

Comments to Nordmo et al.'s article: effect of hardiness

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We would like to comment on Nordmo et al.'s article on hardiness among Norwegian Royal Navy seamen [1]. The article is very interesting. Understanding the sleep disorders of the military can indeed make it possible to favour the preservation of their health and their competencies. The authors have highlighted the limitations of their study. They will take into account the sleep disorder factors already described in literature, such as: noise, comfort on board, shift organisations, etc. We would like to make two comments: on the one hand, highlight another limit to help future studies; on the other hand, open another perspective of prevention, not described in this article.

In the first place, the authors describe the correlations between the results of a ranking of hardiness and the results of a scale of insomnia. The authors propose to use the DRS-15-R to select seamen. In our opinion, it is premature to conclude this. Indeed, the military are looking for a performance that will be specific to each seamen job: mechanic, helmsman etc. All jobs do not necessarily require the same level of hardiness. However, the article does not deal with the professional performance of seamen during missions. The authors make shortcut between higher insomnia score and decreased performance. In a future study, it would be useful to make the connection between insomnia and the performance of seamen. It is possible to do some memorization tasks to then evaluate the short, medium and long-term memory in a situation of lack of sleep [2]. Also, the speed of action could be evaluated to determine if there is a significant slowdown in the execution of tasks [3].

Secondly, another line of prevention could be proposed in view of their results. The fact that the militaries can be

classified according their level of hardiness shows that these sailors have various psychological reactions. But can they be due to the past of each seaman and his current personal situation? The militaries may have a variety of troubles after missions [4]. These disorders can have an impact on the performances, on the mood and thus on the interpersonal relations. So that, these disorders can change control, one of the features of hardiness. It is also possible that some defence reactions to heavier physically or psychologically situations diminish the challenge and the will to change. The question that could then be raised is how, from the scales of hardiness, to work between the missions to reinforce the confidence of the military and their ability to persevere effectively in the difficult situations [5].

This is not a limit of the article by Nordmo et al. [1]. This goes beyond the question posed by Norwegian researchers. But it would be useful to study the cognitive processes and establish protocols for strengthening the seamen between the missions. Assessment scale proposed in this article may serve to guide the way in which they are prepared before a mission and to guide social reintegration methodologies after missions.

REFERENCES

1. Nordmo M, Hystad SW, Sanden S, et al. The effect of hardiness on symptoms of insomnia during a naval mission. *Int Marit Health*. 2017; 68(3): 147–152, doi: [10.5603/IMH.2017.0026](https://doi.org/10.5603/IMH.2017.0026), indexed in Pubmed: [28952659](https://pubmed.ncbi.nlm.nih.gov/28952659/).
2. Krause AJ, Simon EB, Mander BA, et al. The sleep-deprived human brain. *Nat Rev Neurosci*. 2017; 18(7): 404–418, doi: [10.1038/nrn.2017.55](https://doi.org/10.1038/nrn.2017.55), indexed in Pubmed: [28515433](https://pubmed.ncbi.nlm.nih.gov/28515433/).

3. Killgore WDS. Effects of sleep deprivation on cognition. *Prog Brain Res.* 2010; 185: 105–129, doi: [10.1016/B978-0-444-53702-7.00007-5](https://doi.org/10.1016/B978-0-444-53702-7.00007-5), indexed in Pubmed: [21075236](https://pubmed.ncbi.nlm.nih.gov/21075236/).
4. Guina J, Welton RS, Broderick PJ, et al. DSM-5 Criteria and Its Implications for Diagnosing PTSD in Military Service Members and Veterans. *Curr Psychiatry Rep.* 2016; 18(5): 43, doi: [10.1007/s11920-016-0686-1](https://doi.org/10.1007/s11920-016-0686-1), indexed in Pubmed: [26971499](https://pubmed.ncbi.nlm.nih.gov/26971499/).
5. Martínez-Sánchez JA. Psychological intervention in the Spanish military deployed on international operations. *Psicothema.* 2014; 26(2): 193–199, doi:[10.7334/psicothema2013.254](https://doi.org/10.7334/psicothema2013.254), indexed in Pubmed: [24755020](https://pubmed.ncbi.nlm.nih.gov/24755020/).