Author's response to reviews

Title: Cost-effectiveness of family psychoeducation to prevent relapse in major depression: Results from a randomized controlled trial

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Author's response to reviews: see over
Dear Editors,

Thank you very much for the opportunity to revise and resubmit the above referenced manuscript once again.

We appreciate the comments and critiques by the reviewers. As indicated in the responses that follow, we have taken all these comments and suggestions into account in the re-revised version of our paper.

We hope the manuscript will now be satisfactory but are ready to address any further concerns you may have. Thank you once again for your consideration of this manuscript.

Sincerely yours,

Toshi Furukawa
Major compulsory revisions

1. Following the reviewer's suggestion, we have converted all yen values into US dollars and presented the latter only.

2. We used the bootstrap method to evaluate the differences in costs between family psychoeducation and TAU, using STATA.

3. We agree that a price at $0 for psychoeducation sessions is unrealistic. In the Results and the Discussion we therefore deleted any reference to this unrealistic scenario of no reimbursement per session. However, we retained the curve for this baseline scenario in the Figure because we believe that it would give a better appreciation of different costing scenarios. Our plausible ranges of prices for one psychoeducation session are between US$50 and $100 for a 2-hour session. We explained this in the Methods as “Given that three therapists, whose average wage can be up to US$50 per hour including social security costs, attended each 2-hour session for five patients, we believe that these estimates cover a reasonable cost estimate range between relatively poorly reimbursed through to relatively well reimbursed.”

4. We can only assure our reviewer that these are the facts under the strict ceteris paribus condition, with the sole difference of adding psychoeducation or not between the experimental and control groups, as we have explained in our Methods section. No dropouts occurred after the initial three. There was no special attention to the intervention group, other than the psychoeducation: the doctors in charge of TAU as well as those making the judgment for relapse were kept blind to the treatment status. We have now used the bootstrap method to compare the average relapse-free days between the two groups.

5. We added our inability to adopt the societal perspective as another of the weaknesses of our study in the Discussion. We also simplified the sentence in question as "It must also be remembered that all the above arguments are based on direct healthcare costs only. Indirect morbidity and mortality costs far outweigh the direct costs taken into consideration here [19, 20]."

6. We gave further details of the dropouts as “one family member in the intervention group and another in the control group refused to undergo the baseline assessments and one patient in the control group died from a physical illness.” Since there were only three dropouts, it is not possible to compare them with the 54 remaining participants. We agree with the reviewer that our analyses are not strictly ITT.

Minor essential revisions

7. This explanation of CEAC follows that by Fenwick & Byford (Br J Psychiatry, 187, 106-108, 2005).

8. In Japan NHI bills are issued every time the patient makes an outpatient visit or for every month that a patient stays in the hospital. We have collected all these bills. The breakdowns of the bills are usually not given. However, because the bills are different between outpatient and inpatient cares, we knew that certain bills were due to hospitalization.
Major Compulsory Revisions

1. Unfortunately, the references containing the six estimates mentioned in Lave et al's paper were largely unavailable. However, in searching for empirically derived utility values for depression, we found two studies that applied various standard methods of estimating utility scores (Quality of Well-Being scale, visual-analog rating scale, and standard gamble method) to various samples (longitudinal cohort of patients receiving depression treatment, cross-sectional general population sample, and formerly and currently depressed samples). As expected, they showed converging yet variable utility values. We therefore examined the upper and lower values taken from these empirical studies to determine the range of possible QALY values for a depression-free day.