

## COMMENTS

This paper is disappointing. The author appears to be aware of the criticisms of behaviour based safety but chooses to ignore them completely. The main problem with BBS is that it assumes a single cause (violation or mistake), while all recent accident analysis proceeds from the assumption that there are root causes that generate these violations or mistakes. It is just not acceptable to ignore what the critics have said.

But quite apart from this, the methodology is inadequate. The method is basically to ask participants for their views about whether BBS programs have reduced at risk behaviours and whether they have reduced accident rates. There is an enormous problem of confirmation bias in the methodology, that is, people who have been through a program will tend to think that it is effective. The problem could have been overcome if the author had used real data on accident rates, not perceptions of accident rates. This would have required different research design, either accident rates before and after the introduction of BBS, or better, a truly experimental design where BBS was introduced by some companies and not others and the accident rates compared. The researcher seems to have been in a position to organise this kind of experiment.

The difference between questions 2 and 4 and between questions 3 and 5 eludes me. This must have been confusing to participants.

The final methodological problem is that the statistical testing is totally misguided.

Finally the paper has an extensive set of recommendations which do not follow in any way from the research findings.

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Ans.

My interest is on the good aspect of BBS not on its criticisms. The root causes of accidents i.e. workers at-risk behaviours is my focus of discussion of BBS. The title of the paper has been changed to reflect its methodology from parametric to non-parametric approach. The problem of confirmation bias does not arise because the confidential responses of sample respondents are based on their experiences/observations in the worksite. For instance, the frequency of accident in a work site is not a hidden event, it would be apparent to every worker whether statistical records are available or not, though statistical records are good. A before and after study of BBS research could be an area of further study since the present research is a perception survey.

Questions 2, 3, 4, and 5 have been redesigned to enhance better understanding see table 2 in line 247.

The statistical tool has been changed from parametric to non-parametric and the recommendations has been consolidated to eight in the context of the paper see line 327- 338.