

Overly optimistic conclusions in no-effect intervention study

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It is commonly known that stress is an important issue for all healthcare workers, physicians included, and most of what we know about reducing their stress is based on studies conducted with nurses [2]. This is why my colleagues and I read the article by Bernburg et al. [1] with interest.

It is unfortunate that, in spite of the optimism with which the authors report their conclusions, their results show that actually there is no effect. Bernburg et al. only report within-group changes from baseline to follow-up when the most important comparison would have been between intervention and control group at follow-up. One only has to compare group means at time 1: 3.02(0.62) vs. 3.06(0.57) and at time 2: 3.15(0.58) vs. 3.14(0.51). There is no difference. The numbers are so similar that there is even no need for a statistical test to prove a lack of effect. Hence, the conclusion that "... psychosocial competency training could reduce [junior pediatricians'] stress perception..." is not supported by the authors' own results nor does it reflect the existing cumulative body of evidence.

Following recommendations given in the recently updated Cochrane review [2], Bernburg et al. could have conducted a power calculation to determine the size of an adequate sample. Each study arm should have had at least 60 participants, which

is more than double the number (26 and 28) that Bernburg et al. obtained.

Nevertheless, Bernburg et al. recommend combining interventions like theirs with work directed interventions such as work schedule changes. This contradicts the available evidence as provided by the Cochrane review [2]. There is only very low quality evidence about work schedule changes reducing stress. It is also very uncertain if organizational changes such as improving work conditions, organizing support, or organizing special care models lead to considerable effects on stress levels [2].

References

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