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Title

Body image and disordered eating in older women: A Tripartite Sociocultural model

Running head: Tripartite in Older Women

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Highlights

- We examined factors associated with older women's body image and eating concerns
- Media pressure and peer pressure were directly associated with body dissatisfaction
- Thin-ideal internalization operated as a core mediating factor
- Thin-ideal internalization and body dissatisfaction were associated with dieting

Abstract

Evidence suggests that body image concerns and disordered eating exist in women even at older ages. Few studies have examined the factors that are related with body image and eating concerns in this age group. In particular, the roles of sociocultural influences and thin-ideal internalization remain unclear. In the present study, we tested a modified tripartite sociocultural model of body image and disordered eating behaviors in a sample of 222 women aged 60 to 75 years, using structural equation modeling. After adjustment, a model similar to that observed in young women was a good fit to the data. Perceived pressure from the media revealed a direct relationship with body image concerns, as well as an indirect relationship mediated by thin-ideal internalization. Peer pressure was directly associated with body image concerns, and thin-ideal internalization was associated with dieting. In older women, pressure to conform to appearance ideals, in particular from the media, may impact the internalization of appearance ideals and body image concerns that might, in turn, increase disordered eating. The usefulness of sociocultural models for framing body image and eating concerns in older women implies that similar prevention interventions to those used in younger women could be adapted to fill a gap in available resources for this group.

Keywords

Thin-ideal internalization; body image; body dissatisfaction; disordered eating; older women; sociocultural influences

1. Introduction

Although the majority of the empirical work examining body image concerns, dieting and disordered eating has focused on younger women, evidence of these concerns among older women continues to accumulate. Despite longitudinal findings documenting that, as young women moved into adulthood, bulimic behaviors and drive for thinness decreased (Keel, Baxter, Heatherton, & Joiner, 2007), other work has highlighted the presence of body image concerns as well as disordered eating behaviors among midlife and older women (Gagne et al., 2012; Keel, Gravener, Joiner, & Haedt, 2010; Mangweth-Matzek et al., 2006), with estimates of the prevalence of clinical eating disorders still reaching 3.25% in women ages 65-94 years (Conceicao, Gomes, Vaz, Pinto-Bastos, & Machado, 2017). Increasing the understanding of body image and eating concerns among older women is therefore critical for informing prevention and intervention efforts, yet little research attention has been paid to this age group.

Among young women, sociocultural models have emerged as useful frameworks of the etiology and maintenance of body image and eating concerns (Culbert, Racine, & Klump, 2015; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). As predicted by these theories, sociocultural agents such as the media, communicate expectations regarding appearance. These messages are then amplified through interpersonal interactions with family members, peers, and others, contributing to the overvaluation of thinness (Thompson & Stice, 2001). As socially promoted beauty ideals are unattainable for most people, thin-ideal internalization, defined as the extent to which an individual 'buys into' socially defined ideals of attractiveness, frequently results in body image concerns (Thompson et al., 1999). In turn, body image

concerns and the pursuit of the thin-ideal increase risk for disordered eating including dieting and bulimic symptoms (Stice, Marti, & Durant, 2011).

Consistent with this, explanatory sociocultural models of body image and eating concerns, including the Tripartite Influence Model (Thompson et al., 1999), have been tested. This model proposes that three sources of influence, media, family, and peers impact body image concerns through pathways that are fully mediated by thin-ideal internalization and social comparison. In turn, body image concerns lead to disordered eating. While the model has gained empirical support among adolescent girls and young women (de Carvalho, Alvarenga, & Ferreira, 2017; Johnson, Edwards, & Gidycz, 2015; Keery, van den Berg, & Thompson, 2004; Rodgers, Chabrol, & Paxton, 2011; Shroff & Thompson, 2006; Yamamiya, Shroff, & Thompson, 2008), its usefulness as a framework for understanding body image and eating concerns among older women has yet to be tested.

The usefulness of sociocultural models generally has been supported among women aged 60-90 years among whom sociocultural pressure to be thin, together with perfectionism and depression have been shown to be associated with disordered eating (Midlarsky, Marotta, Pirutinsky, Morin, & McGowan, 2018). In addition, in a study that directly compared younger (19-23) and older (65-74) women, media pressure to be thin predicted body dissatisfaction in a similar way in both samples, supporting its importance beyond youth (Bedford & Johnson, 2006) .

The present study therefore aimed to test a modified Tripartite sociocultural model of body image and eating concerns in women ages 60-75, with a focus on the mediating effect of thin-ideal internalization (Figure 1). The current cohort in this age range grew up in the context

of the thin-ideal and has lived a cultural context marked by celebrities such as the fashion model Twiggy, who embodied thinness as the female beauty standard and marked the start of decades of increased pressure towards thinness (Peat, Peyerl, & Muehlenkamp, 2008).

2. Methods

Additional description of the present study's sample and procedure have been previously provided elsewhere (Carrard & Rothen, 2019).

2.1. Participants

Briefly, women aged 60-75 were recruited in the French-speaking part of Switzerland and the surrounding region of France between August 2017 and March 2018. A total of 222 participants completed the questionnaires. Mean age (SD) of the participants was 67.57 (4.46) years, and mean BMI was 23.74 (4.21). Half (54.1%, $n = 120$) of the participants lived with a partner, 46.4 % ($n = 103$) had completed higher education (college or equivalent), 19.4% ($n = 43$) were employed, and 95.0% ($n = 211$) were of European origin.

2.2. Procedure

After a brief phone screening to determine eligibility, participants completed paper or online versions of the questionnaires. Inclusion criteria were to be a French-speaking woman aged between 60 and 75 years old, who had spent most of their life in a Western country. Regular use of medication that could interfere with appetite or weight was an exclusion criterion. Participants provided written informed consent and received a 20-CHF (approximately 20 USD) voucher in compensation. The research protocol was approved by the Geneva Research Ethical Committee (Project ID 2017-00529).

2.3. Measures

2.3.1 Sociocultural influences and thin-ideal internalization

The Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015) includes 22 items assessing the internalization of societal appearance ideals and appearance pressures. The psychometric properties of the French adaptation were found to be satisfactory among college students (Rodgers et al., 2016). Here, the thin-ideal internalization (5 items, Cronbach's $\alpha=0.87$), media pressure (4 items, Cronbach's $\alpha = 0.96$), family pressure (4 items, Cronbach's $\alpha = 0.86$), and peer pressure (4 items, Cronbach's $\alpha = 0.92$) subscales were used. To adjust the questionnaire to our older population, we added partners/spouses to the family pressure subscale and changed classmates to colleagues on the peer pressure subscale.

2.3.2. Body image concerns

The Body Image Disturbance Questionnaire (BIDQ; Cash, Phillips, Santos, & Hrabosky, 2004) is a 7-item questionnaire that assesses negative body image and encompasses body dissatisfaction, appearance investment, and impairment due to body image experiences. The BIDQ was found to display adequate psychometric properties among college students. A professional translation and back-translation procedure was conducted to obtain a French version of the instrument. Cronbach's α was 0.87.

2.3.3. Disordered eating

The Eating Attitudes Test-26 (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) is a widely used 26-item eating disorder screen. A total score and three subscales that assess dieting, bulimia and food preoccupation, and oral control can be calculated. The French version

of the EAT-26 was shown to possess good psychometric properties (Leichner, Steiger, Puentes-Neuman, Perreault, & Gottheil, 1994). We used the dieting subscale (13 items, Cronbach's $\alpha = 0.75$) and the bulimia and food preoccupation subscale (6 items, Cronbach's $\alpha = 0.73$).

2.4. Statistical analysis

Missing data were treated with full-information maximum likelihood estimation (FIML) (Enders, 2010). Descriptive statistics and data normality were assessed using SPSS package version 25.0 (©IBM, 2017). Model fit was evaluated using Bentler's Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and root mean square error approximation (RMSEA). CFI and TLI values close to .95 or higher, and RMSEA values close to .06 or lower are evidence of appropriate fit (Hu & Bentler, 1999). We also reported the chi-square value, with non-significant values indicating acceptable model fit. However, this index may be influenced by sample size and therefore was not used to guide interpretation (Kenny, 2020). In the case of a suboptimal fit of the hypothesized theoretical model, supplementary paths between variables were considered and included. Analyses were conducted using AMOS 25.0 (©IBM, 2017) that allows for FIML estimation by selecting "Estimate Means and Intercepts" within the menu of analysis properties.

3. Results

The theoretical model (Figure 1) revealed a poor fit to the data, $\chi^2_{(11)}=53.13$, $p < .001$, TLI = 0.75, CFI = 0.90, RMSEA = 0.13. Based on previous findings, a second model was developed and tested (Figure 2). Relationships were added between sociocultural pressure and body image concerns, notably between peer pressure and body image concerns, and media pressure

and body image concerns. Although a full-mediation model was proposed in the original Tripartite model (Thompson et al., 1999), most authors who have tested the Tripartite Influence Model have found that a partial mediation model fit the data more accurately (Johnson et al., 2015; Keery et al., 2004; Rodgers et al., 2011). Moreover, the relationship between thin-ideal internalization and dieting is well-documented (Keery et al., 2004; Rodgers et al., 2011; Shroff & Thompson, 2006; Yamamiya et al., 2008) and was therefore also added in this second model.

Following the addition of these three new paths, the chi-square test and the fit indices revealed this second model to be a good fit to the data, $\chi^2_{(8)}=8.08$, $p = .426$, TLI = 1.00, CFI = 1.00, RMSEA = 0.01. Except for the paths between family pressure and peer pressure with thin-ideal internalization, all regression weights were significant (Figure 2). The fit of the nested models was not formally compared, as appropriate tests for non-normally distributed data were not available within the AMOS statistical analysis package. However, descriptively, the chi square values indicated that the second model was a better fit to the data and, thus, the more complex model was retained.

4. Discussion

This study aimed to test a modified Tripartite sociocultural model of body image concerns and disordered eating among older women aged 60-75 with a focus on the role of thin-ideal internalization. The final model was a good fit to the data, with thin-ideal internalization emerging as a partial mediator of media pressure on body image concerns and dieting. Perceived peer pressure was also directly related to body image concerns, that were in turn related to dieting and bulimic symptoms, similar to the relationships observed among

younger samples (Johnson et al., 2015; Rodgers et al., 2011). These results support sociocultural models as useful frameworks of disordered eating among older women, and highlight the role of unrealistic appearance ideals in this age group.

In the final model, perceived pressure from the media was associated with body image concerns in older women directly and indirectly through thin-ideal internalization, likely reflecting pressure to conform to thinness-based beauty ideals that persists even among older women in the media, rare as those portrayals may be (Bessenoff & Del Priore, 2007; Clarke & Griffin, 2008). While only pressure towards thinness was captured here, the media also exert pressure on older women to invest in beauty work to “correct” their hair, skin, and body to enhance their social value (Clarke & Griffin, 2008). Such pressure may constitute supplementary risk for body dissatisfaction among older women, and should be investigated in further studies. In the present study, it may explain the additional direct relationships between media and peer pressures, and body image concerns. In addition, “Old talk”, which has been described as a form of body image talk between peers related to the youthful beauty ideal, may also contribute to the forms of peer pressure that heightens body image concerns in older women (Becker, Diedrichs, Jankowski, & Werchan, 2013). Furthermore, social comparison, which might constitute a second mediating factor between sociocultural pressures and body image, but was not assessed in the present study, may also explain the relationships in the current model that were not mediated by internalization. Accepting the aging of the body is not an easy task in Western culture that strongly links youthfulness with capacity and worth (Cameron, Ward, Mandville-Anstey, & Coombs, 2019; Saucier, 2004). Moreover, the current social discourse also tightly links health with appearance : a youthful appearance, and thinness, is positioned as a

sign of good health (Cameron et al., 2019; Winterich, 2007), meaning that maintaining a youthful appearance might become even more important for older women.

In our model, thin-ideal internalization acted as a mediating variable, partially accounting for the relationship between media pressures and body image concerns and disordered eating. These findings are consistent with work highlighting the importance of thin-ideal internalization among young (Cafri, Yamamiya, Brannick, & Thompson, 2005) and middle-aged women (Slevec & Tiggemann, 2011). Interestingly, however, previous findings in older samples have been more mixed (Bedford & Johnson, 2006), which could be due to a cohort effect and the exponential rise of the thin-ideal over the past 50 years. Unlike their predecessors who knew times when appearance ideals were less constraining and media images less omnipresent, the women in the present sample would have always been immersed in a media environment that promotes an extremely thin ideal.

Family pressure, which here included pressure from partners, was not significantly related with body image concerns and disordered eating in the final model, perhaps because half of the women lived alone. However, findings regarding role of family pressure in samples of young women is also less consistent than those regarding media pressure (Rodgers et al., 2011; Shroff & Thompson, 2006). Furthermore, the strong correlation observed between peer pressure and family pressure may also illustrate the usefulness of combining these as an indicator of interpersonal environment. In the current study, it was decided to model these separately despite this relationship, to maintain the parallels with the original model.

The study presents several limitations. First, the data were cross-sectional, which precludes inferences regarding causal relationships. Second, the sample was recruited through

advertisements and might not be fully representative of the general population. Disordered eating was assessed with the EAT-26 which best captures restrictive eating pathology, with limited assessment of disinhibited and binge-eating behaviors.. Future studies should use the Three-factor eating questionnaire Disinhibition scale (Stunkard & Messick, 1985) or Binge Eating Scale (Gormally, Black, Daston, & Rardin, 1982) to measure binge eating to provide additional useful information, since binge/purge disorders emerge and become more common after adolescence (Kessler et al., 2014). Nevertheless, this study is, to our knowledge, the first to test a modified Tripartite Influence Model in an older sample and makes an important contribution.

In conclusion, this study highlighted the role of sociocultural influences, particularly perceived media pressure, in body image concerns and disordered eating among older women, and the mediating role of thin-ideal internalization. These findings support the usefulness of sociocultural frameworks to guide the investigation of body image and eating concerns in this age group. Future research among older women is warranted to expand intervention efforts and available resources.

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References

- Becker, C. B., Diedrichs, P. C., Jankowski, G., & Werchan, C. (2013). I'm not just fat, I'm old: has the study of body image overlooked "old talk"? *Journal of Eating Disorders, 1*, 6. doi:10.1186/2050-2974-1-6
- Bedford, J. L., & Johnson, C. S. (2006). Societal influences on body image dissatisfaction in younger and older women. *Journal of Women & Aging, 18*(1), 41-55. doi:10.1300/J074v18n01_04
- Bessenoff, G. R., & Del Priore, R. E. (2007). Women, weight, and age: Social comparison to magazine images across the lifespan. *Sex Roles, 56*, 215-222. doi:10.1007/s11199-006-9164-2
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The Influence of Sociocultural Factors on Body Image: A Meta-Analysis. *Clinical Psychology: Science and Practice, 12*(4), 421-433. doi:10.1093/clipsy.bpi053
- Cameron, E., Ward, P., Mandville-Anstey, S. A., & Coombs, A. (2019). The female aging body: A systematic review of female perspectives on aging, health, and body image. *Journal of Women & Aging, 31*(1), 3-17. doi:10.1080/08952841.2018.1449586

- Carrard, I., & Rothen, S. (2019). Factors associated with disordered eating behaviors and attitudes in older women. *Eating and Weight Disorders*. doi:10.1007/s40519-019-00645-4
- Cash, T. F., Phillips, K. A., Santos, M. T., & Hrabosky, J. I. (2004). Measuring "negative body image": validation of the Body Image Disturbance Questionnaire in a nonclinical population. *Body Image*, 1, 363-372.
- Clarke, L. H., & Griffin, M. (2008). Visible and invisible ageing: beauty work as a response to ageism. *Ageing & Society*, 28, 653-674. doi:10.1017/S0144686x07007003
- Conceicao, E. M., Gomes, F. V. S., Vaz, A. R., Pinto-Bastos, A., & Machado, P. P. P. (2017). Prevalence of eating disorders and picking/nibbling in elderly women. *International Journal of Eating Disorders*, 50(7), 793-800. doi:10.1002/eat.22700
- Culbert, K. M., Racine, S. E., & Klump, K. L. (2015). Research Review: What we have learned about the causes of eating disorders - a synthesis of sociocultural, psychological, and biological research. *Journal of Child Psychology and Psychiatry*, 56(11), 1141-1164. doi:10.1111/jcpp.12441
- de Carvalho, P. H. B., Alvarenga, M. D. S., & Ferreira, M. E. C. (2017). An etiological model of disordered eating behaviors among Brazilian women. *Appetite*, 116, 164-172. doi:10.1016/j.appet.2017.04.037
- Enders, C. K. (2010). *Applied Missing Data Analysis* New York, London: The Guilford Press.
- Gagne, D. A., Von Holle, A., Brownley, K. A., Runfola, C. D., Hofmeier, S., Branch, K. E., & Bulik, C. M. (2012). Eating disorder symptoms and weight and shape concerns in a large web-based convenience sample of women ages 50 and above: results of the Gender and

Body Image (GABI) study. *International Journal of Eating Disorders*, 45(7), 832-844.

doi:10.1002/eat.22030

Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The eating attitudes test:

psychometric features and clinical correlates. *Psychological Medicine*, 12(4), 871-878.

Gormally, J., Black, S., Daston, S., & Rardin, D. (1982). The assessment of binge eating severity

among obese persons. *Addictive Behaviors*, 7(1), 47-55. doi:10.1016/0306-

4603(82)90024-7

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis:

Conventional criteria versus new alternatives. *Structural Equation Modeling: A*

Multidisciplinary Journal, 6(1), 1-55. doi:10.1080/10705519909540118

Johnson, S. M., Edwards, K. M., & Gidycz, C. A. (2015). Interpersonal Weight-Related Pressure

and Disordered Eating in College Women: A Test of an Expanded Tripartite Influence

Model. *Sex Roles*, 72(1-2), 15-24. doi:10.1007/s11199-014-0442-0

Keel, P. K., Baxter, M. G., Heatherton, T. F., & Joiner, T. E., Jr. (2007). A 20-year longitudinal

study of body weight, dieting, and eating disorder symptoms. *Journal of Abnormal*

Psychology, 116(2), 422-432. doi:10.1037/0021-843X.116.2.422

Keel, P. K., Gravener, J. A., Joiner, T. E., Jr., & Haedt, A. A. (2010). Twenty-year follow-up of

bulimia nervosa and related eating disorders not otherwise specified. *International*

Journal of Eating Disorders, 43(6), 492-497. doi:10.1002/eat.20743

Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the Tripartite Influence

Model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image*,

1(3), 237-251. doi:10.1016/j.bodyim.2004.03.001

- Kenny, D. A. (2020, June 5, 2020). Measuring Model Fit. Retrieved from <http://www.davidakenny.net/cm/fit.htm>
- Kessler, R. C., Shahly, V., Hudson, J. I., Supina, D., Berglund, P. A., Chiu, W. T., . . . Xavier, M. (2014). A comparative analysis of role attainment and impairment in binge-eating disorder and bulimia nervosa: results from the WHO World Mental Health Surveys. *Epidemiology and Psychiatric Sciences*, 23(1), 27-41. doi:10.1017/S2045796013000516
- Leichner, P., Steiger, H., Puentes-Neuman, G., Perreault, M., & Gottheil, N. (1994). [Validation of an eating attitude scale in a French-speaking Quebec population]. *Canadian Journal of Psychiatry*, 39(1), 49-54.
- Mangweth-Matzek, B., Rupp, C. I., Hausmann, A., Assmayr, K., Mariacher, E., Kemmler, G., . . . Biebl, W. (2006). Never too old for eating disorders or body dissatisfaction: a community study of elderly women. *International Journal of Eating Disorders*, 39(7), 583-586.
- Midlarsky, E., Marotta, A. K., Pirutinsky, S., Morin, R. T., & McGowan, J. C. (2018). Psychological predictors of eating pathology in older adult women. *Journal of Women & Aging*, 30(2), 145-157. doi:10.1080/08952841.2017.1295665
- Peat, C. M., Peyerl, N. L., & Muehlenkamp, J. J. (2008). Body image and eating disorders in older adults: a review. *Journal of General Psychology*, 135(4), 343-358. doi:10.3200/GENP.135.4.343-358
- Rodgers, R. F., Chabrol, H., & Paxton, S. J. (2011). An exploration of the tripartite influence model of body dissatisfaction and disordered eating among Australian and French college women. *Body Image*, 8(3), 208-215. doi:10.1016/j.bodyim.2011.04.009

- Rodgers, R. F., Schaefer, L. M., Thompson, J. K., Girard, M., Bertrand, M., & Chabrol, H. (2016). Psychometric properties of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4) in French women and men. *Body Image, 17*, 143-151. doi:10.1016/j.bodyim.2016.03.002
- Saucier, M. G. (2004). Midlife and beyond: Issues for aging women. *Journal of Counseling and Development, 82*(4), 420-425. doi:DOI 10.1002/j.1556-6678.2004.tb00329.x
- Schaefer, L. M., Burke, N. L., Thompson, J. K., Dedrick, R. F., Heinberg, L. J., Calogero, R. M., . . . Swami, V. (2015). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4). *Psychological Assessment, 27*(1), 54-67. doi:10.1037/a0037917
- Shroff, H., & Thompson, J. K. (2006). The tripartite influence model of body image and eating disturbance: A replication with adolescent girls. *Body Image, 3*(1), 17-23. doi:10.1016/j.bodyim.2005.10.004
- Slevec, J. H., & Tiggemann, M. (2011). Predictors of body dissatisfaction and disordered eating in middle-aged women. *Clinical Psychology Review, 31*(4), 515-524. doi:10.1016/j.cpr.2010.12.002
- Stice, E., Marti, C. N., & Durant, S. (2011). Risk factors for onset of eating disorders: evidence of multiple risk pathways from an 8-year prospective study. *Behaviour Research and Therapy, 49*(10), 622-627. doi:10.1016/j.brat.2011.06.009
- Stunkard, A. J., & Messick, S. (1985). The three-factor eating questionnaire to measure dietary restraint, disinhibition and hunger. *Journal of Psychosomatic Research, 29*(1), 71-83. doi:10.1016/0022-3999(85)90010-8

Thompson, J. K., Heinberg, L. J., Altabe, M. N., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment and treatment of body image disturbance*. Washington, DC: American Psychological Association.

Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science*, 10(5), 181-183. doi:10.1111/1467-8721.00144

Winterich, J. A. (2007). Aging, femininity, and the body: What appearance changes mean to women with age. *Gender Issues*, 24(3), 51-69. doi:10.1007/s12147-007-9045-1

Yamamiya, Y., Shroff, H., & Thompson, J. K. (2008). The tripartite influence model of body image and eating disturbance: a replication with a Japanese sample. *International Journal of Eating Disorders*, 41(1), 88-91. doi:10.1002/eat.20444