

Musculoskeletal disorder among physiotherapists - a survey report

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Abstract. Work Related Musculoskeletal Disorders (WRMSD) are common in physiotherapists and are continually growing. The aim of the study was to evaluate the prevalence, risk factors and regional distribution of WRMSD among physiotherapists in India. It is a prospective survey study in which 225 physiotherapists in India were asked to fill in a structured questionnaire. The mean age of the subjects was 28.6 ± 2.96 years. On an average the subjects worked for 9.29 ± 1.08 hours per day for 6 days a week. 81.25% of the subjects complained of pain or discomfort within the past year. The commonest site of pain was neck, upper back, lower back, wrist and hand, shoulder and ankle.

Keywords. Physiotherapists, WRMSD, ergonomics, survey

1. Introduction

Work Related Musculoskeletal Disorders (WRMSD) have been described as one of the commonest cause of long-term pain and disability affecting millions of people across the world. Health care professionals are at a high risk of acquiring these disorders due to the nature of their work. Among the health care professionals, physiotherapists are frequently affected by WRMSD. Numerous studies have indicated that the WRMSD prevalence was higher (approx. 80%) in physical therapists below the age of 35 (Mierzejewski M & Kumar S, 1997; Salik Y & Ozcan A, 2004; Glover W, et al., 2005). Physiotherapists are a common target because of the nature of their work, involving high physical contact and exertion. The major risk factors contributing to WRMSD among Physiotherapists are treatments such as manual therapy, exerting force, repetitive movements, continuous bending, patient transfer, sudden or un-anticipated movements, restricted work area and staff shortage. While a number of studies have reported the prevalence of WRMSD among physiotherapists in different countries, a very limited number of studies have been done in the Indian context. Hence this survey was carried out to estimate the prevalence of WRMSD among Indian physiotherapists.

2. Methods

A survey study was conducted among physiotherapists from various parts of India, who were contacted through email and telephone regarding the survey. A total of about 225 physiotherapists responded back to the survey questionnaire along with the consent form. Only the willing participants participated in the study. The participants were asked to fill in a structured questionnaire which included demographic details such as age, sex, height, weight, total work experience, number of working hours in a day, type or department of

work, questions related to regular exercise, physical risk factors associated with working condition, present health status, Nordic musculoskeletal questionnaire and short form of work style questionnaire. The data were obtained and analyzed statistically.

3. Results

- 32 male and 93 female physiotherapists participated (Mean Age - 28.6 ± 2.96 years). 1
- 1.25% of the subjects complained of pain or discomfort within the past year. 8
- On an average the participants worked for 9.29 ± 1.08 hours per day for 6 days a week. O
- The average years of experience of the participants was found to be 3.21 ± 2.90 years. T
- 3.4% of the subjects were performing regular physical activity. 2
- Analysis of short form of work style questionnaire revealed that 67.18% of the subjects reported an adverse work style risk (total score >28). A
- The commonest sites of pain as reported in this study was neck (56.25%), upper back (56.25%), lower back (50.07%), wrist and hand (25%), shoulder (22.65%) and ankle (17.18%). T
- Biomechanical risk factors were prolonged standing and adopting static postures, frequent application of force with hands or arms, frequent bending or twisting of upper body, working in awkward postures, and lifting or transferring heavy patients. B

4. Discussion

The study showed that the participants were of younger age and less experienced professionally. These could be the reasons behind a high incidence of WRMSDs due their inappropriate patient handling and treatment techniques as reported in earlier studies by Passier et al., 2011 and Bork et al., 1996. The other reason might be development of positive coping strategies by older therapists due to experience, which make them less susceptible to injuries when compared to younger therapists. As the working hours were long, the duration of exposure to the risk factors for WRMSDs was also more and the working hours reported in our study was more than reported in previous studies by Salik et al., 2004 and Molumphy et al., 1985. The study also revealed that lack of exercises was also a possible factor for WRMSDs among physiotherapists. Adverse work style can be considered to be another reason behind occurrence of WRMSDs among physiotherapists. The results suggested the common regions affected were neck, back and hand, which was similar to the previous studies. Common physiotherapy practices like bending, twisting, applying force and lifting patients could be the reason for these body regions to be affected.

5. Conclusion

The study reported a high incidence of WRMSD among Indian physiotherapists. Prevention strategies must be developed to address the biomechanical and psychosocial risk factors identified in the study to reduce the risk of WRMSD in Physiotherapists.