A Study on Impact of Socio-psychological Factors of Physiotherapists on Musculoskeletal Symptoms

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Introduction
Physiotherapists treat patients with physical force and contact to improve their physical activities. Thus, the health status of physical therapists directly impact the quality of their treatment. Socio-psychological factors such as job stress and emotional labor are included. Also, their 'subjective musculoskeletal symptoms' can affect their quality of treatment. However, whether or not the symptoms is related to their job stress and emotional labor has hardly ever been studied.

Purpose
The purpose of this study is to provide basic data necessary for improving working environment and mental state of physiotherapists by analyzing the effect of emotional labor and job stress of physiotherapists on musculoskeletal symptoms.

Participants
This study was conducted with 315 physiotherapists working in general hospitals, university hospitals, hospitals, clinics, welfare centers, public organizations, sports clubs and fitness centers in the metropolitan area, and 236 questionnaires were used for this study.

Methods
The questionnaire consisted of items to measure emotional labor and job stress of physiotherapists and to check musculoskeletal symptoms (Nordic–style). For calculating the average of emotional labor and job stress, one-way ANOVA was used, for calculating the frequency of musculoskeletal symptoms, descriptive statistics was used, and for analyzing the differences in parts with musculoskeletal symptoms depending on the working area, chi-square test was carried out. Then, logistic regression analysis was used to find factors from sub-domains of emotional labor and job stress that influence musculoskeletal symptoms. The significance level was .05.

Results
1. There were differences in emotional labor depending on gender and exercise of physiotherapists, and there were differences in job stress depending on clinical experience and wage level of physiotherapists. Also, there were differences in parts with musculoskeletal symptoms depending on the working area (p<.05).

2. Physical environment (p<.01) and job insecurity (p<.05) from job stress' sub-domain caused musculoskeletal symptoms in the lumbar of physiotherapists within 12 months <Table1>, and the frequency of emotional labor from emotional labor's sub-domain affected daily life due to musculoskeletal symptoms in the lumbar of physiotherapists within 12 months (p<.05) <Table2>.

3. Lastly, physical environment (p<.01) and organizational system (p<.05) from job stress' sub-domain led to musculoskeletal symptoms in the lumbar of physiotherapists within 7 days <Table3>.

Discussion & Conclusions
The analysis result of this survey demonstrates that from emotional labor's sub-domain, the frequency of emotional labor, and from job stress' sub-domain, physical environment, job insecurity and organizational system influence musculoskeletal symptoms of physiotherapists. This study has significance by examining the present state of musculoskeletal symptoms of physiotherapists and determining that as socio-psychological factors, emotional labor and job stress affect musculoskeletal symptoms, in addition to physical factors.

Recommendations
The findings can be used as baseline data for improving the working conditions of physical therapists by reducing their job stress and emotional labor.

References

Acknowledgements
Presented at the WCPT Congress 2015, Singapore

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Fig 1. Frequency of musculoskeletal symptoms in the area of work

Table 1. Frequency of emotional labor and job stress on lumbar musculoskeletal symptoms within 12 months

Table 2. Frequency of emotional labor and job stress on daily life due to lumbar musculoskeletal symptoms within 12 months

Table 3. Frequency of emotional labor and job stress on lumbar musculoskeletal symptoms within 7 days

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