Reviewer's report

Title: Health Promotion in the Danish Maritime Setting: Challenges and possibilities for changing lifestyle behavior and health among seafarers

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Reviewer: Alex Burdorf

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Major Compulsory Revisions
1. Abstract: the conclusion cannot be drawn based on this study. There are many reasons for the findings, and whether environmental changes are better to individual education remains to be seen. Besides, the cook intervention is an environmental change.
2. Conclusion: See also 1, but there is 1 environmental intervention one cannot escape (cooks), one that is a discretion of participants, and 3 individual interventions with mixed results (quitting smoking is beneficial is seems). Thus, there seems evidence for a change (smoking, fitness, metabolic syndrome), whereby smoking can be attributed to the intervention, but for fitness and metabolic syndrome the multicomponent programme does not allow a solid conclusion. A better reflection on the core findings is required. It could be due to the cooks providing healthier food, also to better dietary patterns when at home etc.
3. The authors should explain why randomisation was not possible, also why alternative evaluation strategies have not been applied (eg propensity score). It would most likely have not mattered, but a pre-post on a multicomponent intervention is extremely tricky to analyse and to interpret.

Minor Essential Revisions
1. Please refrain from statements as 'a ticking bomb', since that is certainly not appropriate
2. With regard to reference 10, make sure to distinguish between leisure time and at work. Does PA refer to leisure time, general?
3. Methods: why smoking as dichotomous variable? It would certainly be of interest to learn whether amount of smoking decreased.
4. Methods: why McNemar tests? It seems rather strange to use hierarchical logistic regression for implementation analyses and not also for evaluation of change over time. Why not a GEE or likewise approach with appropriate adjustment.
5. Results: the results do not follow the order of the objectives of the study.
6. Results: Rather confusing interpretation, if table 3 present a significant difference, why mentioning small numbers as it was not a relevant observation.
7. Discussion: Do ref 24 and 25 present the best source for this statement on overall participation, I recall a sys rev on participation which much lower median value (Robroek). Ref 25 is probably relevant to explain the modest change that one could expect.

8. Discussion, see above. A participation between 30 and 50% is certainly not as bad as the authors seem to think!

Discretionary Revisions
1. Response, drop-out, attendance, prevalence etc are, technically speaking, not rates.
2. Results: Metabolic syndrome..I guess it is a significant decrease?
3. Discussion: The comparison in smoking trend with general population is quite useless with lack of appropriate adjustment for e.g. education and age, given the large differences in smoking patterns in society..

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'