의 정신건강 고위험군 예측요인)." *The Korean Journal of Woman Psychology* 15(3): 509-527.
- Do, Ji-wan, 2018. "Qualitative Case-study on Transit of North Korean Defector's Children Born in the Third Countries and Their Experience of Family Relationship(제 3국 출생 북한이탈청소년의 이주와 가족관계 경험에 관한 질적 사례연구)." (Master's dissertation, Korea University).
- Eun, Jihyun and Youngha Cho. 2015. "A Study on the Perceptions of School Bullying by Young North Korean Defectors(탈북청소년들의 학교폭력에 대한 인식 경험 연구)." *Studies on Korean Youth* 26(1) 51-77.
- Hwang, Na Mi. 2010. "Identification of Health Indicators Based on the 2008 Census of Population in DPR Korea(2008 북한 인구센서스를 통해 본 북한 보건지표 평가)." *Health and Welfare Policy Forum* 169:76-88.
- Hwang, Na Mi. 2012. "Achieving the Millennium Development Goals and Challenges Facing the Health Sector in North Korea(북한의 UN 새천년 개발목표(MDGs) 달성도 및 우선순위보건과제)." *Health and Welfare Policy Forum* 192: 74-87.
- Jeon, Jeung-hee, Kwon Myoung-Ok, Kim Hyewon, Jung Yoomi, Hwang Se-min, and Ha Beomman. 2018. "Sexual Knowledge, Sexual Attitude, Stress Coping, and Resilience of North Korean Female Defectors(북한이탈여성의 성지식, 성태도, 스트레스 대처와 자아탄력성)." *Journal of Military Nursing Research* 36(1): 22-34.
- Jung, Yu-Jin and Bit-Nae Choi. "Effects of the Length of Stay in Transit Country and Forcible Repatriation Experience on the Mental Health of North Korean Refugee Women Resettled in South Korea: BPSI-NKR Analysis (탈북에서 입국까지의 기간 및 북송경험이 탈북 여성의 심리상태에 미치는 영향)." *Korean Journal of Woman Psychology* 22(1): 47-67.
- Kang, Cha Yeun. 2005. "The Stress Copying Style of the Female North Korean Refugees in China(재중 탈북여성들의 스트레스 대처방식)." *The Korean Journal of Woman Psychology* 10(1): 61-80.
- Kang, Sook Jung and Chang Ho Lee. 2009. "Psychological Understanding of Saeteomin through MMPI Results: Based on Gayang-Dong Saeteomin (MMPI검사결과를 통한 새터민의 심리상담적 접근: 가양동 새터민을 중심으로)." *Korea Journal of Counseling* 10(1): 235-250.
- Keum, Myoung Ja. 2015. "The Trend of Research related to North Korean, North Korean Refugee, and Unification in Korean Psychology: Analysis of Research in 14 Korean Journals of Psychology:2000-2013(한국심리학회

- 의 북한 및 북한이탈주민 관련 연구 동향)." *Korean Journal of Psychology: General* 34(2): 541-566.
- Kim, Hee Kyung. 2010. "The Relations between Defense Mechanism and Mental Health Problems of North Korean Female Refugees(탈북 여성의 방어기제와 정신건강의 관계)." *The Korean Journal of Woman Psychology* 15(1):155-173.
- Kim, Hee Kyung. 2012. "Comparison of the Influence of Depressed Mood, Parenting Guilt, and Parenting Stress on Parenting Behaviors in North Korean Women Refugees and South Korean Women(탈북 여성과 남한 여성의 우울감, 양육 죄책감 및 양육 스트레스가 양육 행동에 미치는 영향력의 차이)." *The Korean Journal of Woman Psychology* 17(4): 535-558.
- Kim, Hee Sook, Haewon Lee, and Sang Min Park. 2015. "Survey of North Korea's Maternal and Newborn Health Management through North Korean Defectors(북한이탈주민 설문조사를 통해 본 북한의 모성과 신생아 건강관리 실태)." *Journal of the Korean Society of Maternal and Child Health* 19(1): 37-46.
- Kim, Hye Ryun. 2007. "Overview of the Nutritional Status and Policy Directions of Supporting Children's Nutrition in North Korea(북한 주민의 영양상태 현황과 정책 과제)." *Health and Welfare Policy Forum* 132: 24-34.
- Kim, Hyun Kyoung, Hee Sook Kim, and Seog Ju Kim. 2016. "Difference of Traumatic Experience according to Menstrual Regularity among North Korean Woman Refugees in South Korea(북한이탈 여성의 월경규칙성에 따른 외상경험 차이)." *Journal of the Korean Society of Maternal and Child Health* 20(1): 43-53.
- Kim, Jae Yeop, Won Jung Ryu, and Ji Min Kim. 2014. "A Study on Daily Life Stress and Depression -Moderating Effect of Traumatic Event(탈북여성의 생활사건스트레스와 우울에 관한 연구 -외상경험의 조절효과)." *Korean Journal of Family Social Work* 46: 85-107.
- Kim, Jae Yop, and Won Jung Ryu. 2016. "A Study on Cycle of Child Abuse among North Korean Refugee Women: Focused on Aggravating Effects of Spouse Abuse(탈북여성의 아동학대 피해 및 가해에 관한 연구: -배우자 폭력의 가중효과를 중심으로)." *Korean Journal of Family Social Work* 52: 375-399.
- Kim, Jae Yop, Kwon Ho Choi, Ji Hun Chae, and Hyun Ju Hwang. 2013. "Life Stress, Social Support and Suicidal Ideation of North Korean Refugee Women in South Korea(탈북여성의 일상생활 스트레스가 자살생각에 미치는 영향과 사회적 지지의 조절효과)." *Korean Journal of Social Welfare Studies* 44(2): 33-56.
- Kim, Joo Hyung, Sol Ah Park, Nam Hoon Kim, Jae Hee Ahn, Yoon Jung Kim, Myoung Jin Cho, Yoon Jung Lee, Hye Jin Yoo, Hee Young Kim, Ji A Seo, Nan Hee Kim, and Kyung Mook Chol. 2012. "Thyroid Dysfunction of

- North Korean Women Living in South Korea, Focusing on Subclinical Hypothyroidism(남한에 거주하는 북한 이주민 여성의 갑상선기능 이상: 무증상 갑상선기능저하증을 중심으로)." *Endocrinology and Metabolism* 27(3): 200-207.
- Kim, Min, Sunhee Cho, and Gyeong-suk Jeon. 2014. "Barriers and Strategies to Adaptation among Korean Male Nursing Students: A Systematic Review." *Korean Journal of Stress Research* 22: 109-119.
- Kim, Seok Hyang and Eun Ju Lee. 2012. "The Trend and the Task of North Korean Women Researches(북한여성 연구의 동향과 과제)." *North Korean Studies Review* 16(2): 229-268.
- Kim, Seok Hyang and Min Ju Park. 2016. "The Practice of Women and Social Structure on the Reproductive Sphere in North Korea: The Reproduction-related Legislations and Women's Experience(북한 내 재생산 영역의 사회구조와 여성의 실천)." *Women's Studies Review* 33(1): 99-134.
- Kim, Soo Youn. 2010. "The Study on Impact of North Korea's Famine on Fertility and Reproductive Health(기근이 북한 여성의 출산 및 생식보건에 미친 영향)." (Ph.D. dissertation, Seoul National University.).
- Kwak, Su-Jin. 2014. "A Study on Birth Experience of North Korean Women(북한 여성의 출산 경험 연구)." (Master's dissertation, University of North Korean Studies).
- Kwon, Mi Kyoung, Jin Sun Kim, and Sang In Nam. 2019. "Research Trend on Adult Suicide in South Korea." *Crisisonomy* 15(9): 17-37.
- Lee, Gee Dong. 2011. "The Consciousness of 'March of Suffering' Generation and Regime Change." *Journal of North Korean Studies* 36(2): 8-39.
- Lee, Ki-Hyun, 2012. "Strategic Approaches to China's North Korean Defector Policy." *The Korean Journal of National Unification* 21(2): 119-142.
- Lee, Minji, Jinyong Jun, and Hyein Chang. 2016. "Perceived Discrimination, Acculturation, Acculturative Stress, and Depression among North Korean Refugees: A Mediated Moderation Model(차별지각, 문화적응, 문화적응 스트레스가 북한이탈주민의 우울에 미치는 영향)." *Korean Journal of Woman Psychology* 21(3): 459-481.
- Lee, Soon Min and Woochan Shim. 2018. "An Analysis of Trends in Quantitative Studies on Female North Korean Refugees(탈북여성 관련 양적 연구동향 분석)." *Journal of the Korea Contents Association* 18(7): 470-483.
- Lee, Woo Young. 2016. "'Arduous March and the Mind of North Korean People: The State's Account of the March.'" *The Korean Journal of Unification Affairs* 28(1): 173-203.
- Lee, Young Jin and Hae Won Kim. 2019. "Association of Traumatic Events, Post Traumatic Stress Disorder and Sexual Autonomy among Female University Students of North Korean Defectors(북한이탈 여대생의 외상경험, 외상 후 스트레스장애와 성적 자율성의 관련성)." *Korean Journal of Women*

Health Nursing 25(1): 46-59.

- Lim, Hyun-Ju, Lee Guna, and Yang Sook-Ja. 2017. "The Trends in Research on the Health of North Korean Refugees(북한이탈주민의 건강 관련 연구 동향)." *Journal of Korean Academy of Community Health Nursing* 28(2): 144-155.
- Moon, Gaeul, Bora Park, Eunsil Lee, Gyuyeon Choi, Jeongjae Lee, Imsoon Lee, and Joonhwan Lee. 2015. "The Health Conditions of the North Korean Women Defectors and the Marriage Immigrant Women(탈북여성 및 결혼이주여성 건강 실태 조사)." *Journal of the Korean Society of Maternal and Child Health* 19(1): 103-109.
- Moon, Ok Ryun, Ji Eon Baek, Dong Sik Kim, and Chul Hyung Lee. 2004. "Comparison of North & South Korea Using Anthropometric Measurements of North Korea Detectors - North Korean Detectors at an Educational Institute(Hanawon) in South Korea." *Journal of Korea Association of Health Promotion* 2(2): 127-136.
- Park, Hyerim. 2019. "A Study on Food Supply Quantity and Main Food Sources of Nutrient in North Korea(북한의 식품 공급량 및 영양소 주요 급원식품에 대한 연구)." (Master's dissertation, Ewha Womans University).
- Park, Jung Ran and Dong Wan Kang. 2011. "A Study on Female North Korean Defectors: Trends, Controversial Issues, and Tasks(탈북여성 연구: 동향, 쟁점, 과제)." *North Korean Studies Review* 15(2): 1-24.
- Park, Jung Ran and Dong Wan Kang. 2011. "A Study on the Marriage and Family Relationships of Female North Korean Defectors from a Feminist Perspective: With a Focus on Changes to Individual Levels of Acculturation in a Migration Process(탈북여성 결혼의 젠더구조와 문화적응 고찰: 정체성, 경제, 건강수준을 중심으로)." *Locality and Globality: Korean Journal of Social Sciences* 35(2): 39-63.
- Park, Sang Min and Haewon Lee. 2013. "Current Status of Healthcare and Effective Health Aid Strategies in North Korea(북한의 보건의료 현황과 효율적 지원방안)." *Journal of the Korean Medical Association* 56(5): 368-374.
- Park, Sang Min, Haewon Lee, and Bo Hyun Kim. 2014. "Status of Mother-child Health in North Korea and Effective Aid Strategies(북한 모자보건 현황과 효율적 지원방안)." *KDI Review of the North Korean Economy* 16(8): 3-15.
- Park, Sun Young. 2000. "An Assessment of the Long - Term Effects of Food Crisis on Children's Growth and Development in North Korea(북한 식량 위기의 장기적 영향 평가: 인체의 성장발육과 건강에 미치는 영향과 그 사회적 함의)." *Korean Cultural Anthropology* 33(1): 207-240.
- Rhee, Young Sun, Hye Wan Ku, and In Young Han. 2011. "Systematic Reviews of North Korean Refugees: Women's Distinguishable Experience(학술논

- 문분석을 통해 본 북한이탈주민 여성의 특수성)." *The Korean Journal of Unification Affairs* 23(2):147-194.
- Rhee, Young Sun, Hye Wan Ku, and In Young Han. 2013. "Factors Related to Female Sexual Dysfunction of North Korean Women Defectors(북한이탈주민 여성의 성기능 실태 및 영향요인)." *Korean Journal of Health Education and Promotion* 30(2): 55-69.
- Ro, Eun-hee, and Insoo Oh. 2018. "A Study on Counseling and Educational Interventions for North Korean Defector's Children Born in the Third Countries: Focused on School Based Mental Health Program(제3국 출생 북한이탈주민 자녀를 위한 상담 및 교육적 개입방안 : 학교기반 정신건강 프로그램을 중심으로)." *The Korean Journal of Unification Affairs* 30(2): 227-264.
- Sim, Kyoung-bo. 2018. "Study on the Characteristics and Quality Level of Single Subject Researches in the Stroke Patients: The Field of Health Care" *The Journal of Korean Society of Community Based Occupational Therapy* 8(2): 15-28.
- Shin, Hee Young. 2015. *Expecting South-North Co R&D in Public Health to Become One Axis of Creative Economy* (Health Industry Trend, June Issue: 보건의료 R&D 남북공동 연구 창조경제 한 축 기대). Osong, Korea: Korea Health Industry Development Institute.
- Shin, Hye Won, Ji Hyun Kim, Ja Hyung Lee, and Yae Young Kim. 2007. "A Review of Health Care Systems and Women's Health Status of North Korea(북한의 보건의료와 여성건강상태에 관한 고찰)." *Health & Nursing* 19(1): 44-54.
- Shin, Nanhee. 2019. "Trends and Prospects of the Oral Studies About the North Korean Migrants: Focusing on North Korean Migrant Women(탈북이주민 구술연구의 동향과 전망: 탈북이주여성을 중심으로)." *The Journal of Humanities and Social Science* 10(4): 195-210.
- Shim, Jae Eun, Ji Hyun Yoon, Seong Yeon Jeong, Mi Na Park, and Yeon Sook Lee. 2007. "Status of Early Childhood and Maternal Nutrition in South Korea and North Korea(남북한 영유아 및 가임기 여성의 영양상태 비교)." *Korean Journal of Community Nutrition* 12(2): 123-132.
- Suh, Seong Hyuk, Shin Seung Hwan, and Byung Wook You. 2015. "The Study about Health-Related Fitness and Quality of Life in North Korean Female Refugees(새터민 여성의 건강관련 체력과 삶의 질에 관한 연구)." *Journal of the Korean Society for Wellness* 10(1): 311-321.
- The Institute for Peace Affairs. 2009. *10 Years of Hanawon: Established as a Resting Place for the North Korean Refugees*. Tongil Hankook 308: 87.
- Um, Taewan. 2012. "Relationships of Social Capital, Community Integration, and Depression in Female Saeteomins(새터민 여성의 사회적 자본 및 지역사회 통합과 우울의 관계)." *Health and Social Welfare Review* 32(3): 92-121.

- Wee, Hyeseung. 2018. "The Impact of Famine on Body Size: Analysis of Height by Cohort of North Korean Defectors(기근이 신체에 미친 효과: 북한 이탈주민의 키를 통해 살펴본 코호트별 분석)." *Korean Health Economic Review* 24(4): 123-143.
- Yang, Ok-Kyung and Ji-Hye Yun. 2017. "Scoping Review on the Mental Health Studies of North Korean Detectors in Korea(북한이탈주민의 정신건강 연구 동향 분석: 스코핑 고찰 방법을 중심으로)." *Multiculture & Peace* 11(2): 172-196.
- Yong, Young Suk and Suk Ja Kim. 2018. "Analysis of Research Trends on North Korean Defector Children(탈북 아동에 관한 연구 동향 분석)." *Korean Journal of Child Studies* 39(4): 23-37.
- Yoon, Yeosang, Sung Chul Park and Soon Hee Im. 2014. *Status of Infringement of Human Rights Due to Forced Repatriation of North Korean Defectors in China*. Seoul, Korea: North Korean Human Rights Information Center.
- Yun, Soh-Yoon, Young Hye Kwon, and Ji Hyun Yoon. 2016. "Status of Maternal Nutrition in South and North Korea(남북한 가임기 여성의 영양상태 비교)." *Korean Journal of Community Nutrition* 21(3): 265-273.

APPENDIX. Summary of the Reviewed Papers

<ENGLISH LANGUAGE STUDIES>

Author	Year	Topic	Data Source	Sample	Outcomes
Jeon	2000	Problems in adaptation of defectors to South Korea society	Interview	32 defectors (58 interviews)	4 problem areas: defectors' suspiciousness, different ways of thinking, searching for new values, and prejudice of the people in South Korea.
Lee et al.	2001	Trauma experience of defectors in China	Interviews	170 defectors in China	100% had trauma, 56% had PTSD, 90% had anxiety and 81% had depression.
Pak	2004	The biological standard of living in the two Koreas	Height data of defectors and South Korea controls	2384 defector adults, 283 children and youth	North Koreans did not experience an increase in physical stature in latter 20th century; gap with South Korea started from people born in late 1940s, more pronounced thereafter.
Goe et al.	2005	Prevalence of untreated dental caries among DPRK children	Oral health survey	854 children in DPRK	70.1% had dental caries; the oral health in DPRK was comparable to the countries with similar Social-Economic Status (SES).
Jeon et al.	2005	Correlation of traumatic events and PTSD among defectors in South Korea	Interviews, survey	200 defectors	Overall PTSD rate among defectors was 29.5%, with a higher occurrence for women.
Jeon et al.	2008	Traumatic experiences and mental health of defectors in South Korea	Survey	62 defectors	High levels of mania and schizophrenia among defectors; men had higher levels of alcohol problem and had less social support.
Rim et al.	2008	Iron fortification of nursery food on iron status of DPRK infants	Blood test results	234 infants in DPRK	Ferrous sulphate added to rice lowered the prevalence of iron deficiency and anemia among DPRK infants.
Yu and Jeon	2008	Mental health of defectors in protective facilities in China	Survey	65 defectors in China	Women had more anxiety, depression, and schizophrenia; longer stay in China worsened mental health.
Jeon et al.	2009	Depressive symptoms among defectors in South Korea for more than one year	Survey	367 defectors	30.5% among men and 34.7% among women had depressive symptoms; 33.1% among men and 36.1% among women had severe distress.
Kim et al.	2009	Cross border DPRK women trafficking and victimization in DPRK/China	Interview	77 female defectors in China/Thailand	Compared to other countries, DPRK women victims had a wider age range and were more educated; trafficking takes places in certain "hot spots" near the border.
Lee et al.	2009	Mental health and quality of life of defectors in Japan	Survey	30 defectors in Japan, 138 Japanese, 151 defectors in Korea	Lack of fluency in Japanese, unemployment, unclear nationality and the limited support system lead to poor mental health among defectors in Japan.

Author	Year	Topic	Data Source	Sample	Outcomes
Schwekendiek and Pak	2009	Recent growth of children in the two Koreas: a meta-analysis	UN surveys, body measurements	135 defector children (preschool)	2002 body measurements show same weight gap but slightly larger height gap from 1997; defector children have smaller gaps compared to DPRK children.
Choi, Park, and Joung	2010	Poor nutrition and physique of young adult defectors in South Korea	3-day food records	103 defectors, 309 South Korean youths	DPRK subjects significantly shorter (4.9 to 10.8 cm) and lighter (6.0 to 12.5 kg) and eating poorer; BMI results were only different for men.
Pak	2010	The growth status of defectors, age 6 to 19 years	Body measurements, interviews	1,406 measurements from defectors (youth), 55 interviews	Gap in height and weight were the smallest in pre-teen years, peaked in mid-teens, but decreased again in late-teens; girls' disparity was smaller.
Kim et al.	2011	Prevalence and correlates of psychiatric symptoms in defectors	Survey	144 defectors (124 females)	Somatization and depression were the two most prevalent mental issues; susceptibility to acculturation stressors aggravates them.
Tran et al.	2011a	Knowledge and attitude toward cervical cancer screening in DPRK	Survey, rural vs. urban	200 women in DPRK	Despite having the overall knowledge on preventive care, DPRK women are not taking screening services; no rural/urban gap on this.
Tran et al.	2011b	Knowledge and attitude toward cervical cancer screening in DPRK	Survey, rural vs. urban	201 women in DPRK	Awareness on national cervical cancer policy was lower in rural areas; only 4%(rural) and 21%(urban) of practitioners provided cytology.
Lee, Shin, and Lim	2012	Psychological problems of defectors living in South Korea	Survey	102 defectors (youth), 766 South Korean controls	Mental health of defectors was the most severe in internalized problems.
Jeon, Eom, and Min	2013	A 7-year follow-up study on the mental health of defectors in South Korea	Interview	106 defectors	PTSD decreased during the 7 year stay; current culture-related stress is the most important for mental health of defectors in South Korea.
Cho et al.	2015	Body composition and muscle strength of defectors in South Korea	Hand grip test, survey	158 defectors	Defectors had smaller physiques and weaker muscle strength than the controls.
Emery, Lee, and Kang	2015	Mental health and abuse of defector children/youth	Interview	82 defectors (or those with a defector parent)	Family order is a protective factor against depression, which weakened past abuse-depression relationship.
Kim, Cho, and Kim	2015	Ego resiliency between stresses and mental health of defector youth in South Korea	Survey	144 defectors (youth)	Ego resiliency mediates acculturation stress (but not trauma) and mental health outcome.

Author	Year	Topic	Data Source	Sample	Outcomes
Park et al.	2015	Alexithymia and PTSD following multiple traumatic exposures among defectors	Survey	199 defectors	To be able to clearly identify and express emotions for people with trauma is crucial for reducing PTSD symptoms.
Shin and Lee	2015	Mental health and PTSD in female defectors	Survey	97 female defectors	Mental health and PTSD levels were moderate; help needed for successful sociocultural transition.
Um et al.	2015	The role of perceived discrimination for defectors adapting to South Korean life	Survey	261 defectors	Poor sociocultural adaptation and perception of discrimination were associated more depression.
Kraeh, Froese, and Kim	2016	Socio-cultural/psychological adjustment and physical health among defectors in South Korea	Survey, medical examinations	394 defectors	Socio-cultural adjustment process to South Korea reduces physical health, while actually improves mental health.
Lim and Han	2016	Defectors' adaptation to South Korean society: resilience to trauma	Survey	445 defectors	Resilience can be improved through self-efficacy.
Nam et al.	2016	Family functioning, resilience, and depression among defectors	Survey	304 defectors	44% had depression, but family cohesion and resilience help mitigate it.
Shin, Lee, and Park	2016	Mental health of defectors in South Korea: a case-control study	Survey	593 defectors, 2372 controls	Depression/anxiety and suicidal ideation were prevalent among defectors; females and those who are single had higher suicidal ideation.
Tarvonen et al.	2016	Change in dental caries status in 2 different intervention groups in DPRK	Dental test results	500 children in DPRK	Dental caries decreased due to deciduous teeth exfoliation and dental treatment; early intervention had better results.
Kim, Kim, and Kim	2017	Anxiety, depression, and somatization with menstrual problems among defectors in South Korea	Survey	126 female defectors	Anxiety, depression, and somatization were correlated with menstrual problems.
Kim et al.	2017	Mental health conditions among female defector victims of sexual violence	Survey	140 female defectors	Suicidal ideation and alcohol use are significantly more prevalent for those women who experienced sexual violence.
Kim, Kim, and Chung	2017	Factors associated with Pap test use among defectors	Interview	8 defectors	Defector females had little knowledge and perceived need for preventive services; costs prevent them from receiving Pap tests.
Lee	2017	North Korean children: nutrition and growth	Review of published reports	National nutrition assessment surveys	DPRK children had "low" acute malnutrition level (improvement from the past); defector children in South Korea are smaller/lighter but catching up to South Korean children.
Lee, Lee, and Park	2017	Mental health of defectors in South Korea, 10 year review	Review of peer-reviewed papers	56 papers	High prevalence of PTSD and depression among defectors; 9 risk factors. More longitudinal studies are needed.

Author	Year	Topic	Data Source	Sample	Outcomes
Tarvonen et al.	2017	Oral health habits and dental caries among children in DPRK	Survey, dental examination results	492 children in DPRK	Frequent sweet snacking increased dental caries; tooth brushing and drinking water (instead of sugary beverages) were found to be unrelated.
Bahk, Ezzati, and Khang	2018	Life expectancy gap between DPRK and South Korea	DPRK/ South Korea census data	Secondary data	Life expectancy gap grew from 1 year in 1993 to 10 years in 2008. Reason: circulatory diseases, digestive diseases, infant mortality, external causes, cancers and infectious diseases.
Cha et al.	2018	Mental health consequences of the human rights violation	Survey	383 defectors in South Korea	Defectors had high levels of anxiety, depression and PTSD, which are associated with exposures to both political and economic rights violations.
Lee and Shin	2018	A mobile video intervention for health of female defectors	Survey	61 female defectors	Knowledge and behavioral confidence on vaginitis and cervical cancer increased after educational intervention.
Park et al.	2018	Cervical cancer screening and associated factors among defectors in South Korea	Survey	638 defectors	Defectors less likely to get cervical cancer screening, especially those who are 30–39 years old and are married.
Park et al.	2019	Recent growth of children in the two Koreas: a meta-analysis	Review of peer-reviewed papers	465 papers	Most studies were on defector children, especially on mental health of defectors. Only 165 were on DPRK; research gaps on social/environmental determinants of health and defector children.

<KOREAN LANGUAGE STUDIES>

Author	Year	Topic	Data Source	Sample	Outcomes
Park	2000	The effects of food crisis on DPRK children's growth and development	WFP reports	Reports	Medical system in DPRK broke down from late 80s, which resulted in massive deaths when famine hit. Women can get pregnant despite severe undernourishment; many unhealthy babies were born.
Moon et al.	2004	Anthropometric measurements of defectors: comparison with South Korea	BMI measurements	864 defectors (615 females)	South Koreans taller and heavier, even from before the famine; DPRK status aggravated in late 80s~90s. DPRK females 20-24 years old are 7 cm smaller; 12 years old, 23.5kg lighter.
Cho and Jeon	2005	Female defectors' adaptation to South Korean life	Interview	11 female defectors with marriage experiences	Many had chronic diseases. Married women currently living with a spouse had more mental issues than single women/married women not living with a spouse.
Kang	2005	Stress coping style and mental health of the female defectors in China	Survey	100 female defectors in China	Existence of a family member in DPRK increased anxiety; double-marriage and arrest experience by Chinese police increased hostility. Exposure to sexual violence/trafficking negatively associated with anxiety/fear.
Kimm	2007	Overview of the nutritional status in DPRK	UNICEF, WFP, EU, DPRK surveys	Reports	Although 2004 data shows decrease in malnutrition, infants who experienced famine in late 1990s show delayed growth in 2004. Large regional differences.
Lee et al.	2007	Review of health care system and women's health status	WHO, CBS statistics, UNICEF reports	Reports	Prenatal care has a wide coverage but low in quality; high levels of maternal death and abortion. Poverty leads to increased burden for females in particular.
Shim et al.	2007	Early childhood & maternal nutrition in DPRK and South Korea	DPRK Nutrition Survey, KATS survey for South Korea	Reports	30% of 30-35 months are underweight (10 times of South Korea), 50+% of 54-59 months have stunted growth (4-18 times of South Korea). Age 30-34 females' protein-energy malnutrition is 21 times higher than in South Korea.
Kang and Chang	2009	Psychological understanding of Saeteomin through MMPI results	Survey	69 defectors (45 females)	Women suffer more from sexuality/paranoia/antisocial-hypomania/hysteria/obsessive-compulsiveness/introversion than men.
Cho and Kim	2010	Predictors of mental health risks in female defectors	Interview	401 female defectors (less than 1 year in South Korea)	Depression/anxiety are more negatively related to successful adaptation than PTSD itself. Long-term depression from the difficulty in adjusting to South Korea is also very damaging.

Author	Year	Topic	Data Source	Sample	Outcomes
Hwang	2010	DPRK health indicators	2008 DPRK Census	Reports	DPRK maternal/infant mortality rate is 5 times higher than South Korea; life expectancy is 10+ years less. Divorce rate is higher for females due to economic empowerment.
Kim	2010	Defense mechanism & mental health problems of female defectors	Survey	283 female defectors	Mature and Narcissistic Defense mechanism are more widely used, compared to Immature and Neurotic Defense mechanism for female defectors.
Kim	2010	Impact of DPRK's famine on fertility and reproductive health	Interview, survey, HR documents from DPRK	20 interviews (defectors), 202 survey results (defectors), 442 HR documents	After mid-1990s, maternity care system in DPRK did not function. Children are similar until age 7~9, but starts to differ in physical development after age 10. 34.4% Hana-won had gender-related diseases.
Rhee, Ku, and Han	2011	Women's distinguishable experience among defectors	Review of peer-reviewed papers	403 papers in Korean	Only 8.22% of all study on defectors focus on women. Studies have narrow scope, high ratio of direct research, low ratio of clinical program evaluation.
Park and Kang	2011	A Study on female defectors: Trends, Issues, Tasks	Critical literature review, including reports/thesis	Korean papers: number unspecified	More females (65%) responded they are not healthy than males (47%). Females are twice more likely to have mental/cardiac diseases. Female defectors have much more mental issues than Korean women.
Park and Kang	2011	Marriage and Family Relationships of Female defectors	Critical literature review, including reports/thesis	Korean papers: number unspecified	20% of female defectors had OB-Gyn related diseases. Females in their 30s~50s had the most somatization, compared to women younger than 30.
Hwang	2012	Identifying MDG goals and challenges in DPRK health sector	Governmental reports	Reports	Infant mortality rate 19.3(2008); worsened situation in the past 20 years. Vaccination rate high but dependent on UNICEF support. Lack of basic medicine and emergency care.
Kim	2012	Depression and stress on parenting behaviors: DPRK vs. South Korean women	Survey	219 female defectors, 100 controls	Female defectors had more depression, parenting guilt and stress, and negative parenting behaviors. 1~3 years of settlement had the worst level of depression/guilt.
Kim et al.	2012	Thyroid Dysfunction of North Korean Women in South Korea	Survey, medical examinations	327 female defectors	Age was associated with a low risk for Subclinical Hypothyroidism (SCH); opposite result from South Korea. This is due to severe famine at the period of growth for defectors.

Author	Year	Topic	Data Source	Sample	Outcomes
Kim and Lee	2012	Trend of North Korean women researches	Review of books, peer-reviewed papers, theses	182 works	Started in 1970s, became active in 1990s, qualitative growth in 2000's. Only 6 papers on health/public health/beauty/fashion.
Um	2012	Social capital, community Integration, and depression in female Sacteomins	Survey	114 female defectors	Having a job or not, income, and physical health were related to depression, among which physical health having the strongest impact. Higher social capital lowered depression.
Kim et al.	2013	Stress, social support and suicidal ideation of female defectors in South Korea	Survey	156 female defectors	45.5% of female defectors had suicidal thoughts in the past 1 year (South Korean average 3.7%). 26.9% had depression and 58.3% had PTSD. Social support mitigates suicidal ideation.
Rhee, Ku, and Han	2013	Factors for female sexual dysfunction of female defectors	Survey	110 female defectors	86.4% of female defectors had sexual dysfunction, compared to 50–60% South Korean women. Sexual function level was higher for women with more education and who didn't experience rape.
Park and Lee	2013	Healthcare status and health aid strategies in DPRK	North-South Cooperative Fund, UN reports	Reports	South Korean government mainly have supported nutrition projects for infant, children, pregnant females; mother-child support projects can strengthen DPRK's public health system.
Kim, Ryu, and Kim	2014	Impact of trauma on stress/depression of female defectors	Surveys	200 female defectors	48.5% of female defectors have depression (South Korean women 21.5%). They are exposed to much stress; having trauma aggravates depression caused by the stress.
Kwak	2014	Birth experience of DPRK women (experience back in DPRK)	Interviews	12 female defectors	DPRK Policy first encouraged(post-war), and discouraged(70–80's), then encouraged childbirth(1990's). Yet in 2010 birth rate was 1.85 (world average, 2.52). No sex education.
Park, Lee, and Kim	2014	Status of mother-child health in DPRK and aid strategies	WHO, UNICEF, UNEPA reports	Reports	Neonatal mortality rate, maternal mortality rate, under age 5 child mortality rate improved after mid-1990's, but have stalled after mid-2000 s. Large differences across surveys.
Ahn, Ryou, and Kim	2015	Clinical characteristics of defectors	Hospital exam records	169 defectors (163 females)	Defectors showed high rates of chronic hepatitis B, chronic hepatitis C, pulmonary tuberculosis with multidrug resistance and parasite infection.
Keum	2015	Literature review of psychology research on defectors	Critical literature review, peer-reviewed articles	50 Korean papers	Despite their importance, not much work is done on health and women: 2 and 10 respectively. Defectors often point to health as their most urgent need.

Author	Year	Topic	Data Source	Sample	Outcomes
Kim, Lee, and Park	2015	DPRK's maternal and newborn health management	Survey	110 female defectors	Delivery: hospital (67.3%) and home (32.7%); 38.2% had serious emergency situations and needed to transfer; among them, 40.5% couldn't, 30.9% received postpartum care.
Moon et al.	2015	Health conditions of the women defectors & the married immigrant women	Medical examination records	138 female defectors, 81 immigrant women	32.8% had anemia, 11.8% had hepatitis B antigen positive rate, 48.6% had osteopenia or osteoporosis. 4.1% of pap smear showed abnormal findings, 29.1% had HPV positive rate, 4.5% had STDs.
Suh, Shin, and You	2015	Health-related fitness and quality of life in female defectors	Interview, physical test	80 female defectors (short vs. long stay)	Female defectors who were in South Korea over 3 years had significantly better physical and social functions, quality of life measures than those who had been in South Korea for less than 6 months.
Shin	2015	South Korea-DPRK co-research in public health/medical R&D	World Bank, UNICEF Reports	Reports	WB had indicators on life expectancy, infant/child mortality rate, under-5 mortality rate; UNICEF SOWC data has more maternal-child health related indicators.
Lee, Jun, and Chang	2016	Perceived discrimination, stress, depression in defectors	Survey	87 defectors	Higher perceived discrimination caused acculturation stress, which led to higher depression; but not as much for those who preferred DPRK culture over South Korea.
Cho	2016a	Major health indicators in South Korea and DPRK	UN, KOSIS, UNSD data	Reports	Infant mortality rate in DPRK lower than world average, except in 1995. Maternal mortality rate in DPRK is decreasing, yet is still 8.8 times that of South Korea.
Cho	2016b	Infant/child mortality and humanitarian aids to DPRK	UN, UNICEF, WHO reports; KOSIS data	Reports	Grain production and vaccination rate significantly impacted infant/child mortality; more than half of child mortality is from infectious disease. Vaccination needs to be the priority.
Kim, Kim, and Kim	2016	Traumatic experience and menstrual regularity among female defectors	Survey	131 female defectors	35.1% of female defectors had irregular menstruation. Menstruation irregularity was associated with higher levels of traumatic experiences.
Kim and Ryu	2016	Cycle of child abuse among female defectors: effects of spouse abuse	Survey	129 female defectors (with children)	65.7% female defectors experienced spousal abuse, which leads to child abuse. DPRK women were more abusive towards their children in all areas than South Korean women.
Kim and Park	2016	Reproduction-related legislations and women's experience in DPRK	Interview	16 female defectors	One's social and economic status determines reproductive experiences; DPRK government emphasizes the superiority of working mothers with healthy babies through laws
Yun, Kwon and Yoon	2016	Status of maternal nutrition in South Korea and DPRK	DPRK Report, KATS report(South)	Report	Striking difference: anemia 2-3 times and maternal protein-energy malnutrition 2-2.5 times higher in DPRK; much less consumption of protein-rich foods in DPRK.

Author	Year	Topic	Data Source	Sample	Outcomes
Jung and Choi	2017	How escape length, repatriation impacts psychological state of female defectors	Survey (2 points of time)	416 female defectors	45.9% experienced trauma in the process of coming to South Korea; the period of stay in transit countries negatively affects psychological symptoms of female defectors.
Lim, Lee, and Yang	2017	Research trend on the defectors' health	Review of peer-reviewed papers	140 Korean papers	90.7% was quantitative research. Depression, PTSD, anxiety were popular topics. Only 19 papers out of 140 were on adult females; need more gender-focused research.
Yang and Yun	2017	Review on the mental health studies on defectors	Review of peer-reviewed papers	142 Korean papers	71% were on adults. 43% were on depression/anxiety/PTSD. Only 11 papers out of 142 were on females. More than PTSD, depression/anxiety matters more in adjusting.
Jeon et al.	2018	Sexual knowledge, sexual attitude, stress coping, and resilience of female defectors	Survey	131 female defectors	Female defectors spend average 8 years in transit (becoming longer). They tend to have open attitude towards sex. Customized/at-home sex education is more effective.
Lee and Shim	2018	Trends in quantitative studies on Female defectors	Review of peer-reviewed papers	36 Korean papers	Qualitative studies still the mainstream (51 vs. 36 papers). Among the 36, the most popular topic was mental health/psychology (17 papers). Only 1 paper in 2000-2004; sharp growth.
Yong and Kim	2018	Research trends on defector children	Review of peer-reviewed papers and theses	127 Korean papers	There is a need to expand research on defector children in early childhood (29 papers out of 127) and in medical/pharmacy areas (12 papers out of 127).
Wee	2018	The impact of famine on body size: height by cohort, defectors	Health exam records	10,536 female defectors (4,550 males)	1981-1990 cohort females smaller by 1.1-1.2cm (male 1.9-2cm) than 1966-70, who finished growing before the great famine.
Lee and Kim	2019	Traumatic events, PTSD & sexual autonomy among female defector college students	Survey	103 female defectors in college	PTSD mattered more than trauma itself in determining sexual autonomy. Respondents experienced pregnancy 2 times more than female college students in South Korea. Reproductive intervention programs are needed.
Park	2019	Main food sources of nutrient in DPRK	FAO, KREI data on Food Balance Sheet	Reports	43.4% population malnourished; women 15-49 years anemia rate 30% (2012) > 32% (2016).
Shin	2019	Research trends of oral studies on DPRK migrant women	Critical literature review of oral studies	Korean papers: number unspecified	Oral studies first appeared in the 2000s, and developed a new framework "division system study" in the 2010s; not many studies done on health.

ENDNOTES

- ¹ Hanawon is the settlement support center for North Korean refugees run by the Ministry of Unification. Since its establishment in July 1999, it has been running a 12-week program aimed at helping the refugees adjust to the life in South Korea. Its curriculum include education on capitalism and market economy, basic job training and improve emotional stability (The Institute for Peace Affairs 2009).
- ² The great famine, also known as the “Arduous March” period, refers to the severe poverty DPRK experienced in 1996-2000. There is some controversy over how many passed away during this time, but more recent statistics from KOSIS estimates the number to be around 330,000 (Lee 2016). According to Lee (2011), 300,000 is a conservative estimate, and some sources claim even 3 million deaths, when including the indirect effects of the famine (Lee 2011, 23).