

[Original Paper]

Subjective symptom of fatigue of mothers having jobs

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Abstract

We studied the relationship between the fatigue of mothers having jobs and their daily life in order to find the way to help their health care. One hundred twenty-one mothers whose children went to nurseries were the subjects of our study on fatigue. We used questionnaires with 30 items for fatigue and with 18 items for dietary habits and health promotion. Mothers with a low consciousness of dietary habits tended to have a sense of physical incongruity. Mothers with a low consciousness of exercise for health tended to have difficulty with concentrating. We conclude that nurses need to tell mothers having jobs the way to improve their life as to the degree of their fatigue and get them to change their dairy life. It is also recommended for nurses to take the opportunity of meeting working mothers, for example at the medical checkup for children.

Key words : symptom of fatigue, health care, questionnaires, nurses, working mothers, nursery

Introduction

The number of women holding jobs in Japan has increased recently, with more than 50% of women working and the rate still increasing. According to the White Paper of the Ministry of Welfare, 1998, the rate of women having jobs shows a trough around the age of 30 years old when they tend to leave their jobs to give birth and to foster children. They usually start to work after graduation from college and again hold jobs at around the age of 40 when their children have grown up.

This M-shaped curve for working women indicates that it is extremely difficult for mothers to hold jobs when they have to take care of their homes and children. Thus, when mothers work outside of the home, they are under a heavy burden. Accordingly, working mothers often express various types of fatigue, more than average housewives do (Tanahashi, 1983). In addition to being overworked outside and in the home, there are problems such as the difficulty of placing their children in nurseries due to the shortage of nurseries. Problems also arise when their children become ill or when they are involved in various events at the nursery and elementary schools.

Yanagibori (1999) pointed out that the social support system is of crucial importance for reducing the burden of working mothers. Maehashi (1999) conducted a survey on the fatigue of working mothers and suggested that they maintain a regular rhythm in their daily lives. In other words, for improving the health of working mothers we should not only consider their dual roles, i. e. working outside and in the home, but also their family lives. However, very few studies have been done on how to promote better health conditions of working mothers.

The present study thus was done to understand better the actual situations of working mothers and relationship between their perception of fatigue and their daily activities. The results should contribute to a basic understanding of how working mothers can take care of themselves to improve health and to establish appropriate measures for reducing fatigue.

Methods

One hundred twenty-one mothers in Osaka Prefecture were the subjects of the present study. Their average age was 33.1 ± 5.0 and their children went to nurseries. They were asked to respond to the survey at home and submit it to the nursery.

We used a questionnaire consisting of 30 items prepared by [Japanese Fatigue Feeling Scale] (1970). Ten items each formed a group, i. e. (I) feel sleepy and languid, (II) difficulty in concentrating, (III) a sense of physical incongruity. Among the three groups, group (I) represents the main form of fatigue and indicates chronic fatigue, unlike groups (II) and (III) which are alleviated by rest.

The consciousness of dietary habits and health promotion exercise of the subjects was also surveyed using a questionnaire on health and adult diseases, consisting of 18 items. The subjects were divided into two groups, (1) high (H) and low (L) consciousness depending on their response.

Statistical analyses were done to judge the significance of the results.

Results

Table 1 summarizes the relationship between the three fatigue groups versus the H and L consciousness of dietary life groups. There was no significant difference between H and L for groups I and II, but the difference between H and L was significant for group III which represents a sense of physical incongruity. The score of 7.3 for the L group implied that they tended to feel this type of fatigue.

Table 2 presents the relationship between the three fatigue groups versus H and L consciousness of exercise. The difference was not significant between H and L for groups I and III, but was for group II. This implies that the subjects in group L tend to have difficulty in concentrating.

Thus, a close relationship for the type of fatigue, for groups II and III, but not for group I was found between the H and L consciousness of dietary life and exercise.

Discussion

1. Subjects with a low consciousness of dietary habits tended to have a sense of physical incongruity

People who have a low consciousness of their dietary habits generally display irregular eating habits. Ikeda (2001) reported that people with unfavorable eating habits tended to display a high sense of fatigue. Koike (1984) pointed out that the sound eating habits included not only the food itself but also the balance of its quantity and sense of taste. Carbohydrates are needed for energy and vitamins to activate the metabolism when fatigue is felt. Nutrition imbalance can delay recovery from fatigue. If there is a lack of appetite, hunger can act as a stimulus to the nerve

Table 1 Relationship between the subjects H and L for dietary habits versus fatigue groups I-III

	Group I	Group II	Group III
H (n=12)	13.3	13.0	11.9
L (n=18)	11.1	10.2	7.3*

* $p < .05$

Table 2 Relationship between the subjects H and L for health promotion exercise versus fatigue groups I-III

	Group I	Group II	Group III
H (n=37)	13.6	12.6	9.8
L (n=28)	11.2	9.1*	8.2

* $p < .05$

system, resulting in inhibition of brain activity and a decrease in activity. Therefore, sound eating habits are indispensable for the recovery from not only physical but also mental fatigue. The results of the present study coincided with these reports.

The question then arises of how dietary life is related with group III fatigue. This seems to be connected with discord in the autonomous nerve system, such as stiff neck and shoulders or dizziness. The autonomous nervous system consists of two counteracting nervous systems: sympathetic and parasympathetic.

The latter regulates the absorption and digestion of food, contributing to the recovery from fatigue. The former regulates the supply of energy necessary for vital activities. Therefore, the autonomous nervous system as a whole plays a crucial role in dietary life.

Ikeda et al. (2001) compared the self-consciousness of fatigue before and after young, healthy men and women had received instructions on their dietary lives and found that they showed much less fatigue than those who had not received such instruction. Therefore, dietary instruction may be effective for promoting recovery from fatigue.

However, dietary instruction may not be effective in the case of mothers who have a low consciousness of their dietary life are busy with their works. They also may have difficulty realizing what they have been instructed. They probably need education on dietary life with the presentation of the results such as the relationship between dietary life and fatigue, as shown in the present study. For a better dietary life to prevent fatigue, we recommend:

- (1) Regular daily eating habits
- (2) Eating food with good nutritional balance
- (3) Eating food with low salt content
- (4) Not eating between meals

Considering these factors, appropriate instructions are needed for working mothers. If their consciousness is low, complicated instructions may not be useful but simple ones such as "eating regularly" or "eating vegetables" may be effective.

2. People who have a low consciousness of exercise for health tended to have difficulty concentrating.

People with consciousness about exercising for health are those concerned with maintaining and improving their health. Our results indicate that those who have a low consciousness of the need for exercise suffered from difficulty in concentrating.

According to Kogi (1983), the order of the subjective symptoms for these three groups was (I) > (III) > (II) for ordinary workers. On the other hand, those with jobs requiring a high level of concentration, such as programmers and taxi-drivers showed the order (I) > (II) > (III). A small group of workers who did manual labor showed the order (III) > (I) > (II). Among general workers, the highest frequency was found for group (I) which was caused by overall physical fatigue and therefore required complete physical and mental rest to alleviate the fatigue. Group (II) represents the mental fatigue, i. e. the condition in which the central nerve system does not well function in processing information and making judgments. This group displays spiritless and unfit symptoms. Group (III) means the physical fatigue and discordance of the autonomous nerve system and physical disorder which also requests a rest.

As mentioned above, people in group II displayed a mental fatigue which was chronic. The health promotion activity arises when an individual notices that unhealthy conditions are caused by unbalanced habits. People realize the need for health promotion activities when they suffer from a disease. They should be made to realize this sooner. The present study indicates that those in group L did not realize this. Appropriate suggestions or instructions should be offered.

In the present survey, three factors were related with interest in health care (1) sleep and rest, (2) physical exercises, and (3) coping with stress. Tanahashi (1983) studied the fatigue expressed by working women and

reported that fatigue increased with less than 8 hours of sleep per day. Ikeda et al. (2001) studied female students and reported that the consciousness of fatigue was lower for those who did physical exercises, as compared with those who did not. Maehashi (1999) reported that working mothers who did something other than work for a change showed a lower feeling of fatigue than those who did not. The results of the present study support these reports. Based on these findings, we propose the following four suggestions for working mothers :

- (1) sleeping for 7–8 hours every day
- (2) getting suitable rest
- (3) doing appropriate physical exercises
- (4) using methods to eliminate stress

Like as above four suggestions, appropriate suggestions should be given to working mothers from the nurses, in order them to notice the importance of keeping mental and physical health.

3. Support needed for working mothers

Healthy mothers have seldom opportunities to meet nurses except when they go to hospital for their children. However, there are only few nurseries which employ nurses. Mothers also rather often visit municipal health centers, such as pediatrics hospitals, for polio vaccine or BCG inoculation of their children. This would be a good opportunity for nurses to give them suggestions, but these places are principally for their children.

The present study has shown a close relationship between the consciousness of fatigue of working mothers and their daily lives. Those who had unfavorable dietary habits displayed a sense of physical incongruity, and those who had little consciousness in health promotion activities complained of fatigue appearing as low concentration ability. Thus, working mothers need appropriate instructions on dietary habits and health exercises and nurse should offer them suggestions.

Further work is needed on the relationship between the fatigue consciousness of working mothers and their social environment. This environment would include the number and age of their children, the presence or absence of partners (husbands) and helpers in household and child-raising. Another area that needs study is the personal data of the working mothers. This includes age, kind of jobs, work conditions, and their consciousness about the work and personal life. We hope to examine these areas in future work.

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References

- Ikeda, J. et al. : A system of health education using dietary assessment. *Jpn. J. Public Health* 48 (1) : 28–36, 2001
- Kogi, K. : *People of today and fatigue*. Kinokuniya Syoten inc., pp. 93–262, 1983
- Koike, G. : *Life science library. A study of food and health*. Daishusha-shoten inc., pp. 23–53, 1984
- Maehashi, A. et al. : Studies on the health management of child-bearing mothers (I) : The life conditions of mothers as reflected in the changes in fatigue scores throughout the day. *J. Child Health* 58 (1) : 30–36, 1999
- Tanahashi, M. : Studies on the complaints of work women bringing up their infants (Part1) : The relation of the grade of fatigue complaints to patterns for living. *J. Home Economics Jpn.* 34 (5) : 276–284, 1983
- Tanahashi, M. : Studies on the complaints of work women bringing up their infants (Part2) : The factor having influence on the working mother's fatigue complaints. *J. Home Economics Jpn.* 35 (4) : 276–284, 1984
- Yanagibori, R. : Health care of working mother. *Parental Care* 18 (9) : 15–21, 1999

〔原 著〕

仕事を持つ母親の疲労自覚症状の基礎的研究

—— 食生活と健康への関心を中心に ——

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【要 旨】 仕事を持つ母親の疲労と生活習慣の関連性を明らかにし、母親の自己管理のあり方を検討する目的で、保育園児を持つ母親 131 名を対象にアンケート調査を行った。調査票には、日本産業衛生学会の「疲労自覚症状しらべ」と「健康生活習慣質問紙」を用いた。その結果以下のことがわかった。(1) 食生活の好ましくない人が、身体的違和感を抱きやすい傾向がある、(2) 健康習慣の好ましくない人が、注意集中が困難になりやすい傾向がある。このことから看護職は、健診など母親と接する機会を活用して、母親の疲労の特徴と日常生活習慣改善などの情報提供を積極的に行う必要があると考えられる。

キーワード：疲労自覚症状，自己管理，働く母親，看護，保育所

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