Author’s response to reviews

Title: Evaluation of an interaction-skills training for reducing the burden of family caregivers of patients with severe mental illness: a pre-posttest design.

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Author's response to reviews:

November 20, 2017

Dear Sharon Lawn,

Subject: Submission of revised paper BPSY-D-17-00606

Thank you for your email dated October 21, 2017 enclosing the reviewers’ comments. We also thank the reviewers for their useful comments, which we have carefully addressed. Our responses are given in a point-by-point manner below. Changes to the manuscript are marked in bold.

We hope the revised version is now suitable for publication in BMC Psychiatry and look forward to hearing from you in due course.
Sincerely,

Yasmin Gharavi, MSc

Response to Reviewer 1:

(1) comment of the reviewer: How did the authors check that the patients whom the caregivers were relatives of met the criteria for "having a severe mental illness"? It would be good to clarify whether the criteria were checked independently from caregiver report and how.

(2) response: Our target population consisted of family members of patients with severe mental illness. We did not conduct assessments at the patients’ level. The majority of our participants, i.e. the family members, were recruited via mental health institutions that provided specialized treatment to patients with severe mental illness. These patients had been diagnosed with a severe mental illness prior to the start of their treatment. A few participants (family members) were recruited through local media. A common characteristic of all participants (family members) was that they provided long-term informal care for the patient with SMI and experienced significant burden, which was the main reason for them to participate in the interaction training.

(1) comment of the reviewer: Was informed consent for contacting the carers sought from patients (especially if the carer was recruited through registered patients)?

(2) response: The text in the manuscript is not completely correct. The family members were not recruited through registered patients. We apologize for this misinformation. We changed the text on page 5 as follows:

‘‘Within these three hospitals, there was an open registration for family members to participate in the training. The training was announced through the mental health professionals, local media, or a brochure’’.

The patient was not actually involved in these procedures and in the training. No patient-specific information was used in the training, so the protection of the privacy was guaranteed. In
accordance with Dutch legislation concerning medical research, no informed consent of the patient is required in these situations. As mentioned in the text, informed consent has been obtained from the family members.

(1) comment of the reviewer: Were there some standard criteria for excluding participants from analysis based on "incomplete data", i.e. how many missing values should have been there to warrant exclusion of a participant from analysis?

(2) response: Participants were required to complete a questionnaire on three occasions: at T0 (baseline), T1 (after the training) and T2 (three months after termination of the training) in order to examine the effects of the IST program. When participants missed out on of the three measurement moments, they were excluded from analysis. This information has now been added to the paper (Method section) on page 5 to clarify this point: ‘‘Twenty-five participants were excluded from the analysis because of missing data at one of the three measurements T0, T1 or T2, or due to insufficient participation in the training sessions (more than one session absence).’’.

(1) comment of the reviewer: Was there any link between appreciation of training and change in study outcomes (self-efficacy and burden reduction)?

(2) response: We mentioned the association between caregivers’ appreciation of the training and changes of burden and self-efficacy on page 10, as described under ‘evaluation of the training’ (Results section): ‘‘There were no significant associations between their appreciation of the training and their decrease in burden ($r(75) = -0.102, p = 0.384$) and their increase in self-efficacy ($r(75) = 0.092, p = 0.432$)’’.

(1) comment of the reviewer: I understand that the SEQ instrument is now being formally and comprehensively tested for its psychometric properties. Yet, I feel the few parameters reported in
the limitation session (4th limitation) of the discussion would rather belong to the result section of this paper.

(2) response: Many thanks for this consideration. For a good overview, we decided to present all information concerning the development and psychometric properties of the SEQ in the Method section. In the Discussion section on page 12 we changed the formulation of the fourth limitation as follows: ‘Finally, although SEQ showed high face validity, good feasibility and high internal consistency, further examination of the psychometric properties of the Self-Efficacy Questionnaire (SEQ) is necessary. This psychometric research is currently in progress’.

Response to Reviewer 2:

(1) comment of the reviewer: The term 'patients' is used throughout; however, given the study is focused on family caregivers, the term seems out of place because the support they provide is not 'clinical' and they wouldn't call them patients. 'Person' might be a better term to use in this context.

(2) response: Thank you for your valuable comment. We have taken it seriously into consideration. However, we think that referring to ‘patients’ instead of ‘persons’ leads to more clarity in the manuscript. The use of the term ‘person’ could easily lead to confusion for the reader, because this general term can also refer to family members, health care professionals or other persons in the patient’s environment. Using the term ‘patient’ leads to a clearer distinction between all persons involved. Use of this term can also be justified by the fact that all patients received specialized care in a formal mental health care setting.

(1) comment of the reviewer: This section about the use of the mat needs more explanation. It isn't clear whether the person with mental illness is actually present. Once the carer practices several interaction skills to handle difficult confrontations, you say that both of them are standing on the red mat. This suggests that the person is also involved in the training; but this is unclear. If it is a role-play, then how is this constructed to mirror the real experience that the carer must learn to overcome once they go home.
(2) response: Thank you for this valuable comment. We agree that our description of the mat could lead to confusion in the reader. The patient with severe mental illness is not present during the training sessions. Either one of the participating family members or a MAT trainer takes the position of the patient in the role-plays.

To clarify this point, the following information has been added to the paper (Method section) on page 6: “Either a fellow family member or a MAT trainer takes the position of the patient in the role-plays”.

(1) comment of the reviewer: Also more detail about the homework assignments is needed. The table of information about each meeting doesn't really describe this.

(2) response: We added the following information about the homework assignments on page 6: “The sessions were accompanied by homework assignments with instructions to practice the specific skills that were central in the successive sessions. The participants’ experiences when executing the homework assignments were discussed at the start of the following session”.

(1) comment of the reviewer: More could be said about how each week builds on the next and how they link together.

(2) response: We added the following sentence to the description of the mat training on page 6: “The sessions have a structure that gradually adds new interaction elements to the training, with increasing difficulty of the interaction process”.

We believe that in combination with the detailed description of the training in table 1 and the added details about the homework assignments, sufficient information is provided with respect to the structure of the training.

(1) comment of the reviewer: Also, what happens if a participant doesn't or can't attend each week?
(2) response: Participants were allowed to miss one session during the complete training. Participants who missed more than one session were excluded from further participation. One hundred family members participated in the training and 75 participants were included in the analyses. Twenty-five participants were excluded from the analysis because of missing data at one of the three measurements or because of insufficient participation in the training sessions (more than one session absence) (see previous comment).

(1) comment of the reviewer: p.7 line 34 - the IEQ has already appeared earlier in full words, so the acronym is fine here.

(2) response: Thank you for this correct remark. We have changed this in the manuscript: (Method section) on page 7.

(1) comment of the reviewer: p.9 line 22 - there appear to be some missing word at the end of this sentence.

(2) response: Thank you for this observation. See the changes (Results section) on page 9. We added the following sentence: ‘‘in accordance with existing guidelines for interpreting the effect sizes, as offered by Cohen’’.

(1) comment of the reviewer: p.11 line 25 - 'Rose et al.[19] claimed….'

(2) response: See the changes (Discussion section) on page 11.

(1) comment of the reviewer: p.11 line34 - the statement about the move to more ambulatory care and more responsibility put on carers should be supported with evidence/reference.

(2) response: The following reference is now added to the paper (Discussion section) on page 11 and (References section) on page 18 to clarify the statement about the current trend in mental health care towards more ambulatory treatment: ‘‘Bond, G. R., Drake, R. E., Mueser, K. T., &

(1) comment of the reviewer: p.12 - line15 - information about the SEQ could be clearer

(2) response: The method section offers substantial information about the aim, the developmental process and the content of the SEQ. We also report on the reliability of the SEQ. However, for more detailed information about the scale, we refer to psychometric research that is in progress now and that will be published in the future. We hope that this information is sufficient for the reader.