

A survey of low back pain disability in preschool teachers using Oswestry Low Back Pain Disability Questionnaire

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Abstract

Background: Preschool teachers perform various teaching and childcare activities that require frequent bending, squatting, kneeling, lifting and carrying children, as well as prolonged sitting on low-height furniture or the floor. These occupational demands may contribute to musculoskeletal symptoms, particularly low back pain. [1, 2, 14, 23, 24] Previous studies have reported a considerable prevalence of musculoskeletal pain among teachers and preschool workers. [5, 9, 27] However, limited literature is available regarding the functional disability associated with low back pain specifically among preschool teachers. Therefore, the present study was conducted to assess low back pain disability among preschool teachers using the Oswestry Low Back Pain Disability Questionnaire.

Method: An observational cross-sectional study was conducted among 124 female preschool teachers with low back pain. Participants aged 25–50 years who had a minimum of two years of preschool teaching experience, worked for at least two hours per day and at least four days per week were included. Participants with neurological, cardiovascular or other musculoskeletal conditions were excluded. Data regarding demographic characteristics and pain were collected, and the Oswestry Low Back Pain Disability Questionnaire was administered through an interview method. Descriptive statistical analysis was performed using Microsoft Excel, including mean, median, mode and standard deviation.

Results: The mean age of the participants was 38.61 ± 7.28 years, and the mean teaching experience was 8.23 ± 5.16 years. The reported mean pain intensity at rest was 3.07 ± 1.41 , while the reported mean pain intensity during activity was 3.07 ± 2.20 . The mean ODI score was 12.9 ± 4.32 , and the mean ODI percentage was $25.9 \pm 8.70\%$. The largest proportion of participants had ODI scores between 11–15. Moderate disability was the predominant disability category among the participants.

Keywords: Low back pain, preschool teachers, oswestry disability index, musculoskeletal disorders, functional disability, physiotherapy, ergonomics

Introduction

Preschool teachers are educators who care for and teach young children, typically aged 2 to 4. Preschool teachers are trained to fulfil aims and primarily consisting of nurturing and teaching children under age of 4 years. [1, 2] Preschool teachers perform a wide variety of tasks combining basic childcare & teaching duties [20]. They are constantly required to lift, carry children as well as sit on small furniture or on the floor to take care of play & Interact with Children's [23, 24].

Musculoskeletal Disorders (MSDS) are one of the most common Health problems in working population [3, 7] that play a major Role on Quality of Life [8, 12]. Wortman described teacher's tasks as requiring constant interaction with Active (sometimes Hyper-Active), spontaneous, impulsive, heavy (some times very heavy children) [13, 17] Previous studies demonstrated that the proportion of musculoskeletal pain was 91%, and the most Common site of pain was back (74.4%), followed by the shoulder (57.5%) and leg (51.5%) these kinds of physical demands negatively impact on prescribed teacher musculoskeletal System [18, 27].

The lumbar region is capable of movement in flexion. The lumbar zygapophyseal facets favors flexion. the amount of flexion varies at each interspace, but the greatest amount of flexion takes place at lumbosacral L5 -S1 joint. Lumbar flexion involves anterior tilt and anterior slide of vertebral body below and upslide of inferior zygapophyseal facet on the facet below. The amount of lumbar motion from a

neutral lordotic position is reported to be: flexion: 52° [25] The sustained mechanical load & constant trunk Flexion [19, 20] Activities are risk factors for Low Back Pain and is widely demonstrated [19, 21, 22].

The Oswestry Disability Index, adapted & validated for Indian population [26] being used in this Study to evaluate disability level associated with low Back Pain in Preschool teachers. The components from Oswestry low back Pain disability questionnaire included most Activities which carried out by pre-school teachers in their duty and at activities of daily living.

Conclusion

Among 124 preschool teachers of navi mumbai having low back pain majority of them have moderate disability of 83% followed by minimal disability 33% and 8% of severe disability.

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