Author's response to reviews

Title: Theory of Planned Behaviour variables and objective walking behaviour do not show seasonal variation in a randomised controlled trial.

Authors:

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Author's response to reviews: see over
Irene Pala  
Executive Editor, BMC Medical Research Methodology  
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30th July 2013

Dear Dr Pala,

Re. Theory of Planned Behaviour variables and objective walking behaviour do not show seasonal variation in a randomised controlled trial.

We would like this manuscript considered for publication as an original research article in BMC Medical Research Methodology.

There has been considerable research investigating the effect of seasonality on physical activity behaviour, and in particular walking behaviour, with the majority of studies concluding that participants tend to walk more in the summer compared to winter. Therefore seasonality has the potential to bias trial results. However, the previous research in this area has consisted of simple longitudinal studies with no intervention component. Given that the behaviour of participants in trials is likely to be different in comparison to longitudinal studies; this is an important omission in the literature. Furthermore, previous studies have not assessed the effect of seasonality on the psychological variables underpinning walking behaviour.

The aim of this paper was to assess seasonal differences in objective walking behaviour and Theory of Planned Behaviour variables in a randomised controlled trial (RCT) of an intervention to promote walking. We believe our study is the first to examine the influence of seasonality on the outcomes of an RCT, and is the first to examine this in a large non-volunteer clinical sample. The results show that in contrast to previous reports seasonality does not effect objectively measured walking behaviour, or the psychological variables underpinning this behaviour, when assessed during an RCT. We have generated a more accurate picture of the impact of seasonality on behaviour, and its determinants, and have thus added to the literature regarding the influence of hypothesised confounding variables in randomised controlled trials.

Both listed authors contributed significantly to the manuscript, which has not been published previously and is not under consideration for publication elsewhere. We look forward to hearing from you.

Yours sincerely

Stefanie L Williams