

Prospective associations among self-concept clarity, appearance comparisons, and thin-ideal internalization

Lenny R. Vartanian & Kate Nicholls

To cite this article: Lenny R. Vartanian & Kate Nicholls (2024) Prospective associations among self-concept clarity, appearance comparisons, and thin-ideal internalization, *Self and Identity*, 23:7-8, 535-546, DOI: [10.1080/15298868.2024.2416657](https://doi.org/10.1080/15298868.2024.2416657)

To link to this article: <https://doi.org/10.1080/15298868.2024.2416657>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 15 Oct 2024.



[Submit your article to this journal](#)



Article views: 281



[View related articles](#)



[View Crossmark data](#)



OPEN ACCESS



Prospective associations among self-concept clarity, appearance comparisons, and thin-ideal internalization

Lenny R. Vartanian and Kate Nicholls

School of Psychology, UNSW Sydney, Sydney, New South Wales, Australia

ABSTRACT

This study examined the prospective association between self-concept clarity and sociocultural appearance processes (internalization of the thin-body ideal and appearance-based social comparisons). Adolescent girls ($n = 153$; mean age = 15.76 years) completed measures at two separate timepoints, three months apart. Path analysis showed that lower self-concept clarity prospectively predicted higher thin-ideal internalization and appearance comparisons. In contrast, the reverse model showed that thin-ideal internalization and appearance comparisons did not prospectively predict self-concept clarity. Finally, including self-esteem in the model showed that self-concept clarity, but not self-esteem, prospectively predicted thin-ideal internalization and appearance comparisons. These findings suggest that low self-concept clarity may increase vulnerability to sociocultural appearance processes that increase the risk for body dissatisfaction.

ARTICLE HISTORY

Received 2 June 2024

Accepted 9 October 2024

Published online 15 October 2024

KEYWORDS

Self-concept clarity; thin-ideal internalization; appearance comparisons; adolescents; longitudinal

One's sense of self plays an important role in psychological experiences and overall well-being. Indeed, having a clear and consistent sense of self is associated with greater self-esteem and subjective well-being (e.g., Campbell et al., 1996). Conversely, there is a growing body of research indicating that low self-concept clarity is associated with a range of negative psychological outcomes, including depression (Hayward et al., 2020; Wong et al., 2019), anxiety (Hayward et al., 2020), schizophrenia spectrum disorders (Cicero, 2018), and disordered eating (Vartanian et al., 2018). In order to understand why self-concept clarity is associated with these psychological outcomes, it is important for researchers to consider the mechanisms underlying these associations.

One domain in which some progress has been made in elucidating the mechanisms is body dissatisfaction (and consequent disordered eating). The most prominent models of body dissatisfaction emphasize the role that sociocultural processes play in increasing the risk of body dissatisfaction. In particular, the Tripartite Influence Model (Thompson et al., 1999) highlights the role of appearance-based social comparisons and thin-ideal internalization in the development of body dissatisfaction. Appearance-based social comparisons refer to instances in which an individual

CONTACT Lenny R. Vartanian  l.vartanian@unsw.edu.au  School of Psychology, UNSW Sydney, Sydney, New South Wales 2036, Australia

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

compares their appearance to the appearance of another person. There is a substantial body of research showing that engaging in such appearance comparisons, and in particular comparisons to individuals who are more attractive than oneself (such as fashion models and celebrities), is associated with more negative body image (e.g., Fardouly et al., 2017; McComb et al., 2023; Myers & Crowther, 2009). Thin-ideal internalization refers to the extent to which individuals “buy into” the cultural ideals of attractiveness (Thompson & Stice, 2001), and research indicates that internalization of beauty standards is associated with more negative body image (Paterna et al., 2021).

Low self-concept clarity might increase vulnerability to body dissatisfaction because individuals with low self-concept clarity are thought to look to external sources in an effort to define themselves (Campbell, 1990), and societal appearance ideals can readily provide such an external source of self-definition. There is evidence that lower self-concept clarity is associated with a greater degree of internalization of societal standards of attractiveness (e.g., Vartanian, 2009; Vartanian & Hayward, 2020; Vartanian et al., 2016), and, indeed, that internalization is associated with a greater tendency to define oneself in terms of one’s physical appearance (Vartanian, Hayward, et al., 2023a). Furthermore, individuals with low self-concept clarity may be more prone to engage in social comparisons in order to better understand themselves and determine where they stand relative to others (Butzer & Kuiper, 2006). Previous research has shown that lower self-concept clarity is associated with a greater likelihood of engaging in social comparisons in general (Butzer & Kuiper, 2006), and a greater likelihood of engaging in appearance comparisons in particular (e.g., Vartanian & Dey, 2013; Vartanian et al., 2018; Vartanian, Nicholls, et al. 2023b).

Although there is consistent evidence supporting the notion that self-concept clarity increases susceptibility to sociocultural appearance processes, these studies have relied exclusively on cross-sectional data, leaving unanswered questions about the nature of the associations among the variables. Longitudinal studies are needed to establish the temporal sequencing of these variables and to demonstrate that self-concept clarity prospectively predicts the extent to which individuals engage in appearance comparisons and internalize the societal standards of attractiveness. Thus, the primary aim of the current study is to test whether self-concept clarity at baseline predicts sociocultural appearance processes at a subsequent timepoint.

Another issue that we consider here is how self-concept clarity is related to (or differentiated from) other aspects of the “self,” specifically self-esteem. Self-esteem reflects an individual’s overall appraisal of their worth as a person (Donnellan et al., 2011), whereas self-concept clarity refers to the clarity, coherence, and perceived stability of the contents of one’s sense of self, without direct reference to any evaluative component (Campbell et al., 1996). Measures of these two aspects of the self are often highly correlated, but there is also evidence that they are distinct constructs. For example, factor analysis shows that self-esteem and self-concept clarity form structurally separate factors, and measures of the two constructs often predict different outcomes (Weber et al., 2023). Weber et al. (2023) found that both self-esteem and self-concept clarity were predictive of academic outcomes, whereas self-esteem (but not self-concept clarity) was predictive of relationship satisfaction and loneliness. Other research has shown that both self-concept clarity and self-esteem are been

linked with body dissatisfaction and sociocultural appearance processes (e.g., Cusumano & Thompson, 1997; Fingeret & Gleaves, 2004; Paxton et al., 2006), but at least one study has found that self-esteem no longer predicts thin-ideal internalization when self-concept clarity is included in the model (Vartanian, 2009). Thus, as a secondary aim, we examined whether self-concept clarity predicted sociocultural appearance processes independent of self-esteem.

The present study

The primary aim of the present study was to determine whether self-concept clarity prospectively predicts sociocultural appearance processes (appearance comparisons and thin-ideal internalization). Adolescent girls completed measures of the core constructs at two separate times, three months apart. We focused on adolescents because adolescence is a developmental period during which individuals begin to form their own identities (Kroger et al., 2010), and is also a period during which internalization of the thin ideal and body-related comparisons are likely to emerge (e.g., Sands & Wardle, 2003; Schutz et al., 2002). We focused on girls because most of the research in this domain has examined internalization of a thin-body ideal, and this is a construct that is more relevant to girls than to boys (e.g., Vartanian, Nicholls, et al., 2023b). We predicted that self-concept clarity at Time 1 would be associated with sociocultural processes at Time 2, such that lower self-concept clarity at Time 1 would be associated with greater internalization and a greater tendency to engage in appearance comparisons at Time 2. We also conducted parallel exploratory analyses including self-esteem as a predictor of sociocultural appearance processes in order to determine whether the prospective pathways are unique to self-concept clarity.

Method

Participants

Participants were 157 adolescent girls aged 13–17 years and based in Australia who were recruited via advertisements placed on social media platforms. Participants received gift vouchers worth a total of \$30 for completing both waves of data collection (\$10 for the Time 1 survey and \$20 for the Time 2 survey). Four participants did not complete the Time 2 survey and were therefore excluded from the analyses (97% retention). To ensure the validity of the data, we included a bot-check question (a question asking participants to describe, in English, a specific object that was displayed on the screen), which all participants responded to correctly. To identify potentially inattentive respondents, we included two attention check questions (questions asking participants to select a particular response option) at each timepoint. Only four participants in total answered both attention check questions incorrectly at one of the timepoints, and the results were identical when these participants were excluded from analyses. Therefore, we retained the full sample for the analyses reported below. The final sample consisted of 153 adolescent girls with a mean age of 15.76 years ($SD = 1.08$), and a mean body-mass index (BMI) of 21.80 kg/m^2 ($SD = 4.09$). In terms of ethnicity, 61.8% self-identified as White, 29.6% as Asian, 1.3% as Middle Eastern, and 7.3% selected “other” or “prefer not

to say.” This study was approved by the UNSW Human Research Ethics Advisory Panel C, Behavioural Sciences (HC No. 3486).

Materials and procedure

This study formed part of a larger project on adolescent health and well-being that was conducted entirely online. Paid advertisements were placed on Facebook and Instagram and were targeted (via the audience controls feature embedded within the Facebook Ads Manager) at individuals aged 13 to 17 living in Australia. Interested individuals could click a link to access an Expression of Interest page where they provided their own contact details and, because participants were under the age of 18, contact details for a parent or guardian. Parents/guardians were sent a link to a consent form, and were then contacted by telephone to confirm that they had provided the written consent. Once parental consent was confirmed, participants themselves completed a consent form prior to commencing the first survey. Participants completed the questionnaires described below in a random order, in addition to other measures that were unrelated to the questions being addressed here. Three months later, participants completed the same set of questionnaires.

Self-concept clarity

The Self-Concept Clarity Scale (SCCS; Campbell et al., 1996) is a 12-item measure assessing the degree to which participants’ beliefs about themselves are clear and stable (e.g., “In general, I have a clear sense of who I am and what I am”). Each item is rated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). After reverse-coding relevant items, higher mean scores indicate greater self-concept clarity. Good construct and criterion validity have been demonstrated for this measure (Campbell et al., 1996), and the measure has previously been used with adolescent samples (e.g., van Dijk et al., 2014). In the current study, Cronbach’s alpha was .86 at Time 1 and .88 at Time 2.

Self-esteem

Self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). Each item (e.g., “On the whole, I am satisfied with myself”) was rated on a 4-point scale (1 = *Strongly disagree*, 4 = *Strongly agree*). After reverse scoring relevant items, higher scores indicate higher self-esteem. This measure was originally developed for use with youth, and has demonstrated validity in adolescent samples (e.g., Bagley et al., 1997). In the current study, Cronbach’s alpha was .91 at Time 1 and .89 at Time 2.

Internalization of the thin ideal

The Internalization: Thin/Low Body Fat subscale of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-4 R; Schaefer et al., 2017) was used to assess the degree to which participants had internalized the thin ideal. This subscale includes four items (e.g., “I want my body to be very thin”), each of which is rated on a 5-point scale (1 = *Definitely disagree*, 5 = *Definitely agree*). Higher mean scores indicate greater internalization of the thin ideal. Reliability and validity of the measure have been demonstrated in a range of samples, including adolescents (e.g., Palmeroni et al., 2021; Schaefer et al., 2017). Cronbach’s alpha in the current study was .84 at Time 1 and .86 at Time 2.

Table 1. Descriptive statistics and correlations for all study variables.

Variable	Time	Mean (SD)	Scale range	SCC		SE		INT		COMP	
				T1	T2	T1	T2	T1	T2	T1	T2
SCC	T1	3.35 (1.06)	1-7	–	.82	.55	.53	–.41	–.47	–.50	–.54
	T2	3.40 (1.09)	1-7		–	.57	.57	–.38	–.48	–.47	–.55
SE	T1	2.62 (0.60)	1-4			–	.81	–.37	–.40	–.36	–.41
	T2	2.62 (0.58)	1-4				–	–.39	–.39	–.39	–.44
INT	T1	3.54 (0.96)	1-5					–	.73	.64	.65
	T2	3.53 (0.98)	1-5						–	.59	.72
COMP	T1	2.21 (1.13)	0-4							–	.83
	T2	2.27 (1.12)	0-4								–

Note. SCC = Self-concept clarity; SE = Self-esteem; INT = Internalization of the thin ideal; COMP = Appearance comparisons; T1 = Time 1; T2 = Time 2. All correlations are significant at $p < .001$.

Appearance comparisons

The Physical Appearance Comparisons Scale (PACS-R; Schaefer & Thompson, 2014) was used to assess the degree to which participants compare their own appearance to the appearance of others (e.g., “When I’m with a group of friends, I compare my body size to the body size of others”). The scale consists of 11 items, each of which is rated on a 5-point scale (0 = *Never*, 4 = *Always*) with higher mean scores indicating a greater tendency to make appearance comparisons. The measure has demonstrated good reliability and validity (Schaefer & Thompson, 2014), and has been used with adolescent samples previously (e.g., Palmeroni et al., 2021). In the current study, Cronbach’s alphas was .97 at both Time 1 and Time 2.

Demographics

At baseline, participants reported their age, height and weight (used to calculate their BMI), and indicated their ethnicity.

Results

Preliminary analyses

There was negligible missing data at Time 1 (0.05% of all data points), and therefore scale scores were based on the mean of completed items. At Time 2, one participant had missing data on 7 of the 11 items of the Time 2 PACS-R, and another participant had missing data on 9 of the 10 items of the Time 2 RSES. These participants were removed from the analyses reported below. Prior to conducting the main analyses, data were screened for normality and for the presence of outliers. All variables were normally distributed, and there were no observed outliers.

Bivariate correlations

Descriptive statistics and bivariate correlations for all study variables are presented in Table 1. All variables were significantly correlated with one another across both timepoints.

Path analyses

To address our primary research question, we conducted a longitudinal path analysis in which self-concept clarity at Time 1 predicted thin-ideal internalization and appearance comparisons at Time 2, controlling for Time 1 thin-ideal internalization, Time 1 appearance comparisons, and Time 2 self-concept clarity. Sample size recommendations for path analyses are generally five cases per parameter (Bentler & Chou, 1987). Our primary model included 25 parameters to be estimated, and thus our sample of 151 participants (excluding the 2 participants with missing data at Time 2) was greater than the recommendation of $25 \times 5 = 125$. The path analysis was conducted using AMOS version 29. Good model fit is typically indicated by a non-significant χ^2 test (although this test is often significant with larger samples), Root Mean Square Error of Approximation (RMSEA) close to or under 0.06 with an upper 90% confidence interval (HI90) close to 0.08, Standardized Root Mean Squared (SRMR) close to 0.08, and a comparative fit index (CFI) and Tucker-Lewis index (TLI) close to 0.95 (Hu & Bentler, 1999).

The original model fit the data reasonably well: χ^2 (23, $N = 151$) = 17.11, $p = .002$, RMSEA = 0.15 [LO90 = 0.08, HI90 = 0.22], SRMR = 0.04, CFI = 0.98, TLI = 0.92. However, examination of the modification indices indicated that adding additional paths between Time 1 internalization and Time 2 appearance comparisons, and between Time 1 appearance comparisons and Time 2 internalization, would improve model fit. Because these paths between appearance comparisons and internalization make conceptual sense and are also consistent with previous longitudinal research (e.g., Rodgers et al., 2015), we added them to the model. The revised model showed good fit to the data: χ^2 (25, $N = 151$) = 2.18, $p = .336$, RMSEA = 0.02 [LO90 = 0.00, HI90 = 0.17], SRMR = 0.02, CFI = 1.00, TLI = 0.998. Consistent with our hypothesis, Time 1 self-concept clarity prospectively predicted Time 2 thin-ideal internalization and Time 2 appearance comparisons, even when controlling for Time 1 thin-ideal internalization and Time 1 appearance

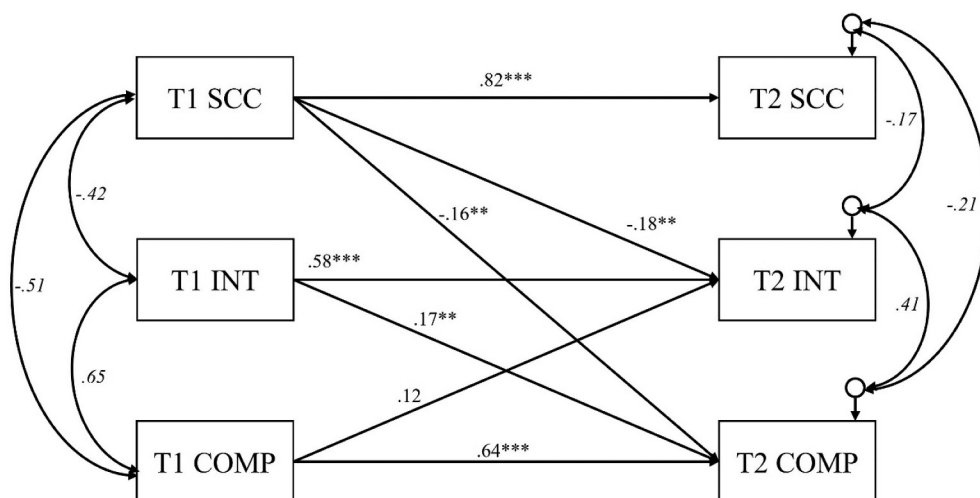


Figure 1. Longitudinal path analysis with standardized coefficients. Values for covariances are in italics. T1 = time 1, T2 = time 2, SCC = self-concept clarity, INT = thin-ideal internalization, COMP = appearance comparisons. ** $p < .01$. *** $p < .001$.

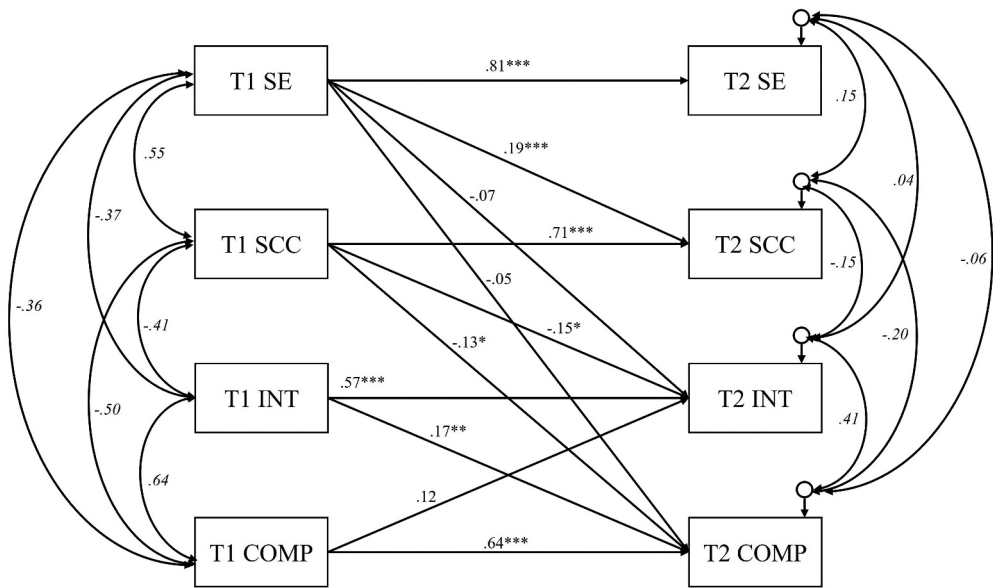


Figure 2. Alternative model including Time 1 and Time 2 self-esteem with standardized coefficients. Values for covariances are in italics. T1 = Time 1, T2 = Time 2, SE = self-esteem, SCC = self-concept clarity, INT = thin-ideal internalization, COMP = appearance comparisons. * $p < .05$. ** $p < .01$. *** $p < .001$.

comparisons (see Figure 1). Consistent with previous research (Rodgers et al., 2015), Time 1 internalization prospectively predicted Time 2 appearance comparisons, but Time 1 appearance comparisons did not prospectively predict Time 2 internalization.

We also conducted two additional exploratory longitudinal path analyses to provide clarity on the nature of the associations among the variables. First, we added Time 1 and Time 2 self-esteem to the original model to determine whether (a) self-concept clarity continues to prospectively predict internalization and appearance comparisons when controlling for self-esteem, and (b) whether self-esteem itself prospectively predicts internalization and appearance comparisons (when self-concept clarity is in the model). The model again fit the data well: $\chi^2(39, N = 151) = 8.16, p = .148$, RMSEA = 0.07 [LO90 = 0.00, HI90 = 0.14], SRMR = 0.03, CFI = 0.996, TLI = 0.98. The components of the original model remain unchanged: Time 1 self-concept clarity predicted Time 2 internalization and Time 2 appearance comparisons; Time 1 internalization predicted Time 2 appearance comparisons; and Time 1 appearance comparisons did not predict Time 2 internalization (see Figure 2). Importantly, although Time 1 self-esteem predicted Time 2 self-concept clarity, Time 1 self-esteem did not predict Time 2 internalization or Time 2 appearance comparisons.

Finally, we replicated the original model, except that the direction of the paths was reversed to test whether appearance comparisons and internalization prospectively predicted self-concept clarity. The model fit the data reasonably well: $\chi^2(25, N = 151) = 11.21, p = .004$, RMSEA = .18 [LO90 = 0.09, HI90 = 0.28], SRMR = 0.04, CFI = 0.99, TLI = 0.89. In this model, neither Time 1 internalization ($\beta = -.03, p = .654$) nor Time 1 appearance comparisons ($\beta = -.09, p = .205$) predicted Time 2 self-concept clarity.

Discussion

Lacking a clear sense of self is thought to increase the risk of body dissatisfaction and disordered eating by increasing individuals' susceptibility to sociocultural appearance processes, such as internalization of the thin-body ideal and a greater tendency to engage in appearance-based comparisons. Previous research supporting this perspective has been based on correlational, cross-sectional designs (e.g., Vartanian et al., 2018; Vartanian, Nicholls, et al. 2023b), leaving open the question of temporal sequencing of the variables and directionality of the associations. In this study, we investigated whether self-concept clarity at baseline would prospectively predict internalization and appearance comparisons three months later in a sample of adolescent girls. Longitudinal path analysis supported our hypothesis: Self-concept clarity prospectively predicted thin-ideal internalization and appearance comparisons, even when controlling for those variables at the previous timepoint. Furthermore, the reverse model showed that internalization and appearance comparisons did not prospectively predict self-concept clarity, providing further evidence regarding the direction of influence.

A secondary aim of this study was to examine the unique role of self-concept clarity by considering the relevance of another aspect of the self: self-esteem. We demonstrated that the prospective associations between self-concept clarity and the sociocultural processes held even when controlling for self-esteem, and that self-esteem did not prospectively predict internalization or appearance comparisons, suggesting that the associations are specific to self-concept clarity. It may be that internalization and appearance comparisons function to help individuals define their sense of self (Vartanian, Hayward, et al., 2023a), and are thus more directly related to the structural component of the self that is captured by self-concept clarity than to the evaluative component of the self that is captured by self-esteem. Any association between self-esteem and these sociocultural processes, then, may be due to a degree of shared variance with self-concept clarity. Although self-esteem has often been considered in the context of sociocultural models of body dissatisfaction, the nature of the role of self-esteem in these models is less clear. For example, some studies testing the Tripartite Influence Model initially conceived of self-esteem as a factor that would increase vulnerability to sociocultural processes (i.e., internalization and appearance comparisons), but the data failed to support the model and self-esteem was instead included as an outcome variable (e.g., Keery et al., 2004). Furthermore, a longitudinal study among adolescents found that self-esteem did not prospectively predict internalization, but that internalization did prospectively predict (lower) self-esteem (Espinoza et al., 2019). Thus, self-esteem, as an evaluative component of the self, might be better conceptualized as an outcome of these sociocultural processes than as a predictor of those processes. It would be worthwhile for future research to explore the unique contributions of self-esteem and self-concept clarity to appearance-based sociocultural processes and to body dissatisfaction.

The current study focused exclusively on the connection between self-concept clarity and sociocultural appearance processes, but this work sits in a broader framework of the Identity Disruption Model of disordered eating (Vartanian & Hayward, 2018; Vartanian et al., 2018). The Identity Disruption Model was developed to help explain the connection between negative early life experiences and disordered eating. That model posits that negative early life experiences (such as child abuse or neglect) can lead to a disrupted

sense of self (i.e., low self-concept clarity), which in turn increases susceptibility to sociocultural processes (internalization and appearance comparisons) and subsequent body dissatisfaction and disordered eating. Previous research has already demonstrated a prospective association between sociocultural processes and subsequent body dissatisfaction (Rodgers et al., 2015). The current findings add to the evidence base by demonstrating a prospective association between self-concept clarity and sociocultural appearance processes. Nonetheless, a longitudinal test of the full Identity Disruption Model, including assessments of early adversity and disordered eating, would provide stronger evidence for the model.

There are some limitations to the current study that are worth considering. First, the current study only included adolescent girls. There is growing awareness that body-image issues are also common among adolescent boys, but that they may manifest differently than they do in girls (e.g., with a focus on muscularity rather than on thinness; Baker et al., 2019). There is cross-sectional evidence that the Identity Disruption Model applies equally to adolescent boys and girls (Vartanian et al., 2003b), and to adult men and women (Vartanian et al., 2018), but future longitudinal studies testing the full Identity Disruption Model would benefit from including boys and girls (as well as individuals who identify as non-binary) to ensure that the findings are applicable to the wider population. It is also worth considering the optimal age for testing the proposed framework. Participants in the current study were aged 13–17, with a mean age close to 16 years, and it may be that an earlier stage of adolescence would be better suited to capture the onset of identity disruption issues (particularly in response to early adversity). Finally, the current study included a fairly short follow-up period (3 months), and it would be worth examining these prospective associations over longer periods of time.

There are some potential practical implications of this area of research. For example, if the findings observed in the current study are replicated in future research, they could inform interventions designed to reduce the prevalence of body dissatisfaction and disordered eating. That is, by identifying an early risk factor (low self-concept clarity) and targeting interventions to help foster a clear sense of self (and, in particular, a sense of self that is not dependent on one's appearance), individuals may be less susceptible to sociocultural appearance pressures and thus be less likely to develop body image problems and disordered eating. Also, as noted earlier, self-concept clarity has been linked with other forms of psychopathology, such as anxiety and depression (Hayward et al., 2020). Thus, targeting self-concept clarity in interventions could similarly reduce the development of other forms of psychopathology, having long term benefits for mental health on a broader scale. Of course, replication of these findings would be an important first step.

Conclusions

Low self-concept clarity has been associated with a greater degree of internalization of the thin ideal, and with a greater tendency to engage in appearance-based comparison, both of which are risk factors for body dissatisfaction and disordered eating. In the present study, we provided evidence that self-concept clarity prospectively predicts internalization and appearance comparisons in adolescent girls. Furthermore, we showed that the longitudinal paths are unique to self-concept clarity: self-esteem did not

prospectively predict internalization or appearance comparisons, and neither internalization nor appearance comparisons prospectively predicted self-concept clarity. Given that adolescence is a critical period for identity development, early interventions could prove to be a strategy to reduce the susceptibility to sociocultural appearance pressures and consequent body dissatisfaction and disordered eating.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The work was supported by the University of New South Wales.

References

- Bagley, C., Bolitho, F., & Bertrand, L. (1997). Norms and construct validity of the Rosenberg Self-Esteem Scale in Canadian high school populations: Implications for counselling. *Canadian Journal of Counselling*, 31 (1), 82–92.
- Baker, J. H., Higgins Neyland, M. K., Thornton, L. M., Runfola, C. D., Larsson, H., Lichtenstein, P., & Bulik, C. (2019). Body dissatisfaction in adolescent boys. *Developmental Psychology*, 55(7), 1566–1578. <https://doi.org/10.1037/dev0000724>
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78–117. <https://doi.org/10.1177/0049124187016001004>
- Butzer, B., & Kuiper, N. A. (2006). Relationships between the frequency of social comparisons and self-concept clarity, intolerance of uncertainty, anxiety, and depression. *Personality & Individual Differences*, 41(1), 167–176. <https://doi.org/10.1016/j.paid.2005.12.017>
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality & Social Psychology*, 59(3), 538–549. <https://doi.org/10.1037/0022-3514.59.3.538>
- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavalley, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality & Social Psychology*, 70(1), 141–156. <https://doi.org/10.1037/0022-3514.70.1.141>
- Cicero, D. C. (2018). Self-concept clarity and psychopathology. In J. Lodi-Smith & K. G. DeMarree (Eds.), *Self-concept clarity: Perspectives on assessment, research, and applications* (pp. 219–242). Springer.
- Cusumano, D. L., & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles*, 37(9–10), 701–721. <https://doi.org/10.1007/BF02936336>
- Donnellan, M. B., Trzesniewski, K. H., & Robins, R. W. (2011). Self-esteem: Enduring issues and controversies. In T. Chamorro-Premuzic, S. von Stumm, & A. Furnham (Eds.), *The Wiley-Blackwell handbook of individual differences* (pp. 718–746). Wiley-Blackwell.
- Espinoza, P., Penelo, E., Mora, M., Francisco, R., González, M. L., & Raich, R. M. (2019). Bidirectional relations between disordered eating, internalization of beauty ideals, and self-esteem: A longitudinal study with adolescents. *The Journal of Early Adolescence*, 39(9), 1244–1260. <https://doi.org/10.1177/0272431618812734>
- Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives. *Body Image*, 20, 31–39. <https://doi.org/10.1016/j.bodyim.2016.11.002>
- Fingeret, M. C., & Gleaves, D. H. (2004). Sociocultural, feminist, and psychological influences on women's body satisfaction: A structural modeling analysis. *Psychology of Women Quarterly*, 28, 370–380. <https://doi.org/10.1111/j.1471-6402.2004.00154.x>

- Hayward, L. E., Vartanian, L. R., Kwok, C., & Newby, J. M. (2020). How might childhood adversity predict adult psychological distress? Applying the identity disruption model to understanding depression and anxiety disorders. *Journal of Affective Disorders*, 265, 112–119. <https://doi.org/10.1016/j.jad.2020.01.036>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- 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. <https://doi.org/10.1016/j.bodyim.2004.03.001>
- Kroger, J., Martinussen, M., & Marcia, J. E. (2010). Identity status change during adolescence and young adulthood: A meta-analysis. *Journal of Adolescence*, 33(5), 683–698. <https://doi.org/10.1016/j.adolescence.2009.11.002>
- McComb, C. A., Vanman, E. J., & Tobin, S. J. (2023). A meta-analysis of the effects of social media exposure to upward comparison targets on self-evaluations and emotions. *Media Psychology*, 26(5), 612–635. <https://doi.org/10.1080/15213269.2023.2180647>
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118(4), 683–698. <https://doi.org/10.1037/a0016763>
- Palmeroni, N., Claes, L., Verschueren, M., Raemen, L., & Luyckx, K. (2021). Internalization of appearance ideals and appearance comparison among adolescent boys and girls: The role of identity formation. *Identity*, 21(3), 219–237. <https://doi.org/10.1080/15283488.2021.1930542>
- Paterna, A., Alcaraz-Ibáñez, M., Fuller-Tyszkiewicz, M., & Sicilia, Á. (2021). Internalization of body shape ideals and body dissatisfaction: A systematic review and meta-analysis. *International Journal of Eating Disorders*, 54(9), 1575–1600. <https://doi.org/10.1002/eat.23568>
- Paxton, S. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2006). Prospective predictors of body dissatisfaction in adolescent girls and boys: A five-year longitudinal study. *Developmental Psychology*, 42(5), 888–889. <https://doi.org/10.1037/0012-1649.42.5.888>
- Rodgers, R. F., McLean, S. A., & Paxton, S. J. (2015). Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction: Implications for the tripartite influence Model. *Developmental Psychology*, 51(5), 706–713. <https://doi.org/10.1037/dev0000013>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- Sands, E. R., & Wardle, J. (2003). Internalization of ideal body shapes in 9–12-year-old girls. *International Journal of Eating Disorders*, 33(2), 193–204. <https://doi.org/10.1002/eat.10121>
- Schaefer, L. M., Harriger, J. A., Heinberg, L. J., Soderberg, T., & Thompson, J. K. (2017). Development and validation of the sociocultural attitudes towards appearance questionnaire-4- revised (SATAQ-4R). *International Journal of Eating Disorders*, 50(2), 104–117. <https://doi.org/10.1002/eat.22590>
- Schaefer, L. M., & Thompson, J. K. (2014). The development and validation of the physical appearance comparison scale-revised (PACS-R). *Eating Behaviors*, 15(2), 209–217. <https://doi.org/10.1016/j.eatbeh.2014.01.001>
- Schutz, H. K., Paxton, S. J., & Wertheim, E. H. (2002). Investigation of body comparison among adolescent girls. *Journal of Applied Social Psychology*, 32(9), 1906–1937. <https://doi.org/10.1111/j.1559-1816.2002.tb00264.x>
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. 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. <https://doi.org/10.1111/1467-8721.00144>
- van Dijk, M. P. A., Branje, S., Keijsers, L., Hawk, S. T., Hale, W. W., III, & Meeus, W. (2014). Self-concept clarity across adolescence: Longitudinal associations with open communication with parents and internalizing symptoms. *Journal of Youth & Adolescence*, 43(11), 1861–1876. <https://doi.org/10.1007/s10964-013-0055-x>

- Vartanian, L. R. (2009). When the body defines the self: Self-concept clarity, internalization, and body image. *Journal of Social & Clinical Psychology, 28*(1), 94–126. <https://doi.org/10.1521/jscp.2009.28.1.94>
- Vartanian, L. R., & Dey, S. (2013). Self-concept clarity, thin-ideal internalization, and appearance-related social comparisons as predictors of body dissatisfaction. *Body Image, 10*(4), 495–500. <https://doi.org/10.1016/j.bodyim.2013.05.004>
- Vartanian, L. R., Foreich, F. V., & Smyth, J. M. (2016). A serial mediation model testing early adversity, self-concept clarity, and thin-ideal internalization as predictors of body dissatisfaction. *Body Image, 19*, 98–103. <https://doi.org/10.1016/j.bodyim.2016.08.013>
- Vartanian, L. R., & Hayward, L. E. (2018). Self-concept clarity and body image. In J. Lodi-Smith & K. G. DeMarree (Eds.), *Self-concept clarity: Perspectives on assessment, research, and applications* (pp. 195–218). Springer.
- Vartanian, L. R., & Hayward, L. E. (2020). Dimensions of internalization relevant to the identity disruption Model of body dissatisfaction. *Body Image, 32*, 1–4. <https://doi.org/10.1016/j.bodyim.2019.10.008>
- Vartanian, L. R., Hayward, L. E., & Carter, J. J. (2023a). Incorporating physical appearance into one's sense of self: Self-concept clarity, thin-ideal internalization, and appearance-self integration. *Self and Identity, 22*(2), 181–196. <https://doi.org/10.1080/15298868.2022.2070538>
- Vartanian, L. R., Hayward, L. E., Smyth, J. M., Paxton, S. J., & Touyz, S. W. (2018). Risk and resiliency factors related to body dissatisfaction and disordered eating: The identity disruption model. *International Journal of Eating Disorders, 51*(4), 322–330. <https://doi.org/10.1002/eat.22835>
- Vartanian, L. R., Nicholls, K., & Fardouly, J. (2023b). Testing the identity disruption Model among adolescents: Pathways connecting adverse childhood experiences to body dissatisfaction. *Journal of Youth & Adolescence, 52*(1), 134–148. <https://doi.org/10.1007/s10964-022-01683-5>
- Weber, E., Hopwood, C. J., Nissen, A. T., & Bleidorn, W. (2023). Disentangling self-concept clarity and self-esteem in young adults. *Journal of Personality & Social Psychology, 125*(6), 1420–1441. <https://doi.org/10.1037/pssp0000460>
- Wong, A. E., Dirghangi, S. R., & Hart, S. R. (2019). Self-concept clarity mediates the effects of adverse childhood experiences on adult suicide behavior, depression, loneliness, perceived stress, and life distress. *Self and Identity, 18*(3), 247–266. <https://doi.org/10.1080/15298868.2018.1439096>