Author's response to reviews

Title: Field-testing of the Rapid Assessment of Disability Questionnaire

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Author's response to reviews: see over
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Rita Aguirre  
Journal Editorial Office  
BioMed Central

Dear Rita,

We are pleased to resubmit the manuscript titled “Field testing of the Rapid Assessment of Disability Questionnaire” to BMC Public Health for consideration for publication.

We have comprehensively addressed the reviewers’ comments (see below) which have considerably strengthened this manuscript. We reiterate that this manuscript is not currently being considered by another publication, is not in press in any format, and has not been previously published. No authors have conflicts of interest related to this paper.

We thank you for your kind attention and we look forward to a favourable reply,

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Response to Reviewer 1

*We thank the reviewer for providing valuable inputs on the manuscript.*

**Comment:** This is a difficult paper for me to review because the premiss of the research is fundamentally flawed (that the Rapid Assessment of Disability (RAD) questionnaire is somehow based on the ICF model of disability and that it would be a good tool for determining the prevalence of disability). Because of this it was difficult for me to proceed further to look at the psychometric evaluation of RAD, which for me is somewhat irrelevant since RAD does not do what it is claimed it is supposed to do. The problem here undoubtedly lies with the presuppositions of the original developer of RAD, but it taints this paper as well.

Specifically, the model of disability in the ICF is fundamentally mis-described: “The... (ICF) conceptualises disability as an umbrella term referring to the interaction between the functioning of an individual (with a health condition), participation and contextual (environmental and personal) factors.” This is not true. ICF conceptualised disability as the interaction between the health condition and contextual factors. Functioning is not a component of the interaction, but the outcome of the interaction. Functioning is the general term for all domains, from body functions to activities and participation, and disabilities are problems in those domains. The paper distinguishes functioning and participation, which is simply not what the ICF does. There is no requirement for a paper to use the ICF, but if it does it should use it correctly.

**Response:** We would like to acknowledge that we agree with the reviewer that the ICF conceptualises disability as the interaction between the health condition and contextual factors. As we have described in our previous publications on the development of RAD, we agree that the ICF covers different domains of functioning ranging from body level functions and structures to the categories of functioning at the person and societal levels as activities and participation. We have revised the statements referring to the ICF model in the manuscript.

**Comment:** But the more fundamental problem I had was that, although the paper correctly criticises the Washington City Group questions for ignoring the impact of the environment on the presence of disability, and though RAD does elicit some environmental information, RAD is simply not a tool that could plausibly be used for prevalence. Most of its questions (and it would have been helpful if those questions were provided in the paper so that the reader did not have to seek them out in other publications) are, roughly, quality of life questions about subjective appraisals of living with disability and knowledge of disability human rights. It is not clear what the correlation would be between the extent of the respondent’s awareness of human rights and the (objective) presence of disability, so the information gathered by RAD, although perhaps relevant to quality of life, would not help to determine prevalence.

In light of this, I am not sure of the value of the psychometric investigation (which I leave to other reviewers more sympathetic to the premiss of this paper to evaluate).

**Response:** Disability inclusive development programs require information on both numbers of people with disability and the barriers which limit equal opportunities in the community.
The RAD survey has been developed to support the design and implementation of such programs in communities. As indicated in our earlier publications (Huq et al 2013 and Goujon et al 2013) it was identified that “gaps in the existing instruments to measure important factors relevant to disability inclusive development included measuring awareness of the rights of people with disability and measuring participation in aspects of community life and the barriers to this participation.” We tried to address these gaps in the RAD survey by developing questions for self-assessment of functioning related to activities (section 2), awareness of rights (section 3), participation in life situations (sections 4 and 5) and barriers to accessing services and participation in the community (section 5). However, we found that the section on awareness of rights had poor psychometric properties and was removed in the final survey. Information related to the current situation regarding access to enacted rights for people with disability can be assessed using the information in the ‘access to the community’ section that has questions related to accessing services and participating in the social and community life. Data collected in this section are similar to the method proposed in one of the reviewer’s papers: “Monitoring the United Nation’s convention on the rights of persons with disabilities: data and the International Classification of Functioning, Disability and Health. BMC Public Health 2011, 11(Suppl 4):S8”.

We propose that data from section 2 can be used to identify people with disability, i.e. with limitations in sensory, physical, cognitive and mental functioning. Section 2 establishes the presence of disability, based on self-reported difficulties in functioning at person level, and we acknowledge this is a limitation. However, RAD gives the opportunity to assess other aspects of functioning and barriers to participation in the community in comparison with their age and gender matched controls. Such data will be useful to programs seeking to address and overcome barriers to inclusion. Levels of functioning and access to services could be measured over time to investigate changes following a programmatic intervention. However, further research is needed to determine of the responsiveness of the tool to measure change.

We would like to clarify that although UNCRPD and ICF have been used as conceptual frameworks guiding the development of RAD, we are not suggesting determining the prevalence of disability by measuring correlation between respondent’s awareness of rights and presence of disability. We are also not implying that interaction referred in the ICF model can be measured by determining correlations between responses in different sections of RAD.

We have revised the manuscript to appropriately describe the ICF definition of disability, the purpose of the RAD and its potential applications in disability inclusive development programs. We have also included questions in different sections as suggested.
Response to Reviewer 2

We thank the reviewer for providing valuable feedback on the manuscript.

Major Compulsory Revisions

Comment 1: How did authors document a verbal informed consent?

Response: In the case of participants who were not literate or were unable to provide written consent their verbal consent was obtained, i.e. the consent form was read to participants and their verbal agreement was recorded by the interviewer in front of a witness. This protocol was approved by ethics committees.

We have included this information in the “ethics approval” section of the manuscript.

Comment 2: The RAD questionnaire is interviewer administered. Who interviewed the participants and what training did they receive?

Response: Field supervisors and interviewers were recruited based on their skills and previous experience. Some of the interviewers were people with disabilities. Training was provided for a week that included disability inclusion, study design, recruitment of participants, administration of the RAD questionnaire, ethics in research and collecting survey data, conducting interviews, data storage and referral mechanisms for participants. Supervised field practice sessions were also conducted as part of the training.

A separate sub-section on training of interviewers has been included in the Methods section.

Comment 3: Page 6, the RAD questionnaire paragraph, “those who answered ‘yes’ to an item were then asked to rate the frequency of difficulty as ‘some of the time,’ ‘most of the time,’ or ‘all of the time.’ Those who self-reported having difficulty ‘most’ or ‘all of the time’ to at least one item from the first seven domains or at least two items from the psychological distress domain were considered to experience functional limitation (referred to as disability hereafter)”. Do authors have any reference?

Response: The cut off criterion was determined based on the recommendations from the Washington Group for short set questions (WG, 2010) and consensus among the research group. Further to field testing in Bangladesh, average locations of response categories for the 18 items in section 2 along the disability continuum were analysed. There was substantial separation in the average locations of the two lowest response categories (0 = never and 1 = some of the time) and between the second and third (2= most of the time and 3= all of the time) response categories. Response categories 2 and 3 appeared to be very close to each other on the disability continuum, indicating that these response categories could not be distinguished by the respondents and were representing similar level of disability.

This information and a figure on category probability curves (Figure 2) are now included in the manuscript.
Comment 4: Page 9, in Field-testing in Fiji paragraph, “Considering that there are no gold standard instruments to compare the RAD questionnaire, a convenience sample of known people with disability were recruited in Fiji to test the sensitivity and specificity”, cases were recruited from among those who were receiving services from community-based rehabilitation or were enrolled in Disabled People’s Organisations. Please describe clearly about the criteria of people with disability (case).

Response: The Fiji National Disability Policy defines people with disabilities as persons with long term physical, mental, learning, intellectual and sensory impairments and whose participation in everyday life as well as enjoyment of human rights are limited, due to socio-economic, environmental and attitudinal barriers. Members of registered Disabled Peoples’ Organisations self-identifying as people living with significant impairment were recruited as cases. Participants recruited as cases were people with a range of impairments who were receiving rehabilitation services from community-based rehabilitation programs.

This information is included in the manuscript.

Comment 5: Page 6-7, the RAD questionnaire paragraph, “self-care” in section 2 and “taking care of one’s self” in section 4 are asking the same thing.

Response: Similar to the WG questionnaire, “self-care” in section 2 refers to personal care such as washing, toileting, etc. The item “taking care of one’s self” in section 4 measures aspects beyond personal care and relates to financial independence, and related aspects.

Comment 6: Page 12, participants paragraph, could authors explain why there was no significant difference between people with disability and their matched controls in the level of education in Bangladesh but significant in Fiji?

Response: The difference in findings related to the level of education between cases and controls in Bangladesh and Fiji is because of the difference in the sampling methods used in two countries. In Bangladesh, compact segment sampling was used and age and gender matched controls were selected from the households located in the same segment as the cases. Households in a segment shared similar socio-economic characteristics and differences in the levels of education would also be expected to be minimal. However, cases and controls were selected based on a convenience sampling method in Fiji. While cases and controls were individually matched on age and gender in Fiji, they were not matched on socio-economic factors. Therefore, some differences between cases and controls on these characteristics would be expected to occur.

Comment 7: Although the rights awareness section (section 3) has been removed from the final version of the RAD, it is important information to know the current status of people with disability.

Response: We agree that the rights awareness is important information for disability inclusive programs. However, that section of the RAD exhibited poor measurement properties and the responses were biased towards affirmative responding, despite using different phrasing. Further research is needed to revise this section of the questionnaire to ensure its psychometric robustness in the measurement of awareness of rights. In the
interim, we have retained an open-ended question in section 2 that asks the respondent’s knowledge on the rights of people with disability.

Information related to the current situation regarding access to enacted rights for people with disability can be still assessed using the information in the ‘access to the community’ section that has questions related to accessing services and participating in the social and community life.

**Minor Essential Revisions**

1. Line 390, section 3 should be section 4.

*Thank you, this has been corrected.*