Reviewer's report

Title: Serum leptin and ghrelin are associated with depressive symptoms in Japanese women but not in men

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Reviewer: Martha Payne

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BMC Psychiatry

Serum leptin and ghrelin are associated with depressive symptoms in Japanese women but not in men

This important study examines the relationship between ghrelin and leptin levels with depression symptoms in a sample of adults in Japan (which has high prevalence of depression symptoms). The sample size is reasonably large considering the assessments included. Strengths include use of CES-D for depression, and fasting samples for biological measures. This is a good paper overall but a few issues need to be addressed.

Major Compulsory Revisions

1. Authors need to be more careful in describing non-significant findings. Their own findings for leptin across tertiles were non-significant for a trend but are discussed as if they were significant. Conclusions should not be drawn from non-significant findings. Similarly the authors present results from a study on page 13, line 5 but then mention that they were not significant.

2. Authors should discuss the finding of protective effect for leptin in 2nd tertile only. Why would 3rd tertile not be significant? Also, authors speculate that lack of association for men was due to lower values, yet 3rd tertile in men was of comparable level to 2nd tertile in women.

3. Results indicate no difference in BMI between groups. This is at odds with most western studies showing a relationship between depression and obesity, and should be discussed.

Minor Essential Revisions

1. Clarify what is meant by ‘technical jobs’ because it does not appear that these jobs would necessarily involve greater physical activity.

Discretionary Revisions

1. None

Level of interest: An article of outstanding merit and interest in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests