



Musculoskeletal pain, strain and injury in early childhood educators – New research

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A newly published study sheds light on the significant musculoskeletal (MSK) health risks faced by early childhood educators in the UK. With 98% of participants reporting work-related pain, particularly in the lower back (89%), the research provides a comprehensive view of the prevalence, frequency, and severity of joint and muscle pain. For the first time, it offers insights into pain duration, onset, and its impact on workers' lives, emphasising the chronic nature of this pain among Early Childhood Education (ECE) professionals.

Pain Onset, Frequency, and Duration

The study found that on average MSK pain had been experienced for more than 12 months, with symptoms recurring every 7–14 days and lasting for 1–2 weeks at a time. This highlights some educators working in early years roles are in constant pain. Lower back pain was the most commonly reported location, but participants also frequently reported pain in the neck, upper back, knees, and shoulders. Ankles and feet were among the locations with the longest duration of pain.

Of the participants, 27% reported pain in 1-3 body locations, 47% in 4-6 locations, and 20% in 7-9 locations (for example, lower back, hips, knees, shoulders, feet). A significant proportion of the sample, nearly 98%, experienced pain in at least one location, and 72% reported pain in four or more areas. This extensive distribution of pain across multiple body parts highlights the widespread burden of MSK pain among ECE workers.

Role-Related Risk Factors

Frequent exposure to high-risk physical tasks at work was strongly associated with pain onset, frequency, and intensity. Tasks such as lifting children, stooping, bending, working at low heights, and changing nappies placed ECE practitioners at a high risk of developing MSK disorders. These tasks are often performed without adequate support or ergonomic furniture, which exacerbates the physical strain on workers. The study found that the frequency of exposure to these MSK risk actions was a strong predictor of pain experiences. The more frequently participants engaged in these activities, the



Kindergarden teacher with back problems around children

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more likely they were to report higher pain intensity, earlier onset of pain, and more frequent pain episodes. This suggests that the nature of the job itself significantly contributes to the MSK burden on ECE practitioners.

Duration of Employment and Age

The research also showed that longer years of employment in the ECE sector were linked to a greater number of pain locations, regardless of the participants' age. This finding suggests that chronic pain builds up over time due to prolonged exposure to the physical demands of the job. In addition, older participants were more likely to report longer durations of pain events, which could indicate that aging exacerbates the severity and persistence of MSK pain.

Participants with more experience in ECE, particularly those in leadership roles, had access to more MSK protective measures, such as specialized furniture or training on safe manual handling practices. However, this was not the case for many frontline practitioners, who perceived a greater need for im-

proved MSK protection. This discrepancy between leaders and practitioners highlights a potential gap in access to resources and support that could alleviate the physical strain on ECE staff.

Predictors of Sickness Absence and Turnover

Pain intensity and frequency were key predictors of sickness absence, with participants who reported more severe and frequent pain being more likely to take time off work. The physical demands of the job, particularly tasks that involved high MSK risks, such as lifting or working in awkward postures, contributed significantly to workers' need for sick leave. In addition to sickness absence, the study found that pain frequency and bothersomeness—how much the pain impacted daily life—were strong predictors of practitioners considering leaving the ECE sector altogether. Participants who reported pain in more body locations and perceived a greater need for MSK protective measures were also more likely to consider changing careers. This finding is particularly concerning for a sector that is already facing significant recruitment and retention challenges. With MSK pain being a major factor in job dissatisfaction and turnover, addressing these health issues is critical to retaining skilled staff in the ECE workforce.

Global Impact of Musculoskeletal Disorders

Musculoskeletal disorders (MSDs) are a global health issue, affecting an estimated 1.71 billion people worldwide. Chronic MSK pain, particularly lower back pain, is one of the leading causes of disability and work absenteeism globally. In the UK, MSK disorders led to 7.3 million lost working days in 2021-22. The presence of chronic MSK pain in the ECE workforce reflects this broader trend, where the physically demanding nature of the job contributes to high rates of pain and disability. Despite the widespread impact of MSK pain, the health of ECE practitioners has largely been overlooked in national reports on workforce retention and recruitment. Government reports, such as “The Early Years Workforce: Recruitment, Retention, and Business Planning” (2022), fail to address practitioner health and MSK risks, which are key factors in job dissatisfaction and turnover. Additionally, recent policy changes, such as increasing staff-to-child ratios, may further increase the physical demands on ECE workers, exacerbating their risk of MSK pain and related disorders.

Presenteeism and Underreporting

A notable finding from the study is the high prevalence of presenteeism—where workers continue to perform their jobs despite being in pain. While 98% of participants reported experiencing some form of MSK pain, only 28% had taken sick leave due to their pain. This suggests that many ECE practitioners continue working through their discomfort, which could lead to the exacerbation of their symptoms and a further decline in their overall health.

Additionally, while more than half of the participants had sought medical help for their pain, only 37% received a formal diagnosis. This underreporting highlights the possibility that the true burden of MSK pain among ECE workers is not fully captured by official figures, and many cases of chronic pain may go unnoticed or untreated.

Recommendations for Improvement

To address the significant MSK risks faced by ECE practitioners, the study emphasises the need for a multi-faceted approach that includes behavioural, ergonomic, and environmental interventions. Providing appropriate furniture, equipment, and training on safe manual handling practices, awareness raising, and early report could reduce the physical strain on workers and improve their overall health outcomes.

The study also calls for greater attention to the health and well-being of ECE staff in national policies, particularly as the sector faces increasing staffing challenges. Improving the physical health and safety of the workforce will not only enhance quality of life but also improve the quality of care and education provided to children. Reducing MSK pain and related disorders in the workforce could help alleviate the recruitment and retention crisis in the ECE sector by creating a healthier and more supportive work environment.

Summary

This study provides the first statistical analysis of the relationship between MSK pain and specific role demands within the UK ECE workforce. The findings demonstrate the significant physical risks faced by ECE practitioners and the urgent need for improved workplace safety and health measures. By addressing these issues, the sector can promote the physical health of its workforce, enhance job satisfaction, and ultimately provide better care for children. Improving MSK health among ECE staff is crucial not only for the well-being of the practitioners but also for the sustainability of the sector as a whole.

The full published research paper can be found here:

<https://www.sciencedirect.com/science/article/pii/S0925753524001826>