Correspondence

Reply to Dakanlis et al.'s 'Efforts to make clearer the relationship between Body Dissatisfaction and Binge Eating'

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Recommend Citation:

Holmes, M., Fuller-Tyszkiewicz, M., Skouteris, H., & Broadbent, J. (2015). Reply to Dakanalis et al.'s 'efforts to make clearer the relationship between body dissatisfaction and binge eating'. Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity, 20(1), 147-148. https://doi.org/10.1007/s40519-014-0157-9

This is a post-peer-review, pre-copyedit version of an article published in Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity. The final authenticated version is available online at: https://doi.org/10.1007/s40519-014-0157-9

Compliance with Ethical Standards:
Funding: N/A
Conflict of Interest: The authors declare that they have no conflict of interest

Dakanalis and colleagues [1] raise concern that our conclusion in Holmes et al. [2] of superiority of the dual pathway model [3] over competing models (escape from awareness [4] and objectification theory [5]) is biased by the fact that this model has more variables. We wholeheartedly agree that parsimony is an important consideration during model comparison. However, in this case, we argue on several bases that their concerns regarding parsimony and model fit are overstated. First, as each of the tested models were just-identified (as would be expected for these mediation models), commonly reported model fit statistics such as chi square, CFI, TLI, and RMSEA are not a meaningful basis for model evaluation [6]. Second, using the Bayesian Information Criteria, which is suitable for comparison of non-nested models [7] and can be reported for just-identified models, we find negligible differences in model appropriateness: BIC = 1713.61 for dual pathway model, BIC = 1710.33 for objectification theory, and BIC = 1709.34 for the escape from awareness model. Thus, any difference in complexity is offset by increased predictive utility of the more complex model. Third, while the dual pathway model is technically less parsimonious, it is doubtful that the imposition of this additional complexity (one additional variable, and three further parameters to estimate) would lead to difficulties in implementing findings into clinical practice. Indeed, finding that the dual pathway model explains almost twice as much variance in the IV-DV relationship as its nearest comparator, and also observing that both model-implied pathways (dietary restraint and negative mood) are predictive of binge eating, it would appear advantageous for clinicians to attend to these predictors in order to reduce the occurrence of binge eating. Furthermore, from a statistical standpoint, model misspecification (through omission of important variables) undermines accuracy of parameter estimation [6].

Although ultimately the critique of Dakanalis et al. [1] does not alter the conclusions of Holmes et al. [2], their suggestions to weigh a model's predictive utility against model complexity is an important adjunct to standard model testing practices. We encourage the adoption of these practices, as demonstrated clearly elsewhere [e.g., 8]. Dakanalis et al.'s [1] suggestion to evaluate the effect of binge eating on subsequent body dissatisfaction is also worthy of investigation, but is well beyond the intended scope of Holmes et al. [2].

Conflict of interest: On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

1. Dakanalis A, Carrà G, Clerici M, Riva G (2014) Efforts to make clearer the relationship between body dissatisfaction and binge eating. Eating and Weight Disorders.
2. Holmes M, Fuller-Tyszkiewicz M, Skouteris H, Broadbent J (2014) Understanding the link between body image and binge eating: a model comparison approach. Eating and Weight Disorders.
3. Stice E (2001) A prospective test of the dual-pathway model of bulimic pathology: Mediating effects of dieting and negative affect. Journal of Abnormal Psychology, 110: 124–135.
4. Heatherton TE, Baumeister RF (1991) Binge eating as an escape from self-awareness. Psychological Bulletin, 110: 86-108.
5. Fredrickson BL, Roberts TA (1997) Objectification theory. Psychology of Women Quarterly, 21:173–206
6. Kline RB (2011) Principles and practice of structural equation modeling. (3rd edition). Guilford Press, New York.
7. Schwarz GE (1978) Estimating the dimension of a model. Annals of Statistics 6:461-464.
8. Dakanalis A, Timko CA, Carrà G, Clerici M, Zanetti MA, Riva G, Caccialanza R (2014) Testing the original and the extended dual-pathway model of lack of control over eating in adolescent girls. A two-year longitudinal study. Appetite, 82:180–193.