[Short Report]

Differences in Mental Health Consultation between Male and Female Workers in the Health Care Center of a Private Enterprise

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Abstract: This study attempted to clarify gender differences associated with mental health consultations at a health care center(X center) that services 40,638(34,491 men and 6,147 women)workers and is operated by a Japanese company. Data from 940 subjects(790 men and 150 women)undergoing first-time consultation at the X center between April 1996 and March 2001 were collected from the database. After matching age(within 3 years) and occupation between the male and female groups by pairing, 58 men and 58 women were compared. There was no difference in work inefficiency and diagnosis between the two groups, but the referral route of the first consultation differed significantly: males were more frequently self-referred. Fewer female than male patients were found to have work-related complaints. With regard to these work-related complaints, inadequate relationships, and especially conflicts with superiors, were found to be the most frequent cause among patients of both genders, although differences in the content of these complaints did exist.

Key words: gender, gender difference, stress, employee, mental health.

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Introduction

With the number of female workers steadily increasing in Japan, it is of growing importance to determine the significant features of these workers' mental health. Martocchio and O'Leary[1], who undertook a meta-analysis, found no sex differences with regard to experiences and perceived work stress. However, the results of more recent studies[2–4] have been as contradictory as those performed in the 1980s. Due to the limited amount of evidence regarding this issue in Japan[5,6], more statistical studies focusing on the mental health of Japanese female workers are needed to establish effective strategies for treating these individuals' mental health problems.

In the present study, we investigated the gender differences of consultation in order to re-

veal as many gender factors as possible while excluding the factors of age and job type[7], which may influence referrals and the motives for the consultations. As far as we know, there have been no previous investigations of this kind regarding Japanese workers. The purpose of this study was to contribute to the accumulation of findings regarding Japanese workers' gender differences as related to mental health.

Materials and Methods

The base of this investigation was the occupational health center of a Japanese company that employs 40,638 workers (34,491 men and 6,147 women) and offers various industrial hygiene services. Table 1 lists the job types of all workers and patients, and the numbers of employees in each.

The center is also a medical (psychiatric) facility. During the study period from April 1996 until March 2001, 940 patients (790 men and 150 women) consulted the center for the first time regarding their mental health. At the first consultation, an interviewer, a doctor or a psychologist, noted the age, sex and job type of the patient as well as the referral route for the consultation. In addition, the interviewer assessed the main workplace factor (work-related complaint), the common (idiomatic) psychiatric diagnosis, and whether work inefficiency was present.

Statistical Analysis

Using the data entered by staff members who conducted the interviews, we assessed the gender differences related to the patients' mental health consultations. Age strata (3 years

Table 1. Job types of all workers, patients and matching groups

	Engineer	Clerical	Quality control	Production control	Manufacture	Others	Total (%)
All workers	8979(22)	3509(9)	2893(7)	1522(4)	12364(30)	11371(28)	40638(100)
Male patients	322(41)	57(7)	60(8)	44(6)	156(20)	138(18)	777(100)
Female patients	9(6)	37(26)	11(8)	1(1)	13(9)	70(50)	141(100)
Matching groups	6(10)	23(40)	11(19)	1(2)	13(22)	4(7)	58(100)

Missing values: male 13, female 9

interval) and occupation were used as matching variables. Selection of the patients was randomized to eliminate bias. In this study, female patients were matched with male patients, and the female patients who could not be matched were excluded. We then compared the male group with the female group with regard to work-related complaints, psychiatric diagnosis, referral route of the first consultation and the nature of the work inefficiency.

We used a nonparametric test in this study. A P value of < 0.05 was considered to be statistically significant. All statistical analyses were performed by using SPSS for Windows, Version 8.0.

Results

Fig. 1 and 2 show the respective age distributions of the male and female workers at the company. The ages of all patients ranged from 15 to 65 years old, with the average age (standard deviation) being 34.9(10.3). The male patients' average age was 36.0(10.2). The female patients' average age was 30.4(10.9). Table 1 lists the job types of the patients.

Matching groups consisted of 58 patients. Their mean age was 28.7(8.0). Psychiatric diagnoses were obtained as listed in Table 2. The distribution of diagnoses in the matching group is similar to that for all patients. There were no significant gender differences in the psychiatric diagnosis (test of marginal probabilities, two-tailed, $P = 0.12$).

Fig. 1. Proportion of age of all male workers. $N=34,491$

▨ : 16-19, ▩ : 20-29, ■ : 30-39,
▧ : 40-49, □ : 50-59, □ : 60-69(yrs).

There were 38 male patients and 34 female patients who had work inefficiency at the first consultation (McNemar test, two-tailed, not significant: NS). The referral route for the first consultation to the X center differed significantly (test of the marginal probabilities, two-tailed, $P < 0.01$). In females, the proportion of "By an X center staff member" was large, while the proportion of "Personal decision" was small (Table 3). Forty-four male patients

Fig. 2. Proportion of age of all female workers. N=6,147

□ : 16-19 , ▣ : 20-29 , ■ : 30-39 ,
 ▨ : 40-49 , ▩ : 50-59 , □ : 60-69(yrs).

Table 2. Psychiatric diagnoses of all patients and matching groups

	Neurosis	Psychosomatic diseases	Adjustment disorders	Mood disorders	Personality disorders	Schizophrenia	Other psychiatric symptoms	Alcohol dependence	Other problems	Total (%)
All patients										
Male	132(17)	67(9)	222(28)	175(22)	5(1)	30(4)	80(10)	7(1)	61(8)	779(100)
Female	34(23)	17(11)	36(24)	21(14)	3(2)	4(3)	20(13)	0(0)	15(10)	150(100)
Matching groups										
Male	7(12)	10(18)	15(26)	5(9)	1(2)	2(4)	7(12)	0(0)	10(18)	57(100)
Female	13(22)	7(12)	15(26)	7(12)	2(3)	2(3)	7(12)	0(0)	5(9)	58(100)

Missing values: male 6, female 0, All patients: X^2 test, not significant(NS), Matching groups: test of the marginal probabilities, NS

Proportion of psychiatric diagnoses of matching groups is similar to that of all patients.

and 30 female patients had work-related complaints (McNemar test, two-tailed, $P = 0.06$, sample power: 77%).

“Inadequate relationships” was by far the most frequent work-related inducement to consultation for both groups, accounting for 25 of 36 female patients with primarily work-related complaints (Fig. 3). There was a gender difference in the types of workers with whom the patients had “Inadequate relationships” (Table 4). Conflicts with superiors were the most

Table 3. Referral route for first consultation

	Male	Female	Total (%)
Personal decision	24 (42.1)	16 (27.6)	40 (34.8)
By his/her superior	18 (31.6)	8 (13.8)	26 (22.6)
By a doctor of another hospital	1 (1.7)	5 (8.6)	6 (5.2)
By a personnel staff	2 (3.5)	2 (3.4)	4 (3.5)
By a X center staff member	12 (21.1)	27 (46.6)	39 (33.9)
Total	57 (100.0)	58 (100.0)	115 (100.0)

Missing value: 1 patient, Test of marginal probabilities, $P < 0.01$

Fig. 3. Work-related complaints.
□ : male, ■ : female.

Table 4. Workers with whom the patients had “Inadequate relationships”

	Male (%)	Female (%)
Superior	11 (78.6)	17 (58.6)
Colleague	1 (7.1)	5 (17.2)
Senior	0 (0.0)	4 (13.8)
Unknown	2 (14.3)	3 (10.4)
Total	14 (100.0)	29 (100.0)

frequent complaint regarding “Inadequate relationships”, accounting for 78.6% (11 of 14) of male patients and 58.6% (17 of 29) of females. Although the rate of conflicts with superiors showed no significant gender difference among the patients who complained of “Inadequate relationships”, the content of those conflicts differed between genders. The difference could be summarized as follows: Male patients were primarily annoyed with their superiors’ lack of leadership or their guiding principals. In contrast, female patients were annoyed with the work habits, habits of sexual harassment, or personalities of their superiors.

Discussion

This study ended up focusing on the gender difference of younger patients, as the mean age of the patients of this investigation is younger than that of all patients that consulted X center during the period of study.

When a health care staff member listens to the complaints of a female patient, the staff member should be especially attentive not only to the human relationships described, but to other factors beyond the workplace that affect the individual’s mental health. In the present study, fewer female than male patients were found to have work-related complaints. Our previous study [8] revealed that many young female office patients also consulted X center regarding factors outside the workplace. In addition, we have to attend to the relationship between the patients and their superiors, because conflicts with superiors were found to be the most frequent work-related complaint in this study. We found in a previous study [8] that inadequate relationships are the most frequent motivation for consultations regarding the workplace. Staff members of mental health clinics must listen carefully to such complaints, especially those of female patients.

Many female patients consulted X center for health check-ups, at which times the female patients sought appropriate mental health consultations. We speculate that female patients tend not to consult the X center from a personal decision because of their misconceptions re-

garding mental health consultations. It may therefore be necessary to send information to female employees to correct these misconceptions.

Finally, because of deficits in sample size in the present study, we detected gender differences with only 77% power at the 5% level of significance using the McNemar test. It also cannot be denied that the means of matching variables influenced our findings by chance. In addition, our findings do not take into consideration other effects on mental health such as the proportion of patients who were married, had children, or were caring for parents. Future investigations that will focus upon multiple appropriate factors are therefore essential.

In conclusion, utilizing the opportunity of a health check-up may be the key to timely mental health consultations for female workers. For health care staff members, it may also be important to be attentive not only to the human relationships described, but to other factors beyond the workplace that affect an individual's mental health.

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某企業内健康管理センターへの精神健康相談に関する性差

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要 旨: 本研究の目的は40,638人(男性34,491人,女性6,147人)を管轄する国内の某企業内の健康管理センター(Xセンター)へ精神健康相談に訪れた労働者について,相談に関する性差を明らかにすることである。1996年から2001年までに940人(男性790人,女性150人)の労働者がXセンターへ初めて精神健康相談に訪れた。初回相談時に入力されたデータベースを用いて,年齢(3歳以内)と職種をペアリングにてマッチングし,男女それぞれ58人を比較検討した。その結果,職務遂行障害には性差がなかったが,相談経路で性差が認められた。また,女性労働者は男性労働者よりも職務に関連した訴えをする者が少ない傾向があった。職務に関連した訴えでは,人間関係,特に上司との人間関係の訴えが両性とも多く,その内容には性差があった。

キーワード: 性差, ストレス, 労働者, 精神健康。

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