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Psychosocial health of migrant careworkers from Southeast Asian countries in Israel: A mixed methods study

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ABSTRACT

Background: In 2018, 66,859 migrant careworkers were in Israel, most of whom originated from Southeast Asian countries and 81 % of whom are women. Stringent regulations combined with social invisibility creates vulnerabilities that may contribute to emotional distress. This study aimed to assess psychosocial status and determine mechanisms of emotional distress and resilience in this population.

Methods: Mixed methods were used in this cross-section study. An online survey measured demographic variables, psychosocial wellbeing using the HSCL-25 questionnaire, general health, perceived social support, cultural identity, and perceived othering. Based on the survey's results, interviews were conducted with a subpopulation of respondents ($n = 15$) to further understand the mechanisms of emotional distress and resilience, and were analyzed using a postcolonial feminist framework and grounded theory. Data collection took place during 2018–2019.

Results: In total, 263 careworkers completed the survey and 15 careworkers were interviewed. The overall prevalence of emotional distress according to the HSCL-25 was 36.8 %, 22.6 % on the anxiety subscale, and 41.8 % on the depression subscale. Emotional distress was associated with female sex, not being parents, poorer general health, high perceived othering, and low perceived social support. Interviews revealed that Israeli policy, and relationships with family in their country of origin and with Israeli employers and their families can either contribute to or mitigate emotional stressors.

Conclusions: Symptoms of emotional distress among Southeast Asian migrant careworkers in Israel are frequently reported, and may indicate rates of anxiety and depression higher than in careworkers' countries of origin and host country. Increased monitoring to protect careworkers' rights and including mental health services as part of their health insurance plan are warranted.

1. Introduction

Nearly 258 million people are defined as international immigrants, the majority of whom migrated for work (Nations, 2018). As low-wage labor demands have shifted towards domestic and care services in high-income countries (HIC), more women from low- and middle-income countries (LMIC) are finding employment abroad (Nations, 2018). In Israel, in-home carework is the primary field of employment for migrant workers. In 2018, there were 66,859 migrant careworkers in Israel, 72 % of whom originated in Southeast Asian countries, and 81 % of whom were women (State of Israel - Population and Immigration Authority 2020).

While migrant carework seems mutually beneficial for careworkers' countries of origin and the host country, there are several trade-offs for careworkers themselves. In Israel, carework is better compensated than in a careworkers' home countries. Nonetheless, language and cultural barriers, and migration and employment policies place careworkers at high risk for exploitation (Green and Ayalon, 2018). Further, unlike other HIC that offer pathways to residency and citizenship, Israel imposes strict restrictions to prevent permanent settlement. These restrictions include limited stay periods, the prohibition of first-degree family members from simultaneously working in Israel, mandated live-in labor arrangements, and restrictions on pregnancy and childbirth for migrant women (State of Israel Population and Immigration

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Authority 2017).

The mental health risk for migrant workers in general, and specifically careworkers, has been highlighted in studies from different countries (Green and Ayalon, 2018; Vahabi and Wong, 2017; Vahabi et al., 2018; Varia, 2011). Among other problems reported by Filipina live-in careworkers in Canada, work conditions negatively affect their physical health, while family separation and isolation negatively impact their mental health (Vahabi et al., 2018). The live-in status of careworkers exposes them to additional vulnerabilities including poor work-life balance, substandard living conditions, and "invisibility". In another Canadian study, poor mental health, which was reported by nearly one-quarter (23 %) of live-in careworkers surveyed, was associated with long working hours and substandard living and work conditions (Carlos and Wilson, 2018).

The intersection of ethnicity, migration status, class and sex, make female migrant workers acutely vulnerable to exploitation (Llácer et al., 2007). This vulnerability is most significant for household staff, including careworkers who are closely tied to their charges. These vulnerabilities often carry with them the risk for poor general health and emotional distress. This study employs a mixed-methods design to measure the extent of depression and anxiety in the careworker community, and to understand their contributing factors.

2. Materials and methods

This study employed a mixed-methods design, comprising a quantitative online survey and qualitative in-person interviews. Careworkers were eligible for inclusion in the study if they were currently working in Israel, proficient in English, and originated from a Southeast Asian or Western Pacific country.

The survey questionnaire was accessible online using a protected survey platform (SurveyMonkey, 2018). The online platform was used to broaden contact with the target population known for its invisibility, and facilitated participants sharing the survey with friends and responding while at work.

2.1. Sampling

Survey participants were recruited by sharing the link to the survey on social media groups for careworkers in Israel and shared at places careworkers frequent. In total, 263 careworkers participated in the study. To ensure our study had sufficient power, a post hoc power analysis for the overall HSCL score model was conducted using the pwr.f2.test function in the 'pwr' package in R. Given a Cox pseudo R^2 value of 0.325, the effect size (f^2) was 0.48. The result of the power analysis indicated a power of 0.99. This high value suggests that the study was capable of detecting significant effects. Moreover, the effect size (0.48) suggests that the predictors collectively explain a substantial portion of the variance in HSCL-25 scores.

Using purposive and snowballing sampling techniques, interview participants were identified and recruited through online careworker groups and places careworkers frequented, including a legal aid office (Kav L'Oved), an elder care center (Melabev Talpiyot), and the Tel Aviv Central Bus Station.

Interviews were transcribed within a week from when it was conducted. Data collection continued until data saturation was reached, totaling 15 interviews. Data saturation was determined by the keeping of a list of possible categories and sub-categories, updated after each interviews' initial transcription and first coding. When no new categories or sub-categories were recorded in two consecutive interviews and categories and subcategories were sufficiently dense (i.e., discussed in-depth by three or more participants), data saturation was considered achieved (Saunders et al., 2018).

2.2. Tools and scales used

The survey questionnaire collected social and demographic data, including country of origin, age, sex, time in Israel, residence, relationship status, parental status, visa area, self-reported health status, and income.

Careworkers' residence was coded as living full-time with employer, living full-time with employer with an apartment for days off, or other arrangements (living part-time with employer or not living with their employer at all).

Relationship status was coded as single/divorced/widowed, in a relationship or married abroad, and in a relationship or married in Israel. Participants could select only one relationship status option.

Visa area was defined by participant's place of residence, not their assigned visa area. Options included 'Area 1' (Tel Aviv), 'Area 2' (Jerusalem, Haifa, and the Center), and 'Area 3' (The periphery).

Self-reported general health was measured on a 5-point Likert scale, ranging from very poor (1) to very good (5) recoded into two groups good general health (4, 5 on the scale) and poor or average health (1–3 on the scale).

Income was determined by asking survey participants how close their income was to the average income for careworkers in Israel, which was provided in the question. Income was reported on a 5-point Likert type scale with options ranging from 'much lower than average' (1) to 'much higher than average' (5 on the scale).

Respondents also completed two psychosocial screening tools - the Hopkins Symptom Checklist-25 (Hollifield et al., 2002; Mollica et al., 2004) and the Multi-Dimensional Scale of Perceived Social Support (Zimet et al., 1998).

The Hopkins Symptom Checklist (HSCL-25) is designed to identify common psychiatric symptoms in different cultural settings, and is considered an important and valid tool in transcultural research (Hollifield et al., 2002; Mollica et al., 2004). Each question is answered on a 4-point Likert scale (1 -"not at all"; 4 - "extremely"). The HSCL-25 is composed of two subscales: a 10-item anxiety scale and a 15-item depression scale, generating three scores: a score for each subscale and an overall emotional distress score. The three scores are calculated as the average of the responses to the relevant scale items. Scores equal to or greater than 1.75 are considered symptomatic for anxiety, depression and emotional distress, whereas scores lower than 1.75 were considered not symptomatic. Despite discussion as to the most appropriate cut-off and the precise reliability of the HSCL-25 in multi-cultural settings (Ichikawa et al., 2006; Ventevogel et al., 2007), it is considered an appropriate screening measure for South East Asian populations due to its clinical sensitivity, brevity and its acceptability by South East Asian participants (Herva and Comperini, 2014; Mollica et al., 1987).

In the present sample, the HSCL-25 and its subscales were found to possess strong internal reliability as measured by Cronbach's alpha (HSCL:α=0.92; Anxiety: α=0.85; Depression: α=0.89).

The Multi-Dimensional Scale of Perceived Social Support (PSS) is a validated self-report tool to assess social support (Zimet et al., 1998). The PSS includes 12 questions related to special persons, family and friends, each answered on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The overall score is the average of the 12 questions. The PSS scale displayed a strong internal reliability in the present sample (α=0.93).

Perceived othering was measured using the Everyday Discrimination Scale (Williams et al., 1997). The tool contains 9 questions about how often various phenomenon that can cause one to feel discriminated against happened to the respondent in the course of a year, using a 6-point Likert scale. The cumulative score is the total of all 9 responses. The Everyday Discrimination Scale displayed strong internal consistency in the sample (α=0.88) using all items.

Cultural identity was measured using two (unpublished) scales previously used in a study concerning migrants in Israel; one scale measured identity as Israeli and the other measured country of origin

identity (Nakash et al., 2012). Each scale contained the same four questions, ranked on a 4-point Likert scale. The average of these four questions constituted the final score. Both scales were found to have strong internal reliability in the present sample (Israeli identity α=0.93; country of origin identity α=0.91).

Interviews were conducted after the survey responses were analyzed. Survey results helped to form the basis for the interview guide. Interviews were conducted in English (with Hebrew used intermittently) and consisted of semi-structured, open-ended questions. Interviews lasted between 25 and 75 min.

2.3. Statistical and qualitative analysis

Analyses were performed using SPSS version 25 (Mac) (SPSS Inc., Chicago, IL). First-order statistics included χ^2 and *t*-test to describe the respondents' socio-demographic characteristics. Three multinomial logistic regression models were built using the "NOMREG" command for each of the three HSCL-25 scores, which were coded as a binary variable based on the scale's cutoff. The models also included socio-demographic variables, PSS scores, self-perceived general health, perceived othering scores, and other covariates The models were estimated using the maximum likelihood estimation method.

The post-colonial feminist perspective (Tyagi, 2014) was used to analyze and interpret the interview data, as this approach is suitable to examine how gender, ethnicity, and socioeconomic position influence social, cultural, political, economic, and historical elements of marginalized peoples' lives (Maureen O'Mahony and Truong Donnelly, 2010).

A Grounded Theory Approach (Strauss and Corbin, 1997) was used to form final categories and sub-categories. Following the first round of coding, clean transcripts were re-read and re-coded according to established categories and sub-categories, in order to establish reliability (Patton, 1999). The two rounds of coding matched in 93 % of cases. When the two rounds of coding didn't match, the codes were compared to identify the more fitting category.

A convergence model for triangulation was used to integrate quantitative and qualitative findings. In this model, quantitative and qualitative findings are collected and analyzed separately and then compared and contrasted during interpretation (Creswell and Plano-Clark, 2010).

3. Results

Overall, 263 careworkers from Southeast Asian countries responded to the questionnaire, 65.5 % of whom were women and 58.6 % of whom were Overseas Filipino Workers (OFW). Study participants ranged in age from 22 - 67 years (μ=36). Half (49.4 %) of the respondents had been in Israel more than four years. Additional demographic characteristics of participants and frequencies of all survey variables are presented in Table 1. Of the 15 interview participants, 11 were women, 8 were OFWs, and 10 resided in Israel for more than four years.

Ninety-seven respondents (36.8 %) were found symptomatic on the overall HSCL-25, 22.6 % on the anxiety subscale and 41.8 % on the depression subscale. Multivariate analyses of all three scales are presented in Table 2.

Across the sample, "feeling everything is an effort" and "headaches" were endorsed most frequently. Among those who scored above the HSCL threshold, "worrying too much about things" and "difficulty falling or staying asleep" were the most reported symptoms. Fig. 1a-b presents the percentage of HSCL symptoms endorsed among all participants and among those who scored above the HSCL threshold. When segregated by sex, there are some notable similarities and differences between symptom endorsement. Some items are consistently endorsed by both men and women, including nervousness, feeling tense or keyed-up, poor appetite, feeling hopeless about the future, and thoughts of ending your life. For women (Fig. 1a), headaches, heart pounding or racing, crying easily, and feeling blue were more frequently endorsed than by men, whereas men were more likely to endorse feeling restlessness and feeling lonely (Fig. 1b).

Table 1
Socio-demographic characteristics of Southeast Asian migrant careworkers in Israel, 2019 ($N = 263$).

Variable		N	%
Sex	Women	175	*66.5*
	Men	83	*31.6*
	Prefer not to say	5	*1.9*
Country of Origin	The Philippines	154	*58.6*
	India	61	*23.2*
	Sri Lanka	41	*15.5*
	Nepal	7	*2.7*
Income	Lower than average	109	*41.5*
	Average or higher	150	*57.0*
Residence	Other arrangements*	18	*6.8*
	Apartment for time off	83	*31.6*
	Full-time with employer	160	*60.8*
Visa Area	Area 1	116	*44.1*
	Area 2	73	*27.8*
	Area 3	67	*25.5*
Time in Israel	Up to a year	33	*12.5*
	1–4 years	97	*36.9*
	More than 4 years	130	*49.4*
Relationship Status	Single, divorced, or widowed	119	*45.3*
	In a relationship in Israel	36	*13.7*
	In a relationship abroad	100	*38.0*
Parental Status	Non-parents	124	*47.2*
	Parents	139	*52.8*
Health Status	Poor or Average	86	*32.7*
	Good or Very Good	165	*62.7*
Perceived Social Support	Low	126	*47.9*
	High	131	*49.8*
Israeli Identity	Low	138	*52.5*
	High	119	*45.2*
Country of Origin Identity	Low	119	*45.2*
	High	138	*52.5*
Perceived Othering	High	119	*45.2*
	Low	142	*54.0*

* Other arrangements includes careworkers living-out or residing with their employer part-time.

3.1. Demographic factors

3.1.1. Sex

A higher percentage of women (38.3 %) than men (33.7 %) scored above the threshold for the overall HSCL (Adjusted Odds Ratio: 3.95, 95 % CI: 1.49–10.44). A significant association was noted also between sex and the depression subscale (AOR: 5.88, 95 % CI: 2.13–16.25).

3.1.2. Parental and relationship status

Compared with careworkers who reported having at least one child, those with no children were 2.5 times as likely to score above threshold on the HSCL-25 overall score (AOR: 2.51, 95 % CI: 1.02–6.18). This association was not significant on either of the subscales.

Most careworkers interviewed discussed life "at home" as a source of emotional difficulty or concern, regardless of parental or relationship status. Particularly for careworkers who have been in Israel for several years, the feeling of "missing out" on their child's life is prominent. Lyn explained:

> "I have four [children] and…six grandchildren. I go on vacation every two or three years, but it is hard. I am far from them. I missed half of my life because I didn't take care of them. I came here my youngest is only 6 years old. Now he is 24 …But there is no choice. I am alone- I have been widow for almost 23 years. I send them to school until college, they finish the colleges with me alone…if I didn't come here, I don't know if I could send them to school."

Concerns about familial wellbeing and stability were gendered. Several of the women interviewed expressed concern about what their husbands were doing in their absence. Priyanka, a careworker from

Table 2
Multivariate analysis for HSCL-25 and its subscales among Southeast Asian migrant careworkers, Israel, 2019.

Variable			Overall	Anxiety	Depression
Age	Continuous	OR:	0.99	0.97	0.97
		CI:	0.95–1.043	0.92–1.03	0.92–1.02
Sex	women/prefer not to say	OR	**3.95**	1.51	**5.88**
(Ref: Men)		CI:	**1.49–10.44**	0.59–3.85	**2.13–16.25**
Country of Origin	Non-OFW	OR:	2.14	1.75	2.21
(Ref: OFW)		CI:	0.84–5.46	0.68–4.47	0.86–5.68
Time in Israel	<1 year	OR:	0.9	0.73	1.14
(Ref: >4 years)		CI:	0.31–2.63	0.22–2.43	0.39–3.37
	1–4 years	OR:	0.9	0.85	0.77
		CI:	0.37–2.16	0.35–2.04	0.32–1.86
Visa Area	Area 1	OR:	1.57	**1.08**	1.44
(Ref: Area 3)		CI:	0.63–3.89	**1.08–7.41**	0.44–2.98
	Area 2	OR:	1.74	2.04	1.67
		CI:	0.67–4.56	0.74–5.65	0.64–4.37
Relationship Status	Single, Divorced, or Widowed	OR:	0.76	0.57	1.14
(Ref: Relationship Abroad)		CI:	0.29–1.98	0.22–1.46	0.44–2.98
	Relationship in Israel	OR:	0.93	1.1	0.78
		CI:	0.30–2.87	0.36–3.39	0.25–2.44
Parental Status	Non-Parents	OR:	**2.51**	1.23	1.74
(Ref: Parents)		CI:	**1.02–6.18**	0.50–3.02	0.70–4.33
Living Arrangement (Ref: Full-time with employer)	Other Living Arrangements	OR:	1.09	1.44	0.83
		CI:	0.30–3.92	0.40–5.22	0.23–2.98
	Apartment for Time Off	OR:	0.73	0.79	0.81
		CI:	0.33–1.63	0.35–1.81	0.37–1.80
Income	Less than Average	OR:	1.22	1.06	1.49
(Ref: Average or more)		CI:	0.58–2.53	0.51–2.24	0.72–3.11
Health Status	Poor or Average	OR:	**2.68**	**2.69**	**2.62**
(Ref: good or very good)		CI:	**1.24–5.78**	**1.22–5.94**	**1.21–5.68**
Perceived Othering	High	OR:	**4.95**	**6.14**	**3.95**
(Ref: low)		CI:	**2.41–10.15**	**2.90–13.01**	**1.93–8.12**
Israeli Identity	Low	OR:	0.52	0.84	0.53
(Ref: High)		CI:	0.24–1.23	0.39–1.81	0.25–1.15
Country of Origin Identity	Low	OR:	1.01	0.92	0.96
(Ref: High)		CI:	0.53–2.30	0.43–1.97	0.46–1.9
Perceived Social Support	Low	OR:	**4.39**	0.89	**6.28**
(Ref: High)		CI:	**2.04–9.42**	0.40–1.99	**2.88–13.69**

India, expressed:

> "They (careworkers) may have a problem back at home… we come here to make money, but we don't always control what the money is spent (on). And if you are married, your husband might take another woman, or your kids may start acting not good because they miss you."

3.1.3. Visa area

The majority of careworkers ($n = 116$) reported living in the Tel Aviv area- considered the cultural hub for many migrant groups. While visa area was not associated with the HSCL overall score or the depression subscale, careworkers in the Tel Aviv area were more likely than those residing in the periphery to score above the threshold on the anxiety subscale when adjusted for other variables (AOR: 2.82, 95 % CI: 1.08–7.41).

In interviews, some careworkers expressed their avoidance of Tel Aviv; the proximity to the stores that carry goods from their country of origin were a temptation to spend money, and others recounted that Tel Aviv did not feel safe, either due to the presence of immigration police or because they are the target of petty crimes.

3.1.4. Income

Income was not associated with HSCL scores. This finding came in direct contrast with information obtained in interviews, in which careworkers expressed serious concern about their finances back home. These concerns focused on debts that were incurred prior to their migration (most of which were loans used to pay illegal agency placement fees) and their progression towards their financial goals within visa time constraints.

3.2. Difficulties of the job

All careworkers interviewed noted that their job presented difficulties and challenges unique to live-in carework, namely, the de-facto 24-hour shifts, loneliness, physical labor, dealing with their employer's illness or age, handling employer death, and having to perform additional duties (e.g., cooking and cleaning for the employer's household and/or family) unrelated to caring for their charge. Many of the difficulties mentioned by careworkers were related to living in the same place where they worked. Though contractually careworkers are expected to work 8-hour days, many reported that they work 'round the clock'. This was magnified for careworkers whose employers had sleeping difficulties. Monica, a Filipina careworker whose employer has dementia, reported being awake three and a half days at the time of the interview due to her employer's inability to sleep.

The 24 h shift was also often connected to the loneliness that careworkers felt. For those with immobile employers, careworkers were often 'trapped' in their employer's home. When asked if she felt lonely, Madhu, a careworker from Sri Lanka who stayed in the apartment with her employer for nine months without regular days off, answered:

> "A little, because my employer after she (couldn't) walk, then I (didn't go) out, we are in the house. Before then we would go for a walk, and the people would speak to me, to my employer. But when she couldn't go out anymore, I didn't go out, because I didn't want (her) to be alone."

The difficulties experienced by careworkers are not limited to the constant nature of their work or the lack of contractual boundaries. In addition to not sleeping due to their employer's irregular sleep schedules, careworkers highlighted many aspects of their employer's condition as physical hardship. These conditions and consequential hardships

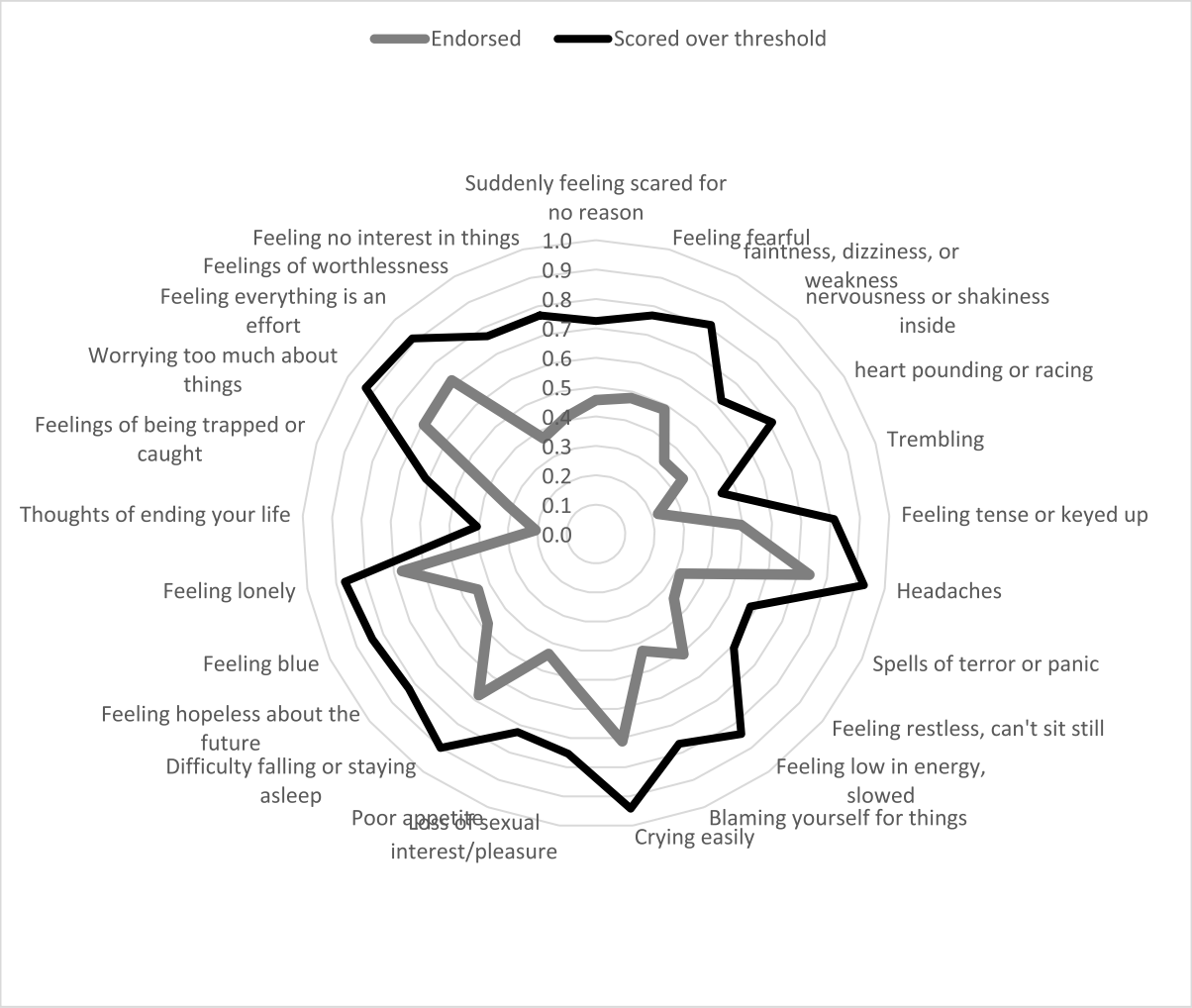

Fig. 1a. Percentage of HSCL variables endorsed as symptoms present, among all participating women and those who scored above the HSCL threshold.

greatly varied, from employers who were violent due to neurocognitive disorders to overweight/bedridden employers who require considerable physical support.

The combination of physically intensive work and the additional tasks of cleaning and cooking for their employer (and often his/her family), left many careworkers with work-related pain. Marcel, a Filipina careworker, explains:

> "The problem is my employer can walk and she can go out by herself. But you become a housekeeper… Three times already I have gone to the doctor. They give a different pill … But they say that because you keep doing the same activities, it keeps coming back."

Reflections of careworkers regarding the physical costs of carework are consistent with the quantitative findings. Compared with participants who self-reported their health to be good or very good, those in average/poor health were significantly more likely to score above the threshold on the HSCL scale (AOR: 2.68, 95 % CI: 1.24–5.78), as well as on the anxiety subscale (AOR: 2.69, 95 % CI:1.22–5.94) and depression subscale (AOR: 2.62, 95 % CI:1.21–5.68).

3.2.1. Lack of agency

Throughout the interviews, careworkers often noted their own powerlessness. 'What can we/I do' peppered the conversations, both in English and Hebrew. The lack of agency was expressed over planning vacations, visa limitations, work schedules, lack of representative organizations (e.g., unions), and when careworkers excused their employer, employer's family or manpower agency taking advantage of them.

3.3. Residing abroad: mental health and life in Israel

3.3.1. Legal restrictions

Thirteen of the careworkers interviewed named various legal restrictions as a source of mental distress. This was often due to limitations to careworkers' work opportunities, which subsequently affects their ability to reach their financial goals. Among legal restrictions mentioned by careworkers were time limitations on visas, special visas, reliever laws, limitations to family/romantic partners, and the live-in policy.

The most often cited sources of legal stress were time limitations ($n = 8$) and special visa restrictions ($n = 5$). Special visas- essentially an extended work visa with additional stipulations- are highly competitive, and the process to obtain one often changes. The stress of time-limited work visas pressure careworkers to pursue the competitive special visa process. Celine explains:

> "We cannot work now [more than 4.3 years]. Maybe, *maybe*, we can finish a job until the employee is passed away, after 4.3, then we cannot stay, it is very difficult. One year we are going on reliever duty, and then after we are having to find special visa. This is very difficult because already we are spending too much money in India to come here. If we come here, we want to try to earn [a lot of] money… We are working one and a half year just to finish paying this money."

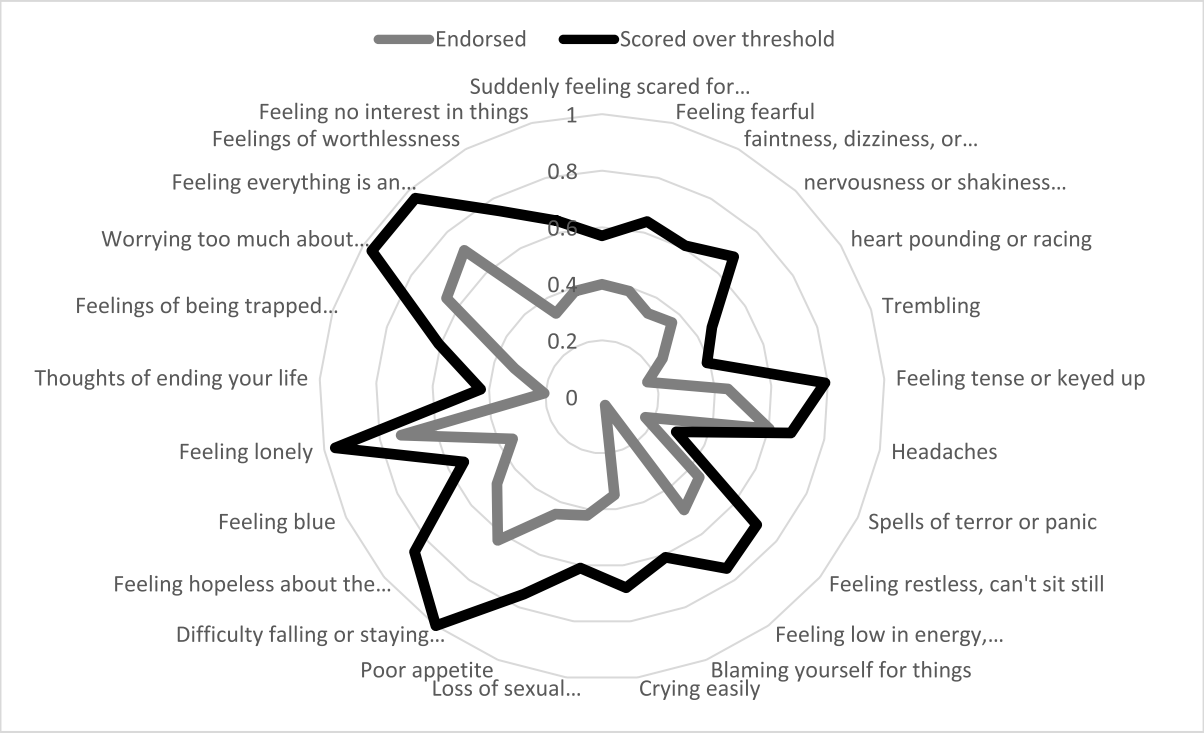

Fig. 1b. Percentage of HSCL variables endorsed as symptoms present, among all participating men and those who scored over the HSCL threshold.

In addition to time limits and special visas, reliever laws present serious challenges to careworkers. Relievers are careworkers who temporarily replace another permanent careworker while on vacation. Due to the temporary and relatively unregulated nature of reliever employment, many careworkers with expired work visas or those looking for permanent placement work as relievers. New regulations require relievers to register with the Population and Immigration Authority. Maynard, who was working as a reliever at the time of interview and looking for permanent work, explains:

> "The law in Israel is too tight- time to time they change. So now, my status is a reliever status… I have been searching and searching hunting and hunting for a job… it's hard, because the law is you need to get a reliever job, and you need to get a registered reliever. But a registered reliever is rare here, only (half) are registered. It is too tight, the immigration (police) is getting (them)."

Alongside the legal regulations regarding stays, bans on families and romantic partners also contribute to careworker stress. In the middle of the interview collection period, there was a drastic increase in the visibility of deportation hearings for migrant careworkers who had children in Israel, which is against work visa regulations. Several migrant careworkers and their children were arrested, and in most cases deported. Subsequently, some of the Filipino/a careworkers interviewed discussed the deportations when asked about legal limitations on families. Despite feeling sorry for those facing deportation, many careworkers opined that careworkers with children are in the wrong, because of prior knowledge of the law. Lyn explains:

> "It's hard. Because this is the only country in the world with these rules, which is wrong. You know… I…. why they don't allow to get people inside and make family here? Anyway, on the other hand, also, they have mistakes. Because when we came here, there were already existing laws, and we know that. That we are not allowed to make family here. But still they make, it's their fault. I don't know. What can I do?"

3.3.2. Resident status

Despite discussions of the difficulties of extended hours implicit in live-in care arrangements, opinions about the policy were mixed. Many careworkers were comfortable living with their employer, at least on working days, because it allowed them to save money. Marcel, a female OFW, said:

> "Only to live with the employer on working days, and then if you have a rest day you can go out. Because if you (live out), it is expensive for you every day. Because if (you) then live out, [you earn less]. So, if you will live in on working days it's okay. If they want you to go out every night and come back, it is expensive for you."

Other careworkers, who had worked in both live-out and live-in arrangements, discussed the benefits of living out. Dhel, an OFW live-out careworker, explains:

> "It's better for live-out. Because after 12 h, you take a rest- no one to call you to 'come do this' or 'come do that'. If you are 12 h, you go home, take a rest, sleep, and you come back strong again."

These mixed opinions were reflected in the quantitative findings, in which no significant associations between residence type and mental health were noted. Percentages of careworkers symptomatic according to the HSCL and its subscales were similar across types of residence.

3.3.3. Manpower agency exploitation

Nine careworkers discussed exploitation by their manpower agency as a source of stress. Careworkers expressed that agencies often did not pay them correctly. When asked if they felt this was because the manpower agencies made human errors or if it was maleficent, most careworkers leaned towards the latter. When asked why she thinks the agencies provide incorrect income calculations, Mayhuri said:

> "Because I am not Israeli. I am a Sri Lankan. If they are helping the Israeli people that want the (caregiver), and the Israeli (clients) say this agency is good, they are helpful to us… This is what matters to them."

3.3.4. Perceived othering

On the perceived othering scale, 152 careworkers scored low overall perceived othering (58.2 %). Of those who scored high perceived othering, just over half (55.0 %) were symptomatic for emotional distress, 43.0 % were symptomatic for anxiety and 57.8 % for depression. Upon controlling for covariates, careworkers with high perceived othering were five times as likely to be symptomatic on the HSCL-25 scale (AOR: 4.95, 95 % CI:2.41–10.15).

In the interviews, eight careworkers described othering as a universal phenomenon, positing there are 'good and bad people everywhere'. Five careworkers acknowledged that there is a general feeling that migrant careworkers from Southeast Asian countries are treated differently because of their country of origin, even if it isn't a critical issue for them. Careworkers gave examples of a 'general feeling' including not receiving what one asks for in a store or restaurant, or Israelis demonstratively distancing themselves from the careworker in public spaces.

3.4. Social support and coping

Overall, careworkers scoring lower on the PSS scale were four times more likely to score above the threshold for the HSCL overall score (AOR: 4.39, 95 % CI: 2.04–9.42). When multivariate regression analysis was performed with the three separate PSS subscales, the role of social support among family was prominent. Those with lower levels of family support were more likely to score above the threshold on the HSCL overall scale (AOR: 2.77, 95 % CI:1.87–6.42) and on the depression subscale (AOR: 3.68, 95 % CI: 2.48–11.47). The friends and special person social support subscales were not associated with HSCL scores.

Social support from family was frequently discussed by careworkers ($n = 13$). Despite the distance, careworkers expressed that connection to family in their home country was important for them to feel well. Celine, a careworker from India, notes:

> "I don't feel lonely. If I feel not well I call my mother and I say I feel not well and my mind is a little bit not good, you speak a little time (with) me. So, she will speak with me."

4. Discussion

The prevalence of emotional distress, anxiety, and depression observed in the present study - 36.8 %, 22.6 %, and 41.8 %, respectively, is high in comparison to the rates of depression and anxiety in careworkers' countries of origin and in the general population of Israel, which range from 3.0 %−4.6 % (World Health Organization 2017). Previous studies have indicated high prevalence of depression and anxiety in Asian migrant communities in HIC (Chou, 2012; Kim et al., 2015; Lee et al., 2013). In a meta-analysis of anxiety and depression screening studies among Asian immigrants in the US, the prevalence of depression ranged from 3 % to 71 %, with a pooled prevalence of 36 % (Kim et al., 2015). The high degree of variation between studies may be due to differences in type of migration (voluntary or involuntary), characteristics of the migrant population (e.g., degree of acculturation and assimilation), or differences in screening tools used.

We found a strong association between sex and scores on the HSCL overall scale and depression subscale. Gendered differences in the rates of anxiety and depression are documented in many populations, though the mechanisms for these differences remain unclear (Girgus and Yang, 2015; Hammarström et al., 2009). A possible explanation is gender-specific interpretation of questions on mental health screening tools, suggesting that screening tools should apply different cutoff scores for men and women (Housen et al., 2018; Sandanger et al., 1998). Similarly, gendered differences in social acceptability of emotional expression may lead to men underreporting mental health symptoms (Housen et al., 2018; Sandanger et al., 1998). Feminist scholars have also noted that gender differences in psychiatric symptoms may result from sexist treatment in everyday life (Klonoff et al., 2000). In one study, women who reported experiencing frequent sexism also exhibited a greater number of depressive and somatic symptoms than men, whereas women who reported experiencing little sexism exhibited similar numbers of symptoms as men (Klonoff et al., 2000). As a majority of respondents in the present study were women, the higher number of reported symptoms may relate to the experiences of migrant women of color with sexism, racism, and xenophobia (Llácer et al., 2007).

Counter to our hypothesis that careworkers with a romantic relationship in Israel would have lower HSCL scores, particularly in light of the importance of PSS, no significant association between relationship status and HSCL score was noted. This lack of association may be influenced by parenthood. The relationship between parenthood/non-parenthood and mental health is complicated, layered with gender and cultural considerations. In the present study, non-parenthood was associated with poorer mental health outcomes. This finding may be explained by considering parenthood as a modified means of social support in that children provide an impetus to be in frequent contact with 'home'. In interviews, those with children reported speaking with their family every day in order to bond with their child and receive updates from their child's guardian. Non-parent careworkers may be in touch with their families less frequently, lacking the impetus for daily contact.

In contrast to information in the interviews which highlighted financial stress, HSCL scores were not associated with income. Interviews uncovered that, even if minimal for Israel, careworkers considered their monthly salary to be a significant amount, and are generally pleased by the remittances that they send to their family. Asking careworkers about satisfaction with monthly wage- rather than proximity to the legal minimum- may reveal an inverse association with mental health status.

Similarly to our findings, mental health outcomes have been linked to self-reported general health in several studies (Vahabi et al., 2018; Shim et al., 2014; Straiton et al., 2019). Particularly among Asian populations, somatic symptoms of depression are common, and may reflect a stronger conceptualization of the mind-body connection than among Western populations (Kalibatseva and Leong, 2011). In this study, the high proportion of respondents who scored above the HSCL threshold and also reported heart pounding/racing, feeling tense, crying easily, poor appetite, and disturbed sleep reflects a strong connection between mental health and somatic symptoms.

Long working hours have been associated with poorer mental health in a variety of settings (Malhotra et al., 2013; Zhong et al., 2018). Careworkers interviewed all noted the 24-hour nature of live-in work as a major workplace difficulty. The link between extended hours and health was also observed in a study of live-in careworkers in Canada (Vahabi and Wong, 2017). In a sleep-quality study among Filipino/a live-in careworkers in California, female careworkers slept less total hours and with more interruptions than male careworkers (Riley et al., 2016). This may be due to gendered differences in expectations and difficulty negotiating terms of live-in work with employers. The outcomes of insufficient sleep are negative for careworkers and their charges, as chronic fatigue increases the risk of workplace accidents (Riley et al., 2016). Moreover, the relationship between disturbed sleep and anxiety/depression may be bidirectional, meaning that while poor sleep is itself a symptom of anxiety, poor sleep can also exacerbate other symptoms of anxiety and depression (Alvaro et al., 2013).

Much of the extant research on legal restrictions and migrant mental health focuses on health insurance policies and access to healthcare services (Viruell-Fuentes et al., 2012) and does not consider the distal social and economic policies, including migration policy, that shape individual health. While stress caused by legal restrictions can theoretically influence migrant mental health, the effects of multi-sectoral policies on migrant health remain unexplored. The pervasive nature of laws for migrant workers and additional restrictions for migrant careworkers in Israel, may intensify careworkers' stress and perception of

hardships that contribute to poorer mental and physical health.

Careworkers interviewed often cited time limitations and visa processes as significant stressors. Israel's austere regulations and restrictions for work visas and increasingly stringent immigration control are unique compared to other HIC, even those with migration deterrence policies (Czaika and Hobolth, 2016). Studies on asylum seekers confirm that stress related to legal-status contributes to mental health problems (Li et al., 2016; Momartin et al., 2006). In addition, a mixed-methods study of migrant workers in Singapore found that threat of deportation was a proximal determinant for poor mental health (Harrigan and Koh, 2017).

Unlike our results, which did not reveal a significant association between residence and HSCL scores, a study in Canada demonstrated negative associations between living-in and physical and mental health (Vahabi and Wong, 2017). Potential explanations for the disparate findings may relate to financial incentives. In the present study, some careworkers interviewed found living with their employer to be a financial benefit, and others noted greater privacy at their employer's home compared to shared apartments. This financial benefit was prioritized over general wellbeing, even as the same careworkers noted negative effects of live-in carework. A second explanation for this lack of association may relate to legal issues. While live-out work is legal for migrant careworkers in Canada, it is illegal in Israel. Careworkers living-out in Israel may worry about repercussions from breaking the law, which may compensate for any benefit living-out has on wellbeing.

The association between poorer mental health status and perceived othering is documented in other immigrant/migrant communities (Chou, 2012; Bernstein et al., 2011). A recent study conducted among immigrants in Norway found strong associations between perceived discrimination, general health, and mental health (Straiton et al., 2019). Migrants, particularly those who do not pass as 'belonging' to the host country, may experience discrimination in the public and private spheres, which contribute to increased stress, alienation, and feelings of mental distress or physical danger.

Relatedly, this association may be a consequence of seemingly mundane aspects of life being regulated by Israeli law. The awareness as "other" in structures- including government offices and manpower agencies- may reinforce or exacerbate feelings of discrimination.

During the early months of Israel's COVID-19 pandemic response, a second assessment of migrant careworkers' psychosocial status was conducted using the HSCL-10, a simplified version of the tool used in the present study (Hannink Attal et al., 2020). This secondary assessment found that the prevalence of emotional distress, anxiety, and depression were 39.1 %, 28 %, and 38.1 % respectively. While the authors caution directly comparing prevalence rates of different samples of careworkers, the secondary analysis offers additional evidence that mental distress is experienced widely among careworkers in Israel. Of the common variables, this study also found that female sex and poorer self-reported general health were associated with HSCL scores over the threshold (Hannink Attal et al., 2020).

4.1. Strengths and limitations

4.1.1. Strengths

This study, to the best of our knowledge, is the largest study of anxiety and depression among migrant careworkers in Israel, and the first not based on a location-specific convenience sample.

One of the primary strengths of the study is its mixed-methods design, which generated prevalence data alongside contextual insight and identified factors associated with mental health outcomes among migrant careworkers in Israel. The online nature of the quantitative arm of the study eliminated geographic and temporal limitations.

Conducting interviews among vulnerable populations requires trust. Establishing trust between the researcher and interviewees was facilitated by conducting interviews in institutions known to careworkers as safer spaces, and personal introductions by the staff to careworkers. The sense of trust, admittedly guarded, that was created likely enriched interview responses. Including a co-researcher from the migrant careworker community to conduct the interviews may have further enhanced the depth of responses provided.

4.1.2. Limitations

The primary limitation of this study was the lack of a clinical diagnosis for depression and anxiety among participants. The HSCL is a screening tool, but does not substitute diagnosis. Even so, the HSCL is frequently employed in settings where clinical interviews cannot be conducted, and is considered a reliable indicator of mental distress (Mollica et al., 2004; Ichikawa et al., 2006; Housen et al., 2018; Sandanger et al., 1998).

In addition, the online survey leaves the study without a well-defined sample frame or the ability to randomize, resulting in an unknown response rate. Moreover, the sample size achieved is lower than thresholds recommended elsewhere for non-random cross-sectional studies (Bujang et al., 2018). In an attempt to be as accessible as possible by placing the survey online, careworkers without internet access or those who choose not to be in social media groups for migrants and careworkers in Israel would not have access to the survey. While the post hoc power analysis demonstrates the strength of the model in detecting significant effects, caution should be used when generalizing the results of this study to all careworkers in Israel.

During the data collection phase, several global and Israeli events took place that may have introduced response bias. Firstly, the aforementioned deportations of careworkers with children was widely broadcasted. Secondly, a massive terrorist attack in Sri Lanka during the data collection period preceded a wave of responses from Sri Lankan participants. In both cases, emotional stress from these external sources may have resulted in higher HSCL-25 and PSS scores, unrelated to the work situation in Israel.

The nature of carework including 24 h shifts and limited time off, restricted where and how interviews could take place. Interviews were mostly conducted in places careworkers would have long wait times, nonetheless, time constraints may have limited the depth of responses.

5. Conclusions

This study's results indicate high rates of emotional distress, anxiety and depression among Southeast Asian migrant careworkers in Israel. Emotional distress was linked to female sex, visa area, parental status, self-reported health status, and high perceived othering. Perceived social support especially from family was a strong protective factor.

Currently, careworkers' health insurance plans in Israel are not required to cover ambulatory psychological services. In order to address poor mental health outcomes, Israel's migrant health insurance policy should be expanded to include psychological screening and treatment.

In choosing to migrate, migrant careworkers place trust in their host country's legal, financial, health, and social systems to take care of them, as they care for their host country's fragile, disabled, and elderly. As people are living longer, especially in HIC, demand for migrant careworkers from LMIC can be expected to grow. Fostering resilience and wellbeing of careworkers' mental health and securing their access to mental health services, through national policies, are crucial for public mental health, the wellbeing of Israel's elderly, and careworkers' human rights.

Declarations

Data used in this article were collected as part of JHA's graduate thesis at the Braun School of Public Health and Community Medicine, Hebrew University of Jerusalem.

Ethical approval and consent to participate

Ethical approval was obtained from the Helsinki Committee for Research on Human Subjects at the Hebrew University-Hadassah Faculty of Medicine.

Availability of data and materials

Requests for data may be sent to the corresponding author.

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CRediT authorship contribution statement

Jordan Hannink Attal: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Software, Writing – original draft, Writing – review & editing. **Ido Lurie:** Methodology, Resources, Supervision, Writing – review & editing. **Yehuda Neumark:** Formal analysis, Methodology, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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