Help-Seeking Behavior and Psychological Distress by Age in a Nationally Representative Sample of Japanese Employees

Takashi Yamauchi, Machi Suka, and Hiroyuki Yanagisawa

Department of Public Health and Environmental Medicine, The Jikei University School of Medicine, Tokyo, Japan

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ABSTRACT

Background: The present study aimed to examine the association between the presence/absence of help-seeking behavior (ie, behavior aimed at obtaining assistance from others to improve a situation or problem) and psychological distress among private and public employees by age group using a nationally representative sample of the Japanese population.

Methods: The present study analyzed data obtained from the 2016 Comprehensive Survey of Living Conditions, a nationwide cross-sectional survey. Of 568,426 participants, 78,284 private and public employees aged 20 to 59 years, who were receiving no mental health services at the time of the survey and reported at least one stressor in daily life, were eligible. The primary outcome measure was self-rated psychological distress as measured by the Kessler Psychological Distress Scale. Multiple logistic regression analyses were carried out separately by age group, adjusting for sociodemographic and job/life-related factors.

Results: The proportion of participants not showing help-seeking behavior was significantly higher among those aged 40–59 years compared to those aged 20–39 (30.5% and 22.7%, respectively; P < 0.001). Participants without help-seeking behavior had significantly higher odds ratios (ORs) for psychological distress, regardless of age group (OR = 1.9 [95% confidence interval (CI), 1.6–2.0] and OR = 1.6 [95% CI, 1.4–1.7] for the age 20–39 years and 40–59 years groups, respectively), compared to those showing help-seeking behavior.

Conclusions: Participants not showing help-seeking behavior were more likely to have severe psychological distress, and this trend appeared to be slightly stronger among those aged 20–39 years. These findings suggest that promoting help-seeking behavior is important for improving mental health among workers.

Key words: help-seeking behavior; mental health; workers; occupational health; representativeness; Japan

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INTRODUCTION

Prevention of severe psychological distress and mental disorders through early intervention and the promotion of help-seeking has been a major public health issue. Previous systematic reviews have suggested that several factors, such as low mental health literacy, financial issues, and stigma and negative attitudes towards people with mental health problems, influence help-seeking behavior (ie, behavior aimed at obtaining assistance from others to improve a situation or problem) for psychological distress or mental health-related problems.

Promoting help-seeking behavior for mental health problems among workers has also been an important occupational health issue worldwide. Previous studies regarding help-seeking behavior for mental health issues among workers have focused on specific industries or occupations, such as military personnel, medical professionals, ambulance personnel, railway workers, police workers, and firefighters, and all have used unrepresentative data. To our knowledge, no previous study has examined associations between help-seeking behavior and mental health issues among workers in various industries/occupations using nationally representative data.

Previous research has shown that the types of or resources for help-seeking behavior for mental health problems vary across age groups. Compared to older persons, young individuals tend to avoid seeking professional help for mental health issues and use more informal sources of help, such as family members, parents, and friends. Thus, it is necessary to examine age-specific associations between help-seeking behavior and mental health issues among workers.

Since 1986, the Japanese Ministry of Health, Labour and Welfare (MHLW) has conducted the Comprehensive Survey of Living Conditions (CSLC), which provides a large database of information on Japanese residents’ basic living conditions, including working conditions, occupation/job-type, mental health status, and help-seeking behavior. The CSLC is a cross-sectional nationwide survey using a representative sample of the Japanese population. It is one of Japan’s designated Fundamental Statistics. Thus, the present study examined the association between the presence/absence of help-seeking behavior and psychological issues among workers.
distress among private and public employees by age group, using a nationally representative sample of the Japanese population from the CSLC. A better understanding of the age-specific associations between help-seeking behavior and psychological distress using nationally representative data may contribute to promoting help-seeking behavior for mental health issues among workers with different ages and demographic/job-related backgrounds.

**METHODS**

**Data source**
The present study analyzed data obtained from the CSLC. The large-scale CSLC has been conducted by the MHLW every 3 years to investigate basic living conditions in order to develop and implement a national policy regarding health, labor, and welfare. The CSLC comprises various questionnaires and is addressed to all members of households selected randomly from national census districts in Japan.

In the present study, we analyzed data from the Household Questionnaire and the Health Questionnaire of the 2016 CSLC, which included 224,208 households with 568,426 individuals (response rate, 77.5%).

The eligibility criteria for the study participants were as follows: (1) Japanese residents aged 20 to 59 years, (2) private or public employees (ie, not a homemaker or student), (3) having reported at least one stressor in daily life, and (4) having received no mental health services for depression or other mental disorders at the time of the survey. In the CSLC Health Questionnaire, participants were asked the question “Do you have any problems or stress in your daily life at present?” Those who answered “yes” were subsequently asked to select all possible causes of their problems/stress from a list of 21 categories, including relationship with family members, love and sex, marriage, divorce, bullying/harassment, and job. Furthermore, they were asked whether they were consulting someone from a list of eight categories (family members, friends/colleagues, supervisors, counseling services in public organizations, counseling services in private organizations, physicians at hospitals/clinics, counseling spaces within the media, and other) regarding their present problems/stressors. Participants who reported not seeking any help were asked to select their reasons from the following three:

- Aged <20 or ≥60; Not workers in the first place; Not private/public employees (n=410,176)
- Did not report any problems/stress in daily life at the time of the survey (n=77,894)
- Using mental health services for depression/other mental disorders (n=2,072)

**Figure 1. Participant selection**

| Participants (n=568,426) |
|--------------------------|
| Eligible participants (n=78,284) |
| Participants included in analysis (n=70,927) |
| Missing data on demographic or job/life-related variables (n=7,357) |
options: (1) “I want to consult, but I have not done so yet,” (2) “I want to consult, but I do not know where to consult,” and (3) “I do not need to consult anyone.” Participants were asked to select all that applied from among the 11 categories.

As potential confounders, other demographic (sex, age [20–39 or 40–59 years], marital status [married, never married, and widowed/divorced]), job-related (working hours per week [≤39 h, 40–49 h, 50–59 h, and ≥60 h], job type, type of employment contract [standard (full-time) or non-standard (including part-time)], and presence/absence of job-related stress), and life-related variables (presence/absence of stress other than job, presence/absence of habitual heavy drinking [either <300 or ≥300 g ethanol/week] and smoking [current smoker or never/past smoker], and hours of sleep over the past month [<5 h, 5–7 h, and ≥7 h]) were also measured. Based on the Japanese Standard Occupational Classification established by the Japanese Ministry of Internal Affairs and Communications, job type was categorized into the following seven subtypes: managerial, professional/technical, clerical, sales/service, manufacturing, transport/construction, and other workers.

The primary outcome measure for the present study was self-reported psychological distress. Non-specific psychological distress during the last 30 days was measured with the Kessler Psychological Distress Scale (K6). The K6 consists of six items that assess psychological distress over the previous 30 days (ie, “How often did you feel nervous?,” “How often did you feel hopeless,” “How often did you feel restless or fidgety,” “How often did you feel so depressed that nothing could cheer you up?,” “How often did you feel that everything was an effort,” and “How often did you feel worthless?”). Respondents rate each item on a five-point scale (0 = none of the time, 1 = a little of the time, 2 = some of the time, 3 = most of the time, 4 = all of the time). Total scores thus range from 0 to 24, with higher scores indicating higher psychological distress. Following previous studies, we defined a K6 score of ≥13 as indicating severe psychological distress. In the present study, we used the Japanese version of the K6, which has high internal consistency and reliability.

Statistical analysis
First, for each variable, cross-tabulation was conducted by age group. To examine whether the frequency distribution of the variables, including help-seeking, differed by age group, we performed chi-square and Fisher’s exact tests. To examine whether the frequency distribution of the type of help-seeking differed by the presence/absence of psychological distress and age group, we performed Fisher’s exact tests.

To examine the association between the presence/absence of help-seeking behavior and psychological distress, logistic regression analyses were carried out with the presence/absence of severe psychological distress as the dependent variable. In the logistic regression models, we adjusted for demographic factors (ie, sex and marital status), job-related factors (ie, working hours per week, job type, employment contract, and job-related stress), and life-related factors (ie, non-job-related stress, sleep hours, and smoking). The presence/absence of job/non-job-related stress was assessed using a list of 21 categories of stressors, and stressors other than those related to a job were recategorized as “non-job-related stress.” To examine whether the association between the presence/absence of help-seeking behavior and psychological distress differed by age group, logistic regression analyses were carried out by age group.

RESULTS
Of the 78,284 eligible participants, 7,357 had missing data on demographic and job/life-related variables. These participants’ data were removed from the study. Thus, data from 70,927 participants (33,714 females and 37,213 males; mean age, 41.6 [standard deviation, 10.5] years) were included in the analysis (Figure 1).

Table 1 shows the distribution of demographic and job/life-related data, including help-seeking behavior, by age group. Except for smoking status, there were significant differences in the distribution of each variable by age group. The proportion of participants with severe psychological distress was significantly higher among those aged 20–39 years compared to those aged 40–59 years (9.0% and 6.0%, respectively; P < 0.001).

Table 2 shows the association between the type of help-seeking and the presence/absence of psychological distress by age group. The proportion of participants without help-seeking behavior was significantly higher among those aged 40–59 compared to those aged 20–39 (30.5% and 22.7%, respectively; P < 0.001). Regardless of age group, the proportion of participants without help-seeking behavior was significantly higher among those with severe psychological distress than those without (33.9% vs 21.6% and 40.1% vs 29.9% for ages 20–39 and 40–59, respectively; both P < 0.001). In both age groups, family members, friends, and supervisors in the workplace were the most frequently reported sources of help sought by respondents.

Table 3 shows the results of logistic regression analyses using presence/absence of psychological distress as the dependent variable by age group. After adjusting for sociodemographic and job/life-related variables, participants without help-seeking behavior had significantly higher odds ratios (ORs) for psychological distress, regardless of age group (OR 1.86; 95% confidence interval [CI], 1.6–2.0 and OR 1.56; 95% CI, 1.4–1.7 for ages 20–39 and 40–59, respectively), compared with those reporting help-seeking behavior. For both age groups, the OR for psychological distress was significantly higher for those with non-job-related stress (ie, stress due to factors other than job-related factors) and those sleeping less than 5 h per day.

DISCUSSION
In the present study, we examined the association between the presence/absence of help-seeking behavior and psychological distress by age group in a nationally representative sample of Japanese workers. The proportion of participants without help-seeking behavior was significantly higher among older participants compared to younger participants. Participants without help-seeking behavior tended to have severe psychological distress regardless of age group, and this trend appeared to be slightly stronger among those aged 20–39 years.

Among the 2016 CSLC participants not using any mental health services for depression or other mental disorders, 9% and 6% of those aged 20–39 and 40–59 years, respectively, reported...
severe psychological distress. Previous studies in Japan reported that approximately 4% of the general public aged 18 or older had severe psychological distress defined by a K6 score of $\geq 13$ in 2007, 2010, 2013, and 2016. These differences in the proportions of those with severe psychological distress might be partially due to the fact that the sample in the present study consisted only of private/public employees with problems in their daily lives who did not use mental health services.

The proportion of participants with severe psychological distress was significantly higher among young people. These trends have gained strength in recent years in economically developed countries, including Japan. Furthermore, the results of the present study might be consistent with the suicide statistics from the National Police Agency of Japan showing that the proportion of suicides due to work-related issues appeared to be higher among those aged 20–29 years than among older people.

Table 1. Frequency distribution of variables by age group

|                      | 20–39 years (n = 29,258) | 40–59 years (n = 41,669) | Chi-square test/Fisher’s exact test | Effect size |
|----------------------|--------------------------|--------------------------|------------------------------------|-------------|
|                       | n (%)                    | n (%)                    |                                    |             |
| Sex                  |                          |                          | $P < 0.001$                         | 0.02        |
| Male                 | 14,961 (51.1)            | 22,252 (53.4)            |                                    |             |
| Female               | 14,297 (48.9)            | 19,417 (46.6)            |                                    |             |
| Marital status       |                          |                          | $P < 0.001$                         | 0.39        |
| Married              | 12,794 (43.7)            | 30,277 (72.7)            |                                    |             |
| Never married        | 15,230 (52.1)            | 6,608 (15.9)             |                                    |             |
| Widowed/divorced     | 1,234 (4.2)              | 4,784 (11.5)             |                                    |             |
| Working hours per week |                         |                          | $P < 0.001$                         | 0.02        |
| $\leq 59$ h          | 5,675 (19.4)             | 8,680 (20.8)             |                                    |             |
| 40–49 h              | 14,240 (48.7)            | 20,316 (48.8)            |                                    |             |
| 50–59 h              | 5,488 (18.8)             | 7,639 (18.3)             |                                    |             |
| $\geq 60$ h          | 3,855 (13.2)             | 5,034 (12.1)             |                                    |             |
| Job type             |                          |                          | $P < 0.001$                         | 0.15        |
| Managerial workers   | 607 (2.1)                | 3,478 (8.3)              |                                    |             |
| Professional/technical workers | 9,489 (32.4) | 11,874 (28.5)            |                                    |             |
| Clerical workers     | 5,321 (18.2)             | 7,822 (18.8)             |                                    |             |
| Sales/service workers | 7,433 (25.4)            | 8,714 (20.9)             |                                    |             |
| Manufacturing workers | 3,180 (10.9)            | 4,278 (10.3)             |                                    |             |
| Transport/construction workers | 1,249 (4.3) | 2,418 (5.8)              |                                    |             |
| Other workers        | 1,979 (6.8)              | 3,085 (7.4)              |                                    |             |
| Employment contract  |                          |                          |                                    | 0.01        |
| Standard             | 22,403 (76.6)            | 31,393 (75.3)            |                                    |             |
| Non-standard         | 6,855 (23.4)             | 10,276 (24.7)            |                                    |             |
| Job-related stress   |                          |                          | $P < 0.001$                         | 0.07        |
| Present              | 19,653 (67.2)            | 25,165 (60.4)            |                                    |             |
| Absent               | 9,605 (32.8)             | 16,504 (39.6)            |                                    |             |
| Other stress         |                          |                          | $P < 0.001$                         | 0.06        |
| Present              | 21,889 (74.8)            | 33,134 (79.5)            |                                    |             |
| Absent               | 7,369 (25.2)             | 8,535 (20.5)             |                                    |             |
| Sleep hours          |                          |                          | $P < 0.001$                         | 0.10        |
| $\leq 5$ h           | 2,618 (8.9)              | 5,463 (13.1)             |                                    |             |
| 5–7 h                | 20,942 (71.2)            | 30,406 (73.0)            |                                    |             |
| $\geq 7$ h           | 5,798 (19.8)             | 5,800 (13.9)             |                                    |             |
| Heavy drinking       |                          |                          | $P < 0.001$                         | 0.10        |
| Present              | 1,987 (6.8)              | 5,370 (12.9)             |                                    |             |
| Absent               | 27,271 (93.2)            | 36,299 (87.1)            |                                    |             |
| Smoking status       |                          |                          | $P = 0.90$                          | 0.00        |
| Current smoker       | 7,706 (26.3)             | 10,956 (26.3)            |                                    |             |
| Never/past smoker    | 21,552 (73.7)            | 30,713 (73.7)            |                                    |             |
| Help-seeking         |                          |                          | $P < 0.001$                         | 0.09        |
| Present              | 22,616 (77.3)            | 28,947 (69.5)            |                                    |             |
| Absent               | 6,642 (22.7)             | 12,722 (30.5)            |                                    |             |
| K6 score             |                          |                          | $P < 0.001$                         | 0.06        |
| $\geq 13$            | 2,619 (9.0)              | 2,519 (6.0)              |                                    |             |
| $< 13$               | 26,639 (91.0)            | 39,150 (94.0)            |                                    |             |

K6, Kessler Psychological Distress Scale.
Table 2. Help-seeking and Kessler Psychological Distress Scale (K6) score by age group

| Age group | Total K6 | ≥13 | <13 | Fisher's exact test (total vs total) |
|-----------|----------|-----|-----|-------------------------------------|
| 20–39 years | 22,616 (77.3) | 1,732 (66.1) | 20,884 (78.4) | <0.001 0.09 |
| 40–59 years | 28,947 (69.5) | 1,508 (59.9) | 27,439 (70.1) | <0.001 0.05 |

Any help-seeking behavior

- Family members: 16,127 (55.1) vs 14,974 (56.2), P < 0.001, 0.07
- Supervisors: 5,072 (17.3) vs 4,692 (17.6), P < 0.001, 0.06
- Counseling services in public organizations: 272 (0.9) vs 222 (0.8), P < 0.001, 0.03
- Physicians at a hospital clinic: 746 (2.5) vs 645 (2.4), P < 0.001, 0.02
- Other: 5,872 (17.1) vs 5,403 (17.6), P < 0.001, 0.01

No help-seeking behavior

- I want to consult, but I have not done so yet: 121 (4.1) vs 97 (3.5), P < 0.001, 0.02
- I do not need to consult anyone: 4,785 (15.0) vs 4,349 (16.6), P = 0.008, 0.01

For instance, intention to seek help may be partially affected by the mental health status of participants, and vice versa. Second, psychological distress, the dependent variable, was assessed by self-ratings rather than using structured interviews with mental health professionals. However, the K6 has been validated in studies using a diagnostic structured interview method. Third, there was no information concerning the industries (ie, job areas) of the CSLC participants. However, the CSLC included questions regarding participants’ occupation/job-type, and this factor was adjusted for as a potential confounder in the analyses in the present study. Finally, caution should be exercised when generalizing the present findings to populations with different backgrounds, as the sample in the present study was restricted to private and public employees in Japan in 2016.

Conclusions

The proportion of participants without help-seeking behavior was significantly higher among older participants compared to younger participants. After adjusting for sociodemographic and job/life-related variables, participants without help-seeking behavior were more likely to have severe psychological distress regardless of age group. This trend appeared to be slightly stronger among those aged 20–39 years. The findings of this study using a nationally representative sample of the Japanese population suggest that, regardless of age, promoting help-seeking behavior is important for improving mental health among workers.

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Conflicts of interest: None declared.
### Table 3. Logistic regression analyses with Kessler Psychological Distress Scale (K6) score as dependent variable by age group

| Age group   | 20–39 years (n = 29,258) | 40–59 years (n = 41,669) |
|-------------|--------------------------|--------------------------|
|             | Univariate                | Multivariate             | Univariate | Multivariate |
|             | Odds ratio (95% CI)       | Odds ratio (95% CI)       | Odds ratio (95% CI) | Odds ratio (95% CI) |
| Sex         |                          |                          |            |              |
| Male        | 1.00 (0.9–1.1)           | 0.95 (0.8–1.0)           | 0.89 (0.8–1.0) | 0.89 (0.8–1.0) |
| Female      | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Marital status |                        |                          |            |              |
| Married     | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Never married | 1.60 (1.4–1.7)       | 1.57 (1.4–1.7)           | 1.49 (1.3–1.6) | 1.32 (1.1–1.5) |
| Widowed/divorced | 1.54 (1.2–1.9)   | 1.33 (1.0–1.6)           | 1.56 (1.3–1.8) | 1.32 (1.1–1.5) |
| Working hours per week |                   |                          |            |              |
| ≤59 h       | (ref)                    | (ref)                    | (ref)      | (ref)        |
| 40–49 h     | 0.85 (0.7–0.9)           | 0.87 (0.7–1.0)           | 0.88 (0.7–1.0) | 0.90 (0.7–1.0) |
| ≥60 h       | 1.07 (0.9–1.2)           | 1.08 (0.9–1.3)           | 1.10 (0.9–1.3) | 1.09 (0.9–1.3) |
| Job type    |                          |                          |            |              |
| Managerial workers | 0.87 (0.6–1.2)       | 0.94 (0.6–1.3)           | 0.69 (0.5–0.8) | 0.76 (0.6–0.9) |
| Professional/technical workers | 0.96 (0.8–1.1) | 0.97 (0.8–1.1)           | 0.84 (0.7–0.9) | 0.86 (0.7–1.0) |
| Clerical workers | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Sales/service workers | 1.19 (1.0–1.4)       | 1.10 (0.9–1.2)           | 1.03 (0.9–1.2) | 0.98 (0.8–1.1) |
| Manufacturing workers | 1.25 (1.0–1.5)        | 1.20 (1.0–1.4)           | 1.05 (0.9–1.2) | 1.02 (0.8–1.2) |
| Transport/construction workers | 0.90 (0.7–1.1) | 0.90 (0.7–1.1)           | 0.87 (0.7–1.1) | 0.83 (0.6–1.0) |
| Other workers | 1.17 (0.9–1.4)        | 1.08 (0.8–1.3)           | 1.13 (0.9–1.3) | 1.08 (0.9–1.3) |
| Employment contract |                  |                          |            |              |
| Standard    | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Non-standard | 1.35 (1.2–1.5)         | 1.22 (1.0–1.4)           | 1.26 (1.1–1.4) | 1.15 (1.0–1.3) |
| Job-related stress |                  |                          |            |              |
| Present     | 1.56 (1.4–1.7)           | 2.21 (2.0–2.4)           | 1.61 (1.4–1.8) | 2.13 (1.9–2.3) |
| Absent      | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Other stress |                          |                          |            |              |
| Present     | 2.35 (2.0–2.6)           | 2.99 (2.6–3.4)           | 2.10 (1.8–2.4) | 2.62 (2.2–3.0) |
| Absent      | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Sleep hours |                          |                          |            |              |
| <5 h        | 2.74 (2.3–3.2)           | 2.41 (2.0–2.8)           | 3.34 (2.8–3.9) | 2.99 (2.5–3.5) |
| ≥7 h        | 1.27 (1.1–1.4)           | 1.24 (1.1–1.4)           | 1.21 (1.0–1.4) | 1.17 (1.0–1.3) |
|Heavy drinking |                        |                          |            |              |
| Present     | 1.11 (0.9–1.3)           | 1.25 (1.0–1.5)           | 1.25 (1.1–1.4) | 1.38 (1.2–1.6) |
| Absent      | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Smoking status |                        |                          |            |              |
| Current smoker | 1.09 (0.9–1.2)        | 1.06 (0.9–1.2)           | 1.15 (1.0–1.3) | 1.11 (1.0–1.2) |
| Never/past smoker | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Help-seeking |                          |                          |            |              |
| Present     | (ref)                    | (ref)                    | (ref)      | (ref)        |
| Absent      | 1.86 (1.7–2.0)           | 1.86 (1.6–2.0)           | 1.57 (1.4–1.7) | 1.56 (1.4–1.7) |

CI, confidence interval.

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