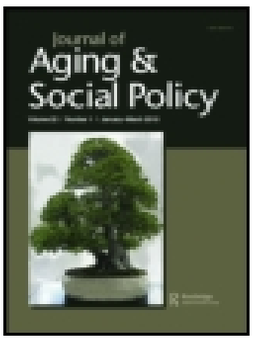

Journal of Aging & Social Policy

ISSN: 0895-9420 (Print) 1545-0821 (Online) Journal homepage: https://www.tandfonline.com/loi/wasp20

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To cite this article: Philip A. Rozario & Song-Iee Hong (2019): Foreign Domestic Workers and Eldercare in Singapore: Who Hires Them?, Journal of Aging & Social Policy, DOI: 10.1080/08959420.2019.1578605

To link to this article: https://doi.org/10.1080/08959420.2019.1578605

Published online: 16 Feb 2019.

JOURNAL OF AGING & SOCIAL POLICY
https://doi.org/10.1080/08959420.2019.1578605

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Foreign Domestic Workers and Eldercare in Singapore: Who Hires Them?

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ABSTRACT

In Singapore, policy makers expect families to remain actively involved in the care of their frail older relatives, as manifestly expressed in its *Many Helping Hands* approach to long-term care. To enable families to fulfill this expectation, the government has enacted policies that encourage the hiring of foreign domestic workers (FDWs) to complement or supplement informal caregiving efforts. Using the Andersen Behavioral Model, we were interested in identifying caregiver and care receiver characteristics that might predict the hiring of FDWs. With data from a convenience sample of 488 informal caregivers, we ran logistic regression regressing the hiring of an FDW on various predisposing, enabling, and need factors. Of interest, enabling factors such as household income, housing type, and educational level were predictive of hiring an FDW in the home. Only one need factor, time spent in caregiving, was predictive of the increased likelihood to hire an FDW. Policies that encourage the marketization of care are likely to favor those with financial means and inadvertently ignore the caregiving burdens of lower income families. In addition, we suggest research and policies to ensure the well-being and protection of FDWs who have become a key component of the long-term care policy and practice in Singapore.

ARTICLE HISTORY
Received 28 September 2017
Accepted 18 August 2018

KEYWORDS
Foreign domestic workers; informal caregiving; Andersen model; Singapore

The caregiving literature identifies a number of factors—the availability and willingness of family caregivers, access to quality and affordable alternatives, cultural and political expectations, and personal and familial preferences—that may influence informal care arrangements (Shutes & Chiatti, 2012). As a matter of policy, the Singapore government manifestly expects families to play an essential role in meeting the care needs of their frail older relatives (Committee on Ageing Issues [CAI], 2006). This expectation is guided by the principle of *joint responsibility* or *crowding in* (Chan, 2005), which has been more popularly known in Singapore as the *Many Helping Hands* approach (CAI, 2006; Yap & Gee, 2015).

In addition, the choice of family care as the preferred long-term care option is further reinforced by many older adults' preference to age in place (CAI, 2006) and made attractive by its relative affordability (Østbye,

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Malhotra, Malthotra, Arambepola, & Chan, 2013; Yeoh & Huang, 2010). Further, family care is also attractive from the fiscal standpoint of the government, as it reduces public spending by preventing or delaying the institutionalization of frail older adults (Tew, Tan, Luo, Ng, & Yap, 2010). Consequently, family care may also relieve the demand for institutional care.

Since its inception, Singapore society has experienced dramatic economic, demographic, and social changes that have challenged the capacities of many families to provide eldercare on their own. Indeed, policy makers recognize the growing gap between the demand for and supply of informal care and aim to build the necessary infrastructure to support home- and community-based care (CAI, 2006). For example, the government has introduced changes that make it relatively less prohibitive for families to hire a foreign domestic worker (FDW) to supplement or complement their efforts in meeting their caregiving demands (CAI, 2006; Østbye et al., 2013; Yeoh & Huang, 2010). Some have termed the outsourcing of informal care, such as the employment of FDWs to provide care in private homes, as the *commodification of care* (Shutes & Chiatti, 2012). Notably, the hiring of an FDW in the home ensures the availability of a relatively cheaper form of round-the-clock care for frail older relatives (Yeoh & Huang, 2010) than nursing home care.

Notwithstanding these changes, potential employers must meet certain age, financial, and competency requirements and other stipulations in order to hire an FDW (Ministry of Manpower [MOM], 2016a). Although the qualifying minimum household income is confidential, potential employers must prove that they have enough financial resources to cover the following costs: the monthly salary of the FDW, the monthly levy that employers pay to the MOM, the FDW's food and living expenses, insurance, and other expenses (MOM, 2016b). In addition, the MOM's approval is also informed by the size of the employer's residence as the worker is expected to live-in at the residence where she works.

To be sure, some concessions are provided for families who hire FDWs to assist them with the care of a frail older adult, person with disability, or child younger than 16. Such families are eligible for a reduced monthly levy, a pricing mechanism to control the number of foreign workers in Singapore, from SGD 265 to SGD 60. Further, when older adults do not meet the income criteria, regulations allow other family members with means to serve as proxy employers under the Sponsorship Scheme (MOM, 2016b). In addition, the Foreign Domestic Worker Grant Scheme, a means-tested program, provides eligible households with a monthly grant of SGD 120 to defray the cost of hiring an FDW (Agency for Integrated Care, n.d.).

As of June 2016, the MOM issued 237,100 work permits to FDWs (2016c) in about one-fifth of all households (Winn, 2012), although not all of them are involved in eldercare. A nationally representative survey of older adults in Singapore (Panel on Heath and Aging of Older Singaporeans, 2011) estimated that 14% of respondents hired an FDW to provide care in their households

(cited in Harding & Chan, 2014). Of note, the reliance on FDWs is not a new phenomenon in Singapore (Huang & Yeoh, 2015). In fact, others have pointed to colonial times when FDWs, both men and women serving various household functions, were imported to work in high-income households. In more recent years, macroeconomic, demographic, and social factors have driven an even greater demand for FDWs (Yeoh & Huang, 2010). In a parliamentary debate in 2013, Deputy Prime Minister Mr. Chee Hean Teo recognized the importance of foreign workers in helping grow the Singapore economy as well as in making life more convenient for Singaporeans (Parliament of Singapore, 2013). Indeed, the hiring of FDWs allows women, typically those in higher-paying jobs, to work or assume avocational roles outside their homes and simultaneously meet their social reproduction functions.

Conceptual framework

Andersen's Behavioral Model (1995) has been previously used to understand how and why older adults and their families use formal services in the health care and long-term care systems (Herrera, Lee, Palos, & Torres-Vigil, 2008; Hong, 2009; Toseland, McCallion, Gerber, & Banks, 2002). The Andersen Model is especially useful in our examination of caregiver-related factors associated with the hiring of an FDW as it considers individual-level and contextual determinants of formal service use. Essentially, the model postulates three domains to determine service use or nonuse: (a) *predisposing factors* such as users' demographic factors; (b) *enabling factors* reflecting users' resources and accessibility of those resources leading to services; and (c) *need factors* stemming from users' vulnerability (i.e., perceived needs and evaluated needs; Andersen, 1995; Hong, 2009: Toseland et al., 2002).

Andersen (1995) identified three areas of predisposing factors: demographic, social structure, and health beliefs. Like others (Lai, 2008), we used age, gender, marital status, and education level in our consideration of predisposing factors. Andersen (1995) argued that predisposing factors might influence perceived needs. In the context of long-term care, these beliefs might pertain to the giving and receiving of care and more specifically to the beliefs of caregivers about their care obligations, i.e., filial piety (Lieber, Nihira, & Tan Mink, 2008). For example, Herrera et al. (2008) were interested in the impact of culture on patterns of service use among Mexican American family caregivers. More specifically, Herrera et al. (2008) argued that Mexican American caregivers' cultural values might influence their expectations about familial involvement and, in turn, their use of formal help. Accordingly, Lai (2008) called for the inclusion of filial piety as a predisposing factor because of its potential influence on service use.

For our study, we were interested in identifying which family caregiver characteristics might influence the hiring of an FDW in the provision of eldercare to better understand who might benefit from this form of care marketization in

Singapore. In addition, we included a number of care recipient characteristics in our model, such as care receiver's age, caregiving demands, and mental disorder status, which might also stand as proxies for caregivers' needs. Specifically, informed by the Andersen Behavioral Model, we were interested in the bivariate and multivariate relationships between various characteristics that could be categorized as *predisposing, enabling*, or *need* factors and the hiring of an FDW to assist family caregivers in meeting their caregiving demands.

Methods

Participants

Data for this study were derived from a cross-sectional study of family caregivers in Singapore. To qualify, participants had to be an informal caregiver to an adult aged 60 years and older and themselves be aged 18 years and older. The principal investigator, with the help of a polling company, created a sampling frame comprising clients from a national caregiver service provider and other service providers, word of mouth, and door-to-door screening. The recruitment strategy yielded a response rate of 79.6%. Trained interviewers from a local polling company conducted face-to-face interviews from January to July 2012 with 500 eligible caregivers. Each interview lasted up to 1.5 hours. Depending on the respondents' choice and fluency, interviews were conducted in one of the four official languages in Singapore (i.e., English, Mandarin, Malay, or Tamil). Where available, we relied on previously translated instruments for non-English interviews. When not available, we translated from the original English language instrument and then back-translated them. For purposes of quality assurance, a field supervisor checked all returned surveys for their logic in and completeness of responses. The Institutional Review Board of the National University of Singapore approved this study's protocol (NUS–1416). For purposes of our analyses, we limited our sample to respondents who self-identified ethnically as either Chinese, Malay, or Indian, which left us with a final sample size of 488 caregivers. We excluded 12 caregivers who identified as "other."

Measures of variables of interest

Dependent variables

For this study, we operationalized the presence of an FDW in the caregiver's household by asking informal caregivers whether or not they hired one. Their responses were dichotomously coded as 0 for no and 1 for yes.

Covariates and predictor variables

For our first aim, we identified *predisposing, enabling*, and *need variables*. For predisposing factors, we included caregiver *gender* (0 = male, 1 = female),

type of kinship relationship (1 = spouse, 2 = adult children and children in-laws, and 3 = others), *living arrangements* (1 = together, 0 = apart), *family size, caregiver's age* (measured in years), *care receiver's age* (measured in years), caregiver's *marital status* (1 = married, 0 not married), and status as a *primary caregiver* (1 = yes, 0 = no). For caregiver's cultural values, we operationalized caregiver *filial piety* with the 20-item Filial Piety Scale (Lieber, Nihira, & Tan Mink, 2008). Sample items include "Children should live according to the beliefs, attitudes, and wishes of their father even after he has passed away," and "Children should be eternally grateful and reciprocate the love and kindness they have received from their parents." We reverse-scored some items as they were negatively phrased, e.g., "Children do not have to seek parental advice when there is a problem." Responses ranged from 1 (strongly disagree) to 6 (strongly agree). A higher summative score reflected higher levels of filial piety. The internal consistency for the scale was acceptable (α = 0.71).

We included the following variables under enabling factors: caregivers' *monthly household income* (measure ordinally increments of SGD 500, from 1 = less than SGD 500 to 11 = SGD 5000 and above), caregivers' *employment status* (1 = full- or part-time employment, 0 = not employed), *housing type* (1 = 2-room or smaller; 2 = 3- or 4-room; 3 = 5-room or higher). We identified whether our sample of caregivers were currently using any formal services that included adult day care, respite, and in-home services, among other things. Based on their responses, we dichotomized current formal service use: 1 (for those who used *any* formal services) and 0 (for those who did not use any of the services). For the bivariate and logistic analyses, we treated income, an ordinal level variable with 11 categories, as a continuous variable, which is in line with standard statistical practices (Norman, 2010).

We operationalized need with two instruments that measured caregiving effort in terms of *time spent in caregiving and difficulty faced in caregiving* using the Oberst Caregiving Burden Scale (Bakas, Austin, Jessup, Williams, & Oberst, 2004). Respondents were asked about their caregiving efforts in terms of the amount of time they spent (0 = none to 4 = a great amount) and the level of difficulty they experience (0 = not difficult to 4 = extremely difficult) in 15 care-related activities including the provision of personal care, emotional support, and structuring or planning activities for their care receivers. Summative scores for both scales ranged from 15 to 75, with higher scores indicating greater caregiving involvement and also greater difficulty experienced in fulfilling these caregiving demands. Both scales had high internal consistencies (α = .91 for time spent on caregiving tasks and α = .93 for level of difficulty experienced in performing these tasks). To assess caregivers' needs for services, we asked caregivers whether they needed help for specific caregiving-related tasks. Sample items included "Keeping [care recipient] safe at home," and "Managing challenging behaviors, such as wandering."

Responses were 0 for "no," 1 for "yes," or 2 for "doesn't have this need." We recoded "doesn't have this need" as "no" and then calculated a count of service needs for each caregiver, with a higher summative score reflecting greater needs for formal services. In addition, we included care receiver mental status, as operationalized by one item, "Does the older relative have any *mental disorders*" (1 = yes, 0 = no).

Analysis plan

To address our first aim, we ran a series of univariate analyses and then examined the bivariate relationships between the hiring of an FDW and caregiver and care receiver characteristics separately. To address our main aim, we ran a logistic regression model predicting the hiring of an FDW that included only caregiver and care receiver characteristics that emerged as significant in the bivariate analyses. We did this to ensure parsimony.

Findings

Table 1 presents univariate and significant covariates of hiring an FDW findings for all caregiver and care receiver characteristics of interest for this study. Our sample of caregivers (n = 488) was predominantly female (72.1%) and were primary caregivers (72.1%), married (72.1%), and looking after their parents or parents-in-law (85.4%). Their average household size was 4.15 people (SD = 1.7) and mean age was 48.9 years (SD = 11.6 years). The majority of them (56.6%) were living together with their older relative. On average, our sample of family caregivers reported looking after an older relative whose mean age was 76.5 years (SD = 8.93 years), and the majority of their care receivers were female (71.9%).

The majority of our sample lived in a 4-room apartment or larger (63.1%), reporting a median monthly household income of SGD 2500 to 2999. In terms of employment, 64.1% of the caregivers in our sample reported having a part- or full-time job. Regarding needs, caregivers reported having an average of 6.5 needs, though only 20.9% of them reported using formal services. The majority of care receivers reportedly did not have any mental disorders (73.8%). Almost a quarter of our sample (24.8%) hired an FDW in their homes.

In our chi-square results, we found significant relationships between hiring an FDW and kinship relationship, status as a primary caregiver, living arrangements, size of residential unit, and whether care receivers had any mental disorders. Caregivers who were adult children (or children-in-law) were statistically more likely to hire an FDW to assist them to meet their caregiving demands than spousal or other informal caregivers, χ^2 (2, 488) = 8.31, p = .015. Caregivers who identified as primary caregivers, χ^2 (1, 488) = 6.28, p = .012, and those who were

Table 1. Sample characteristics and significant bivariate covariates of hiring an FDW (n = 488).

	Total sample	Hiring an FDW		Test statistic
Variables	Mean ± *SD* or *N* (%)	Yes 121 (24.8%)	No 367 (75.2%)	Chi-square or *t* test statistics
Care recipient's age (years)	76.46 ± 8.93	80.25 ± 8.40	75.21 ± 8.76	$t = -5.66$***
Caregiver's age (years)	48.9 ± 11.6	52.63 ± 9.4	47.52 ± 11.98	$t = -4.25$***
Caregiver's gender[a]:				
[1] Female	352 (72.13)	–	–	*Not significant*
[2] Male	136 (27.13)			
Living together[a]:				
[1] Yes	291 (59.63)	29.8 (40.3)		$\chi^2 = 7.53$**
[0] No	197 (40.37)	70.2 (59.6)		
Caregiver's marital status[a]:				
[1] Married	315 (64.55)	–	–	*Not significant*
[0] No	173 (35.45)			
Caregiver's family size	4.50 ± 1.70	4.54 ± 1.58	4.01 ± 1.73	$t = -3.06$**
Caregiver's educational level[a]:				
[0] Less than secondary (elementary or less)	83 (17.01)	4.96 (17.0)		$\chi^2 = 34.75$***
[1] Secondary (high school)	223 (45.08)	36.4 (45.1)		
[2] Postsecondary (some tertiary and more)	185 (37.91)	58.7 (37.9)		
Caregiver's housing type[a]:				
[1] HDB 2-room or smaller	70 (14.34)	0.83 (14.3)		$\chi^2 = 37.99$***
[2] HDB 3-room	110 (22.54)	14.05 (24.5)		
[3] HDB 4-room or larger	308 (63.11)	85.1 (63.1)		
Caregiver's employment status[a]:				
[1] Employed	313 (64.14)	24.0 (35.9)		$\chi^2 = 9.90$**
[0] Unemployed	175 (35.86)	76.0 (64.1)		
Primary caregiver[a]:				
[1] Yes	352 (71.13)	19.0 (27.9)		$\chi^2 = 6.28$**
[0] No	136 (2.87)	81.0 (72.1)		
Caregiver's filial piety	71.32 ± 9.93	65.98 ± 8.77	73.08 ± 9.66	$t = 7.53$***
Caregiving time spent (hours per week)	10.32 ± 1.10	36.76 ± 10.86	31.89 ± 9.86	$t = -4.37$***
Level of caregiving difficulty	23.20 ± 10.04	25.64 ± 10.69	22.39 ± 9.70	$t = -2.96$**
Caregiver median monthly household income (SGD)	2500 to 2999	8.41 ± 3.25	6.06 ± 3.36	$t = -6.53$***
Service needs of caregivers	6.52 ± 7.69	8.31 ± 8.57	5.93 ± 7.30	$t = -2.98$**
Relationship to care recipient[a]:				
[0] Spouse	38 (7.79)	4.1 (7.8)		$\chi^2 = 8.31$*
[1] Adult children (or children in-law)	417 (85.45)	93.4 (85.4)		
[2] Others	33 (6.67)	2.5 (6.8)		
Care receivers mental status[a]:				
[1] Has a mental disorder	128 (26.23)	62.0 (73.7)		$\chi^2 = 11.55$***
[0] No mental disorder	360 (73.77)	38.0 (26.3)		
Current service user[a]:				
[1] Yes	102 (20.9)	67.8 (79.1)		$\chi^2 = 12.49$***
[0] No	386 (79.10)	32.2 (20.9)		

Note. FDW = foreign domestic workers.

*$p < .05$, **$p < .01$, ***$p < .001$.

[a]Observed versus (expected) frequencies were reported for these categorical variables along with their respective significant chi-square statistic.

Means and standard deviations were reported for these interval level variables along with their respective significant *t* test statistic.

employed, χ^2 (1, 488) = 9.90, p = .002, were more likely to employ an FDW. Also, caregivers who lived together with their care receivers, χ^2 (1, 488) = 7.53, p = .0006, those who lived in 4-room units or larger, χ^2 (2, 488) = 37.99, p < .0001, those who looked after care receivers with mental disorders, χ^2 (1, 488) = 11.55, p = .0007, and those who reported using formal services, χ^2 (1, 488) = 12.49, p = .0004, were more likely to hire an FDW than their counterparts.

In our t test analyses, we found that caregivers with larger families, greater caregiving involvement (in terms of time), greater difficulties in meeting their caregiving demands, lower levels of filial piety, greater count of service needs, and higher educational levels were significantly more likely to hire an FDW to help them in meeting the activities of daily living (ADL) and instrumental activities of daily living (IADL) needs of their care receivers than their respective counterparts. We also found that caregivers who were themselves older and those who provided care to care recipients who were more advanced in age were more likely to employ an FDW. Other bivariate analyses did not yield significant findings.

The logistic regression model predicting whether a family caregiver would hire an FDW revealed only 7 significant predictors out of the 16 variables that were significant at the bivariate level (see Table 2): caregiver's age, family size, filial piety, caregiver's educational level, time spent in caregiving, housing type, and caregiver monthly household income. Older caregivers were more likely to hire an FDW than their younger counterparts, i.e., for every one year increase in their age, there was a 7% increase in the likelihood of hiring an FDW. Regarding family size, for every one unit increase in family size there was a 30% increase in the likelihood in hiring an FDW; that is, caregivers with larger families are more likely to hire an FDW than those with smaller families. Also, caregivers who reported higher levels of filial piety were less likely to hire an FDW than those who reported lower levels. For every one unit decrease in filial piety, there was a 5% decrease in the likelihood in hiring an FDW. Caregivers with higher levels of education were more likely to

Table 2. Logistic regression for significant predictors of hiring an FDW by family caregivers (n = 488).[a.]

Predictors	OR (95% CI)
Filial piety	0.95 (0.92–0.98)***
Caregiver's age	1.07 (1.03–1.10)***
Caregiver's family size	1.30 (1.10–1.61)**
Caregiver's educational level	1.97 (1.20–3.25)**
Caregiver's monthly household income	1.15 (1.05–1.27)***
Housing type: (0 = 3-room or less; 1 = 4-room or more)	1.84 (1.03–3.28)**
Time spent in caregiving	1.03 (1.00–1.06)*

Note. FDW = foreign domestic workers; OR = odds ratio; CI = confidence interval.

*p < .05, **p < .01, ***p < .001.

[a]Caregiver and care recipient characteristics that were not significant were excluded from this table.

hire an FDW than those with lower levels. For every one unit increase in educational level, there was a 97% increase in the likelihood in hiring an FDW. Of the enabling factors, caregivers who lived in larger apartments (4-room or more) had an 84% higher likelihood of hiring an FDW than those living in a 3-room or fewer apartment. Those who had higher monthly household incomes (SGD 3500 or more) were 15% more likely to employ an FDW than those earning less. Finally, in terms of need, caregivers who reported spending more time in their caregiving were also 3% more likely to hire an FDW to help them with their caregiving tasks.

Discussion

To deal with the increasing demand of eldercare, the Singapore government has prioritized the creation of an infrastructure that supports informal caregiving, a strategy coherent with its *Many Helping Hands* approach to policy making and allocation of public resources in the long-term care arena. For example, the government funds voluntary welfare organizations to provide subsidized home- and center-based services to meet the needs of frail older adults and their families. These services and programs have eligibility requirements, usually based on ADL and IADL needs as well as income. In addition, the government has also promoted the use of FDWs as part of its *Many Helping Hand* approach (Agency for Integrated Care, n.d.), which ensures that families remain "the first line of care" to their frail older relatives (CAI, 2006, p. 12). Concomitantly, older adults in Singapore not only expect but also are confident in receiving physical, emotional, and financial support from their families (Ministry of Social Development and Families, 2015). Within this context, it is not surprising that about a quarter of caregivers in our sample rely on the complementary or supplementary help of an FDW. However, privatized care arrangements require families to bear financial responsibility to look after their frail older relative.

Notwithstanding the marketization of care within the home, our findings indicate that not every family can take advantage of the government's efforts to encourage the hiring of FDWs. Indeed, families who have more enabling resources—those in larger accommodations, with higher educational levels, and greater monthly household incomes—are more likely to hire FDWs to complement or supplement their caregiving responsibilities. The marketization of care inadvertently excludes families who are not able to afford FDWs. Notably, the minimum residential spatial requirement might indeed favor family caregivers who can afford larger homes. As such, low-income families may have few options for nonfamilial support in their informal caregiving efforts and may disproportionally bear its full burden. In response, the government may need to identify non-market-based programs and services for families with fewer financial resources.

Of interest, certain predisposing factors also increased the likelihood of employing an FDW in the home. A larger family, perhaps indicative of either

greater caregiver responsibilities or access to more income, increased the likelihood of hiring an FDW. Age might play a role in the hiring of an FDW because older caregivers might themselves be dealing with reduced capacity to provide physical support to their care receivers. Caregivers who subscribed to a more traditional notion of their responsibility, i.e., higher levels of filial piety, were less likely to employ an FDW. We posit that caregivers who hold more traditional notions of filial piety might indeed be reluctant to hire an FDW. Indeed, Lai (2006) argued that principles of filial piety called for the sacrifice of one's interests for the well-being of older family members. However, this needs to be tested because, elsewhere, Lai (2008) found that filial piety positively influenced the intentions of Chinese-Canadian caregivers to use formal services. Filial piety, as Lai (2008) explained, might "motivate (their) intention of using formal care services for the wellness and benefit of the care receivers" (p. 271). It might be noted that only time spent in caregiving, as a proxy of need, was predictive of hiring an FDW. As such, it is possible that families may be reluctant to hire an FDW as it "may imply a loss of control or be perceived as giving up on their obligation to filial care for their frail parents or elderly relatives" (Lai, 2008, p. 273). Still it would be useful for service providers and policy planners alike to consider how filial piety might positively or negatively influence family caregivers' use of formal services, including the hiring of an FDW, and provide culturally acceptable long-term care services to families in need.

It is arguable that hiring an FDW may relieve caregiving burden either by supplementing or complementing the family caregivers' efforts. Evidently, caregivers who reported spending more time and experiencing greater challenges in their caregiving efforts, including those who provided care to an older adult with a mental health disorder, were more likely to hire an FDW, at the bivariate level. Such help might indeed delay nursing home placements of older adults with the greatest needs (Tew et al., 2010). With the growing demand for FDWs to meet the "deepening care deficit crisis" (Huang & Yeoh, 2015), research is much needed to examine the meaning of informal caregiving (Yap & Gee, 2015) and the quality of care that is provided by these workers who work long hours and may not necessarily be well trained.

There is also a possibility that the informal caregivers in our study hire FDWs not only when they have the means, as reflected in their housing type, but also when they are faced with familial and caregiving demands, as in their family size and time spent in caregiving. It would be useful to better understand the specific kinds of support that FDWs provide their employers and care receivers. Such information can be useful to inform the development of skills training programs for FDWs.

Clearly there are benefits to hiring an FDW. Researchers (Østbye et al., 2013; Tew et al., 2010) found that, in addition to delaying or preventing institutionalization, the presence of an FDW might positively impact caregivers' well-being.

Indeed, the hiring of an FDW might further encourage care in the home. Further, the presence of an FDW, as pointed out earlier, allows Singaporean women to take on employment outside their home. As such, we assert that the commodification of care in the home is very much in line with the government's macroeconomic and long-term care priorities, which emphasize low taxation, female labor force participation, continued family involvement, and low government spending among other things. In light of the importance of FDWs in the long-term care system, we suggest that future research examine their work conditions and the impact of caregiving on their well-being. For example, certain employment conditions, such as the live-in requirement or the FDWs' round-the-clock availability, may indeed make for potential abuse and burnout of FDWs. We agree with Huang and Yeoh (2015) that "Singaporeans need to recognize the value of all forms of work" and support their call for state legislation that accords dignity and inclusionary rights (p. 183).

Limitations

We note some limitations in our study design. The cross-sectional nature of the study limits our ability to deduce causality when relationships are statistically significant. Of interest, in a quasi-experimental study on caregivers and social support, Jarrott, Zarit, Stephens, Townsend, and Greene (2005) did not find any significant relationships between formal or informal help and caregiver distress in their baseline data. Still, it would be useful to identify decision points at which families hire FDWs to either supplement or complement their caregiving efforts. Further, the prevalence of FDWs in our sample was higher than a previously reported nationally representative study (Harding & Chan, 2014). This might be reflective of our reliance on convenience sampling, where our sample was recruited from community-based agencies that were serving family caregivers of older adults. In comparison with another caregiving study that relied on a nationally representative sample (Østbye et al., 2013), our sample was more educated and lived in bigger housing units than that sample. As such, our sampling method might impact our ability to generalize our findings to all informal caregivers in Singapore, since certain predisposing factors might facilitate certain caregivers to seek formal services to complement or supplement their efforts.

Conclusions

Despite these limitations, we obtained a better understanding of which caregiver and care recipient characteristics might predict the hiring of an FDW in caregiving households. Indeed, the Andersen Behavioral Model, which has been used extensively to study health service utilization, allows us to identify salient caregiver characteristics that predict the hiring of an FDW. For example, we found that, while the prevalence of hiring an FDW in our sample was relatively high, certain

enabling factors related to financial resources may be more important than need factors in significantly predicting the likelihood of hiring an FDW to supplement or complement their caregiving efforts. This may point to a gap between the help and support that is needed by informal caregivers and their abilities to afford the market-based services of an FDW. We were not able to establish the percentage of caregivers who qualified for and were beneficiaries of the Foreign Domestic Worker Grants Scheme. One important line of inquiry that deserves further attention is the extent to which informal caregivers without an FDW use formal home- and center-based services. Further, little is known about the experience and impact of eldercare on FDWs. Although Østbye et al. (2013) have found some benefits to caregivers who hire an FDW, we need to also be cognizant of the impact of the caregiving experience on the well-being of FDWs themselves. Indeed, certain protections are needed to ensure that they are properly trained, supported, remunerated, and not exploited for their work. Future research might also examine the kinds of support that FDWs provide, their levels of training, and also their caregiving experience and outcomes, including but not limited to their relationships with both the family caregivers and the care receivers.

Acknowledgments

The original study, "Multi-Cultural Determinants of Help-Seeking Behaviors Among Multi-Ethnic Caregivers in Singapore," was funded by the VCF Social Service Research Grant of the National Council of Social Services of Singapore. The authors would like to acknowledge the support and effort of the Asian Women's Welfare Association (AWWA) staff, specifically Ms. Anita Ho, during the sample recruitment and data collection phases. The writing of this article was also supported by 2016 Dongguk University Research Fund and the Asia Research Institute, National University of Singapore.

Disclosure statement

No potential conflict of interest was reported by the author.

Funding

This work was supported by the National Council of Social Services of Singapore [VCF Social Service Research Grant].

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