Author's response to reviews

Title: Rural Health workers and their work environment: the role of inter-personal factors on job satisfaction of nurses in rural Papua New Guinea.

Authors:

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Author's response to reviews:

Reviewer: Judith Kulig
Reviewer's report:
Major compulsory revisions:

Reviewer comments: a few articles for you to review and include:
1. Stewart et al 2010 Journal of Rural Health 27(1) 103-113 Moving on? predictors of intent to leave among rural and remote registered nurses
2. Kulig et al 2009 Public Health Nursing 26(5) 430-439 Work setting, community attachment and satisfaction among rural and remote registered nurses

After review of these articles, it would be important to revise, strengthen and enhance your article (literature review and discussion)

Reviewer comments: You need to be more clear of the context of the international literature and the connection to your study.

Reviewer comments: Literature on job satisfaction was not as well laid out by rural and urban as it could be

Authors’ response

We thank the reviewer for identifying two articles we have missed. We have incorporated the findings of both in the literature review and separated out the literature by urban and rural. The revision also taken into account the comment by the other reviewer (“I would suggest that these are explored in more detail as currently the literature focuses on studies conducted in the urban environment.”).

The additional material included is as follows (pg 8 last para and page 9 first para)
Many of the studies of rural nurses have as their objective to investigate rural nurses' intention to stay (turnover intent) in rural posts. Studies in the 1990s, found the relationship between job satisfaction and intent to stay in rural practice [35, 36]. In both studies the respondents were nurses working in community hospitals. In a review of the rural nursing workforce in Canada, Australia and the United States, Bushy et al. [37] noted that 'rural lifestyle' affected nurses in all three countries. In a study of public health nurses in rural Canada a measure of community satisfaction was found to relate to job satisfaction [38]. However, neither job satisfaction nor community satisfaction were related to plans to leave in two years. The authors stated that “filter factors” such as demographics (age), personal circumstances (financial needs) and opportunity (availability of employment for spouse) promote or limit retention in rural practice [38]. The limitations of this study were the small sample size, limited analysis and being restricted to one state.

In a nationally representative study of rural nurses in Canada, Kulig et al. [39] were able to confirm the link between satisfaction of one’s home and/or work community and job satisfaction. Based on data from the same study Stewart et al. [40] explored predictors of intent to leave (ITL) a nursing position in rural and remote practice in Canada. Lower community satisfaction and greater dissatisfaction with job scheduling and autonomy at the workplace were significant predictors of ITL within next 12 months. In a more recent study of PHC nurses working in rural South Africa it was found that younger age, higher levels of education, and job satisfaction (measured as a composite index) were predictors of ITL [12]. When specific facets of job satisfaction were considered, supervision was found to be an important factor for ITL.

The discussion has been changed to reflect the findings of Kulig et al 2009.

Page 20 first para

Penz et al. [11] state “the concept of community satisfaction is a relatively unique aspect... for nurses in rural populations”. The measure of community support used in the study was not the same as community satisfaction measured in studies in Canada [38, 39, 40]. Future studies may need to explore this aspect.

Page 20 last para

Intention to turnover has been a topic of much of the research on nursing workforce in developed countries with most studies conducted in urban hospital settings. Of the few studies in rural and remote areas in developed countries, a link between job satisfaction and community satisfaction with intention to leave has been shown [40]. Job satisfaction was not a predictor of rural nurses intention to leave in PNG. This seems similar to the findings of Public Health Nurses in Canada, where “filter factors” seem to be more important [38]. In fact, the only significant predictors were age and “spouse work”. This concurs with the observations from nursing studies in developed countries that nurses belonging to “generation Y” had different attitudes towards intention to stay. When the
spouse of the nurse did not have work there was higher intention to leave to find a job elsewhere [38].

Reviewer comments: Under background, 3rd paragraphy, reference 6, how applicable is it to PNG?

There seems to be some evidence that younger nurses (as they now obtain a University degree) are seeking higher qualifications. The study finding of the relationship of age to turnover intention may also be explained by this fact.

Reviewer comments: The reference to your own qualitative study needs further clarification in terms of sample size, how it was conducted etc.

We have given further details in the last para of page 11

The survey was preceded by a qualitative study in three selected districts from three provinces in PNG. Health centres studied were purposively selected to ensure government, private sector and church run facilities were included. Thirty three HWs working in rural health centres were included. Participants were selected to ensure maximum variation in terms of geographical location, health worker category, number of years in service and gender. The in depth interviews and observations were conducted by experienced qualitative researchers from the University of New South Wales and four trained Papua New Guineans. Participants were interviewed on a wide range of factors: their motivation to work, the nature of work, relationships at work and job satisfaction [19].

Reviewer comments: How many questionnaires were distributed at the training session?

There were approximately 1500 questionnaires distributed at training sessions. All questionnaires were posted to UNSW by field staff. After non responses and incomplete questionnaires were taken out we entered 1302 questionnaires to the database. The response rate was high as it was distributed and collected at a training setting.

Reviewer comments: What are purpose developed scales?

We have clarified it in the text as: page 13 first para

A series of tested and purpose developed scales to capture constructs related to HW motivation and performance were included in the survey instrument. Tested scales were not available for constructs such as “supervisory support” and “community support” that were relevant for the context. Therefore we developed new scales based on literature and findings from the qualitative study. In other cases we selected items from existing scales and adapted them to suit the context of PNG.

Reviewer comments: Your sample went from 1302 to 344 useable, this is a huge change. what could you have done differently during the distribution of the same
to prevent at least some of this discrepancy?

We have clarified in para one page 15 that the respondents for the survey were all health workers (HEOs, Nurses and CHWs).

This resulted in 1,282 completed questionnaires for analysis, of which a total of 489 were from nurses. For this study, respondents who had identified their profession as nurse, and worked in rural hospitals (RH), health centre (HC), rural health centre (RHC) and sub health centre (SHC) were included. Nurses who worked in district hospitals or urban health centre were excluded from the analysis. This resulted in a total of 344 nurses being included in the analysis.

Reviewer comments: would strongly suggest a table to illustrate the types of work climate, and the facilities where people work. See fourth paragraph under results, it was hard to keep this straight.

We thank the reviewer for this interesting suggestion.

The results of the analysis is provided in page 16 last para

Relationship of work climate to type of facility was tested using an ANOVA. A significant difference in work climate was found between facilities [ F (3, 312 )= 3.85; P <0.01] with lower scores for health centres (HC, mean 36.34) than rural health centres (RHC, mean 38.56) and sub health centres (SHC, mean 38.65) as shown by post-hoc Tukey test.

and in the discussion page 19 first para.

A difference in the level of work climate by type of facility was found in this study. Of the four types of facilities, it was lowest in the HCs. The work climate was significantly lower in health centres in comparison with RHCs and SHCs. As the numbers of staff at health centres are in general higher than these two facilities, it may mean that less positive inter-personal relationships are developed at larger facilities. However, this needs further investigation.

As we this was not a central question in this paper a separate table was not included.

Reviewer: Nicole Blay

Reviewer's report:

Reviewer comments: An interesting study particularly for those working in remote areas or LMIC. The lit review mentions several articles related to job satisfaction of nurses working in remote areas. I would suggest that these are explored in more detail as currently the literature focuses on studies conducted in the urban environment. Considering that opportunities for rural health workers are limited, the finding that nurses with working spouses have expressed increased intent to leave is interesting and needs further exploration.
Authors’ response

We thank the reviewer for the positive comments on the paper. We have expanded on the rural studies in the literature review. We have given further explanation to the reasons why nurses with working spouses may consider leaving.

In fact, the only significant predictors were age and “spouse work”. This concurs with the observations from nursing studies in developed countries that nurses belonging to “generation Y” had different attitudes towards intention to stay. When the spouse of the nurse did not find work in the rural area there was higher intention to leave to find a job elsewhere [38].

Reviewer comments: The authors need to ensure that all abbreviations are explained in full on first use.

This has been attended to.