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Asian Care Workers' Psychosocial Well-being in Taiwan

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Abstract
The present study mainly focused on understanding the well-being of migrant care workers in Taiwan from the perspective of social inclusion. We created and distributed a questionnaire to measure the well-being and social inclusion of migrant care workers. Nearly 200 questionnaires were completed by a sample of care workers that was representative of migrant worker's regional distribution in Taiwan. The results of our factor analysis and regression model showed that when various control variables are held constant, economic and residential environment factors (including income, community facilities, financial services, neighborhood safety, and housing quality) had the greatest impact on the respondents' well-being. The government might need to review their migrant worker policies for increasing their socio-economic and living environment.

Keywords: Migrant Care Worker, Southeast Asia, Psychosocial Well-being, Social Inclusion, Taiwan

I　INTRODUCTION

1. Urgent Need for Caregiving for Older Adults in Taiwan

Taiwan is experiencing a considerable demographic shift that is common among developed nations and involves a decrease in youth population and an increasing elderly population. These changes are mainly caused by a low replacement rate and have led Taiwan to become an aging society. Indeed, the total fertility rate of Taiwan has dropped from 4.0 in 1970 to 0.86 in 2022 (Department of Household Registration 2016). Taiwan has had one of the world's lowest fertility rates for several years. According to the demographic data compiled by the Ministry of the Interior (2022), the number of older adults as a proportion of the total population has increased to 12.51%, and the country is rapidly approaching the cutoff for an

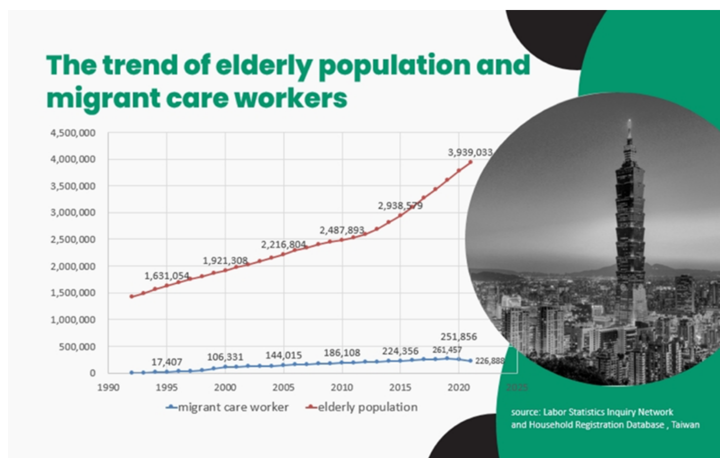

Figure 1 The trends of older populations and migrant care workers (Ministry of Labor, 2022a)

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aging society (14%) defined by the World Health Organization (please refer the data as presented below).

As the education level and social status of Taiwanese females (who are traditionally the primary caregivers in Taiwanese society) continues to rise, more women are entering the labor market. According to data compiled by the Directorate General of Budget, Accounting and Statistics (2016), the ratio of female workers in Taiwan was 44.39%, 45.76%, 46.10%, 48.68%, 49.97%, 50.80% and 51.20 % in 1991, 1996, 2001, 2006, 2011, 2016, 2022 respectively, revealing an upward trend. In addition, the call to challenge and overcome gender-based stereotyping in caregiving has become increasingly popular in Taiwan, with feminists and women's organizations repeatedly urging the public to change their social expectations and cease equating elderly care with caregiving by women. Furthermore, average household size in Taiwan has lowered as increasing numbers of young couples decide to live on their own, leaving caregiving for older adults demands to become increasingly societal- and market-oriented.

Because care work is time-consuming and physically demanding, and because low remuneration has failed to attract local care workers, many families have resorted to employing migrant workers from Southeast Asian countries to meet their needs of caregiving for older adults.

2. Migrant Care Workers: The Primary Solution to Taiwan's Needs of Caregiving for Older Adults

Employment initiatives aimed at attracting migrant care workers to Taiwan originated in 1992, when the Taiwanese government began setting up policies to legalize the hiring of foreign blue-collar workers. Subsequently, the number of migrant care workers in Taiwan has grown exponentially, from 669 in 1992 to more than 100,000 in 2001 and almost 700 thousands in 2022 (Ministry of Labor 2022a). Migrant care workers have become the main providers of caregiving for older adults in Taiwan (Figure 3.1) and because of Taiwan's rapid demographic changes, past supplementary and temporary foreign labor policies are now near-permanent policies.

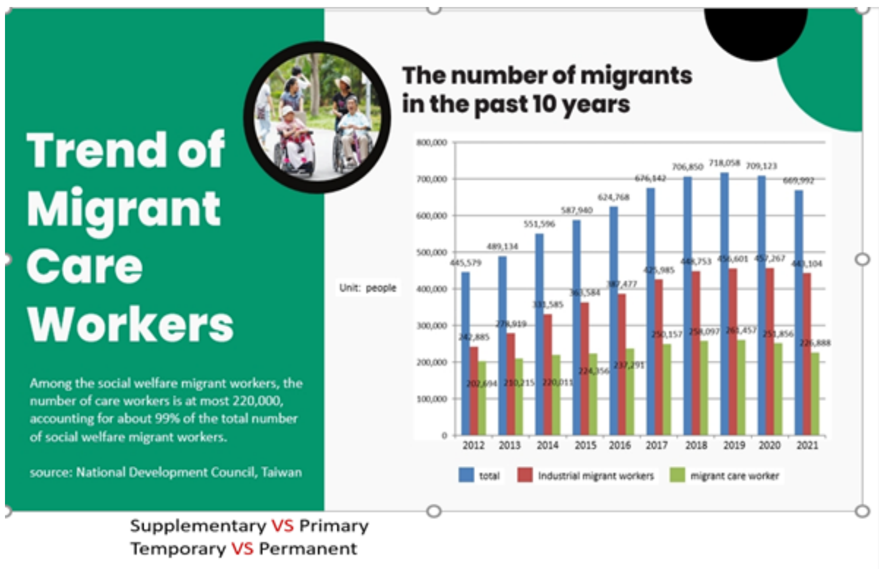

Figure 2 The number of migrants in the past 10 Years (Ministry of Labor, 2022a)

Taiwan's migrant care workers primarily consist of Indonesian, Filipino, Vietnamese, and Thailand workers, who currently account for approximately 35%, 21%, 35% and 9% of Taiwan's migrant caregiver population, respectively. The vast majority (99%) of them work as caregivers in

private homes, and the remaining 1% work as caregivers in private or public institutions (Ministry of Labor 2022a)

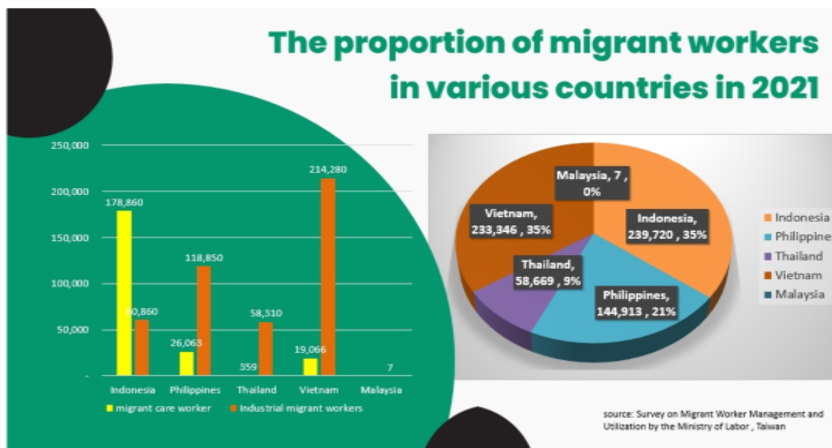

Figure 3 The proportion of migrant workers in various countries in 2021 (Ministry of Labor, 2022a)

Helping foreign worker populations adapt to life in a foreign country, assimilate to local culture, and maintain their quality of life should be universal values practiced in an era of globalization and expanding human rights. Therefore, this study explored the quality of life of migrant care workers in Taiwan.

3. Living and Working Conditions of Migrant Care Workers

The Minimum Wage Act protects the minimum legal pay of both migrant care workers and local Taiwanese workers. Notably, this wage is generally higher than the wages migrant workers can earn in their home countries. The average monthly salary of migrant care workers in 2015 was 18,770 NTD (approximately 600USD, adjusted to 20,008 NTD [approximately 630 USD] in 2022). However, their working hours are typically long and their working conditions are often poor. On average, many migrant workers work approximately 12 hours per day, and 92% of them work continuously for more than 8 hours every day. Migrant care workers are also often required to be on-call throughout the day, and are generally denied the vacation days to which they are entitled (Ministry of Labor 2022b).

Migrant care workers are primarily responsible for helping their patients with daily living activities such as administering food and medicine, fulfilling personal hygiene and sanitary needs, providing massages, performing sputum suction and urinary catheterization, accompanying them to hospitals, and providing shopping services. However, many families also leave housework (e.g., taking care of children, cooking, laundry, and cleaning) to these care workers. The consequent heavy and demanding workload evidences that workplace of migrant care workers is lack of “work justice.”

The long working hours and labor intensity experienced by migrant care workers can also be attributed to their live-in style of employment. Because migrant care workers both work and live with their employers, it is easy to coerce them into working continuously. Some care workers are illegally deprived of rest time or face sexual assault and violence at the hands of their employers. In addition to the pressures that exist in caring for older adults, care workers’ biopsychosocial well-being can be negatively affected when their requirements for health and social-life-related

adjustments are not met. By providing humane and reasonable treatment to migrant care workers, Taiwan can improve the quality of its elderly care sector.

4. Examining Well-Being from the Perspective of Social Inclusion

Domestic housework can readily be understood as a private sector activity. Combined with the fact that some migrant workers do not have legal status in Taiwan, a lack of supervision in the caregiving industry is common. Notably, the International Labor Organization (ILO) did not include housework in its previous labor protection acts until 2011, when the ILO Domestic Workers Convention (No. 189) was drafted. This report addressed various standards for domestic workers regarding rest hours, minimum wage, right to organize social movements, right to know work content prior to departure from their home country, and right to live outside of their work location (ILO, 2011).

Because the labor rights of migrant care workers have been addressed relatively late (compared with the emergence of globalization, which has driven the flow of migrant workers), countries that employ such workers have generally failed to enact related labor protection policies (ILO, 2011). Consequently, unfriendly and exploitative work environments in the domestic sphere are widespread phenomena, compelling contemporary activists and researchers to address migrant care workers' quality of life, well-being, and rights. This study focused on investigating migrant care workers' well-being from the perspective of social inclusion to determine their social participation, quality of life, and access to resources and opportunities.

II LITERATURE REVIEW

1. Conceptualizing Social Inclusion

In the extant literature, the concepts of social participation, social support, social cohesion, and social networks are most commonly used to construct social inclusion. For example, Parker (1983) measured social inclusion by examining social participation in the form of informal voluntary organization activities. Most theories of inclusion regard participation to be a crucial element, suggesting that social inclusion may be most closely related to social participation. However, some scholars have emphasized the relationship between social support and social inclusion. For example, Veiel and Baumann (1992) created a useful conceptual framework that divides social support into different types of support: daily support versus risk support, tool support versus psychological support, and subjective support versus objective evaluation support. Numerous support measurement methods are frequently applied in the fields of psychology and social psychology (e.g., Sarason et al. 1983). However, despite social support being a critical element of social inclusion, it does not entirely explain social inclusion.

Other studies have used social cohesion to illustrate the relevance of social inclusion. Forrest and Kearns (2001) indicated that social cohesion includes sharing common values and civic culture, controlling social order, maintaining social ties, reducing wealth inequality, developing social networks and social capital, and facilitating geographical ties and identity. Stanley (2003) asserted that social cohesion can help accumulate social capital, and Friedkin (2004) maintained that because social cohesion is a causal system that determines the attitude and behavior of its members, it can be viewed as a community asset.

Numerous scholars have stated that social networks are necessary for social inclusion. A social network is defined as the social relationship network that a person possesses, as well as the characteristics of that network (Mitchell 1969, Laumann 1973, Fischer et al. 1977, Fischer 1982). Burt (1982) described such a network model as a system made of one or more network relationships. These networks share several characteristics, including network scope, density, boundaries, and homogeneity. More recently, Berkman et al. (2000) declared that social networks

primarily engage in four operations: (1) providing social support, (2) creating social influence, (3) fostering social participation and attachment, and (4) acting as a channel through which to obtain materials and resources. Therefore, similar to social support, social capital, and social cohesion, a social network facilitates a person's social inclusion. In the present study, "social network" was measured to determine respondents' social inclusion.

Huxley et al. (2012) argued that social inclusion is composed of 14 types of social participation and networking, namely family activities(1), social activities(2), work, income, politics and citizenship(3), community facilities(4), financial services(5), neighborhood safety, housing quality(6), transportation(7), leisure, mental health(8), physical health(9), and educational achievement(10).

2. Social Inclusion and Well-Being

Reeve (2009) defined well-being as encompassing the following concepts: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. In other words, individuals' positive assessment of themselves, ability to establish warm and intimate relationships with others, ability to make decisions about their life, ability to effectively control environmental challenges, understanding of the meaning and direction in of their life, and ability to undergo self-growth all influence their well-being (Diener 1984, Diener et al. 1999). Additionally, Keyes (1998) proposed that social integration, social cohesion, social participation, social realization, and social acceptance are all parts of social well-being. Therefore, in any environment, social inclusion can be expected to elevate a person's subjective (mental) and objective (social) well-being.

III RESEARCH APPROACH

Two research approaches are widely adopted to examine social inclusion. The first is the "social indicator of inclusion approach," which is an objective indicator well suited for policy-related purposes. The second is the "perceived inclusion approach," which is a subjective indicator commonly used for clinical research and case scenario studies. Following our review of the literature, we determined that social inclusion research should be focused on individuals' subjective perception of accessibility to opportunities and resources. However, because our research also has policy implications, we elected to use both approaches.

1. Measuring Social Inclusion

After combining both the subjective and objective measures of social inclusion, the indicators of social inclusion that addressed (1) access to material and other resources, (2) the extent to which individuals participate in various activities, and (3) individuals' subjective perceptions about the value and benefit of these activities were selected for study. As noted earlier, our indicators were adopted from the social inclusion matrix designed by Huxley et al. (2012), which identifies 14 components of social inclusion (family activities, social activities, work, income, politics and citizenship, community facilities, financial services, neighborhood safety, housing quality, transportation, leisure, mental health, physical health, and educational achievement).

2. Questionnaire Design

The research tools utilized in the present study were all designed by the research team. Due to the limited Chinese reading ability of most of our respondents, we translated our questionnaires into their native languages (Vietnamese, Indonesian, and English) to ensure that they understood the questions. The translations were conducted by Vietnamese and Indonesian exchange students at National Taiwan University, who were also competent in Chinese reading and writing. To ensure

translation accuracy, an independent reviewer was recruited to perform back-translation.

The questionnaire comprised two main parts, which focused on well-being and social inclusion. Three previously developed scales commonly used to measure social inclusion, and a new measurement tool developed for well-being in this study, were employed. The well-being measure was derived from the Well-Being Index developed by the Psychiatric Research Unit of the World Health Organization in 1998. In this index, a respondent selects one of five statements, which they consider to most accurately reflect their well-being over the preceding 2 weeks. Higher scores indicate greater well-being.

The social inclusive matrix of Huxley et al. (2012) includes subjective and objective social inclusion indicators that address (1) the availability of material and other resources; (2) the subjectivity of this availability; (3) the extent to which an individual participates in various activities; (4) individuals' subjective perceptions of the value and benefit of these activities; and (5) the quantification of feedback degree, thereby enabling the feedback to be inspected and tested in turn. In the present study, we addressed only points (1), (3), and (4).

3. Sampling Design

Purposive sampling was utilized to recruit migrant care workers for this study from areas with a high migrant worker density. Because we performed non-probabilistic sampling, the sample structure was based on the nationality and regional distribution (northern, central, southern, and eastern Taiwan) of the respondents to ensure representativeness.

Two hundred questionnaires were collected, and after eliminating the incomplete ones, 187 valid questionnaires were retained. In total, 101 (54.0%) respondents were from northern Taiwan, 41 (21.9%) respondents were from central Taiwan, and 45 (24.1%) respondents were from southern Taiwan. There were 164 (87.7%) respondents from Indonesia, and 23 (12.3%) respondents from the Philippines. Additionally, the vast majority of the respondents (186, 99.5%) were female; only 1 (0.5%) respondent was male. The average age of the respondents was 32.2 years and 70% of them were between the ages of 22 and 35 years old, which suggests that most migrant care workers are relatively young.

IV RESULTS

1. Well-being

According to the questionnaire results, the respondents perceived their well-being to generally be maintained at a high level. Specifically, the respondents' scores regarding their mental and physical status (which could range from 1 ["rarely"] to 5 ["always"]), all fell between 3.50 ("neutral") and 4.00 ("often"). The highest score (4.00) was received on the "feeling active and motivated" item, whereas the lowest score (3.72) was received on "feeling calm and relaxed" (Table 1).

Table 1 Distribution of respondents' well-being (%)

	Rarely	Sometimes	Neutral	Often	Always	Average (Score)
Do you often feel happy and cheerful?	1.6	3.7	30.5	34.2	30.0	3.87
Do you often feel calm and relaxed?	3.7	8.0	26.7	35.8	25.7	3.72
Do you often feel active and motivated?	2.7	4.8	16.1	42.5	33.9	4.00
Do you feel energetic when you wake up in the morning?	4.8	4.8	21.9	32.1	36.4	3.90
Do you feel fulfilled and content with your daily life?	6.4	4.8	21.9	30.0	36.9	3.86

2. Social Inclusion

The respondents perceived their level of social inclusion to be generally high:

1. Nearly 60% of the respondents had the opportunity to participate in the family activities of their employers.
2. Nearly 70% of the respondents had the opportunity to participate in social activities.
3. Most (81.3%) of the respondents indicated that they had experienced no desire to change jobs over the past 6 months.
4. Only 2.1% of the respondents did not have a stable income.
5. Most (72.6%) of the respondents had access to community facilities.
6. Nearly 75% of the respondents had had access to financial services during the past 6 months.
7. Only 8.3% of the respondents felt very insecure or relatively unsafe in their community.
8. During the past 6 months, 84.5% of the respondents had had access to transportation.
9. During the past 6 months, 68.5% of the respondents had had the opportunity to participate in leisure activities.
10. During the past 6 months, 81.3% of the respondents had had the opportunity to see a doctor.

However, it was clear that some key areas of social inclusion were lacking in the respondents' lives:

1. Only 24.7% of the respondents indicated that they had opportunities to participate in civic or social group activities.
2. Only 57.5% of the respondents indicated that they had an independent living space.
3. Only 56.2% of the respondents indicated that they had an opportunity to talk about their psychological stress.

Detailed information about the effects that all 14 social inclusion indicators have had on the lives of the respondents are as follows:

1. Family activities: In the preceding 6 months, nearly 60% of the respondents had had the opportunity to participate in their employers' family activities. Of these respondents, 47.7% participated frequently or very frequently, with the average score (3.35) falling between the "neutral" and "often" categories. Additionally, more than 60% of the respondents felt positively about participating in their employers' activities, and 64.8% believed that the family activities were beneficial or very beneficial to them. Overall, the mean score of this indicator was 3.76.
2. Social activities: In the preceding 6 months, nearly 70% of the respondents had had the opportunity to participate in social activities. The results indicate that 31.1% of these respondents participated in social activities frequently or very frequently, and only 2.96% seldom participated in social activities; the average score fell between the "neutral" and "seldom" categories. Additionally, almost 75% of the respondents felt positively about taking part in social activities, and 73.6% believed that such activities were beneficial or very beneficial to their social inclusion. Due to the particular nature of migrant care work, the average number of times the respondents participated in social activities was significantly lower than the number of times that they participated in their employers' family activities. Nevertheless, they felt that participation in social activities was more helpful to them, as evidenced by the high mean score of this indicator (4.14).
3. Work: Overall, the respondents believed that their work was very stable. Most (81.3%) of them indicated that in the preceding 6 months they had experienced no desire to change their jobs. Of the respondents who wanted to change their job, 40% described wanting to change their job frequently or very frequently. These respondents also expressed low satisfaction with their work; only 31.5% indicated that they were satisfied or very satisfied, as shown by the mean score of this indicator (3.06).

4. Income: The respondents also considered their income to be relatively stable; only 2.1% stated that they did not have a stable income. Most the respondents also believed that their income falls within a relatively reasonable range, compared with their peers in care work from the same country. Only 19.5% felt that their income was very unreasonable or relatively unreasonable. Additionally, most (69.2%) of the respondents indicated that their current income was sufficiently adequate to provide them with a secure life, with the mean score of satisfaction (3.87).
5. Politics and citizenship: Only a few (24.7%) of the respondents participated in civic group activities. Of these respondents, 35.6% participated frequently or very frequently and 77.8% believed that the activities were beneficial or very beneficial to them, as evidenced by the high mean score of this indicator (4.07).
6. Community facilities: Most (72.6%) of the respondents revealed that they had frequent opportunities to use community facilities, with 49.6% using such facilities frequently or very frequently. Overall, the respondents felt that using community facilities improved their quality of life, and 77.1% considered community facilities to be beneficial or very beneficial to them, as evidenced by the high mean score of this indicator (4.10).
7. Financial services: Nearly 75% of the respondents indicated that they had had access to financial services in the preceding 6 months, with 42.4% using these financial services frequently or very frequently. These respondents also expressed satisfaction with the financial services that they used, with 72.2% of them indicating that they were satisfied or very satisfied, as shown by the mean score of this indicator (3.88).
8. Neighborhood safety: Over 80% of the respondents indicated that they had not felt unsafe in their community in the preceding 6 months; by contrast, only 11.2% of the respondents considered the amount of violence to be high or very high, and only 8.3% considered their community to be unsafe or very unsafe, as evidenced by the high mean score of this indicator (4.33).
9. Housing quality: In total, 57.5% of the respondents indicated that they had a private room or adequate independent living space, with 47.5% considering their current housing environment to be of good or very good quality. In addition, 58.8% of these respondents believed that having a private room had greatly improved their standard of living, as evidenced by the lower mean score of this indicator (3.53).
10. Transportation: In the preceding 6 months, 84.5% of the respondents had had access to transportation, and 42.2% of them used that transportation frequently or very frequently. Overall, these respondents felt very positively about their access to transportation, and 73.6% of them considered that convenient transportation was beneficial or very beneficial to their quality of life, as shown by the mean score of this indicator (3.91).
11. Leisure: In the preceding 6 months, 68.5% of the respondents had had the chance to participate in leisure activities. However, almost half of them (49.5%) engaged in leisure activities only infrequently or very infrequently. 55.7% of them considered such activities to be beneficial or very beneficial to their quality of life. Overall, the mean score of satisfaction in this indicator was 3.39.
12. Mental health: In the preceding 6 months, 56.2% of the respondents had had the opportunity to discuss their psychological state at least once. However, most of them admitted that they rarely talked about their psychological state; only 32.3% of them talked about their psychological state frequently or very frequently. Nevertheless, 81.7% of the respondents considered such discussions to be very helpful. Overall, the mean score of this indicator was 4.09.
13. Physical health: In the preceding 6 months, 81.3% of the respondents had had the chance to see a doctor, but only 23.6% visited doctors frequently or very frequently. In total, 77% of the respondents considered that medical environment and medical treatment are very or relatively

helpful. Overall, the mean score of this indicator was 4.05.

14. Educational achievement: Overall, there were few opportunities for the respondents to take part in formal or informal on-the job training; only 14.4% of them indicated having such opportunities. Of these respondents, 59.2% believed that educational training was beneficial or very beneficial to them. Overall, the mean score of this indicator was 3.22.

3. Factor Analysis and Regression Model

A factor analysis was conducted and the results revealed the eigenvalue, difference, proportion, and cumulative factor of each indicator. Notably, the proportions of indicators 1–4 were 65.5%, 40.1%, 14.5%, and 11.4%, respectively. Additionally, the eigenvalue of indicators 1 and 2 were 1.98 and 1.21, respectively.

According to Kaiser's eigenvalue selection criterion, factors with an eigenvalue <1 were removed; therefore, factor 1 and factor 2 were extracted. The factors were then subjected to orthogonal rotation. The subsequent factor load and the special factor analysis results are presented in Table 3.2, where the load values that surpass 0.2 are highlighted in grey. Notably, the results are superior after orthogonal rotation; specifically, factor 1 and factor 2 suitably represent most of the indicators, explain the variances of most of the indicators.

The load values that surpass 0.2 for factors 1 and 2 correspond to indicators 2, 5, 10, 11, and 12, and to indicators 4, 6, 7, 8, and 9, respectively. Thus, factor 1 is associated with social interaction and participation, corresponding to the indicators of social activity, politics and citizenship, transportation, leisure, and mental health; by contrast, factor 2 is associated with economic and living environment, corresponding to the indicators of income, community facilities, financial services, neighborhood safety, and housing quality. In other words, factor 1 is associated with "soft" environmental aspects, whereas factor 2 is associated with "hard" environmental aspects. Therefore, factor 1 and factor 2 were renamed "social interaction and participation factors" and "economic and residential factors" to analyze the indicators of social inclusion for migrant care workers (Table 3.2).

Table 2 Factor load scale of the social inclusion of migrant care workers[11]

Original Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Special Factor
1	0.216	0.010	-0.017	0.247	0.355	0.017	0.001	0.766
2	0.479	0.207	-0.091	0.100	-0.069	-0.077	-0.011	0.698
3	0.066	-0.017	0.004	0.399	0.095	-0.045	-0.019	0.825
4	0.087	0.473	0.159	0.021	0.112	-0.095	0.013	0.722
5	0.299	-0.080	0.131	0.482	0.023	-0.015	0.006	0.654
6	0.147	0.350	0.218	0.046	0.162	0.187	0.002	0.745
7	0.166	0.540	0.029	0.003	-0.052	0.036	0.009	0.676
8	-0.018	0.537	-0.167	-0.195	-0.052	-0.003	-0.020	0.642
9	0.153	0.341	0.278	0.098	0.027	-0.167	0.009	0.745
10	0.630	0.104	0.097	0.117	0.008	-0.043	-0.003	0.568
11	0.586	0.001	0.191	0.038	0.143	0.097	0.010	0.589
12	0.279	-0.261	0.337	0.015	0.198	-0.012	-0.004	0.700
13	0.248	0.088	0.485	0.131	-0.042	0.006	0.001	0.677
14	0.039	-0.139	0.304	0.340	0.078	0.147	0.014	0.743

In this study, the respondents' well-being was the dependent variable, "social interaction and participation factors" and "economic and residential environment factors" were the

independent variables, and personal socioeconomic characteristics were the control variables. Following the factor analysis, we used these variables to construct two multiple regression analysis models (Tables 3 and 4).

Table 3 Multiple linear regression model for the well-being of migrant care workers (I)

	Coefficient	Standard Error	*Z* Value	*P* Value
Social Interaction and Participation	1.28	1.52	0.84	0.400
Economic and Residential Environment	6.88***	1.51	4.55	0.000
Intercept	77.4***	1.16	66.98	0.000
Number of obs=186; F（2, 183） = 11.30; Prob > F = 0.0000				
Adj R^2 = 0.1002; Root MSE = 15.757				

In Model 1, the respondents' well-being score (range: 0–100 points) is the dependent variable, and the social interaction and participation factors scores and the economic and residential environment factors score are the independent variables. Overall, the model demonstrated that the F test was significant, and that the coefficient of determination reached 10%. Additionally, our analysis revealed that when the economic and residential environment factors score increased by 1 point, the respondents' well-being average score significantly increased by 6.88 points (p = .000). However, changes in the social interaction and participatory factors score had no significant effect on the respondents' well-being (Table 4).

Table 4 Multiple linear regression model for the well-being of migrant care workers (II)

	Coefficient	Standard Error	*Z* Value	*p* Value
Social Interaction and Participation	2.97***	1.70	1.74	0.083
Economic and Residential Environment	7.01***	1.74	4.03	0.000
Nationality (Indonesia = Reference Group)	11.29***	5.15	2.19	0.030
Age	0.16***	0.29	0.56	0.578
Educational Achievement (Less than Elementary School = Reference Group)				
Junior High School	-6.34***	4.40	-1.44	0.151
High School	-9.34***	4.66	-2.01	0.047
College	-22.35***	7.00	-3.19	0.002
Graduate Institute or Above	-15.56***	13.74	-1.13	0.259
Marital Status (Unmarried = Reference Group)				
Married	-4.75***	4.45	-1.07	0.287
Divorced	-6.01***	5.58	-1.08	0.283
Number of Children (No Children = Reference Group)	***			
1 Child	1.45***	4.35	0.33	0.740
2 Children	5.44***	4.86	1.12	0.265
3 or more Children	3.02***	6.95	0.43	0.664
Spouse (No spouse in Taiwan = Reference Group)	2.27***	4.42	0.51	0.609
Income (less than NT$ 12,000 = Reference Group)				
NT$ 12000-15000	-3.92***	4.69	-0.84	0.405
NT$ 15000-20000	-3.30***	3.56	-0.93	0.355
NT$ 20000-25000	6.05***	5.59	1.08	0.281
NT$ 25000-30000	15.76***	17.10	0.92	0.358
Intercept	82.48***	10.23	8.06	0.000
Number of respondents = 182; *F*(18, 163) = 2.49; Prob > F = 0.0000		Adj R^2 = 0.1288; Root MSE = 15.491		

In Model 2, the respondents' well-being score is the dependent variable, the social interaction and participation factors score and the economic and residential environment factors score are the independent variables, and the respondents' personal socioeconomic characteristics are the control variables. Overall, the model demonstrated that the F test was significant, and that the coefficient of determination reached 12.9%. Additionally, with all of the control variables held constant, our analysis revealed that when the economic and residential environmental factors score increased by 1 point, the respondents' well-being average score significantly increased by 7.01 points. However, changes in the social interaction and participation factors score had no significant effect on the respondents' well-being.

We also found that nationality and educational achievement had a significant impact on the respondents' well-being. The Filipino respondents had well-being scores that were an average of 11.29 points higher than the scores of the Indonesian respondents. Moreover, compared with the respondents who had attained a primary school education or less, the respondents who had attained a senior high school or college education had well-being scores that were 9.34 or 22.35 points higher, respectively (Table 3.4).

V　DISCUSSION AND CONCLUSION

In Taiwan and throughout the world, the labor rights of migrant care workers remain insufficiently valued by the general public and poorly addressed in public policy. However, in conjunction with the increasing population problems associated with a low birthrate (i.e., an aging population and labor shortages) awareness of gender equality in the division of household labor has increased and the female family members who have traditionally taken on the role of caregiver for older or ailing relatives have gradually joined the labor force. Thus, the need for more non-familial care workers has emerged. At present, there are approximately 220,000 migrant care workers in Taiwan, and it is crucial that their quality of life, well-being, and human rights are acknowledged and met.

The present study mainly focused on understanding the well-being of migrant care workers in Taiwan from the perspective of social inclusion. We created and distributed a questionnaire to measure the well-being and social inclusion of migrant care workers by referring to the Well-Being Index developed by the World Health Organization and the social inclusion matrix of Huxley et al. (2012). Nearly 200 questionnaires were completed by a sample of care workers that was representative of migrant worker's regional distribution in Taiwan and their nationality; thus, most of the respondents were female Indonesian and Filipino care workers. Additionally, 70% of the respondents were between the ages of 22 and 35 years, most had low education levels, and most were married but lived separately from their spouses and children. Nearly 90% of the respondents were paid between NT$12,000 (approximately 390 USD) and NT$20,000 (approximately 630 USD).

We determined that both the well-being and social inclusion of the respondents was generally at a relatively high level. Overall, the respondents indicated that they "feel active and motivated" most of the time (average score of 4 out of 5), but "feel calm and relaxed" less of the time (average score of 3.72 out of 5). The lack of relaxation was explained by the fact that most live-in migrant care workers are "on the job" almost 24 hours per day and often do not receive regular breaks or days off. This is a key concern in the migrant care work industry, which should be regulated by law or addressed by transforming the traditional live-in model to a live-out style of work.

Our questionnaire and analysis results also revealed that the most critical indicators affecting the respondents' social inclusion status were social activities, politics and citizenship, housing quality, mental health, and educational achievement. Compared with their employers'

family activities, the respondents' participation in their own social activities was lower (2.96 vs. 3.35), despite considering their own activities to be more beneficial (4.14 vs. 3.76). Notably, we recruited respondents from public spaces such as churches and train stations (i.e., places where we could easily meet migrant workers); thus, because our sampling method provided us with a high chance of meeting care workers who are attending social activities, our results may be somewhat biased.

The respondents also indicated that they generally lacked opportunities to participate in civic or political group activities (only 24.7% of them indicated that they have had such opportunities) despite noting that this type of activity can be very beneficial (average score of 4.07 out of 5). Although securing voting rights for migrant care workers' is understandably difficult, their rights to participate in labor unions or attend nongovernmental organization activities should be more fully protected than they are currently.

Only 57.5% of the respondents had their own independent living space or separate room, which may be another inevitable result of the live-in style of care work. Moreover, the respondents revealed that they were hesitating to reveal psychological stress (43.9%) and to go to see doctors (57.2%). Although they are covered by Taiwan's national health insurance, the migrant workers need to get better access to health system. Finally, only 14.4% of respondents indicated that they have had the opportunity to receive educational training. The respondents added that additional training would not only enhance the care worker industry overall but would also benefit both individual caregivers and care recipients. Therefore, we suggest that increasing the opportunities for education should be a key aspect of future migrant care work policies.

The results of our factor analysis and regression model showed that when various control variables are held constant, economic and residential environment factors (including income, community facilities, financial services, neighborhood safety, and housing quality) had the greatest impact on the respondents' well-being. The government might need to review their migrant worker policies for increasing their socio-economic and living environment (including domestic and community).

Our study revealed that Filipino caregivers in Taiwan have a higher quality of life than do caregivers from other nations. Additionally, caregivers who have higher education levels are better able to adapt to life in another country than are those who have lower education levels; this suggests that efforts to improve the education of these workers would enhance their overall well-being.

Based on the results of the present study, we have identified five policy concerns related to migrant care work in Taiwan that should be addressed:

1. Reshape the migrant care worker employment model to be family-oriented: Because most migrant caregivers live in their employer's home to provide care, establishing a family-centered awareness program that accounts for the unique aspects of modern Chinese society, where workers live in a family-oriented and caring environment, should be implemented. In this model, accepting migrant workers as family members, not merely as employees, is the most important employer value.
2. Enhance human capital: Although policies have been enacted to raise the human capital of migrant caregivers through education and on-the-job training, the scope of these empowerment programs must be expanded to further enrich caregivers' quality of life and help them provide the most suitable care possible. We suggest referring to Japan's compulsory training programs (which include language training, field placement programs, and competency tests for caregiving professionals), or referring to Taiwan's on-the-job training program for domestic technicians (which are also compulsory and must be performed annually) to develop new programs for the migrant caregiving industry. These educational programs should include several dimensions,

including a cultural adaptation program, a knowledge-based program, a job-skill training program, and other non-work-related social life and networking programs.

3. Develop both home-based living and out-of-home living employment models: Migrant care workers should have the choice between living in their employers' homes or living in their own space. The quality of life indicators in this study indicated that "calmness" and "relaxation" are the factors that migrant care workers are most often lacking, which may be related to the fact that almost all of them work in their employers' homes. We therefore suggest that Taiwan's government and nongovernmental organizations begin developing an out-of-home employment model for migrant care workers, although we also acknowledge that additional research is required to properly compare the two employment styles.
4. Continue covering migrant workers under Taiwan's national health insurance policy: Establishing leisure and social activities that help improve workers' mental and physical health should be implemented in conjunction with other similar policies to further enhance their quality of life.
5. Build up community capital: Creating a community-wide policy that addresses anti-discrimination and community acceptance for migrant caregivers can improve their community capital, and thereby enhance their ability to assist older adults, their families, and the community as a whole.

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NOTES

(1) "Family" here refers to the employer's family, and "activity" refers to an outdoor activity (e.g., dining together or taking a trip) rather than daily living activities.
(2) "Social" refers to social interaction; therefore, "social activity" refers to activities such as hanging out with friends or going to church.
(3) "Politics and citizenship" refers to political and civic activities, such as participating in elections, protests, or labor unions, or working as a volunteer.
(4) "Community facilities" refers to parks, open squares, fitness centers, nurseries, and cafeterias.
(5) "Financial services" refers to access to banks, ATMs, currency exchange centers, and investment service banks.
(6) "Housing quality" refers to having access to individual living space (includes having an individual room).
(7) "Transportation" refers to access to transportation (e.g., being located near subway or bus stations, or having access to a bike or scooter).
(8) "Mental health" refers to having received mental health care related to pressure release (e.g., consulting or counselling).
(9) "Physical health" refers to having received physical health care (e.g., going to the doctor, getting a physical checkup, or having a day off work when sick).
(10) "Education achievement" refers to having achieved a qualification certificate or degree; it also includes completing formal or informal on-the-job training.
(11) The factor loading results indicate that factor 1 corresponds to indicators 2, 5, 10, 11, and 12; factor 2 corresponds to indicators 4, 6, 7, 8, and 9; factor 3 corresponds to indicators 9, 12, 13, and 14; factor 4 corresponds to indicators 3, 5, and 14; and factor 5 corresponds to indicator 1.

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