Author's response to reviews

Title: Psychiatric Disorders of Patients Seeking Obesity Treatment

Authors:

Lin Hung-Yen (hylin116@gmail.com)
Yen Yung-Chieh (jackycyen@yahoo.com)
Huang Chih-Kun (ed102276@edah.org.tw)
Tai Chi-Ming (chimingtai@gmail.com)
Lin Hung-Yu (ed100464@edah.org.tw)
Tsai Ching-Chung (ed102514@edah.org.tw)
Hsuan Chin-Feng (ed102745@edah.org.tw)
Kao Yu-Hsi (ed105535@edah.org.tw)
Lee Su-Long (ed104690@edah.org.tw)
Chi Shu-Ching (ed100023@edah.org.tw)

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Author's response to reviews:

Department of Psychiatric, E-Da Hospital
1 Yi-Da Road, Yan-Chau District
Kaohsiung 824, Taiwan
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Dear Editors,

I would like to re-submit our manuscript, “Psychiatric Disorders of Patients Seeking Obesity Treatment”, to BMC Psychiatry. Thanks for editors and reviewers’ great suggestions. We had revised our manuscript by your suggestions and gave point-to-point responses to your concerns.

Thank you for reading our work. I look forward to hearing from you for decision or further suggestions.

Sincerely,

Yung-Chieh Yen, MD, MSc, PhD
Director, Department of Psychiatry, E-Da Hospital
Assistant Profession, College of Medicine, I-Shou University
Kaohsiung, Taiwan
E-mail: jackycyen@yahoo.com
Phone: +886-7-6150011
Fax: +886-7-6150919

Reviewer: Luca Lavagnino

1. The Results section starts with the number of patients reviewed (n=1832). If I understand correctly, these are patients that had CHQ and TDQ scores above the cut-off points and were referred for a psychiatric interview. How many of the patients that were tested had scores that were below the cut-off point for both scales? What is the total number of the patients that were tested with the CHQ and the TDQ?

Answer: Our study was a retrospective review in clinical setting. As in Figure 1, there were totally 1832 patients visited our obesity treatment center and had their initial evaluation with the TDQ and CHQ. However, patients might refuse further psychiatric interview when they were suggested to do so. The total number of patients receiving TDQ and CHQ were 1832. Among them, 406 cases (23.5%) were below the cut-off point for both scales. Another 88 cases were excluded due to incomplete TDQ or CHQ data or BMI data missing. At last, 868 cases were excluded because they refused psychiatric evaluation as they had either TDQ or CHQ score higher than the cut-off point.

2. The authors correctly emphasize the importance of addressing the psychiatric comorbidity of obesity for a multidisciplinary, integrated treatment. For this reason, it is puzzling that 47% of the patients that underwent the initial evaluation and were found to present significant psychopathology at the psychometric tests refused to see a psychiatrist, thus making treatment of any psychiatric illness impossible. Since this is a significant part of the initial sample (868 out of 1832), I think this issue needs to be discussed in more detail. Were these patients different in CHQ and TDQ scores compared to the patients who accepted to be evaluated by the psychiatrist? If these data are not available, it should be stated as a limitation of the study in the discussion.
Can the authors make any hypothesis to explain such a high attrition rate?
Answer: Those patients who refused psychiatric evaluation had the mean CHQ score 4.91 (SD 2.68) and the mean TDQ score 14.53 (SD 9.71). In comparison with the former, those patient who received psychiatric interview had the mean CHQ score 5.83 (SD 2.68) and the mean TDQ score 21.85 (SD 11.47); both scores were statistically significant higher than the scores of the former. However, patients of the two groups needed further psychiatric evaluation.

Obesity is less prevalence in Taiwan than in USA. (KC Huang, Obesity review (2008; 9 (Supp. 1):32-34). People in Taiwan placed less importance on sequelae of obesity before. In recent years, more and more people in Taiwan understand obesity may increase the risk of chronic physical diseases like diabetes, hypertension, stroke etc. Fewer people in Taiwan know the high prevalence of mental disorders among obesity patients, hence obesity patients may be unwilling to see psychiatrists due to the stigma.

3. The results section at page 9 needs to be clarified. The text says that “surgical patients were more likely to have a mood disorder”. This seems in contradiction with another statement that can be found some lines below: “surgery patients had more eating disorders than non-surgical patients, but there was no difference in mood disorders”. Looking at the figures in table 3 I understood that the first sentence refers to the category “other mood disorder”, while the second refers to “mood disorders” of any kind. I think this is confusing and should be explained more clearly in the text (perhaps stating that the prevalence of the category “other mood disorders” was higher in surgical patients for the first category and using a terminology like “all mood disorders” for the second category).
Answer: Thanks for the reminding. We agree that the terms “other mood disorders”
and “mood disorders” are easily confused. We had revised “mood disorder” to “any mood disorder”.

4. In the same Results section the authors state that “in overall psychiatric disorders, surgical patients still had a higher prevalence, with moderate significant (54.1% versus 38.6%, p=0.068)”. Usually, the null hypothesis (no difference between groups) is rejected at p<0.05, so p=0.068 should be considered not significant, unless the authors have very strong reasons to use a different significance level.

Answer: We had replaced “moderate significant” with “borderline significant” for p=0.068. Thank you.

Reviewer: Samuele Cortese

1. Background:
The authors mention the prevalence of obesity in the US. It would be appropriate, given the setting of the study, to report the prevalence in Taiwan as well. I suggest to quote: Asia Pac J Clin Nutr. 2009;18(1):88-95.Understanding the differences in obesity among working adults between Taiwan and China. Shimokawa S, Chang HH, Pinstrup-Andersen P. The authors should point out, at the end the introduction, what this paper does specifically add to previous literature in the field, i.e., the original aspects of this study and why it was carried out. This should be followed, in the last paragraph of the introduction, by the specific aims and the specific hypotheses.

Answer: As your suggestion, we had added to Background to emphasize the obesity prevalence in Taiwan and the specific aims and hypotheses of our study.

2. Methods: The inclusion and exclusion criteria are not clear to the Reviewer. Please add them. The level of statistical significance (I guess p< 0.05, one or two tailed?) should be pointed out.

Answer: We had revised as follows. The exclusion criteria were age younger than 18 years old, incomplete data of BMI, TDQ, or CHQ, and non-adherence to the suggestion to have psychiatric interview for psychiatric diagnosis. The level of
3. Discussion: I do not see a discussion of the strengths and limitations of the study. Please add it.

Answer: we had added the strengths (big sample size, reliable diagnosis from psychiatrist, comparing between different treatments) and limitations (high attrition rate) of the study in the Discussion.

4. From the results section, as well as from table 2, it appears that ADHD was not evaluated. If this is the case, the authors should mention this as a limitation the study, and quote references about the emerging link between ADHD and obesity (e.g., Postgrad Med. 2010 Sep;122(5):88-96. Comorbidity between ADHD and obesity: exploring shared mechanisms and clinical implications. Cortese S, Morcillo Peñalver C.). Interestingly, the authors found a link with sleep disorders. Given the link between sleep disorders and ADHD, this should be also briefly mentioned (e.g.: Parent reports of sleep/alertness problems and ADHD symptoms in a sample of obese adolescents. Cortese S, Maffeis C, Konofal E, Lecendreux M, Comencini E, Angriman M, Vincenzi B, Pajno-Ferrara F, Mouren MC, Dalla Bernardina B. J Psychosom Res. 2007 Dec;63(6):587-90. And : Med Hypotheses. 2008 Nov;71(5):770-5. Epub 2008 Aug 3. Alertness and feeding behaviors in ADHD: does the hypocretin/orexin system play a role? Cortese S, Konofal E, Lecendreux M.). Mention to ADHD and the connection between sleep disorders and ADHD would stimulate the field to explore comorbidities other than the classic ones that have been extensively explored (e.g., depressive and anxiety disorders), thus moving the field towards novel advances.

Answer: As we review literatures related to the psychopathology of people seeking obesity treatment, the main focus is still mood disorders, anxiety disorders,
eating disorders, and personality disorders. We excluded patients younger than 18 in our study as we knew ADHD is prevalent in child and adolescent but may not be easy to diagnose in adulthood. Our study is more like the previous article, “Psychiatric Disorders Among Bariatric Surgery Candidates: Relationship to Obesity and Functional Health Status” (Am J Psychiatry 2007; 164:328–334). However, we do agree that the relationship between ADHD and obesity is a novel and important issue in need of further study.


Answer: Thanks for the advice. We have added in Discussion and cited this reference accordingly.

Reviewer: Vikas Duvvuri
1. 1. For the 1832 subjects: please include BMI, % who received bariatric surgery, % male /female and age. It is unclear how exclusion of nearly a thousand subjects has altered the characteristics of the final dataset. Please clarify if this is a national referral clinic, regional center, etc?

Answer: These 1832 subjects had a mean age of 37.6 years (SD 11.7) and a mean BMI of 35.2 kg/# (SD 8.9), with 40.2% of them received bariatric surgery. Among the 1832 subjects, 72.1% were female. The inclusion and exclusion flow chart is shown in Figure 1. There were 868 subjects who were suggested to visit psychiatrist but refused to do so. Our obesity treatment center is a university hospital. Patients come from all over the country.

2. In using the SCID, are you referring to the current diagnosis, lifetime diagnosis or both?

Answer: Lifetime diagnosis
3. What was the hypothesis being tested in the comparison between surgical and non-surgical subjects? At this clinic, what was the rationale used to determine if a patient underwent surgery?
Answer: We hypothesized that surgical and non-surgical had different prevalence of psychiatric disorders.
Patients who wanted to receive bariatric surgery must meet surgery indication, morbid obesity, and they needed to receive complete pre-operation evaluation including psychiatric evaluation. In fact, our hospital has a patient safety committee in charge of the determination whether the patients are eligible for the bariatric surgery.

4. Please discuss the implications of the findings in Table 3.
Answer: Thanks for the reminding. We have added the following description in Discussion. Patients of the surgical group had higher prevalence in several specific psychiatric disorders (adjustment disorder, binge eating disorder, and sleep disorders) than the non-surgical counterparts, but overall psychiatric disorders were prevalent in both groups. It implies that people who seek obesity treatment suffer from similar psychopathological process with some exceptions no matter what treatment those patient receive.

5. If BMI cannot predict the diagnoses listed in Table 4, what are alternative contributors?
Answer: As your suggestion, we revised our Table 4. We recalculated our logistic regression and found some different outcomes. As revised Table 4 shows, BMI could predict the presence of sleep disorders (OR: 1.055, p=0.013) after adjusting for age, gender, education and marital status. On the other hand, higher BMI decreased the presence of any anxiety disorder (OR: 0.975, p=0.027) after adjusting for all the other co-variates. By those logistic regression models, female gender is positively associated with
any mood disorder, any eating disorder, and any psychiatric disorder in comparison with male gender. Divorced or widowed marital status is associated with any mood disorder, and any psychiatric disorder. On the contrary, married marital status could predict sleep disorder.

6. Please discuss the limitations of the study.

Ans: some limitations of our study: it was retrospectively chart reviewed, The high rates of refusing psychiatric evaluation, may affect the our results

Reviewer: Valdo Ricca

1) Introduction and discussion sections are too long, redundant in some parts and should be substantially abridged.

2) A careful English mother tongue writer should carefully revised the manuscript before publication.

Answer: Thanks for your suggestion. We had revised the Introduction and Discussion accordingly. We have invited an English editor for grammatical and typographical proofreading.