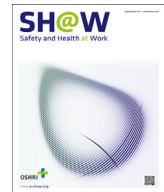




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Letter to the Editor

## Ergonomic Intervention for Musculoskeletal Disorders in Construction Workers

*To the Editor,*

We read with great interest the recently published article entitled “Use of Ergonomic Measures Related to Musculoskeletal Complaints among Construction Workers: A 2-year Follow-up Study” by Frings-Dresen et al [1]. Ergonomic intervention prevents work-related musculoskeletal injuries in workers. We compliment the authors for their initiative to implement ergonomic measures through a national campaign “Lighter Work(s),” which aimed to reduce musculoskeletal injuries among construction workers [1]. With regard to this interesting study, we would like to request the opinions of the study authors on some of our following queries and comments concerning the methodologies adopted in their study.

In the study being discussed, the authors implemented a huge campaign by recruiting 4,500 workers from nine different subsets of occupations within the construction industry. Although the current study was a national-level campaign, the authors did not provide details on how they determined the sample size for each of the nine substudy populations. Unfortunately, the selection criteria for the study participants were also not specified. Past evidence has suggested that both inclusion and exclusion criteria are essential for maximizing uniformity among study participants to ensure reliable study results [2,3]. We would like to request further information from the authors about the selection criteria applied to the participants in their study. Were any dropout rates considered for sample size calculation and for reporting the results? Such information may help to estimate the dropout prediction rate to design large-scale ergonomic intervention trials. Is it likely that the study results may differ if the aforementioned factors were controlled and addressed adequately? We would appreciate the response of the authors on these methodological issues, as such information may help future researchers design a rigorous methodology in large-scale ergonomic trials.

We appreciate the effort of authors to design separate questionnaires for each subset of occupations within the construction industry. Standardization of the questionnaire within a study population is a necessary requirement to obtain reliable information [4]. We would like to know how the authors handled issues pertaining to reliability of the tool, especially when it involves several subsets of population within an occupation. In addition, availability of the contents of such uniquely designed questionnaires would be of great help to researchers and practitioners in

the field of ergonomics/occupational and safety health. A previous study suggested that aging, education status, and level of disability should be considered when developing a questionnaire to avoid bias and variations in response during data collection [5]. We would also like to hear from the authors about the crucial confounding factors that may influence their study results. Perhaps, the authors can suggest the crucial confounding factors to be controlled while implementing a large-scale ergonomic intervention with different subsets of an occupation?

It is very interesting that the current study used social media-based interventional strategies. In our opinion, it is an innovative approach to deliver ergonomic interventions at larger scales and we applaud the scientific team for adapting this novel approach. In line with this, we like to know how the compliance measures can be improved among the study participants when implementing social media-based intervention tools such as YouTube, posters. We would appreciate if the authors can share their view and advice on this matter. We agree with the study authors that informative websites, YouTube videos, and posters can be used as an effective medium to deliver ergonomic interventions. Nevertheless, we are curious to learn how the authors monitored and ensured that all the workers had performed the ergonomic measures correctly without any supervisory process or compliance measures. In addition, we would like to know why qualitative measures such as focus group discussions and Delphi methods were not preferred by the authors to identify barriers and facilitators in their study.

We agree with the authors, that future studies need to strategize on improving the availability of ergonomic equipment among workers, which may help to increase the use of ergonomic measures. As a direction forward, we suggest performing well-controlled intervention studies with a control group to explore this interesting work. We believe that this study is a good start because it gives a new perspective and dimension to the ergonomic industry in conducting and implementing a large-scale ergonomic intervention to decrease work-related musculoskeletal injuries among workers. Therefore, we appreciate the meticulous effort by the authors and editor to publish this informative study.

### Conflicts of Interest

All contributing authors declare no conflicts of the interest.

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