

■ Article ■

Employment Status Matters: Differential Patterns of Female Marriage Migrants' Support Service Usage*

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Abstract

This study examined factors that determine immigrant women's service usage, using Gelberg-Andersen's Behavioral Model for Vulnerable Populations as a conceptual framework. Considering that the degree to which female marriage migrants take advantage of support services varies considerably within the group, special analytic attention was given to possible differences in service utilization patterns depending on their employment status. The study utilized "National Survey on Multicultural Families" data set from 2009. Among the total 154,333 individuals, the study used a sub-sample of 53,155 female marriage migrants. Structural equation modeling (SEM) was used to examine possible differences in service utilization in relations to employment status. The relationship between the two support services (adjustment assistance services and family care services) was examined. In addition, the three domains of factors that jointly explain the use of services among female marriage migrants were explored. The study found that female marriage migrants have different needs depending on their employment status. In terms of adjustment assistance service use determinants, the strongest predictor was having Joseonjok (Korean-Chinese) ethnicity for both the employed and unemployed group. When predicting the family care service use, number of children turned out to be the strongest predictor for the employed group, whereas perceived needs turned out as the strongest predictor for the unemployed group. Findings from the study may provide useful implications for the development of social work services and/or service delivery systems that are tailored to the different needs of immigrant women based on their positions within the labor market.

■ **Keywords** : female marriage migrants, support service utilization, employment status, Gelberg-Andersen's Behavioral Model for Vulnerable Populations

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Introduction

Marriage migration has been steadily increasing in South Korea, leading to dramatic demographic changes within the Korean society. Immigrants make up nearly 3.4% of the total population in South Korea, as of 2016 (Statistics Korea, 2016). The “expanding presence of female marriage migrants poses challenging questions about how to facilitate the long-term economic settlement of this population” (Yang, 2017, p. 100). As an effort to facilitate the integration process of the population, many non-government organizations and local social welfare agencies have been mobilized and have been providing various services under the government’s “Policy Plans to Support the Social Integration of Marriage Migrant Families.” Referred to as “Support Services for Multicultural Families,” these services address various challenges faced by female marriage migrants and their families.¹⁾ As the services are aimed specifically to meet the needs of female marriage migrants and their family members, it is necessary to examine whether the current services are being provided to the target group as intended. In fact, adequate provision of support services may have a far-reaching effect on the integration process of immigrants. However, up to date, little is known about the support services utilization patterns of female marriage migrants, especially on a national level. Furthermore, although the general patterns of support service utilization has been documented, the determinant factors based on female marriage migrants’ employment status are largely unknown. This is a glaring omission considering that female marriage migrants are heterogeneous in terms of their employment status, a factor that affects their ability or needs to use services. Due to the traditional gender role expectations prevailing in South Korea in which women are perceived as the primary caregivers of their children, many married women who are employed often juggle between work and childcare. This is especially the case for employed female marriage migrants who are in child-rearing ages. Many female marriage migrants struggle within a patriarchal fam-

ily culture where they are expected to embrace the role of motherhood in their families. The study addresses the gaps in our knowledge by applying the Gelberg-Andersen Behavioral Model for Vulnerable Populations. Considering that the degree to which female marriage migrants take advantage of support services may considerably vary within the group, special analytic attention was given to possible differences in utilization patterns that depend on their employment status. The study aimed to answer the following two questions. Do factors affecting female marriage migrants' support service utilization differ according to employment status? If so, what differences stand out between different groups?

This study extends research regarding immigrants' service usage pattern by several means. First, most studies have dealt with marriage migrants as a homogenous group. By using structural equation modeling, however, this study examined possible differences in service utilization in relations to female marriage migrants' employment status. This paper also adds a new policy perspective in relations to how the "adjustment assistance services" and "family care services" may be supplemented for those who are in the pre and post-labor market entry stage; relatively few studies have discussed service usage patterns in light of immigrants' employment issues. This study's findings may provide useful implications for the development of social work services and/or service delivery systems that are tailored to meet the different needs of female marriage migrants.

Support Services for Female Marriage Migrants in South Korea

In 2008, the Korean government announced the "Family Life-Cycle based Service Plans for Multicultural Families" where the Ministry of Gender Equality and Families (hereafter, MOGEF) took the lead. According to each migrant family's life cycle, specific tasks were suggested as guidelines for service agencies. More than 200 Multicultural Family Support Centers (hereafter, MFSCs) were estab-

lished on a national scale to provide language classes, education seminars on Korean culture, employment assistance services, counseling and interventions for female marriage migrants and their families (H. M. Kim, 2012). Full lists of support services are presented in Table 1. In relation to the economic integration of female marriage migrants, these services aptly respond to the immediate needs of the population. In the national survey conducted in year 2009, when female marriage migrants were asked, “what are the primary concerns that need to be addressed for their employment?” 29.6% of the female marriage migrants picked “job allocation/finding” as their primary concern, followed by child-care services (22.9%) and Korean education (18.4%). The 2013 report from the MOGEF announced that among the various support services provided by the MFSCs, language training showed the highest usage rate (45.6%), followed by multicultural family integration education (30.0%) and employment assistance programs (10.1%). Currently, these services are provided either by a center-based approach or through a door-to-door approach. The latter is means-tested based and priority is given to beneficiaries of National Basic Livelihood Security (H. M. Kim, 2012).

Table 1.
Types of Support Service Programs

Type	Title	Program
Required Services	Language Training	Korean language courses are offered at different levels for marriage migrants in need of language training
	Multicultural Family Integrated Education	Communication program, Children and parent program, Multicultural education program (education sessions for parents in-law’s, and workshops on family life and communication methods are provided)
	Counseling Program	Counseling services are provided for families in conflict
	Employment Assistance Program	Employment counseling, job placement services, case management as well as business consulting for starting up of new business

Type	Title	Program
Selective Services	Self-Support Group	Recruitment of marriage migrants to volunteer as translators for newly arrived migrants
	Volunteer Program	Recruitment of potential mentors who may provide various volunteer services to marriage migrants
	Raising Awareness Project	Hosting various exhibitions and festivals where both Korean and multicultural families may experience different cultures as well as coordinating campaigns for discrimination-free society
	Community Network Project	Identifying and networking with various community resources for systematic service delivery

Source. Adapted from (H. M. Kim, 2012, p. 23)

In her study, H. M. Kim (2012) sorted these support services into three categories: 1) adjustment assistance services which aim to help foreign spouses acquire knowledge about Korean language, culture, and society; 2) family care services which address family issues such as pre- and post-natal care, family counseling and education, child education and child care; and 3) empowerment services which assist and support immigrants' employment in the Korean labor market. The present study has adopted this categorization. It is important to note that while all three domains of support services (i.e., adjustment assistance services, family care services, and employment assistance services) are closely related to immigrant women's labor market activity, the present study focused on the first two services available in the "National Survey on Multicultural Families" data set from 2009. As will be discussed later, information on employment assistant services is not provided in the data set, and therefore was not included in the conceptual model.

Gelberg-Andersen's Behavior Model for Vulnerable Populations as a Conceptual Framework

This study used the Gelberg-Andersens' Behavioral Model as a conceptual tool, largely echoing the study of Kim²⁾ (2012). This conceptual

model is a revised model to predict service usage pattern that is particularly applicable to vulnerable populations such as immigrants (Andersen, 1968, 1995). The original Gelberg-Andersen's Behavioral Model suggests that "the use of service is a function of a predisposition by people to use health services, factors that enable or impede such use, and people's need for care," where each component makes an independent contribution to predicting service use (Andersen, 1995, p. 1). First, *predispositional factors* refers to conditions that either enable or impede individuals to use services. Such factors can be predicted according to demographics, social structure, and health beliefs, all of which represent the sociocultural element of the behavior model (Linton & Shafer, 2014; Wolinsky & Johnson, 1991). *Enabling factors* refers to factors which make services available to the individuals for consumption (Derose, Bahney, & Lurie, 2009; Wolinsky & Johnson, 1991). Lastly, *need factors* are causes that arouse the individual's perception of illness. Usually specified as "the [most] immediate cause of health service use," need factors can be further subdivided into perceived needs and evaluated needs (H. M. Kim, 2012, p. 28). Perceived needs represent the subjective judgments made by individuals and are usually measured by self-reported health status; evaluated needs represent medical assessments that are diagnosed by physicians (Andersen, 1995; recited in H. M. Kim, 2012).

In addition to the three factors, the Behavioral Model for Vulnerable Populations considers population-specific vulnerabilities as additional determinants of service use. The model "is premised upon an understanding that factors that make a certain group of people vulnerable [such as immigrants] may also affect their access and use of services" (H. M. Kim, 2012, p. 29). Applying this conceptual framework to immigrant women has strengths in that it allows for factoring in specific vulnerability factors in addition to the traditional proxies that determine service use. The following section examines some of the key literatures that sought determinant factors of health and mental health service usage of immigrants.³⁾

Predispositional Factors and Service Use

Traditional predispositional factors considered in the Gelberg-Andersen model include demographic factors such as age, racial ethnicity, and number of children. Social structural factors which affect person's status within the community are also known as important determinant factors; variables include length of residence and region of residence.

First, in the prediction of health care, Akresh (2009) found that age is positively related to service use. Burnette and Mui (1999) found a similar result in terms of physician utilization where older Hispanic immigrants showed a higher propensity for service use than the younger generations.

Another factor that influences service utilization is race/ethnicity where cultural perception of illness may lead to various health seeking behaviors. In fact, previous studies suggest that service usage patterns differ based on immigrants' racial or ethnic origins (Portes & Sensenbrenner, 1993). For example, in the prediction of mental health services, Brown & Harrick (1998) found that Asian Americans show less propensity to use services compared to other ethnic groups. The authors argued that "[different] cultural beliefs, lack of trust, lack of comfort with the [mainstream's] methods" may affect service use negatively. In the case of Korea, among the diverse pool of female marriage migrants, those with a Joseonjok ethnic background tend to underutilize adjustment services compared to women from other countries (Seol et al., 2005).

Length of residence yields ambiguous findings. Leclere, Jensen, & Biddlecom (1994) found that immigrants are much less likely than the native-born to use health care services where such tendency was found to be stronger among recent immigrants. A similar pattern was detected among Chinese immigrants in Houston area, where recent immigrants were much less likely to have physician contacts than those with longer residence period (Ma, 1999). In contrast, in the prediction of health services of older Hispanic immigrants in the U. S., Burnette and Mui (1999) found length of residence not to be a significant predictor. Stuyft et al.

(1989) also found length of residence to be marginally associated with health care behavior among migrants in Belgium. While it is difficult to corroborate the effect of length of residence on immigrants' service utilization patterns, such discrepancies may warrant future research.

Region of residence is also an important factor regarding female marriage migrants' service utilization, as they may encounter different types and number of services based on where they live (Gelberg, Andersen, & Leake, 2000; H. M. Kim, 2012; Lahana, 2011). Kim (2012) points out that immigrants residing in rural areas may often have accessibility issues as most rural regions lack public transportation. It is likely that those residing in rural areas may encounter more barriers compared to urban dwellers due to longer travelling distances. In the case of South Korea, most support service centers are heavily concentrated in urban regions (H. M. Kim, 2012; Seol, 2005). In such case, it is not difficult to expect that immigrants living in rural areas may face more difficulties accessing to needed services compared to those living in urban regions.

Lastly, number of children has been considered as an important pre-dispositional factor across health and mental health service literature. It is expected that the existence of young children is likely to increase the service use in the form of preventive services such as immunization (Leclere et al., 1994; Seo & Choi, 2012). In contradiction to this, a negative relationship was found between number of children and health utilization behavior. The authors reasoned that "persons in families with children and more full-time workers are likely to be both healthier and busier, which makes them less likely to visit a physician" (Leclere et al., 1994, p. 379). This discrepancy may warrant future research.

Enabling Factors and Service Use

Enabling factors considered in the Gelberg-Andersen model include education level, language proficiency, social support, and availability of resources such as income and possession of insurance. First, education is known to positively influence immigrants' propensity to use services.

In fact, past studies on medical care and health care service usages generally agree that higher education levels are associated with frequent service usage (Arling, 1985; Ho, 2000; Weisman, 1996). It is argued that limited education may hinder “individuals from understanding the importance of medical intervention and the nature of the medical care system” (Leclere et al., 1994, p. 372). Likely, Padgett et al. (1995) found higher level of education to be an important predictor of health care utilization among homeless and general population.

Language proficiency has also been considered as an enabling factor which enables immigrants to make better use of health care services (Chavez, Cornelius, & Jones, 1985; Leclere et al., 1994). As a proxy to use the host country’s official language, language proficiency is known to positively affect immigrants’ service usage.

Availability of resources, including income and possession of insurance, is another essential determinant with respect to immigrants’ service utilization. Monthly household income, as one’s ability to pay for service or related costs has been considered as an important enabling factor (H. M. Kim, 2012). Possession of insurance is also known to positively affect service utilization of immigrants. The primary way in which U. S. citizens pay for their medical care services is through insurance. Studies focusing on the influence of government insurances such as Medicaid (Aday & Andersen, 1978; Kronenfeld, 1980; Rabin, Bice, & Starfield, 1974; Shortell, 1975) and Medicare (Ferguson, Lee, & Wallace, 1976; Raffety, 1975) show that insurance coverage is positively related to service use. In the meantime, it is important to note that services offered by MFSCs are free. Nevertheless, Kim (2012) argues that “income [may] still be a significant enabling factor as it provides the means to pay for transportation and other associated costs” (p. 61). In fact, the study found income to be a significant enabling factor affecting female marriage migrants’ support service use.

Social support also affects service use, where the direction of the effect varies between formal and informal types of support. Whereas the formal types of social support provided by the government and serv-

ice-agencies have been generally found to increase the health service usage, no consistent agreement has been reached with regard to the effect of informal support. The informal type of social support is commonly provided by family members and friends. This may either facilitate the access to services by creating linkages between individuals and services (Chappell, 1987; Ho, 2000; Sussman, 1976) or “act as a substitution for formal services” (Ho, 2000, p. 36). While the effect of social support largely depends on the nature of the services provided, both scenarios⁴⁾ may hold for female marriage migrants in Korea. For instance, informal social support may facilitate access to community resources offered by MFSCs as well as providing emotional support as a substitution for care services (H. M. Kim, 2012). In fact, Lee (2013) found family support to have a mediating effect between the amount of knowledge and information acquired by immigrant women and their actual service use.

Need Factors and Service Use

Evidence suggests that service utilization is causally related to individuals’ needs (Andersen, 1978; Denktas, Koopmans, Bimie, Foets, & Bonsel, 2009; Fiscella, Franks, Doescher, & Saver, 2002; Katzburg, 2002; Leclere et al., 1994). As the direct causes that arouse individual’s perception of illness, need factors can be further partitioned to perceived needs and objectively evaluated needs (Portes, Kyle, & Eaton, 1992). It is expected that those who perceive that they need services show a higher tendency to utilize services compared to those who have lesser needs. In fact, in her study of marriage migrants in South Korea, Kim (2012) found perceived needs to be a strong determinant of the actual service use.

Korean Literature on Immigrants’ Service Use Determinants

Until fairly recently, most Korean literature on service utilization has paid little attention to immigrant populations. The studies were chiefly

conducted based on elderly groups or low-income family members. With the rapid increase of immigrants in South Korea, however, there has been a growing interest in understanding how this new population and immigrant associated characteristics affect service utilization. For instance, Lee & Kim (2010) conducted a multiple regression analysis, focusing on the determinant factors of social welfare services usage among female marriage migrants in Jeollanam-do province. The analysis was based on samples from a purposive sampling data set. As the first attempt to predict service usage pattern of immigrants, the study found number of children and awareness of services as strong predictors of service use. Later studies used the “National Survey on Multicultural Families” data set from year 2009 which included information on immigrant-specific services. For instance, Seo and Choi (2012) examined factors affecting family counseling service usage pattern using logistic analysis. Findings from the study revealed that immigrants dwelling in urban areas and those who had negative relationships with their spouses showed higher service usage pattern. Lastly, Kim (2012) focused on the effect of how gender and ethnic differences affect marriage migrants’ service usage pattern. The study stands out in that it was the first study that acknowledged the heterogeneous nature of immigrants in terms of national origins and gender. In fact, previous studies failed to examine whether there is any variation in service usage pattern among different group of immigrants. The study also differs from previous studies in that Gelberg-Andersen Behavioral Model was used to predict the service utilization pattern of immigrants based on a large-scale national dataset.⁵⁾

This study extends on the study of Kim (2012) which applied the Gelberg-Andersen Behavioral Model. As previously discussed, this framework has strengths in that it allows for factoring in specific vulnerability factors in addition to the traditional proxies that determine individuals’ service use. The following section examines some of the key literature that sought determinant factors of health and mental health service usage of immigrants.⁶⁾ The study acknowledges that female marriage migrants may have different decision dynamics regarding service use de-

pending on their employment status. In fact, many questions remain unanswered related to the support service utilization pattern of female marriage migrants based on their positions within the labor market. Largely echoing Kim's study (2012), the study addresses the gaps in our knowledge by applying the Gelberg-Andersen Behavioral Model for Vulnerable Populations.

Methods

Data and Measures

This study utilized the "National Survey on Multicultural Families" data set from 2009. The survey was conducted in year 2009 by the Ministry of Public Affairs and Security on a nationwide scale.⁷⁾ Weights were used to adjust the disproportional data structure as well as to match "the same distribution of gender, ethnic, and regional characteristics as the Basic Status Report on Multicultural Families" (H. M. Kim, 2012, p. 69). Among the total 154,333 individuals, the study used a sub-sample of 53,155 female marriage migrants for analyses. First, only those who were married to Korean men at the time of the survey were included, as the present study focused on female marriage migrants. Second, only respondents between the ages of 18 and 65 were included considering that the minimum age requirement for marriage in Korea is 18 years.

Variables included in the model were modified from the original Gelberg-Andersen model to match data availability and the specific characteristics of female marriage migrants. The operational definitions for each variable are suggested in Table 6 (See Appendix 1). The adapted model incorporated adjustment assistance service use (AAS) and family care service use (FCS) as the dependent variables. Regarding AAS, a dummy code was created where female marriage migrants who utilized the adjustment assistance service were coded as 1 and those who did not utilize the service were coded as 0. A total score was obtained by incorporating the two types of adjustment assistance services where the

value ranges from 0 to 3; 0 indicates “having no service use experience,” 1 indicates “used either one of the services,” 2 indicates “having used two services,” and 3 indicates “having used all three types of services.” Likewise, a dummy code was created for FCS, coding female marriage migrants who utilized family care services according to the values between 0 and 2; 0 indicates “having no service use experience,” 1 indicates “having used either kind of service,” and 2 indicates “having used both types of services.”

In order to examine the effect of predisposing factors on employment probability, age, ethnicity, region of residence, length of residence, and number of children were included. Age, length of residence, and number of children were coded as continuous variables. Female marriage migrants living in urban areas were coded as 1 and those living in rural areas were coded as 0. As for ethnicity, four dummy variables—Joseonjok (pob1), Mainland Chinese and Han Chinese (pob2), Vietnamese (pob3), Philippine (pob4)—and other countries, as a reference group (pob5) were used. This coding method was chosen based on a technical consideration; while the original ethnicity variable included eleven categories which also included female marriage migrants from Japan, Thailand, Mongolia, Taiwan, Cambodia, Uzbekistan, and Russia, the percentage of female marriage migrants in each category was less than 5% and thus were merged into one group as “female marriage migrants from other countries.”

Secondly, in order to see the effect of enabling factors on female marriage migrants’ employment status, the following variables were included—female marriage migrants’ education level, internet usage,⁸⁾ Korean language proficiency level, household’s monthly income, the eligibility to receive benefits under the National Basic Livelihood Security System (hereafter, NBLS status), and proxies of social support. Four dummy variables were included in the model including middle school graduate or lower (edu1), high school graduate (edu2), college graduate (edu3), and graduate-level degree (edu4). Edu1 was used as the reference group. Internet usage was coded as a dichotomous variable where 1 stands for those who have Internet access at home and use the Internet on a daily

basis. Korean language proficiency level (Korean proficiency) was measured as a continuous variable that ranged in values from 1 to 15. The variable measures the total score of Korean language fluency, reading, and listening ability.

Monthly household income (household's monthly income) was measured as an ordinal variable where 1 represents an income level of less than five hundred thousand won, and 9 represents the highest level of income of over seven million won. NBLS was coded as a dichotomous variable where 1 stands for those receiving the benefits.

Proxies of social support were also included. Relationship with husband was coded in an ordinal scale where 1 represents "very unsatisfied" and 5 represents "very satisfied." Whether or not the female marriage migrants had friends from their home countries, friends from other foreign countries, or friends from Korea were also included in the model. Having more than one friend was coded as 1 and having no friends was coded as 0.

Lastly, the perceived needs for each service were included. The two variables were coded in an ordinal scale where 1 represents "not needed at all," and 5 represents "very urgently needed."

Analyses

Structural equation modeling (SEM) was used to examine possible differences in service utilization in relation to employment status. The relationship between the two domains of services (AAS and FCS) was examined. In addition, the three domains of factors (i.e., predispositional, enabling, and need factors) that jointly explain the use of services among female marriage migrants were explored. The research model is suggested in Figure 1. Model specification analyses were also conducted to examine whether the data fits the proposed model. The following indices were used: Chi-square statistic, the Incremental Fit Index (IFI), Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA).

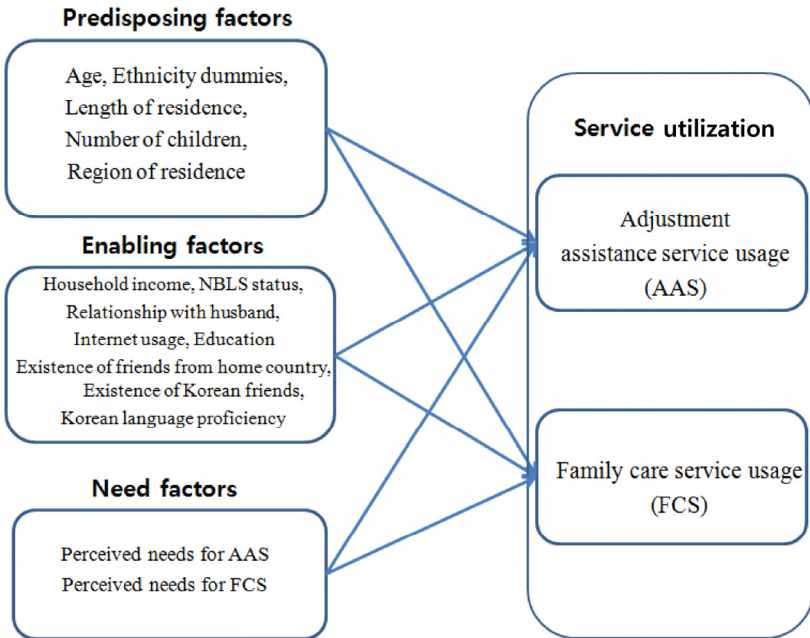


Figure 1. Research model of the study

Results

Descriptive Statistics

The result of the descriptive statistics is suggested in Table 2. Female marriage migrants were partitioned into two groups: employed and unemployed. It is interesting to note that the unemployed group shows higher usage pattern for both types of services. Among the predisposing factors, length of residence warrants attention. The employed group shows a higher mean value (mean = 80.324, $SD = 53.669$) compared to the unemployed group (mean = 54.580, $SD = 46.730$). In terms of ethnic background variables, as for the unemployed group, Chinese immigrants took the highest proportion with a mean value of 0.281, followed by Vietnamese and Joseonjok women, other ethnicities, and Philippine women. Among employed female marriage migrants, Joseonjok women

took the highest proportion with a mean value of 0.403, followed by Chinese, female marriage migrants from other countries, Vietnamese, and female marriage migrants from the Philippines. The unemployed group had an average of 0.958 children ($SD = 0.853$) compared to the employed group, which had 0.742 children ($SD = 0.919$) respectively.

Table 2.
Descriptive Statistics for Variables

Variables list		Unemployed group	Employed group
		Mean (<i>SD</i>)	Mean (<i>SD</i>)
Dependent variable	Adjustment assistance service usage	0.625 (0.484)	0.510 (0.500)
	Family care service usage	0.431 (0.495)	0.357 (0.479)
Predispositional factors	Age	29.908 (8.517)	36.183 (9.288)
	Joseonjok (Pob1)	0.247 (0.431)	0.403 (0.491)
	Chinese (Pob2)	0.281 (0.449)	0.282 (0.450)
	Vietnamese (Pob3)	0.247 (0.431)	0.117 (0.321)
	Philippines (Pob4)	0.073 (0.265)	0.059 (0.236)
	Elsewhere countries (Pob5)	0.166 (0.372)	0.122 (0.328)
	Length of residence	54.580 (46.730)	80.324 (53.669)
	Region of residence	0.805 (0.396)	0.820 (0.384)
	Number of children	0.958 (0.853)	0.752 (0.919)
Enabling factors	Education	3.730 (0.934)	3.860 (0.910)
	Internet usage	0.658 (0.475)	0.585 (0.493)
	Korean language proficiency	3.123 (1.044)	3.530 (1.050)
	Household's monthly income	3.095 (1.072)	3.264 (1.152)
	NBLS status	0.082 (0.274)	0.070 (0.255)
	Relationship with husband	4.097 (0.873)	3.923 (0.946)
	Existence of Korean friends	0.516 (0.500)	0.447 (0.497)
	Existence of friends from home country	0.433 (0.495)	0.518 (0.500)
	Existence of friends from other countries	0.021 (0.142)	0.024 (0.154)
Need factors	Perceived needs for the AAS	3.748 (1.359)	3.043 (1.494)
	Perceived needs for the FCS	3.562 (1.247)	2.876 (1.374)
<i>N</i>		33,747	19,408

In terms of educational levels, the employed group showed slightly higher average mean values. The mean value was 3.860 ($SD = 0.910$) versus 3.730 ($SD = 0.934$) for the unemployed group, suggesting that both groups had the education level of middle school graduates. In terms of Korean language proficiency, the employed group showed a higher mean value of 3.530 ($SD = 1.050$) compared to the unemployed group. As for the relationship with husband factor, unemployed female marriage migrants showed a higher satisfaction level of 4.097 ($SD = 0.873$) compared to employed female marriage migrants (mean = 3.923, $SD = 0.946$). As for existence of friends from home country, the employed group had an average of 0.519 friends ($SD = 0.500$) compared to the unemployed group, which had 0.433 number of friends ($SD = 0.495$).

Lastly, in terms of perceived needs for AAS, the unemployed group showed higher need with a mean value of 3.562 ($SD = 1.247$). The mean value for the employed group was slightly lower: 3.043 ($SD = 1.494$). Likewise, the unemployed group showed higher needs in terms of the FCS with a mean value of 3.562 ($SD = 1.237$) versus 2.876 ($SD = 1.374$) for the employed group.

Model Specification Process and Results

Prior to conducting the structural equation model, the full path model with hypothesized relationships among the variables was specified based on the Gelberg-Andersen Model and was empirically tested for goodness of fit. Four different measures were used: in Chi-square statistics, 4.565 ($df = 1$) was statistically significant with a p -value of .033. Other fit indices, all indicate that the model is acceptable: IFI = 1.000, CFI = 1.000, RMSEA = .008.

Based on the measurement of model fit of the hypothesized full model, two trimmed models were devised for the final model of the study. As the trimmed models are nested within the full model, a Chi-square test was conducted to see whether the two models were identical. The significance of the Chi-square value change ($\chi^2 = 1.443$) between the

trimmed model ($x^2 = 6.008$) and the full model ($x^2 = 4.565$) was tested as a first step. The result indicated that the Chi-square value change was 1.443 with a p -value of .291, and was not significant. It can be said that the trimmed model fits the data best and explains the same amount of information as the full hypothesized model. The significance of the Chi-square value change ($x^2 = 3.197$) between the first model 1 ($x^2 = 9.176$) and the trimmed model ($x^2 = 12.373$) was tested. As suggested in table 3, the result indicates that the Chi-square value change was not significant with a p -value of .074. Given the principle of parsimony, the latter model was accepted as the final model.

Table 3.
Result of Chi-square Value Change Test

	x^2	df	p -value
Trimmed model 1st	9.176	4	0.057
Trimmed model 2nd	12.373	5	0.030
(changed value)	3.197	1	0.074

$p < .001^{***}$, $p < 0.01^{**}$, $p < .05^*$

A structural path invariance test was also conducted. Prior to conducting a multiple group analysis, it is necessary to examine whether the structural paths are different across the two groups (i.e., whether there is an interaction effect). As a first step, two models were compared: the baseline model and the constrained model. As the constrained model is nested within the baseline model, the Chi-square statistics values of the two models were contrasted to see the significance of Chi-square value change. The results are suggested in table 4.

Table 4.

Structural Path Invariance Test across Employed and Unemployed Group

	x^2	Δx^2	df	Δdf	p -value
Baseline model	45.088		8		0.000
Constrained model	446.186	401.098	43	350	0.000

$p < .001^{***}$, $p < .01^{**}$, $p < .05^*$

The change in Chi-square value between the two models was significant with a p -value of .000, which rejects the null hypothesis that the structural paths are identical across the two groups. In sum, it can be said that there is a statistically significant difference in the structural paths leading to service usage across the employed and unemployed immigrant groups; among the twenty-six structural paths, at least one of the paths differs between the two groups. In order to specify which one, the Chi-square change between the two models—equal constrained and equality unconstrained—was compared. The result is suggested in Appendix 1. Although most of the structural path coefficients turned out to be statistically significant, only estimates where the model comparison value was significant had interaction effects. A total of 19 path coefficients differed according to female marriage migrants' employment status in terms of support services. Specific structural path coefficient results are suggested in table 5. Findings from the study generally accorded with the findings of Kim (2012).

Factors Associated with Service Usage

Adjustment assistance service use. First, a total of eleven path coefficients were found to interact with employment status, showing group differences in terms of adjustment assistance service use (See Appendix 1). Among the eleven factors, the strongest predictor of the AAS use was Joseonjok ethnicity for both the employed and unemployed group, where women of Joseonjok ethnicity were less likely to use family care services. The magnitude of the effect was greater for the unemployed

group ($b = -.297, p < .001$) compared to the employed group ($b = -.262, p < .001$), signifying that women with Joseonjok ethnicity tend to underutilize adjustment services. The remaining three ethnic background dummy variables all interacted with employment status (See table 5). Perceived needs for services turned out to be the second strongest predictor for the unemployed group, whereas having Philippine background turned out to be the second strongest determinant for the employed group. Region of residence turned out to be the third strongest determinant for both groups.

As for length of residence, a significant difference was found between the employed and unemployed groups, indicating an interaction effect. For both groups, those who had lived in Korea for a longer period of time were less likely to use adjustment services. The effect was greater among the employed group ($b = -.071, p < .001$), compared to the unemployed group ($b = -.066, p < .001$). Region of residence was also a relevant factor. Unemployed female marriage migrants living in rural areas showed a higher likelihood of service use ($b = -.070, p < .001$) compared to those dwelling in cities, whereas the effect of region on utilization of adjustment service was insignificant for the employed group. A statistically significant difference was also found for the effect of number of children, where the magnitude of effect was greater for the employed group ($b = .034, p < .001$) compared to the unemployed group ($b = .018, p < .001$).

As for the enabling factors, Korean language proficiency was found to interact with employment status as well. High language proficiency was found to increase service utilization for both groups, but the effect was stronger among the unemployed group ($b = .029, p < .001$) compared to the employed group ($b = .013, p < .001$). Monthly household income also interacted with employment status. While the effect of household income had a negative effect on service use for the employed group ($b = -.021, p < .01$), the effect was insignificant for the unemployed group. In other words, for the employed group, high monthly income was found to decrease the likelihood of AAS usage. A significant statistical differ-

ence was also found between employed and unemployed groups with respect to the relationship between “existence of friends from foreign countries” and adjustment service usage. For the employed group, the effect was insignificant. However, for the unemployed group, having friends from foreign countries increased the likelihood of service use ($b = .073, p < .001$).

In terms of need factors, the need for AAS interacted with employment status. The unemployed group showed a stronger association pattern with AAS use ($b = .104, p < .001$) than the employed group ($b = .077, p < .001$). In both groups, female marriage migrants with higher adjustment assistance needs also showed higher service usage pattern, though the effect was greater for the unemployed group. The remaining path coefficients were not found to have statistically significant group differences.

Family care service use. Among the paths leading to family care service usage (FCS), eight path coefficients were found to interact with employment status, showing group differences (See Appendix 1). The strongest predictor of family care service use was number of children for the employed group, whereas perceived needs turned out as the strongest predictor for the unemployed group (See table 7). Perceived needs for services turned out to be the second strongest predictor for the employed group, whereas number of children turned out to be the second strongest determinant for the unemployed group. Region of residence turned out to be the third strongest determinant for the employed group, whereas having Joseonjok ethnicity turned out to be the third strongest determinant for the unemployed group.

Among the predisposing factors, Joseonjok ethnicity was found to have an interaction effect, where for both the employed and unemployed groups, women of Joseonjok ethnicity were less likely to use family care services. The magnitude of the effect was greater for the unemployed group ($b = -.295, p < .001$) compared to the employed group ($b = -.236, p < .001$). Region of residence was another factor interacting with em-

ployment status where for both groups, those who lived in the countryside as opposed to the city showed higher likelihood of service use. The effect of region was stronger for the unemployed group ($b = -.092, p < .001$) compared to the employed group ($b = -.085, p < .001$). As for the effect of number of children, a statistically significant group difference was found where for both groups, having more children led to a higher family care service usage pattern. The effect was slightly higher among the employed group ($b = .194, p < .001$) compared to the unemployed group ($b = .160, p < .001$).

As for the enabling factors, education had an interaction effect. For both the employed and unemployed groups, higher education levels were negatively associated with family care service usage, where the magnitude of the effect was greater among the unemployed group ($b = -.050, p < .001$) compared to the employed group ($b = -.005, p < .001$). A statistically significant group difference was also found for the effect of Korean language proficiency, where the effect was higher among the unemployed group ($b = .083, p < .001$) compared to the employed group ($b = .041, p < .001$). For both groups, higher proficiency increased the likelihood of family care service usage. A household's monthly income also interacted with employment status. For both the employed and unemployed groups, high monthly income was found to decrease the likelihood of family care service usage, where the effect was greater among the employed group ($b = -.025, p < .001$) compared to the unemployed group ($b = -.015, p < .001$).

Lastly, the "need for family care services" varied between the two groups, where the effect was greater among the unemployed group ($b = .185, p < .001$) compared to the employed group ($b = .179, p < .001$). For both groups, those who showed higher needs in terms of the family service showed higher usage pattern as well. In fact, the descriptive statistics result suggests that the unemployed group had higher perceived needs.

Table 5.
Structural Parameter Estimates of Employed and Unemployed Group

		Model fit	Model comparison	p-value	Unstandardized estimate (Standard estimate)	
					Employed group	Unemployed group
Constrained model		446.186(43)				
Predispositional factors	Age → AAS	443.953(42)	2.233	0.135	-0.001(-0.02) *	-.001(-.015) *
	Pob1 → AAS	410.244(42)	35.942	0.000	-0.236(-0.262) ***	-.295(-.297) ***
	Pob2 → AAS	296.830(42)	149.356	0.000	-.097(-.074) ***	-.050(-.038) ***
	Pob3 → AAS	441.018(42)	5.168	0.023	.015(.012)	-.062(-.064) ***
	Pob4 → AAS	422.645(42)	23.541	0.000	.167(.110) ***	.076(.044) ***
	Length of residence → AAS	430.747(42)	15.439	0.000	-.001(-.071) ***	-.001(-.066) ***
	Region of residence → AAS	419.698(42)	26.488	0.000	-.099(-.084)	-.079(-.070) ***
	Number of children → AAS	401.895(42)	44.291	0.000	.034(.069) ***	.018(.034) ***
Enabling factors	Education → AAS	445.803(42)	0.383	0.534	.000(.000)	-.012(-.024) ***
	Internet → AAS	444.519(42)	1.667	0.197	.049(.053) ***	.038(-.040) ***
	Korean language fluency → AAS	424.911(42)	21.275	0.000	.013(.030) ***	.029(.066) ***
	Household's monthly income → AAS	434.437(42)	11.749	0.001	-.008(-.021) **	.000(.001)
	NBLS → AAS	445.197(42)	0.899	0.343	.057(.032) ***	.066(.040) ***
	Relationship with husband → AAS	445.737(42)	0.499	0.480	-.004(-.009)	-.014(-.028) ***
	Friends from home country → AAS	446.175(42)	0.011	0.917	.039(.043) ***	.042(.046) ***
	Friends from elsewhere countries → AAS	440.552(42)	5.643	0.018	.015(.005)	.073(.023) ***
Need factors	Perceived needs for AAS → AAS	407.185(42)	39.001	0.000	.077(.077) ***	.104(.104) ***
	Perceived needs for FCS → AAS	446.002(42)	0.184	0.668	.007(.007) *	.003(.003)

Table 5.

Structural Parameter Estimates of Employed and Unemployed Group (Continued)

		Model fit	Model comparison	p-value	Unstandardized estimate (Standard estimate)		
Constrained model		446.186(43)			Employed group	Unemployed group	
Predispositional factors	Age → FCS	438.428(42)	7.758	0.005	.000(-.006)	.000(-.013)	
	Pob1 → FCS	410.224(42)	35.962	0.000	-.236(-.066) ***	-.295(-.100) ***	
	Pob3 → FCS	445.700(42)	0.486	0.485	.032(.030) ***	-.035(-.038) ***	
	Pob4 → FCS	443.812(42)	2.374	0.123	.179(.137) ***	.128(.079) ***	
	Length of residence → FCS	445.772(42)	0.414	0.520	.000(-.052) ***	.000(-.048) ***	
	Region of residence → FCS	425.657(42)	20.529	0.000	-.086(-.085) ***	-.098(-.092) ***	
	Number of children → FCS	431.435(42)	14.751	0.000	.082(.194) ***	.079(.160) ***	
Enabling factors	Education → FCS	442.270(42)	3.916	0.047	-.005(-.013)	-.023(-.050) ***	
	Internet → FCS	445.985(42)	0.201	0.654	.018(.022) **	.009(.010)	
	Korean language proficiency → FCS	438.777(42)	7.409	0.008	.015(.041) ***	.033(.083) ***	
	Household's monthly income → FCS	442.239(42)	3.947	0.047	-.009(-.025) ***	-.006(-.015) *	
	NBLS → FCS	445.393(42)	0.793	0.373	.140(.092) ***	.143(.094) ***	
	Relationship with husband → FCS	446.146(42)	0.040	0.841	-.058(-.013) ***	-.011(-.022) ***	
	Friends from home country → FCS	445.196(42)	0.990	0.320	.022(.029) ***	.029(.035) ***	
	Friends from elsewhere countries → FCS	445.997(42)	0.189	0.664	.022(.016) ***	.073(.023) ***	
	Need factors	Perceived needs for AAS → FCS	445.695(42)	0.491	0.483	.019(.075) ***	.031(.099) ***
		Perceived needs for FCS → FCS	419.426(42)	26.76	0.000	.051(.179) ***	.062(.185) ***

$p < .001$ ***, $p < 0.01$ ** , $p < .05$ *

Discussion

This study attended to support services that constitute the present-day immigrant integration process but hitherto have received little systematic attention to better inform policy and clinical practice. The results suggest that female marriage migrants have different dynamics regarding service usage depending on their employment status, thus providing several points to discuss.

First, when predicting adjustment assistance service usage (AAS), a significant difference was found between the two groups in terms of number of children, where having more children led to a higher family care service usage pattern; the magnitude of the effect was nearly two times higher for the employed group compared to the unemployed group in terms of AAS use prediction. It is plausible that, compared to unemployed female marriage migrants who can take care of their children themselves, the employed group has higher needs for services, thus showing a higher service usage pattern. Having more children also led to a higher service usage in terms of FCS. In fact, in terms of the magnitude of effect for each predictor, number of children showed the strongest influence for the employed group when predicting the FCS use.⁹⁾ This implies that childcare (number of children) is an important determinant in understanding the help-seeking behaviors for employed female marriage migrants.

Other variables that showed group difference include region of residence, where unemployed immigrants in rural areas showed high service usage pattern as opposed to the employed group where place of residence was not a significant predictor. A similar result was obtained regarding family care service usage pattern. Such results coincide with Kim's (2012) study where migrants living in rural areas utilized both types of services more than those living in urban regions. This is contrary to the previous literature where urban region residents are expected to show higher service usage pattern. It is important to note that unemployed female marriage migrants gained access to services largely from the information provided

by their informal social networks. This was especially the case in terms of adjustment assistant service usage. Such findings suggest that the “linkage hypothesis” holds true in the case of Korea. Due to the rich informal networks they possess, it is possible that unemployed female marriage migrants in rural areas are more active in seeking formal types of services compared to those living in urban areas. Such results provide important implications in terms of intervention outreach (Kim, 2012); MFSCs may outreach informal networks in diffusing information about the available services and resources. Moreover, service agencies including MFSCs in urban regions may need to outreach immigrant women more actively.

Another point that warrants attention is the effect of ethnic background. The strongest predictor of the AAS use was being Joseonjok for both the employed and unemployed group, where employed Joseonjok women showed lesser likelihood to use the services. This corroborates findings from the previous studies that Joseonjok migrants have fewer tendencies to utilize services compared to migrants with other ethnic backgrounds. Joseonjok migrants, who are also known as Korean-Chinese, share similar language and culture with native Koreans. It is possible that this population has lesser needs in terms of AAS due to cultural similarities. In such case, culturally sensitive approaches may be required in order to increase the accessibility or the facilitation rate of the services for the Joseonjok women.

However, perceived needs also require attention. While the magnitude of effect differed between the two groups, for both the employed and unemployed female marriage migrants, those who perceived a need for service showed a higher usage rate of both AAS and FCS. It is also important to note that when comparing the magnitude of variables related to AAS use, perceived needs was the second highest determinant in predicting service use for the unemployed group. This result coincides with Kim’s (2012) study. In such case, where high service needs are actually leading to high service usage rate, it is plausible to conclude that both types of services are being effectively provided to those with greater needs.

Significant group difference was also found in terms of the effect of monthly household income. When predicting AAS, high level of monthly household income negatively affected service usage for the employed group, whereas the effect was not significant for the unemployed group. This is contrary to the findings of previous studies that predict high level of income to increase service usage. Such inconsistent findings may be related to the following factors. First, it is important to note that the employed group had a longer residence period, suggesting lesser needs to use AAS. Moreover, as suggested by the descriptive statistics results, Joseonjok women who showed a lesser tendency to utilize services compared to other ethnic groups constituted the majority of the employed group. Secondly, the nature of the support services that are provided needs to be considered. Most support services provided by the MFSCs are offered either without a fee or at a very low price (H. M. Kim, 2012). The support services are means-tested based where the priority is given to low-wage households. In such case, there is a high chance that employed immigrants may not be entitled to use the services as a member of a double-income family.

Lastly, variables related to immigrant-specific factors were identified as significant predictors, supporting the use of the Behavior Model for Vulnerable Populations. As for the length of residence, no interaction effect was detected in predicting the service use of FCS; for both the employed and unemployed groups, female marriage migrants who had been living in Korea for a shorter period showed higher likelihood of service use. This suggests that recently arrived immigrants, regardless of their employment status, show higher service usage in terms of family care services. Similar results were obtained when predicting the use of AAS, suggesting that female marriage migrants who had lived in Korea for a shorter period showed higher likelihood of service use. As AAS are aimed to help recent immigrants navigate through the new society, it is not difficult to assume that recently arrived immigrants have higher demands and needs for such services compared to long-term migrants. In addressing the effectiveness of any type of service, Branch (2001)

suggests four components be considered: 1) who gets the service, 2) what kind of services are provided, 3) who pays for the service, and 4) who monitors the quality of service (recited in Kim 2012, p. 129). In the context of the first criterion, the correlation between shorter length of residence and higher service usage may indicate that the service is being applied to the target group as intended. This is especially the case for the adjustment service as the service, by definition, is designed for helping newly arrived immigrants.

However, such a claim is only partially validated when considering the effect of the Korean language proficiency on both types of services. The multiple group analysis showed that while the magnitude of the effect was different for the employed and unemployed groups, those who were more fluent in the Korean language showed a higher FCS usage pattern. The results suggesting that female marriage migrants who are more fluent in Korean are utilizing the adjustment assistance program more. Such a result holds several implications in terms of practice and services. First, when considering that AAS is aimed for early settlers who are not equipped with Korean language, although unemployed female marriage migrants are using the service more than employed female marriage migrants, the positive beta value may imply that there is a gap between the intended service purpose and the actual usage pattern; those who should be taking advantage of the services are not. Similarly, female marriage migrants who are better equipped in the Korean language are utilizing the FCS services whereas immigrants with low proficiency tend to underutilize the provided services. For both cases, the effectiveness of provided language services may be questioned. In such case, it is suggested that language programs to be provided according to match migrants' individual Korean language levels.

Some limitations are considered in regard to the methodological and empirical shortcomings of this study. First, it is important to note that female marriage migrants are heterogeneous in terms of ethnicity, age, and other demographic traits. This study focused on possible differences in service utilization in relation to their employment status. Considering

that older female marriage migrants differ from their younger counterparts, service utilization patterns based on age may provide valuable information. Secondly, due to data limitation, information on employment was not included in the model. Future studies should look into the specific usage patterns regarding employment services.

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- 1) These support services are also provided to male marriage migrants. However, the study limits the study population to female marriage migrants considering that female marriage migrants take up 84.3% of the total population. The study also took into consideration that compared to male counterparts, female marriage migrants may show different service usage patterns in relations to their employment status.
 - 2) More detailed elaboration of Kim's (2012) study is provided in the literature review section.
 - 3) The study acknowledges the different nature between support services and health/mental health services. However, up to date, literature on immigrants' support service use is very scarce. As Kim (2012) argues, "[studies] on service utilization of immigrants is mostly bound to that of health and mental health service" (H. M. Kim, 2012, p. 45).
 - 4) Kim (2012) refers to the two scenarios as "linkage and substitution hypotheses" (p. 125).
 - 5) A paucity of research has been conducted using the Behavioral Model for Vulnerable Populations in the Korean literature. Han (2014) applied the model to fathom factors associated with the service use of migrant-youths focusing on educational support services. Similarly, Yao (2016) predicted factors associated with social service use among migrant workers using a questionnaire survey. Lastly, Kim (2012) employed the Behavioral Model for Vulnerable Populations to explore factors associated with social welfare service utilization among individuals with developmental disabilities.
 - 6) The study acknowledges the different nature between support services and health/mental health services. However, up to date, literature on immigrants' support service use is very scarce. As Kim (2012) argues, "[studies] on service utilization of immigrants is mostly bound to that of health and mental health service" (H. M. Kim, 2012, p. 45).
 - 7) The study acknowledges that the 2009 data is not the most recent dataset. However, the year 2009 carries the largest sample size in terms of female marriage migrants. The sample size of female marriage migrants counts to 17,109 as for the year 2015 dataset. The sample counts to 13,940 cases as for the year 2012 data set, whereas the year 2009 datasets includes a total of 53,155 female marriage migrants sample. It is also important to note that the "National Survey on Multicultural Families" dataset provides cross-sectional data. Unlike a longitudinal dataset, the combination of variables

collected per each survey varies. The year 2009 dataset encapsulates the most comprehensive sets of variables needed in the current study in this sense. Future studies may further strengthen the points made in this study with a more recent dataset.

- 8) In addition to the traditional enabling factors, this study also incorporated “internet usage” as a proxy for one’s resource that may affect immigrants’ ability to navigate through the health care system. It is hypothesized that those who have Internet access may make better use of health care services.
- 9) This is contrary to the unemployed group where need factor turned out as the strongest predictor.

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Appendix 1

Table 6.

Operational Definition of Variables

Variable (variable name)	Variable type	Definition
Predispositional factors		
Adjustment assistance service usage	Dichotomous	0 = not having AAS service usage experience 1 = having AAS service usage experience
Family care assistance service usage	Dichotomous	0 = not having service usage experience 1 = having FCS service usage experience
Ethnicity dummies Pob1 - 5	Dummy	Pob1 = having Joseonjok ethnicity Pob2 = having Mainland Chinese and Han Chinese ethnicity Pob3 = having Vietnamese ethnicity Pob4 = having Philippines ethnicity Pob5 = having ethnicities other than Joseonkok, Chinese, Vietnamese and Philippines(reference group)
Length of residence	Continuous	Total length residence measured in months
Region of residence	Dichotomous	0 = Living in rural areas 1 = Living in urban areas
Number of children	Continuous	Total number of children
Enabling factors		
Education level 1 - 4	Dummy	Edu1 = less than middle school graduate (reference group) Edu2 = high school graduate Edu3 = college graduate Edu4 = graduate school graduate
Internet usage	Dichotomous	0 = not using internet 1 = using internet
Korean language proficiency level	Continuous	Total score of Korean speaking, reading and writing
Household's monthly income	Ordinal	1 = Very unsatisfied 2 = Not satisfied 3 = Moderate 4 = Satisfied 5 = Very satisfied

Variable (variable name)	Variable type	Definition
NBLS status	Dichotomous	0 = not being the recipient of NBLS
Relationship with husband	Ordinal	1 = Less than 500 thousand Korean won 2 = 500 thousand ~7 million Korean won 3 = 1~2 million Korean won 4 = 2~3 million Korean won 5 = 3~4 million Korean won 6 = 4~5 million Korean won 7 = 5~6 million Korean won 8 = 6~7 million Korean won
Existence of Korean friends	Dichotomous	0 = Having no friends 1 = Having more than one Korean friend
Existence of friends from home country	Dichotomous	0 = Having no friends 1 = Having more than one friend from home country
Existence of friends from other countries	Dichotomous	0 = Having no friends 1 = Having more than one friend from other countries
Perceived needs factors		
Perceived needs for AAS	Ordinal	1 = Not needed at all 2 = Not needed 3 = Moderate 4 = Needed 5 = Very needed
Perceived needs for FCS	Ordinal	1 = Not needed at all 2 = Not needed 3 = Moderate 4 = Needed 5 = Very needed

Table 7.

Change between the Equal Constrained Model & the Equality Unconstrained Model

	Δx^2	Δdf	<i>p</i> -value
Age → AAS	2.233	1	0.135
Pob1 → AAS	35.942	1	0.000
Pob2 → AAS	149.356	1	0.000
Pob3 → AAS	5.168	1	0.023
Pob4 → AAS	23.541	1	0.000
Length of residence → AAS	15.439	1	0.000
Region of residence → AAS	26.488	1	0.000
Number of children → AAS	44.291	1	0.000
Education → AAS	0.383	1	0.534
Internet → AAS	1.667	1	0.197
Korean language proficiency → AAS	21.275	1	0.000
Household's monthly income → AAS	11.749	1	0.001
NBLS → AAS	0.899	1	0.343
Relationship with husband → AAS	0.499	1	0.480
Friends from home country → AAS	0.011	1	0.917
Friends from elsewhere countries → AAS	5.643	1	0.018
Perceived needs for AAS → AAS	39.001	1	0.000
Perceived needs for Family care services → AAS	0.184	1	0.668
Age → Family care service usage (FCS)	7.758	1	0.005
Pob1 → FCS	35.962	1	0.000
Pob2 → FCS	0.486	1	0.485
Pob3 → FCS	2.374	1	0.123
Pob4 → FCS	0.414	1	0.520
Length of residence → FCS	14.751	1	0.000
Region of residence → FCS	20.529	1	0.000
Number of children → FCS	3.916	1	0.047
Internet → FCS	0.201	1	0.654
Korean language proficiency → FCS	7.409	1	0.008
Household's monthly income → FCS	3.947	1	0.047
NBLS status → FCS	0.793	1	0.373
Relationship with husband → FCS	0.040	1	0.841
Friends from home country → FCS	0.990	1	0.320
Friends from different countries → FCS	0.189	1	0.664
Perceived needs for AAS → FCS	0.491	1	0.483
Perceived needs for FCS → FCS	26.76	1	0.000

$p < .001^{***}$, $p < 0.01^{**}$, $p < .05^*$

Biographical Note

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