

Original Article



Transnational ties with the home country matters: the moderation effect of the relationship between perceived discrimination and self-reported health among foreign workers in Korea

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Abbreviations

SRH: self-rated health; KRW: Korean Won.

Competing interests

The authors declare that they have no competing interests.

ABSTRACT

Background: Little attention has been paid to the relationship between perceived discrimination and self-rated health (SRH) among foreign workers in Korea. Transnational ties with the home country are known to be critical among immigrants, as they allow the maintenance of social networks and support. Nonetheless, as far as we know, no studies have examined the impact of transnational ties on SRH itself and the relationship between perceived discrimination and SRH, which the current study tries to examine.

Methods: Logistic regression analyses were conducted using the 2013 Survey on Living Conditions of Foreign Workers in Korea. Adult foreign workers from different Asian countries (n = 1,370) participated in this study. The dependent variable was good SRH and the independent variable was perceived discrimination. Transnational ties with the home country, as a moderating variable, was categorized into broad (i.e., contacting family members in the home country) vs. narrow types (i.e., visiting the home country).

Results: Foreign workers who perceived discrimination had a lower rate of good SRH than those who did not perceive discrimination. Broad social transnational ties moderated the relationship between perceived discrimination and SRH; narrow social transnational ties did not.

Conclusions: In line with previous studies, an association was found between perceived discrimination and SRH. Broad social transnational ties can be a good source of social support and buffer against the distress of perceived discrimination.

Keywords: Foreign workers; Perceived discrimination; Self-rated health; Transnational ties; Social support; Korea

BACKGROUND

Discrimination is a serious social and health disparity issue that has been shown to have an association with health, including mental health, poor self-rated health (SRH) and higher prevalence of chronic conditions and other risky health behaviors.¹⁻⁴ Both direct and indirect relationships have been shown between perceived discrimination and SRH.⁵ Immigrants and

Author Contributions

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foreign workers, who are racially and culturally different from the native population, are more likely to experience perceived discrimination, both institutionally (e.g., social policies and structural inequalities) and interpersonally (e.g., physical or verbal abuse).^{6,7} Different factors, including acculturation, coping styles, social support, and employment status, were identified as having moderating effects on immigrants' perceived discrimination and health.^{8,10}

Korea (hereafter Korea), which has traditionally been a homogeneous society, has become more racially diverse in recent years, with an increasing number of immigrants, and the population is projected to grow further.^{11,12} Most immigrants migrate for economic reasons, that is, to find work in Korea and female immigrants migrate primarily to enter an international marriage, that is, to marry a Korean man in a rural area.^{13,14} Foreign workers are willing to accept labor-intensive, difficult and even dangerous jobs that domestic workers refuse to do; thus, they are more prone to experience perceived discrimination.¹³ The past decade has seen a larger proportion of male immigrants than female immigrants entering Korea.¹⁵ It has been reported that immigrants are more likely to experience racism; a survey conducted by the National Human Rights Commission of Korea found that 7 out of ten foreign residents had experienced perceived discrimination.¹⁶ It is possible that because of the collectivist culture, Koreans are more likely to discriminate against foreigners, such as by their skin colors.¹¹

A study from Korea that examined the perceived discrimination and SRH in the general Korean population in urban areas of Korea found that experiences of perceived discrimination are significantly associated with poor SRH even among the general Korean population.⁴ This finding is surprising, as Korea is viewed as a predominantly monocultural society with a collectivistic social tradition.¹³ Some studies conducted in Korea have examined perceived discrimination and its relationship with mental and oral health,¹⁷⁻²⁰ but to our knowledge, only a few have examined the relationship with SRH. Moreover, even less focus has been given to immigrant workers, their perceived discrimination and SRH.

Social support, including instrumental, emotional, and informational support, has been identified as a critical factor that influences health,^{21,23} which can be maintained through transnational ties. Strong maintenance of transnational ties with the home country has been made easier for immigrant workers and foreigners because of advancements in technologies facilitating communication and connections with the home country (e.g., text messaging and emails) and cheaper airfares.^{24,25} While transnational ties have been discovered in various spheres, including the political, economic, social, and medical spheres,²⁶⁻²⁹ researchers have categorized transnational ties into broad and narrow types according to these different spheres.³⁰⁻³³ Social transnational ties are also divided into narrow and broad transnational ties.³¹ Narrow transnational ties include maintaining home-country relationships by physically visiting the home country, whereas broad transnational ties involve contacting people, such as families and friends, in the home country.³¹

To our knowledge, hardly any studies have examined the effect of transnational ties on perceived discrimination and SRH. Thus, this study aims to examine whether there is a relationship between perceived discrimination and SRH among immigrant workers in Korea and whether transnational ties moderate this relationship. The conceptual framework of the current study is presented in **Fig. 1**.

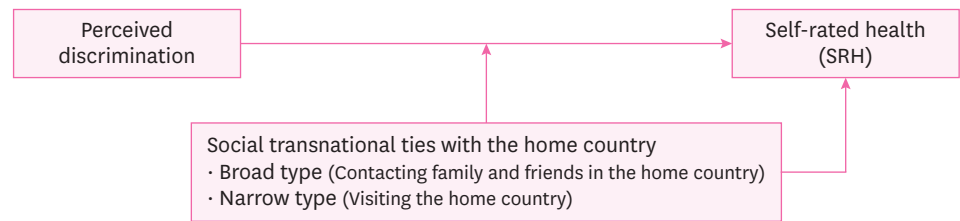


Fig. 1. Conceptual framework.

METHODS

Data

We analyzed the Survey on Living Conditions of Foreign Workers, 2013 by the International Organization for Migration (IOM) Migration Research & Training Centre in Korea, which was distributed by the Korea Social Science Data Archive.³⁴ The data included information about foreign workers who came to Korea under the employment permit system and Korean-Chinese workers employed under the visiting employment system. The employment permit system allows businesses suffering from a shortage of labor from an inability to find Korean workers to legally hire foreign workers under certain requirements. The system is divided into a normal employment permit system, where individuals from 15 countries, including the Southeast Asian countries, can be hired on an E-9 visa, and a special employment permit system, where overseas Koreans with foreign citizenship (e.g., Korean-Chinese) can be hired on an H-2 visa. They are granted the right to work for 3 years, with the possibility of an extension for an additional year and ten months in the case of re-employment. In total, the employment permit system allows up to 4 years and ten months of employment.

In the current study, we excluded “*Joseonjok*” (or Korean-Chinese) foreign workers, the ethnic Koreans with Chinese nationality because most included foreign workers have a different visa status (E-9) than ethnic Koreans from China (H-2), and they might have different characteristics from Korean-Chinese workers who share the language and culture. The survey questionnaires included sociodemographic characteristics, the process of entry and exit, employment status, working conditions, daily life, and social relations. Initially, 1,370 individuals participated in the survey.

Measures

The dependent variable used in this study was SRH, which was measured on a Likert scale with the following question: “How do you rate your overall health?” 1) very good; 2) good; 3) fair; 4) poor; 5) very poor. We recoded SRH into 2 categories: poor (poor and very poor, coded as 0) vs. good (very good, good, and fair, coded as 1).

The main independent variable is perceived discrimination, which was measured with the following question: “Have you ever been treated differently because you were a foreigner while living in Korea?” The possible answers were “no” and “yes.” Additionally, social transnational ties with the home country were measured in 2 ways. On the one hand, the broad social transnational ties were measured with the following question: “On average, how often do you text/message (Kakao Talk, Facebook, etc.) your family, relatives, and friends in

your home country?” The available answers were “more than once per day,” “more than once per week,” “more than once per month,” “less than once per month,” and “not at all.” On the other hand, the narrow social transnational ties with the home country were measured to determine how often the survey participants had visited their home country since coming to Korea on an E-9 visa (with possible answers of “never,” “once,” “twice,” “3 times” or “more”).

Control variables included age (younger than 25 years old, 25–29 years old, 30–34 years old, 35–39 years old, and 40 years old or older), sex (male vs. female), nationality (Vietnam, Nepal, Sri Lanka, Indonesia, Cambodia, Thailand, Philippines, or Other, which included Mongolia, Myanmar, Bangladesh, Uzbekistan, China, Kyrgyzstan, and Pakistan), marital status, educational attainment (middle school graduate or less educated, high school graduate, 2-year college graduate, and 4-year college graduate or graduate school graduate). In addition to these sociodemographic characteristics, years in Korea (continuous years) and Korean language proficiency (speaking; very poor, poor, fair, good, very good) were included as control variables.

Analysis

We conducted logistic regression³⁵ to examine the relationship between perceived discrimination and SRH. Additionally, we examined whether social transnational ties with the home country moderated the relationship between perceived discrimination and SRH by adding an interaction³⁶ between perceived discrimination and social transnational ties (both broad and narrow). All statistical analyses were conducted in Stata 15.0 (StataCorp LLC., College Station, TX, USA) and the significance level was set at $p < 0.05$.

Ethics statement

Although the study used publicly available secondary data, it was reviewed and approved by the Institutional Review Board (IRB) of Sungkyunkwan University (IRB #2021-10-001).

RESULTS

Table 1 shows the characteristics of the study participants. Of the participants, slightly more than a half (57.7%) were younger than 30 years old, about a quarter (23.3%) were 30–34 years old, and about one fifth were 35 years old or older. Most participants were male (89.7%). Vietnamese participants comprised the largest group (23.1%), followed by participants from Cambodia (11.2%), Nepal (10.4%), Indonesia (9.9%), the Philippines (9.6%), and Sri Lanka (9.1%). Less than half (44.6%) were married and slightly less than half were high school graduates (47.7%). Regarding social transnational ties, the broad type occurred more frequently than the narrow type; more than half of the participants (54.1%) had never visited their home country during their stay in Korea under E-9 visa status, whereas only 8.5% reported that they had never contacted their family members or friends in their home country. More than a quarter (26.7%) of the participants maintained the broad type of social transnational ties once or more frequently in a week, and more than half of the participants (58.3%) maintained the broad type of social transnational ties more than once per day.

Several characteristics (i.e., nationality, education, and social transnational ties) were found to differ between participants who perceived discrimination and those who did not. For example, participants from Vietnam reported a higher rate of perceived discrimination than participants from other countries. The more educated respondents were more likely to report

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Table 1. Characteristics of study participants

Characteristics	All (n = 1,370)	Not Discriminated (n = 809)	Discriminated (n = 427)	p-value
Age category				0.739
< 30 years old	761 (57.7)	446 (57.2)	246 (59.4)	
30–34 years old	307 (23.3)	182 (23.3)	97 (23.4)	
35–39 years old	189 (14.3)	118 (15.1)	53 (12.8)	
40 years old or older	62 (4.7)	34 (4.4)	18 (4.4)	
Sex				0.777
Male	1,198 (89.7)	707 (89.4)	374 (89.9)	
Female	138 (10.3)	84 (10.6)	42 (10.1)	
Nationality				0.000
Vietnam	316 (23.1)	151 (18.7)	134 (31.4)	
Nepal	143 (10.4)	72 (8.9)	60 (14.1)	
Sri Lanka	125 (9.1)	72 (8.9)	37 (8.7)	
Indonesia	135 (9.9)	99 (12.2)	28 (6.5)	
Cambodia	154 (11.2)	115 (14.2)	28 (6.5)	
Thailand	119 (8.7)	79 (9.8)	26 (6.1)	
Philippines	131 (9.6)	75 (9.3)	46 (10.8)	
Other	247 (18.0)	146 (18.0)	68 (15.9)	
Marital status				0.622
Unmarried	745 (55.4)	442 (55.3)	236 (56.7)	
Married	601 (44.6)	358 (44.7)	180 (43.3)	
Education				0.008
Middle school graduate or less educated	277 (20.6)	169 (21.3)	72 (17.1)	
High school graduate	642 (47.7)	394 (49.6)	186 (44.2)	
2-year college graduate	250 (18.5)	137 (17.2)	99 (23.5)	
4-year college graduate or higher	178 (13.2)	95 (11.9)	64 (15.2)	
Income (KRW)	154.90 ± 39.00	153.80 ± 40.13	148.05 ± 36.50	0.067
Years in Korea	2.4 ± 2.0	2.4 ± 2.1	2.7 ± 1.8	0.004
Korean language proficiency				0.228
Not very well/Not well	526 (40.2)	327 (42.1)	155 (37.1)	
Adequate	637 (48.6)	371 (47.7)	214 (51.2)	
Very well	147 (11.2)	79 (10.2)	49 (11.7)	
Social transnational ties				
Broad (contact)				0.091
No contact	115 (8.5)	70 (8.7)	24 (5.6)	
Several times per month	89 (6.5)	50 (6.2)	28 (6.6)	
Once or more often per week	362 (26.7)	224 (27.9)	104 (24.5)	
Once or more often per day	791 (58.3)	459 (57.2)	269 (63.3)	
Narrow (visit)				0.004
No visit	713 (54.1)	449 (57.5)	195 (46.7)	
Once	406 (30.8)	223 (28.5)	145 (34.7)	
Twice	132 (10.0)	71 (9.1)	54 (12.9)	
3 times or more	68 (5.1)	38 (4.9)	24 (5.7)	

Values are presented as number (%) or mean ± standard deviation. Other countries included Mongolia, Myanmar, Bangladesh, Uzbekistan, China, Kyrgyzstan, and Pakistan.

KRW: Korean Won.

perceived discrimination than their less educated counterparts. Additionally, the percentage of more educated respondents was higher among participants who maintained a higher degree of social transnational ties with their home country, both broad and narrow, than those who maintained a lower degree of ties.

Perceived discrimination and SRH

Fig. 2 shows the negative relationship between perceived discrimination and SRH. Foreign workers who perceived discrimination in Korea reported a lower rate (60.9%) of good SRH than those who perceived no discrimination (68.7%). This relationship was statistically significant ($p = 0.007$).

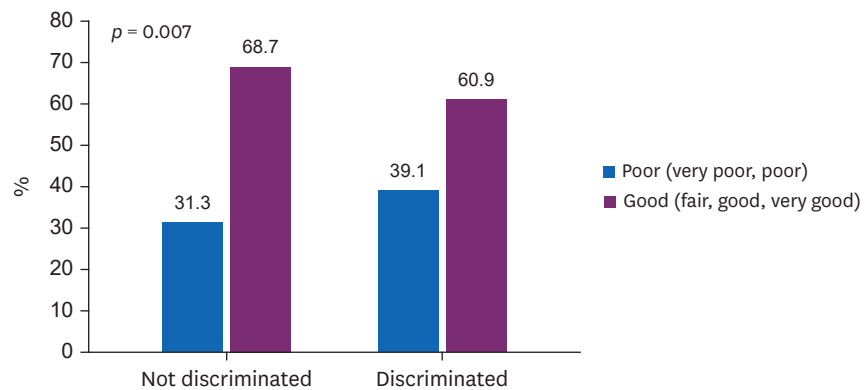


Fig. 2. Self-rated health by perceived discrimination.

Social transnational ties, Perceived discrimination, and SRH

Table 2 shows the factors predicting SRH among foreign workers using logistic regression analyses with a focus on perceived discrimination and broad social transnational ties. Model 1 shows a negative relationship between perceived discrimination and good SRH (odds ratio: 0.71; 95% confidence interval: 0.56–0.91). Model 2 shows that broad transnational ties with the home country (i.e., contacting family members and friends) were not associated with SRH, while broad transnational ties moderate the relationship between perceived discrimination and SRH (Model 3). This moderation effect remained after the control variables were included in Model 4.

Fig. 3 shows the adjusted predictions of perceived discrimination and broad social transnational ties on good SRH. For example, participants who had the strongest social transnational ties with their home country by contacting family members and friends in the home country most frequently (e.g., once or more per day) reported the highest probability of reporting good SRH, and SRH did not differ much between the discriminated and non-discriminated groups. In contrast, participants who had not contacted their home country reported a sharper reduction in good SRH when they perceived discrimination.

Contrary to the significant moderating effect of broad social transnational ties on the relationship between perceived discrimination and good SRH, Table 3 shows that the narrow type of social transnational ties itself did not significantly moderate the relationship among foreign worker participants (Model 2) and when perceived discrimination was added in Model 3 and when control variables (e.g., age, sex, nationality, marital status, and education) were added in Model 4.

DISCUSSION

The current study examined the relationship between perceived discrimination and the SRH of foreign workers in Korea and was the first study to examine the moderating effects of broad and narrow social transnational ties as sources of social support. In line with previous findings, we found that perceived discrimination was associated with poor SRH.^{6,7} This study contributes to the literature as most studies on discrimination and health have been conducted in the USA and Europe, as these areas contain diverse groups of immigrant populations,^{7,37} but less attention has been given to newer host countries, such as Korea.³⁸

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Table 2. Adjusted odds ratio and 95% confidence interval for perceived discrimination, broad social transnational ties and good self-rated health of foreign workers

Characteristics	Model 1	Model 2	Model 3	Model 4
Perceived discrimination	0.71 ^c (0.56–0.91)		0.25 ^c (0.09–0.66)	0.22 ^b (0.06–0.77)
Broad social transnational ties (ref.: No contact)				
Several times per month		0.69 (0.39–1.23)	0.58 (0.27–1.27)	0.59 (0.22–1.53)
Once or more frequently per week		0.91 (0.58–1.41)	0.77 (0.43–1.40)	0.73 (0.34–1.57)
Once or more frequently per day		1.27 (0.84–1.93)	1.02 (0.59–1.79)	0.89 (0.43–1.85)
Discrimination × Broad social transnational ties (ref.: Discrimination × No contact)				
Discrimination × Several times per month			3.30 (0.85–12.78)	4.96 ^a (0.93–26.33)
Discrimination × Once or more frequently per week			2.73 (0.92–8.10)	2.90 (0.74–11.47)
Discrimination × Once or more frequently per day			3.18 ^b (1.14–8.91)	3.10 ^a (0.84–11.38)
Age (ref.: younger than 30 years old)				
30–34 years old				1.07 (0.71–1.60)
35–39 years old				1.25 (0.72–2.15)
40 years old or older				0.50 (0.23–1.11)
Sex (ref.: Male)				
Female				0.66 (0.41–1.07)
Nationality (ref.: Vietnam)				
Nepal				1.14 (0.61–2.15)
Sri Lanka				1.81 (0.86–3.79)
Indonesia				0.36 ^d (0.20–0.63)
Cambodia				0.52 ^b (0.31–0.89)
Thailand				1.11 (0.58–2.14)
Philippines				1.54 (0.82–2.90)
Other				0.74 (0.45–1.23)
Marital status (ref.: Unmarried)				
Married				1.15 (0.81–1.62)
Education (ref.: Middle school graduate or less educated)				
High school graduate				1.12 (0.72–1.75)
2-year college graduate				0.86 (0.51–1.46)
4-year college graduate or higher				0.92 (0.52–1.66)
Income				1.01 ^c (1.00–1.01)
Years in Korea				1.03 (0.94–1.12)
Korean language proficiency (ref.: Not very well/Not well)				
Adequate				1.37 ^a (0.99–1.90)
Very well				1.76 ^b (1.01–3.05)
Number	1,220	1,319	1,212	877

^a $p < 0.1$; ^b $p < 0.05$; ^c $p < 0.01$; ^d $p < 0.001$.

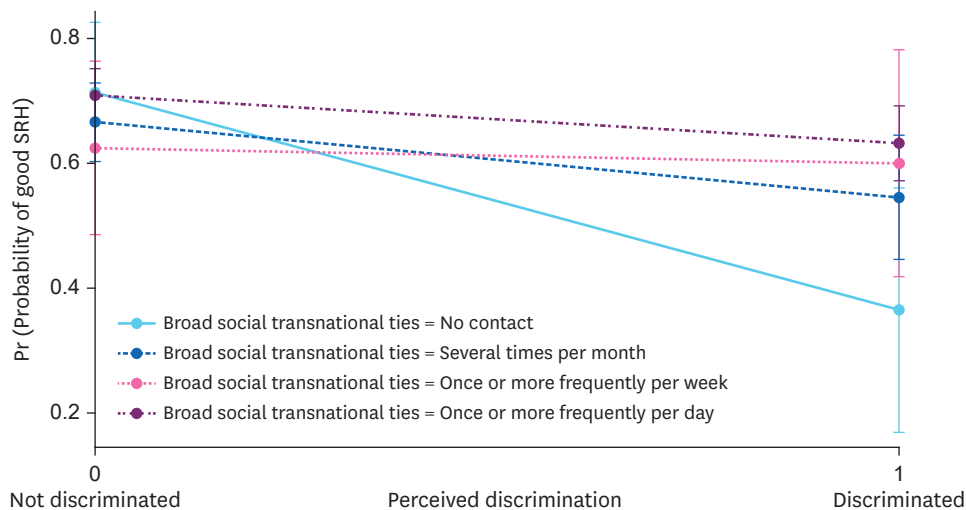


Fig. 3. Broad social transnational ties as moderator in the relationship between perceived discrimination and good SRH. SRH: self-rated health.

Discrimination and self-reported health among foreign workers

Table 3. Adjusted odds ratio and 95% confidence interval for perceived discrimination, narrow social transnational ties and good self-rated health of foreign workers

Characteristics	Model 1	Model 2	Model 3	Model 4
Perceived discrimination	0.71 ^c (0.56–0.91)		0.69 ^b (0.49–0.97)	0.61 ^b (0.40–0.94)
Narrow social transnational ties (ref.: No visit)				
Once		1.15 (0.89–1.49)	1.24 (0.87–1.77)	1.07 (0.67–1.71)
Twice		1.32 (0.88–1.98)	1.32 (0.75–2.32)	0.86 (0.42–1.78)
3 times or more		1.46 (0.83–2.57)	1.28 (0.60–2.73)	0.80 (0.29–2.24)
Discrimination × Narrow social transnational ties (ref.: Discrimination × No visit)				
Discrimination × Once			0.89 (0.51–1.57)	0.92 (0.46–1.83)
Discrimination × Twice			1.05 (0.45–2.46)	1.45 (0.52–4.04)
Discrimination × 3 times or more			1.36 (0.41–4.48)	1.98 (0.47–8.37)
Age (ref.: younger than 30 years old)				
30–34 years old				0.99 (0.67–1.50)
35–39 years old				1.22 (0.70–2.12)
40 years old or older				0.50 ^a (0.22–1.10)
Sex (ref.: Male)				
Female				0.64 ^a (0.40–1.02)
Nationality (ref.: Vietnam)				
Nepal				1.20 (0.64–2.26)
Sri Lanka				1.88 ^a (0.90–3.94)
Indonesia				0.37 ^c (0.21–0.66)
Cambodia				0.53 ^b (0.31–0.92)
Thailand				1.09 (0.57–2.10)
Philippines				1.57 (0.82–3.00)
Other				0.66 ^a (0.41–1.08)
Marital status (ref.: Unmarried)				
Married				1.19 (0.83–1.69)
Education (ref.: Middle school graduate or less educated)				
High school graduate				1.07 (0.69–1.67)
2-year college graduate				0.91 (0.54–1.54)
4-year college graduate or higher				0.91 (0.51–1.64)
Income				1.01 ^b (1.00–1.01)
Years in Korea				1.03 (0.94–1.14)
Korean language proficiency (ref.: Not very well/Not well)				
Adequate				1.35 ^a (0.97–1.87)
Very well				1.79 ^b (1.02–3.12)
Number	1,220	1,284	1,185	866

^a*p* < 0.1; ^b*p* < 0.05; ^c*p* < 0.01; ^d*p* < 0.001.

This study also found that broad social transnational ties with the home country moderate the relationship between perceived discrimination and SRH. Individuals generally maintained strong social transnational ties with their home countries, as more than half of the participants contacted their home countries more than once per day. Such social transnational ties were channeled to receive more social support, particularly emotional support, from families and friends in the home country, which became a source of protection from discrimination. This supports the stress-buffer model, in which stronger transnational ties act as a buffer and as a source of social support, enabling a person to feel healthier, even after facing discrimination, which is in line with previous studies.^{38–40} A study of foreign workers in Korea found a similar outcome, whereby emotional support from the same ethnic group was associated with depressive symptoms and moderated the effect of perceived discrimination on their symptoms of depression.³⁸ Although that study only examined social support of immigrants from the same ethnic background in Korea and did not examine transnational ties with their home countries, it shows the importance of co-ethnic support on immigrants' health.

In this study, broad transnational ties, which allow for more emotional support, were significant, whereas narrow transnational ties were not. Rather than having support as a one-

time event, it suggests that maintaining social ties with the home is critical for receiving daily support, which can be reassuring and sufficient for overcoming discrimination. Although this is not the same situation, a qualitative study of cancer patients living under high mental and physical distress reported that social support from caregivers provided them with meaning in life and gave them a reason to continue to live.²³ Moreover, a previous study on Asian Americans found that perceived emotional support from family buffered the stress of everyday discrimination and protected mental health, but regularly talking on the phone and meeting up with family did not.³⁹

Previous studies from different countries also support the findings. A recent study of immigrants in the Netherlands found that having more social transnational ties with home countries was associated with higher levels of psychological well-being, mainly life satisfaction, than co-ethnic social ties in the host country.⁴¹ Another study from Finland also found that active social support with individuals in home countries had a protective effect on the psychological well-being of immigrants from 3 different countries.⁴² In a study of migrants in Shanghai, China, which also found a similar outcome, but suggested that favorable social comparisons may influence their well-being in addition to the emotional support.⁴³ Although that study has not examined foreign immigrants, this could explain another reason for the importance of transnational ties.

This study had several limitations. First, foreign workers who came to Korea under the employment permit system had to return to their home country once their contract was over. Therefore, it only included a particular type of foreign worker and not others, so it was not representative of foreign workers as a whole. Second, because of the nature of the employment permit system, most of the participants in the study were young men (less than 5% of the participants were 40 years old and older). Thus, we were not able to examine the effects of different age groups or gender. There are a wide range of age groups and many female immigrants in Korea. Third, we have not examined the generational difference in our study. Given that the effect of transnational social ties as a coping mechanism was found only among second-generation immigrants and not among first-generation immigrants,⁴¹ future studies should look into the effect of transnational social ties on health by immigrant generations.

More suggestions on future studies include to examine whether this framework is applicable to other immigrant groups in Korea, such as international marriage female immigrants and North Korean refugees, and examine whether there is a positive association with transnational ties. Moreover, similar to Arat and Bilgili,⁴¹ it would be interesting to examine the effect of social ties of the home and host countries in the future to see whether there is a difference in their function as social support. Additionally, since we have not examined the local social support, it would be interesting to examine the effect of local social support and compare between local and transnational social support. Lastly, future studies could expand SRH to other dimensions of health, such as oral health with qualitative research methods to grasp foreign workers' more detailed perceptions and experiences of discrimination, transnational ties, and their health status.

This study contributes to the existing literature on immigrant and minority health, as well as transnationalism, by examining whether social transnational ties, specifically broad and narrow types, with the home country moderate the relationship between perceived discrimination and SRH. The strength of this study is that it is a pioneering study examining the effect of transnational ties on perceived discrimination and SRH on foreign

workers in Korea. Recently, a study examined the effect of discrimination on the mental health of immigrants,³⁸ but to our knowledge, this is the first study to examine perceived discrimination and SRH.

CONCLUSIONS

The current study contributes to the literature on the health equity of foreign workers in Korea, which is an understudied group, and suggests the importance of maintaining transnational ties and social support for their well-being and health. It also proposes practical implications that policymakers should explore to help immigrants expand social transnational ties, especially broad transnational ties, whereby social networks in home countries, and even host countries, can be created and maintained. At the same time, the individuals and the society of the host country need to be more aware of accepting and respecting foreigners.

REFERENCES

1. Pascoe EA, Smart Richman L. Perceived discrimination and health: a meta-analytic review. *Psychol Bull* 2009;135(4):531-54.
[PUBMED](#) | [CROSSREF](#)
2. Paradies Y. A systematic review of empirical research on self-reported racism and health. *Int J Epidemiol* 2006;35(4):888-901.
[PUBMED](#) | [CROSSREF](#)
3. Williams DR, Mohammed SA. Discrimination and racial disparities in health: evidence and needed research. *J Behav Med* 2009;32(1):20-47.
[PUBMED](#) | [CROSSREF](#)
4. Kim SS, Williams DR. Perceived discrimination and self-rated health in South Korea: a nationally representative survey. *PLoS One* 2012;7(1):e30501.
[PUBMED](#) | [CROSSREF](#)
5. Chen D, Yang TC. The pathways from perceived discrimination to self-rated health: an investigation of the roles of distrust, social capital, and health behaviors. *Soc Sci Med* 2014;104:64-73.
[PUBMED](#) | [CROSSREF](#)
6. Agudelo-Suárez A, Gil-González D, Ronda-Pérez E, Porthé V, Paramio-Pérez G, García AM, et al. Discrimination, work and health in immigrant populations in Spain. *Soc Sci Med* 2009;68(10):1866-74.
[PUBMED](#) | [CROSSREF](#)
7. Rodríguez-Álvarez E, González-Rábago Y, Borrell LN, Lanborena N. Perceived discrimination and self-rated health in the immigrant population of the Basque Country, Spain. *Gac Sanit* 2017;31(5):390-5.
[PUBMED](#) | [CROSSREF](#)
8. Jasinskaja-Lahti I, Liebkind K, Perhoniemi R. Perceived ethnic discrimination at work and well-being of immigrants in Finland: the moderating role of employment status and work-specific group-level control beliefs. *Int J Intercult Relat* 2007;31(2):223-42.
[CROSSREF](#)
9. Moore J, Tilki M, Clarke L, Waters E. The moderating effect of functional social support on the association between unfair treatment and self-rated health: a study of the resilience of a community-based sample of Irish migrants in London. *Ir J Sociol* 2018;26(3):267-88.
[CROSSREF](#)
10. Noh S, Kaspar V. Perceived discrimination and depression: moderating effects of coping, acculturation, and ethnic support. *Am J Public Health* 2003;93(2):232-8.
[PUBMED](#) | [CROSSREF](#)
11. Kang SW. Multicultural education and the rights to education of migrant children in South Korea. *Educ Rev* 2010;62(3):287-300.
[CROSSREF](#)
12. Watson I. Multiculturalism in South Korea: a critical assessment. *J Contemp Asia* 2010;40(2):337-46.
[CROSSREF](#)

13. Moon S. Multicultural and global citizenship in a transnational age: the case of South Korea. *Int J Multicult Educ* 2010;12(1).
CROSSREF
14. Bae SM. The relationship between bicultural identity, acculturative stress, and psychological well-being in multicultural adolescents: verification using multivariate latent growth modelling. *Stress Health* 2020;36(1):51-8.
PUBMED | CROSSREF
15. Yoon L. Number of registered foreigners in South Korea from 2010 to 2020, by gender. <https://www.statista.com/statistics/618767/south-korea-registered-foreigners-number/#statisticContainer>. Updated 2021. Accessed October 15, 2021.
16. Ock HJ. 7 in 10 foreign residents say 'racism exists' in S. Korea. <http://www.koreaherald.com/view.php?ud=20200320000695>. Updated 2020. Accessed October 14, 2021.
17. Kim M. Health and medical conditions of immigrant workers. *Bokjidoonghyang* 2014;190:15-22.
18. Choi Y, Song Y. Perceived discrimination and depression of immigrant workers in Gyeonggi province: focusing on the moderating effect of discriminatory responses. *GRI Review* 2018;20(4):1-22.
19. Choi EM, Song YS. The dental status of foreign workers in the Pocheon City and the analysis of their oral health behavior. *J Korean Soc Dent Hyg* 2012;12(1):135-43.
CROSSREF
20. Novrinda H, Han DH. Oral health inequality among Indonesian workers in South Korea: role of health insurance and discrimination factors. *BMC Oral Health* 2022;22(1):22.
PUBMED | CROSSREF
21. Berkman LF, Glass T, Brissette I, Seeman TE. From social integration to health: Durkheim in the new millennium. *Soc Sci Med* 2000;51(6):843-57.
PUBMED | CROSSREF
22. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med* 2010;7(7):e1000316.
PUBMED | CROSSREF
23. Song Y, Chen S, Roseman J, Scigliano E, Redd WH, Stadler G. It takes a team to make it through: the role of social support for survival and self-care after allogeneic hematopoietic stem cell transplant. *Front Psychol* 2021;12:624906.
PUBMED | CROSSREF
24. Portes AA, Fernández-Kelly P. *The State and the Grassroots: Immigrant Transnational Organizations in Four Continents*. New York, NY, USA: Berghahn Books; 2015.
25. Levitt P, DeWind J, Vertovec S. International perspectives on transnational migration: an introduction. *Int Migr Rev* 2003;37(3):565-75.
CROSSREF
26. Itzigsohn J, Giorguli-Saucedo S. Incorporation, transnationalism, and gender: immigrant incorporation and transnational participation as gendered processes. *Int Migr Rev* 2005;39(4):895-920.
CROSSREF
27. Levitt P. *The Transnational Villagers*. Berkeley, CA, USA: University of California Press; 2001.
28. Portes A. Conclusion: theoretical convergencies and empirical evidence in the study of immigrant transnationalism. *Int Migr Rev* 2003;37(3):874-92.
CROSSREF
29. Portes A, Guarnizo LE, Landolt P. The study of transnationalism: pitfalls and promise of an emergent research field. *Ethn Racial Stud* 1999;22(2):217-37.
CROSSREF
30. Jang SH. *Medical Transnationalism: Korean Immigrants' Medical Tourism to South Korea*. Lanham, MD, USA: Rowman & Littlefield; 2018.
31. Jang SH. Connect virtually, visit physically: social transnationalism among Korean immigrants in the U.S. *Korea Obs* 2021;52(1):149-72.
CROSSREF
32. Min PG. Transnational cultural events among Korean immigrants in the New York-New Jersey area. *Social Perspect* 2017;60(6):1136-59.
CROSSREF
33. Østergaard-Nielsen E. The politics of migrants' transnational political practices. *Int Migr Rev* 2003;37(3):760-86.
CROSSREF
34. Chung KS. Survey on living conditions of foreign workers, 2013 [Dataset]. <http://hdl.handle.net/20.500.12236/22743>. Updated 2017. Accessed August 17, 2021.

35. Cox DR. The regression analysis of binary sequences. *J R Stat Soc B Stat Methodol* 1958;20(2):215-32.
[CROSSREF](#)
36. Hayes AF. *Introduction to Mediation, Moderation, and Conditional Process Analysis: a Regression-Based Approach*. New York, NY, USA: Guilford Publications; 2017.
37. Alvarez-Galvez J, Salvador-Carulla L. Perceived discrimination and self-rated health in Europe: evidence from the European Social Survey (2010). *PLoS One* 2013;8(9):e74252.
[PUBMED](#) | [CROSSREF](#)
38. Ra CK, Huh J, Finch BK, Cho Y. The impact of perceived discrimination on depressive symptoms and the role of differentiated social support among immigrant populations in South Korea. *Int J Equity Health* 2019;18(1):7.
[PUBMED](#) | [CROSSREF](#)
39. Mossakowski KN, Zhang W. Does social support buffer the stress of discrimination and reduce psychological distress among Asian Americans? *Soc Psychol Q* 2014;77(3):273-95.
[CROSSREF](#)
40. Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. *Psychol Bull* 1985;98(2):310-57.
[PUBMED](#) | [CROSSREF](#)
41. Arat E, Bilgili Ö. Transnational and local co-ethnic social ties as coping mechanisms against perceived discrimination - a study on the life satisfaction of Turkish and Moroccan minorities in the Netherlands. *Front Sociol* 2021;6:671897.
[PUBMED](#) | [CROSSREF](#)
42. Jasinskaja-Lahti I, Liebkind K, Jaakkola M, Reuter A. Perceived discrimination, social support networks, and psychological well-being among three immigrant groups. *J Cross Cult Psychol* 2016;37(3):293-311.
[CROSSREF](#)
43. Jin L, Wen M, Fan JX, Wang G. Trans-local ties, local ties and psychological well-being among rural-to-urban migrants in Shanghai. *Soc Sci Med* 2012;75(2):288-96.
[PUBMED](#) | [CROSSREF](#)