Author's response to reviews

Title: Associations of Body Mass Index, Weight-related Concerns and Behaviors
With Eating Disorders Among Non-clinical Chinese Adolescents

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Version: 3 Date: 21 January 2010

Author's response to reviews: see over
Dear Dr. Singhal:

Re: "Associations of Body Mass Index, Weight-related Concerns and Behaviors With Eating Disorders Among Non-clinical Chinese Adolescents" (2970657872722598).

Thank you so much for your email dated the 31st December 2009. I would like to express our appreciations for the valuable comments from you and the reviewer.

The manuscript has been extensively revised according to the comments. The specific modifications are shown below. The modified parts have been marked in red in the manuscript.

We would like to resubmit this manuscript for consideration of publication.

If you have any questions, please feel free to contact me.

Thank you very much.

Sincerely yours,

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Determinants of Associations of Body Mass Index, Weight-related Concerns and Behaviors With Eating Disorders Among Non-clinical Chinese Adolescents

The authors mention Stice’s model in the Introduction as a response to the request for more theoretical background. However, based on this model, one would expect overweight to lead to body dissatisfaction, which may in turn generate dietary restraint (or negative affect) and this may eventually lead to eating disorder (ED) symptoms. The authors however state that (see introduction page 6, last sentence) based on the Stice model, they hypothesise that weight control concerns and behaviors mediate the association between BMI and ED symptoms. In their analyses, the use the EDI scale Body Dissatisfaction as a possible ‘ED symptom’ (in other words: as an outcome variable), whereas in the Stice model, this variable is considered a cause of dietary restraint, rather than an outcome.

Response:
Page 5: add the following discussion to the last paragraph: Longitudinal studies have found that weight and shape concern and weight control behaviors are potent predictors for future onset of full- and sub-threshold anorexia nervosa and bulimia nervosa[17-20].
Page 6: the second paragraph has been deleted. The third paragraph has been revised as follows:
Based on the evidence that elevated adiposity is theorized to contribute to weight control concerns and behaviors among adolescents [34-39] and that weight/shape concern and weight control behaviors increases risk for the onset and maintenance of eating disorders [7, 28, 31, 40], we hypothesized that weight control concerns and behaviors may mediate the association between BMI and eating disorders. Given the rather limited literature concerning the role of weight control concerns and behaviors among non-clinical Chinese adolescents, the current study tested this hypothesis using a national representative survey of adolescents.
Page 7: first paragraph has been loaded before the third paragraph in page 6.

This former issue brings me to my two concerns with regard to the operationalisation of the main variables:
- regarding the outcomes (ED symptoms), the authors use all EDI subscales. However, as they correctly mention in the methods section (page 10, first paragraph), only BD, B and DT relate to diagnostic criteria of EDs. The other subscales are to be considered psychopathological or personality correlates of ED symptoms, rather than real ED symptoms. Especially when investigating underlying (mediating) mechanisms of ED symptoms, it is important to only use real ED subscales as outcome (like the Bulimia subscale). The low self-esteem subscale for example may not be seen as an ED
symptom. Especially since the authors base their hypothesis on the Stice model, low self esteem may rather be considered a mediator (affect regulation pathway) that an outcome variable.

Response:
Table 3 and Table 5: revision has been made accordingly.

- regarding the mediation variables: the authors are not always consistent. For example, in the first sentence of the abstract, they indicate that they will examine ‘weight-related concerns and behaviours’ as mediation variables. In the introduction (page 5, last paragraph), they provide a definition of this variable. However, in their definition (and also in their questionnaire), the concerns are just the same as ‘thinking about a weight control behaviour’. This latter variable should then be defined as a ‘weight control concern’ instead of a ‘weight-related concern’. Those two concepts are alternately used throughout the entire manuscript, but are in fact two distinct concepts. Weight-related concerns are much more than thinking about weight control behaviour (see also: Fairburn, Cooper & Shafran 2003).

Responses:
Page 5: last paragraph and throughout the manuscript, change “weight-related concerns and behaviours” to “weight control concerns and behaviors”. The sentence “The term weight-related concerns and behaviors describes a constellation of concerns and practices designed to influence one's shape or weight. These concerns and practices are on a continuum ranging from healthy to unhealthy.” has been deleted.

English expression:
INTRODUCTION
the introduction is very long, also as mentioned above, the concepts ‘weight related concerns’ and ‘weight control concerns’ are used in the entire manuscript but are in fact two distinct concepts.

Response:
Page 4: the first paragraph and the second paragraph have been deleted.
Page 6: the second paragraph has been deleted.
Page 5: the last paragraph and throughout the manuscript, change “weight-related concerns and behaviours” to “weight control concerns and behaviours”.

page 4, last paragraph: extreme emotions – serious emotional problems(repetition in the same sentence)
Response:
Page 4: revision has been made accordingly.
page 6, second paragraph, last sentence (additionally….and behaviors): this is repetition from the last sentence of page 4 (overweight as risk factor for EDS)

Response:
Page 6: revision has been made accordingly.

RESULTS
page 12: the EDI cronbach’s alpha’s should be integrated as part of the description of the EDI in Method section

Response:
Page 10: revision has been made accordingly.

DISSCUSSION
page 16: when describing the developmental path to EDs, the authors mention that increased body size may lead to increased body dissatisfaction, then to unhealthy weight control behaviours and ultimately to increased risk for negative psychological consequences. This idea is however not in line with the author’s main hypothesis, that is, that body dissatisfaction is an outcome of unhealthy weight control practices, rather that a cause. This should be clarified.

Response:
Page 16: revision has been made accordingly.

-page 17, second paragraph/page 18, first paragraph: be careful with the use of the term ‘predictor’ since results are cross-sectional

Response:
Page 17: the second paragraph/page 18, the first paragraph: “predictor” has been changed to “indicator”.

page 18, second paragraph: the link between the results of the present study and the affect regulation pathway is unclear and should be clarified some more.

Response:
Page 18: the second paragraph:
We extend the work of others who have identified relationships between BMI and disordered eating attitudes and behaviors that a considerable proportion of the drive to thinness, bulimia and body dissatisfaction among adolescents were attributable to their weight control concerns and behaviors. We did find that the adolescents who present early onset of an eating disorder symptom were significantly associated with more concerns of their body weight and did show more likelihood of unhealthy weight control behaviors including dieting and excessive exercise.