

To the Science editor Fang-Fang Ji
World Journal of Psychiatry

Milano, 24/07/2018,

Dear Editor,

please find the revised version of the paper entitled "Rumination, metacognition and shyness". We have revised the paper in accordance with the reviewers' comments.

Our amendments are outlined below. Italicized text represents a quotation that we have subsequently placed in the manuscript. The comments were useful and we hope that our proposed changes are satisfactory. We hope that you will now find the manuscript acceptable for publication in World Journal of Psychiatry.

Kind regards.

From the Editorial Office:

Comments

1. We checked the paper by crosscheck, there are similar sentences (highlighted in the report) with other articles, please rewrote these sentences.

R: We rewrote the sentences.

2. For manuscripts submitted by non-native speakers of English, please provided language certificate by professional English language editing companies.

R: Manuscript was edited by an English language editing companies. We provided a certificate.

3. A succinct and impactful title will include minimal nonfunctional words, such as "a", "an", "the", and "roles of", and will avoid non-standard abbreviations.

R: We have changed the manuscript title to "*Rumination, metacognition and shyness*".

4. Institutional review board statement: Please offer signed pdf format.

R: We have offered a pdf format.

5. Informed consent statement: Please offer signed pdf format.

R: We have offered an informed consent.

6. Biostatistics: Please offer signed pdf format.

R: We have offered a signed pdf format.

7. Conflict-of-interest statement: Please offer signed pdf format.

R: We have offered signed pdf format.

8. STOB: Please offer PDF file for it.

R: We have offered a pdf format.

9. Telephone and fax

R: Changes required were added.

10. AIM (no more than 20 words): The purpose of the study should be stated clearly, with no or minimal background information, following the format of: "To investigate/ study/ determine..."

R: The aim has been changed.

"To explore the association between metacognitive beliefs, rumination and shyness in a non-clinical sample of adults."

11. Audio Core Tip: Please offer the audio core tip.

R: We have offered the Audio Core Tip.

12. Article highlights

R: Changes required were added.

13. References: Please add PubMed citation numbers and DOI citation to the reference list and list all authors.

R: We added PMID or DOI where possible. Some articles are not available in PubMed.

14. Table 1: Please offer the versus group for all p value.

R: All p values were specified in table 1 and table 2.

15. Table 2: Please offer legends for all abbreviation names.

R: Legends about all abbreviations were added.

16. Figure 1: Messed, please reoffer it.

R: Figure 1 was reoffered.

Reviewer 1

Comments

1. ABSTRACT: Keywords 'Post-mortem' Although the authors explain what 'post-mortem' means in the theory of social anxiety disorder (SAD), the use of the term as a keyword is somewhat odd & confusing. I would suggest using the term 'post-event' (that the authors have used elsewhere) throughout the text instead of 'post-mortem'.

R: Change required was added. Throughout the manuscript post-mortem was changed in post-event.

2. INTRODUCTION: The self-regulatory executive function model (S-REF) & the Cognitive Attentional Syndrome need to be elaborated upon so that the readers understand what they imply. Meta-cognitions need to be defined.

R: In order to address the reviewer's comments, we added this section to the introduction:
"The self-regulatory executive function model (S-REF)^[1] has been proposed by Well and Matthews to describe dysfunctional cognition in psychological distress. The S-REF model posits that psychological dysfunction may be maintained by a combination of attentional focusing on threat, rumination, worry, and dysfunctional behaviours, which constitute the Cognitive Attentional Syndrome (CAS)^[2]. CAS is activated and maintained by metacognitive beliefs, defined as the information that an individual has about his/her own cognition and coping strategies, which impact on CAS^[2]. Metacognitive beliefs take two forms: positive and negative. Positive metacognitive beliefs motivate the use of CAS. Negative metacognitive beliefs concern the significance, uncontrollability and danger of thoughts^[3]. In the S-REF model, CAS is considered problematic because it causes negative thoughts and emotions to persist, leading to failures to modify dysfunctional metacognitive beliefs and stably resolve self-discrepancies^[4]."

3. INTRODUCTION: Well's meta-cognitive theory of anxiety disorders need to be explained.

R: In order to address the reviewer's comments, we added this section to the introduction:

“The importance of metacognitive beliefs can be explained with reference to the generalized anxiety disorder (GAD)^[5]. In the presence of a trigger (e.g. an intrusive thoughts and/or external factors), positive metacognitive beliefs about the usefulness of worrying as a coping strategy toward a threat are activated and persist until the person achieves a desired internal feeling state. Positive beliefs are not sufficient to lead to GAD; the development of negative beliefs about worrying contributes to an intensification of anxiety symptoms^[5].”

4. INTRODUCTION: Ruminations need to be defined & explained.

R: In order to address the reviewer’s comments, we added this section to the introduction:
“Rumination is one of the component of the CAS and it has been defined, in the context of social anxiety, as repetitive thoughts about subjective experiences during a recent social interaction, including self-appraisal and the external evaluations of partners and other details of the event^[6].”

5. INTRODUCTION: The terms 'social anxiety' and 'social anxiety disorder' should not be equated for obvious reasons.

R: Changes required were added.

6. Though 'shyness' and social anxiety disorder (and avoidant personality disorder) have occasionally been mentioned as being on a continuum , there is enough evidence to suggest that shyness is qualitatively distinct from the two pathological manifestations of social anxiety. This has to be acknowledged because it has important implications for the findings and the conclusions of this study.

R: We modified the paragraph according to the reviewer’s comments:

“Although it has been hypothesised that shyness could be qualitatively different from social anxiety^[18], some evidence places shyness and social anxiety on a continuum or spectrum in which social anxiety is conceptualised as “extreme shyness”^[6,18-20]. Such a conceptualisation also suggests that the two may share similar features at the somatic, behavioural and cognitive level^[18,21,22], even though that shyness is not pathological^[18].”

7. METHOD: When the authors mention that the STAI-Y was used to assess 'anxiety levels' they have to specify whether state or trait anxiety scores, or both were considered. This is not clear from their results either.

R: In order to address the reviewer's comments, this sentence was added:

"Anxiety levels were measured using the State Trait Anxiety Inventory form Y (STAI)^[30] for assessing trait anxiety"

8. RESULTS: As mentioned above, the analysis of STAI-Y scores is not clear. Were associations between these scores & shyness, meta-cognition & rumination examined? Alternatively, were these scores controlled for in the mediation analyses?

R: The associations between STAI-Y and shyness, meta-cognition and rumination were examined. These findings were added in table 1.

Mediation analyses were controlled for anxiety and gender, as described in the statistic's paragraph (with the sentence "Mediation analyses were adjusted for sex and anxiety"). Findings were added in table 2.

9. DISCUSSION: What is the degree of overlap between the two concepts of meta-cognition and rumination given that both are measures of excessive worrying? Do scales to assess these two concepts overlap as well? This will have important implications for the principal finding of this study, i.e. ' the mediational role of rumination in explaining the relationship between meta-cognition and shyness.'

R: In order to address the reviewer's comments and clarify this point we added the explanation of the S-REF model proposed by Wells in the introduction (see response to comment 2). In this model, metacognition refers to metacognitive beliefs which activate and maintain the Cognitive Attentional Syndrome (CAS) that includes cognitive processes such as rumination. Worry is another process of the CAS.

10. DISCUSSION: Why focus only on meta-cognitions and not on cognitive errors, which according to the cognitive-behavioural theory can explain shyness & social anxiety.

R: We appreciate this suggestion. The role of cognitive errors is beyond the aim of the present study. This represent a limit of the study which should be explored in future research. In the section "Limitations and Implications of the Research" we added the sentence:

“Furthermore, our study focused on metacognitive beliefs and did not investigate cognitive errors^[39], and therefore should be considered exploratory.”

11. Given that shyness is a personality trait which is not always pathological or maladaptive, is it appropriate to talk of 'treatments' for shyness? Is it not an unnecessary medicalization of a normal variation in personality? This brings us back to the difficulty in distinguishing between normal (but extreme) variations of personality and clearly pathological conditions such as social anxiety disorder or avoidant personality disorder. I think that the authors need to acknowledge this aspect, which has considerable bearing on their research.

R: In order to address the reviewer’s comments, we rewrote the paragraph:

“Starting from the position that shyness is neither a disease nor a psychiatric disorder^[40,41], these results could be relevant in helping individuals to understand the nature and dynamics of shyness by addressing its cognitive components^[41-43]. Carducci^[44] and Sirikantraporn et al^[45] have previously noted the value of examining the cognitive-related self-selected strategies used by shy individuals to deal with their shyness as a means of helping them to more effectively understand and respond to their shyness. Furthermore, with respect to the implications based on the results of the present study, the metacognitive model^[46] should be a potentially valuable framework for improving the social skills of shy subjects. Based on the metacognitive model^[46], the evaluation of metacognitive beliefs and the ruminative thinking could be considered in shy subjects given that this model is mainly focused on the modification or reduction of these aspects^[46].”

12. The language of the manuscript needs to be edited carefully to remove spelling & grammatical errors.

R: Manuscript was edited by an English language editing companies.

Reviewer 2

Comments

1. This paper has found associations with shyness in a non-clinical sample and suggests that this result will help people who are shy. If this were the case, this would be an important paper. The authors need to show in greater detail how

exactly their results can be put to use as therapy and how this therapy would be superior to what is currently available.

R: We rewrote the paragraph.

" ..., with respect to the implications based on the results of the present study, the metacognitive model^[46] should be a potentially valuable framework for improving the social skills of shy subjects. Based on the metacognitive model^[46], the evaluation of metacognitive beliefs and the ruminative thinking could be considered in shy subjects given that this model is mainly focused on the modification or reduction of these aspects^{46]}."

2. The English needs improvement.

R: Manuscript was edited by an English language editing companies.

Reviewer 3

Comments

1. Our journal is a medical journal, so you should use medical terms. In introduction, you mention post-mortem. In medicine, "post-mortem" means the state when the patient is already dead. I understand the meaning in which you use the term post-mortem, but it should be at least stated in quotation marks like that: "post-mortem".

R: Changes required were added.