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**Picture Perfect:
Perfectionistic Self-Presentation, Instagram Intrusion,
and Body Satisfaction in Young Women**

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PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

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1 **Abstract**

2 Perfectionistic self-presentation (the desire to appear perfect to others) is related to decreased
3 body satisfaction and intrusive (e.g., addictive or problematic) social media use in young
4 women. Instagram, a highly visual social media platform, may serve as a medium for
5 heightened body image concerns among this population. Exploring perfectionistic self-
6 presentation on Instagram, by examining the extent to which women promote a perfect image
7 on Instagram (perfectionistic self-promotion) and avoid presenting an imperfect image on
8 Instagram (non-display of imperfection and non-disclosure of imperfection), may help to
9 further understand its role in these issues. To test this idea, we recruited two non-clinical
10 samples of young women (Sample 1: cross-sectional, $N = 392$; Sample 2: two-wave
11 longitudinal, $N = 176$) to examine the relationships between perfectionistic self-presentation
12 on Instagram, Instagram intrusion and body satisfaction. Findings revealed that dimensions of
13 perfectionistic self-presentation on Instagram were negatively associated with body
14 satisfaction, both cross-sectionally and over time and positively associated with Instagram
15 intrusion, cross-sectionally. Non-display of imperfection appeared to be the most important
16 dimension. Overall, our findings offer initial support for examining perfectionistic self-
17 presentation on Instagram, and its utility in understanding the body satisfaction of young
18 women.

19 *Keywords:* perfectionistic self-presentation; social media; Instagram; body image;
20 body satisfaction

1 **Introduction**

2 Social media is ubiquitous. In the UK, for example, there are over 57 million active
3 social media users, with the majority of users identifying as females aged 18-34 years and
4 nearly three-quarters of users reporting that they use social media every day (Dixon, 2023).
5 While many users have positive experiences with these platforms, it has been reported that
6 social media use is negatively associated with mental health, wellbeing, and body image in
7 young women (Braghieri et al., 2022; Fioravanti et al., 2022; Vandebosch et al., 2022).
8 Research suggests that social media use may be associated with personality factors, such as
9 perfectionism (the desire to be perfect), particularly for young women, as it is reported that
10 women experience greater levels of perfectionism than men (Ellison & Partridge, 2012). In the
11 present study, we are interested in examining whether perfectionistic self-presentation – the
12 need to appear perfect – may exacerbate problems associated with social media use and body
13 image. To do so, we focus on a particular social media platform – Instagram – a highly visual
14 platform (Alfonso-Fuertes et al., 2023) – as the “perfect” medium, whereby the need to appear
15 perfect may have implications for the body satisfaction of young women.

16 **Perfectionistic Self-Presentation**

17 Commonly, perfectionism is defined as a multidimensional personality trait that is
18 characterized by striving for flawlessness, setting extremely high standards, and being overly
19 critical of oneself (Stoeber, 2017). There are, however, many models of perfectionism. Hewitt
20 and Flett (1990) introduced arguably the most well-researched multidimensional model that
21 differentiates three trait dimensions of perfectionism (self-oriented perfectionism, other-
22 oriented perfectionism, and socially prescribed perfectionism; see Smith et al., 2018 for an
23 example review). More recently, in their comprehensive model of perfectionistic behaviour,
24 Hewitt and colleagues (2003) proposed that perfectionism involves more than just trait

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

1 components and suggest that perfectionism also involves an interpersonal, expressional
2 component, known as perfectionistic self-presentation.

3 Perfectionistic self-presentation comprises presentational styles that reflect the need to
4 *appear* perfect, by displaying one's perfection and avoiding displaying one's imperfection. As
5 with the trait dimensions of perfectionism, there are three perfectionistic self-presentational
6 styles (perfectionistic self-promotion, non-display of imperfection, and non-disclosure of
7 imperfection). Perfectionistic self-promotion involves overtly displaying one's perfection to
8 others. Non-display of imperfection involves concealing and avoiding imperfect behaviours
9 (behaviours that may undergo scrutiny and that others may judge as imperfect). Non-disclosure
10 of imperfection also involves concealing imperfections, but in regard to disclosures of
11 thoughts, emotions or other information that may be evaluated negatively by others or may
12 allude to concerns, mistakes and perceived imperfections (Hewitt et al., 2017).

13 Perfectionistic self-presentation can increase an individual's vulnerability to a range of
14 mental health problems. This includes important outcomes such as depression, anxiety and
15 suicide ideation (D'Agata & Holden, 2018; Hewitt et al., 2003; Hogge & Blankenship, 2020).
16 In particular, it has been reported that all three dimensions of perfectionistic self-presentation
17 are associated with eating disorders symptoms. This work has highlighted links with various
18 clinical and sub-clinical issues, including anorexia nervosa, bulimia nervosa, orthorexia, and
19 exercise addiction (Ferreira et al., 2014; Pratt et al., 2022; Stoeber et al., 2017). As young
20 women (particularly from Western cultures) are considered to be a high risk population for
21 experiencing issues around eating and potentially developing an eating disorder (Rikani et al.,
22 2013), it is important that we examine personality factors, such as perfectionistic self-
23 presentation, which may help us to understand these issues further.

24 Research also suggests that levels of multidimensional perfectionism are increasing in
25 the UK. Younger people are experiencing the different dimensions of perfectionism

1 simultaneously, leading to an endless pressure to achieve these unattainable and ever-
2 increasing perfectionistic standards, and consequently experiencing mental health issues, and
3 particularly eating disorders in young women (Curran & Hill, 2019). Curran et al. (2019)
4 suggest this increase in perfectionism can be tracked back to the late 1990s, due to an increase
5 in global trading and travel, and as a result, people are able to compare themselves against
6 global standards of perfection, rather than being limited to local standards. More recently, the
7 rise in social media use (again, particularly in younger people) has exacerbated this upwards
8 trend in perfectionism (and particularly, in perfectionistic self-presentation, due its appearance-
9 focussed nature) and subsequent mental health issues. This is particularly relevant as the
10 appearance-focussed nature of perfectionistic self-presentation (compared with trait
11 perfectionism) also makes this an important and relevant factor for understanding how young
12 women use and present themselves on social media. Therefore, perfectionism and in particular,
13 perfectionistic self-presentation, are important factors to examine when investigating the
14 cultural changes we have seen in recent decades, regarding social media use, and the increased
15 risk for eating disorders in young women.

16 **Body Satisfaction**

17 Body satisfaction reflects how satisfied one is with their appearance (Jarman et al.,
18 2021), and is a key aspect of body image (subjective thoughts and feelings about one's
19 appearance; Grogan, 2021). Body satisfaction has been highlighted as a key risk factor for the
20 development of eating disorders (Benninghoven et al., 2006; Cooley & Toray, 2001;
21 Thompson, 2001). This is because body dissatisfaction, and a pursuit of the thin ideal, can
22 result in unhealthy weight control behaviours, such as dieting and compensatory behaviours
23 (e.g., vomiting, misuse of laxatives), and such behaviours can lead to the onset of eating
24 disorders (Killen et al., 1996; Stice et al., 2011, 2017). To further understand the development

1 and maintenance of eating disorders in young women, it is important, then, to investigate
2 factors that may contribute to low body satisfaction in non-clinical samples of young women.

3 **The Transactional Model of Social Media and Body Concerns.**

4 The transactional model of social media and body concerns (Perloff, 2014) suggests
5 there are several personality and individual difference factors (such as perfectionism) that can
6 increase the risk for body image concerns in young women, when combined with the effects
7 of intrusive social media use. Social media intrusion (also referred to as social media addiction
8 or problematic use of social media) can be defined as a failure to regulate social media use,
9 leading to impaired everyday functioning (social, academic, occupational etc; Andreassen,
10 2015). According to the model, perfectionism leads women to increase their social media use,
11 as a means to seek gratification, reassurance, and validation. The consequent intrusive use of
12 social media leads to reduced body satisfaction and increased negative affect, resulting in a
13 negative maintenance cycle, whereby these women attempt to alleviate the negative affect and
14 seek even more gratification and validation, by accessing appearance-focussed social media
15 content.

16 Research supports this model. For example, research suggests that social media use is
17 positively associated with body dissatisfaction both cross-sectionally and over time (Braghieri
18 et al., 2022; Marques et al., 2022; Simon et al., 2022; Vandenbosch et al., 2022). There is also
19 indirect evidence in terms of the role of perfectionism, and in particular, perfectionistic self-
20 presentation. For example, research has found that perfectionistic self-presentation predicts
21 higher levels of eating disorder symptoms, for women who are dissatisfied with their bodies
22 and physical appearance (Ferreira et al., 2014; McGee et al., 2005). However, to date, no
23 research has tested the broader proposals of this model in the context of perfectionistic self-
24 presentation, and so to do so in the present study, we examine how perfectionistic self-
25 presentation on social media relates to body satisfaction.

1 **Perfectionistic Self-Presentation on Instagram**

2 We are interested in understanding whether it is important to measure the dimensions
3 of perfectionistic self-presentation in regard to a specific domain of functioning – in our case
4 social media use, and more specifically, Instagram use. Such an approach has been useful in
5 previous research on trait perfectionism, whereby examining trait perfectionism in the context
6 of sport performance has shown greater explanatory utility for domain-specific outcomes (e.g.,
7 Dunn et al., 2002). To do so, we explored perfectionistic self-presentation on Instagram, by
8 examining the extent to which individuals promote a perfect image on Instagram
9 (perfectionistic self-promotion) and avoid presenting an imperfect image on Instagram (non-
10 display of imperfection and non-disclosure of imperfection).

11 We chose Instagram as the context for several reasons, with the first being its
12 popularity. As of 2022, Instagram is one of the most regularly used social media platforms,
13 with 57% of users in the UK identifying as female, 56% aged 18-34, and 54% reporting to use
14 Instagram several times a day (Dixon, 2023, 2023). Secondly, Instagram is a highly visual and
15 appearance-focussed social media platform (Alfonso-Fuertes et al., 2023), which directly
16 aligns with the concept of perfectionistic self-presentation, and its capturing of the need to
17 *appear* perfect. Finally, there is a growing body of work that suggests young women are at
18 particular risk from using Instagram (whereby frequency of Instagram use becomes intrusive
19 and problematic e.g., impairs everyday functioning, health, and wellbeing; Andreassen, 2015;
20 Huang & Su, 2018). Notably, Sherlock and Wagstaff (2019) reported positive relationships
21 between frequency of Instagram use (time spent using Instagram per day) and mental health
22 outcomes (including body dissatisfaction) for women aged 18-35. Moreover, Fioravanti et al.
23 (2020) reported that when young women abstained from Instagram use for one week, they
24 reported significantly increased levels of positive affect and life satisfaction, compared with
25 those who continued to use Instagram regularly and habitually, with these effects only being

1 observed in young women and not in young men. Therefore, the current statistics in the UK
2 and these previous findings highlight the importance of examining Instagram use in young
3 women, and particularly how this intrusive use of Instagram can negatively affect the body
4 image and eating behaviour of young women (de Valle et al., 2021; Hogue & Mills, 2019; Lee-
5 Won et al., 2020; Simon et al., 2022).

6 **The Present Study**

7 To address these gaps in the literature, we aimed to examine the relationships between
8 the three dimensions of perfectionistic self-presentation (in the context of Instagram use),
9 Instagram intrusion and body satisfaction, in young women, both cross-sectionally and over
10 time. To do so, we recruited two non-clinical samples (one cross-sectional, one longitudinal).
11 Based on theory and research, we expected that perfectionistic self-presentation would be a
12 negative predictor of body satisfaction and a positive predictor of Instagram intrusion, across
13 both samples. We also examined which of the three perfectionistic self-presentation variables
14 would be most important, but note, this aspect was exploratory. Finally, we also conducted
15 exploratory tests of reciprocal relationships over time (i.e., body satisfaction/Instagram
16 intrusion affecting change in perfectionistic self-presentation on Instagram).

17 **Method**

18 **Participants**

19 *Sample 1.* Participants were 392 women from the United Kingdom, aged 18-34 years
20 ($M = 23.98$, $SD = 3.84$). Recruitment was by opportunity sampling, via social media platforms.
21 Participants were excluded from the study if they had a formal diagnosis of an eating disorder
22 or body dysmorphic disorder, to adhere to ethical guidelines regarding the protection of
23 participants (due to the sensitive and potentially triggering nature of some of the measures).
24 Also, this exclusion criteria was deemed appropriate, as we were interested in recruiting non-
25 clinical samples, to examine factors that may help to prevent young women developing clinical

1 disorders, rather than treating current disorders. A priori power analysis, using GPower, was
2 conducted to determine the sample size needed for the correlational analysis. Using a previous
3 meta correlation of .24 (Limberg et al., 2017), a power of .80 (Abraham & Russell, 2008;
4 Bakker et al., 2016) and an alpha of .05 (Miller & Ulrich, 2019), the power analysis estimated
5 that a sample of 131 participants would be needed. However, there is evidence from
6 Schönbrodt et al. (2013) which suggests that correlations of the expected size do not stabilize
7 until 250 participants, therefore, a sample of 250 participants was determined as the minimum
8 sample size required for the correlational analysis.

9 **Sample 2.** Participants were 383 women from the United Kingdom, aged 18-34 years
10 ($M = 24.84$, $SD = 3.51$). 207 participants did not complete the measures on both occasions and
11 were excluded from the longitudinal analysis, resulting in a final longitudinal sample size of N
12 $= 176$ ($M = 25.14$, $SD = 3.48$). Recruitment and inclusion/exclusion criteria were the same as
13 Sample 1.

14 **Measures**

15 **Perfectionistic Self-Presentation.** We contextualized the Perfectionistic Self-
16 Presentation Scale (Hewitt et al., 2003) to measure the three dimensions of perfectionistic self-
17 presentation (perfectionistic self-promotion, non-display of imperfection, non-disclosure of
18 imperfection) in the context of Instagram use. We did so by altering the items so that
19 participants were prompted to think about how much they agreed with each statement in
20 relation to Instagram use (e.g., “I try always to present a picture of perfection on Instagram.”)
21 The perfectionistic self-promotion subscale was used to assess an individual’s attempt to
22 overtly present their perfection on Instagram and impress others with their flawless image (e.g.,
23 “I strive to look perfect to others on Instagram.”) The non-display of imperfection subscale
24 was used to assess an individual’s concealment of any demonstration of imperfect behaviour
25 on Instagram (e.g., “I do not want people to see me do something on Instagram unless I am

1 very good at it.”) The non-disclosure of imperfection subscale was used to assess an
2 individual’s concealment of textual disclosures of imperfection on Instagram (e.g., “Admitting
3 failure to others on Instagram is the worst possible thing.”) This measure consisted of 27 items,
4 with each item using a 7-point Likert scale, ranging from strongly disagree (1) to strongly agree
5 (7). This measure has been standardised on university students, community samples and
6 clinical samples, with subscales demonstrating temporal stability, via test-retest reliability over
7 a 3-week and 4-month lag, with scores ranging from .74-.84 (Hewitt et al., 2003). Hewitt et al.
8 (2003) also reported high internal consistency for perfectionistic self-promotion ($\alpha = .84-.89$),
9 non-display of imperfection ($\alpha = .83-.91$), and non-disclosure of imperfection ($\alpha = .72-.87$).
10 Moreover, the construct validity of this measure has been supported, via peer and clinician
11 ratings, and the convergent validity has been supported, via associations with all dimensions
12 from the Multidimensional Perfectionism Scale, a measure of trait perfectionism (Hewitt et al.,
13 2003).

14 **Body Satisfaction.** We used the Body Image States Scale (Cash et al., 2002) to measure
15 state body satisfaction. There is a wide array of body image measures, with many of these
16 measures exploring body image as a stable, enduring, and cross-situational trait (Cash, 1990;
17 1994; Tiggemann, 2001). However, evidence suggests that body image concerns and
18 perceptions vary across situational contexts and time (Cash et al., 2002). Therefore, we chose
19 to use this measure to explore state body satisfaction, as opposed to trait body satisfaction, as
20 we aimed to assess change in body satisfaction over time, in relation to perfectionistic
21 Instagram use. However, as state body image is considered to be partially predictable from trait
22 body image, correlations have been conducted to compare this measure with various trait
23 measures, such as the Body Areas Satisfaction Scale from the Multidimensional Body-Self
24 Relations Questionnaire (Cash, 2000) and the Appearance Schemas Inventory (Cash &
25 Labarge, 1996), and found that women with greater trait body dissatisfaction reported less

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

1 favourable body image states, suggesting these measures have good convergent validity and
2 criterion validity, as expected. Furthermore, this measure was standardised on women aged 17-
3 54 years from a variety of backgrounds (Cash et al., 2002) and was thereby appropriate for the
4 sample we recruited. This measure consisted of 6 items, which related to body satisfaction
5 across 6 domains. This included body shape satisfaction, weight satisfaction and physical
6 appearance satisfaction overall, comparisons of one's perception of their appearance with their
7 usual perceptions, and comparisons of one's perception of their appearance with the average
8 person's appearance. A 9-point, bipolar, Likert scale, was used for each item, ranging from
9 extremely dissatisfied (1) to extremely satisfied (9) for three items, and extremely satisfied (1)
10 to extremely dissatisfied (9), for the other three items. For each item, participants were asked
11 to respond based on their current feelings/perceptions at this moment, to assess state body
12 satisfaction (e.g., "right now I feel (extremely dissatisfied to extremely satisfied) with my
13 physical appearance.") Cash et al. (2002) reported that this measure has acceptable internal
14 consistency for women ($\alpha = .77$), as well as acceptable temporal stability, as the test-retest
15 reliability over a 2–3-week period was .69 for women.

16 **Instagram Intrusion.** We used the Instagram Intrusion Questionnaire to measure
17 Instagram intrusion which consisted of 8 items. The items were originally taken from the
18 Facebook Intrusion Questionnaire (Elphinston & Noller, 2011) but were altered to be in the
19 context of Instagram use (e.g., "I often think about Instagram when I am not using it.") The
20 items reflected the 8 core elements of technological addiction (cognitive salience, behavioural
21 salience, interpersonal conflict, conflict with other activities, euphoria, loss of control,
22 withdrawal, relapse, and reinstatement) with each element being reflected by one item. A 7-
23 point Likert scale was used for each item, ranging from strongly disagree (1) to strongly agree
24 (7). Elphinston et al. (2011) reported high internal consistency for the FIQ ($\alpha = .85$), as well as
25 acceptable construct validity, with component loadings ranging between .49-.80. Furthermore,

1 using an adapted version of the FIQ, in which items were adapted to be in the context of social
2 media generally, as opposed to a specified platform, Hawi et al. (2017) reported high internal
3 consistency ($\alpha = .87$), and component loadings ranging between .60-.79, suggesting good
4 construct validity.

5 **Procedure**

6 Ethical clearance for all procedures was approved by the relevant ethics committee.
7 Informed consent was obtained for all participants and questionnaires were distributed on
8 Qualtrics, via social media platforms. Sample 1 completed measures on one occasion. Sample
9 2 completed measures on two occasions, five-weeks apart. This time interval between waves
10 was considered appropriate based on a shortitudinal approach, as supported by Dormann and
11 Griffin (2015), who suggest that the optimal time lags for panel studies with two waves are
12 quite short. Moreover, this shortitudinal approach seemed appropriate as we were interested in
13 examining state body satisfaction, which varies across time and situational contexts. Carraro
14 et al. (2010) reported a significant increase in body satisfaction from pre to post (as measured
15 by the Body Image States Scale) following a one-hour physical activity intervention,
16 supporting that state body satisfaction is a construct that can change moment by moment, in
17 different contexts. More specifically, research examining perfectionism and body
18 dissatisfaction has demonstrated changes across a 5-week timeframe (Vohs et al., 2001),
19 supporting the 5-week lag in the present study.

20 **Analytic Strategy**

21 We first conducted preliminary analysis, including screening for outliers, and assessing
22 scale internal consistency. Next, because we contextualized the Perfectionistic Self-
23 Presentation Scale to Instagram use, and to confirm the factor structure of the remaining scales,
24 we conducted confirmatory factor analysis (CFA) in Mplus for all measures using data from
25 Sample 1 (Muthén & Muthén, 2017). To evaluate model fit of these analyses, a range of

1 incremental and absolute fit indices were examined, including the χ^2 statistic, Root Mean
2 Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR)
3 and Comparative Fit Index (CFI), (Hu et al., 1999; MacCallum & Austin, 2000). The following
4 criteria were indicative of acceptable model fit: RMSEA < 0.10, SRMR < 0.10, CFI > 0.90
5 (Marsh et al., 2004).

6 To examine the cross-sectional relationships between each perfectionistic self-
7 presentation dimension with body satisfaction and Instagram intrusion, we used multiple
8 regression analyses. Finally, to examine the longitudinal relationships between our variables
9 across two waves of data, we used cross-lagged panel models.

10 Results

11 Preliminary Analysis

12 First, we screened the data for univariate and multivariate outliers. For Sample 1, one
13 outlier was detected and for Sample 2, three outliers were detected (i.e., standardised scores
14 that were greater than $z = 3.29$). These four participants were excluded from further analyses,
15 resulting in a final sample of 392 for Sample 1 and 383 for Sample 2. Next, we computed
16 Cronbach's alphas, which showed acceptable alpha levels for all five scales in Sample 1 (see
17 Table 1) and for all five scales across both time points in Sample 2 (see Table 2). We also ran
18 confirmatory factor analysis (CFA) for the contextualized Perfectionistic Self-Presentation
19 Scale ($\chi^2 = 979.34$, $df = 321$, RMSEA = 0.07, SRMR = 0.07, CFI = 0.87). Based on the majority
20 of fit indices, we deemed the model to provide an adequate fit to the data.

21 Next, we conducted one-way ANOVAs to compare the Sample 2 participants who did
22 versus did not complete the follow up. We found no significant differences between the groups
23 for age, body satisfaction, Instagram intrusion, and perfectionism self-presentation.

24 Descriptive statistics and bivariate correlations for both samples are presented in Tables
25 1 and 2. Overall, we found small-to-medium negative correlations between all three dimensions

1 of perfectionistic self-presentation and body satisfaction and small-to-medium positive
2 correlations between all three dimensions of perfectionistic self-presentation and Instagram
3 intrusion. We also found a very small negative correlation between age and Instagram intrusion
4 for Sample 1 ($r = -.11$). Correlations between age and Instagram intrusion for Sample 2, as well
5 as for age and body satisfaction for Sample 1 and Sample 2 were all non-significant.

6 **Multiple Regression**

7 Multiple regression analyses were conducted to examine the cross-sectional
8 relationships between perfectionistic self-presentation, body satisfaction and Instagram
9 intrusion. To do so, we ran two models (see Table 3). Model 1 examined the relationships
10 between the three dimensions of perfectionistic self-presentation and body satisfaction. Model
11 2 examined the relationships between the three dimensions of perfectionistic self-presentation
12 and Instagram intrusion.

13 Model 1 accounted for 15.1% of the variance in body satisfaction ($R^2 = .151, f(3,388)$
14 $= 22.95, p < .001$). In Model 1, non-display of imperfection made a significant contribution to
15 the regression model, $\beta = -.243, p = .002$. However, perfectionistic self-promotion made a non-
16 significant contribution to the regression model, $\beta = -.151, p = .070$, as did non-disclosure of
17 imperfection, $\beta = -.019, p = .755$.

18 Model 2 accounted for a significant 17.3% of the variance in Instagram intrusion (R^2
19 $= .173, f(3,387) = 26.91, p < .001$). In Model 2, non-display of imperfection made a significant
20 contribution to the regression model, $\beta = .308, p < .001$. However, perfectionistic self-
21 promotion made a non-significant contribution to the regression model, $\beta = .156, p = .059$, as
22 did non-disclosure of imperfection, $\beta = -.044, p = .472$. Overall, these findings suggest that
23 collectively, perfectionistic self-presentation significantly predicts body satisfaction and
24 Instagram intrusion, and it is non-display of imperfection that is the most important unique
25 predictor.

1 **Cross-Lagged Panel Models**

2 Cross-lagged panel models were used to examine the relationships between
3 perfectionistic self-presentation, body satisfaction and Instagram intrusion over time, while
4 controlling for body satisfaction and Instagram intrusion at Time 1. To evaluate model fit, we
5 used the same criteria as for our CFA analyses (Marsh et al., 2004). Model 1 examined the
6 relationships between the three dimensions of perfectionistic self-presentation and body
7 satisfaction over time (see Figure 1). Model 2 examined the relationships between the three
8 dimensions of perfectionistic self-presentation and Instagram intrusion over time (see Figure
9 2).

10 Model 1 provided an adequate fit to the data ($\chi^2 = 27.93$, $df = 6$, $RMSEA = 0.14$, $SRMR$
11 $= 0.09$, $CFI = 0.98$). The Model is displayed in Figure 1. Model 1 showed that non-display of
12 imperfection T1 was a significant predictor of body satisfaction T2 (non-display of
13 imperfection T1 \rightarrow body satisfaction T2: $\beta = -.14$). Perfectionistic self-promotion T1 was also
14 a significant predictor of body satisfaction T2 (perfectionistic self-promotion T1 \rightarrow body
15 satisfaction T2: $\beta = .28$). However, non-disclosure of imperfection T1 was not a significant
16 predictor of body satisfaction T2 (non-disclosure of imperfection T1 \rightarrow body satisfaction T2:
17 $\beta = -.03$).

18 Model 2 provided an adequate fit to the data ($\chi^2 = 25.76$, $df = 6$, $RMSEA = 0.14$, $SRMR$
19 $= 0.08$, $CFI = 0.98$). The Model is displayed in Figure 2. Model 2 showed that non-display of
20 imperfection T1 was a non-significant predictor of Instagram intrusion T2 (non-display of
21 imperfection T1 \rightarrow Instagram intrusion T2: $\beta = .02$). Perfectionistic self-promotion T1 was
22 also a non-significant predictor of Instagram intrusion T2 (perfectionistic self-promotion T1
23 \rightarrow Instagram intrusion T2: $\beta = .05$). Non-disclosure of imperfection T1 was also a non-
24 significant predictor of Instagram intrusion T2 (non-disclosure of imperfection T1 \rightarrow
25 Instagram intrusion T2: $\beta = .02$).

1 We also examined reciprocal relationships, while controlling for perfectionistic-self
2 presentation at Time 1. Model 3 examined the relationships between body satisfaction and the
3 three dimensions of perfectionistic self-presentation over time (see Figure 3). Model 4
4 examined the relationships between Instagram intrusion and the three dimensions of
5 perfectionistic self-presentation over time (see Figure 4).

6 Model 3 provided an adequate fit to the data ($\chi^2 = 27.93$, $df = 6$, $RMSEA = 0.14$, $SRMR$
7 $= 0.09$, $CFI = 0.98$). The Model is displayed in Figure 3. Model 3 showed that body satisfaction
8 T1 was a significant predictor of perfectionistic self-promotion T2 (body satisfaction T1 \rightarrow
9 perfectionistic self-promotion T2: $\beta = -.10$). However, body satisfaction T1 was not a
10 significant predictor of non-display of imperfection T2 (body satisfaction T1 \rightarrow non-display
11 of imperfection T2: $\beta = -.09$), or non-disclosure of imperfection T2 (body satisfaction T1 \rightarrow
12 non-disclosure of imperfection T2: $\beta = -.07$)

13 Model 4 provided an adequate fit to the data ($\chi^2 = 25.76$, $df = 6$, $RMSEA = 0.14$, $SRMR$
14 $= 0.08$, $CFI = 0.98$). The Model is displayed in Figure 4. Model 4 showed that Instagram
15 intrusion T1 was a significant predictor of non-display of imperfection T2 (Instagram intrusion
16 T1 \rightarrow non-display of imperfection T2: $\beta = .15$). Instagram intrusion T1 was also a significant
17 predictor of non-disclosure of imperfection T2 (Instagram intrusion T1 \rightarrow non-disclosure of
18 imperfection T2: $\beta = .13$). However, Instagram intrusion T1 was not a significant predictor of
19 perfectionistic self-promotion T2 (Instagram intrusion T1 \rightarrow perfectionistic self-promotion T2:
20 $\beta = .09$).

21 Discussion

22 We examined the relationships between perfectionistic self-presentation on Instagram,
23 Instagram intrusion and body satisfaction, using two samples. We found that dimensions of
24 perfectionistic self-presentation on Instagram were negatively associated with body
25 satisfaction, both cross-sectionally and over time, and positively associated with Instagram

1 intrusion, cross-sectionally. Non-display of imperfection (concealing and avoiding imperfect
2 behaviours on Instagram) appeared to be the most important dimension.

3 Following the transaction model of social media and body image concerns, we expected
4 that women who seek to present themselves as perfect on Instagram will be less satisfied with
5 their bodies. Similar to other work in this area (e.g., McGee et al., 2005), we found this to
6 indeed be the case. Again, aligning to previous work in the context of body image disturbance
7 (e.g., Sherry et al., 2009), we found that non-display of imperfection was the most important
8 unique predictor of body satisfaction. It appears, then, that concealing imperfect behaviours on
9 Instagram may lead to young women being more dissatisfied with their bodies and importantly,
10 we found that this effect may persist in the context of changes in body satisfaction over time.
11 However, we still need to be mindful that these effects could flow in the reverse direction, as
12 our findings also suggest that women who are less satisfied with their bodies may be more
13 likely to promote perfection on Instagram. Therefore, longer term follow ups are needed to
14 confirm temporal precedence. Nevertheless, these findings suggest that perfectionistic self-
15 presentation, and especially non-display of imperfection, should be considered an important
16 aspect of future research into body satisfaction, especially in the context of social media use.

17 One of our findings was at odds with our expectations. Specifically, in our longitudinal
18 analyses, perfectionistic self-promotion positively predicted body satisfaction over time. This
19 finding is, however, not too dissimilar to previous work in the context of orthorexia (Pratt et
20 al., 2022). Like others (e.g., Pratt et al., 2022), we think that this finding is reflective of
21 statistical suppression (the direction of an effect changes when controlling for the overlap with
22 other variables); as we find negative bivariate correlations between Time 1 perfectionistic self-
23 promotion and Time 2 Instagram intrusion. This phenomenon is common in perfectionism
24 research more broadly (see Stoeber & Gaudreau, 2017), and, as such, this finding should be
25 considered tentative at this stage, and re-examined in future work in this area. It is, however,

1 important to consider theoretical explanations of this unexpected finding. It may be that women
2 who are regularly promoting their perfection on Instagram, (and receiving praise/validation via
3 likes and comments – in line with the transactional model of social media and body concerns)
4 may over time start to identify with this perfection and believe they are in fact perfect, thus
5 improving their body satisfaction over time (Kim, 2021). Future research should therefore seek
6 to explore this idea further.

7 We also expected that women who present themselves as perfect on Instagram will
8 report greater Instagram intrusion. Aligning with previous work in this area (e.g., Polk et al.,
9 2017), we found significant positive associations between dimensions of perfectionistic self-
10 presentation and Instagram intrusion. Like for body satisfaction, we also found that non-display
11 of imperfection was the most important unique predictor of Instagram intrusion. Instagram
12 provides an abundance of opportunities for displaying perfection and concealing imperfections
13 (via self-photo modification activities; Lee-Won et al., 2020). It is therefore unsurprising that
14 our examination of perfectionistic self-presentation on Instagram was associated with intrusive
15 use of Instagram. Given that similar forms of intrusion are tied to the development of other
16 patterns of maladaptive behaviours (e.g., eating disorders; Rogers et al., 2013), further
17 exploration of the role of perfectionistic self-presentation in the development of intrusive
18 behaviours seems pertinent. However, we also found that the effects of perfectionistic self-
19 presentation on Instagram did not persist in the context of Instagram intrusion over time. It is
20 therefore important to consider that although perfectionistic self-presentation on Instagram
21 may be a relevant factor in predicting the body satisfaction of young women over time, it may
22 not be as relevant when predicting Instagram intrusion. Future research should seek to examine
23 how other potentially relevant personal and contextual factors contribute to Instagram
24 intrusion, such as self-esteem (Zhao et al., 2022) and social comparison tendencies (Dailey et
25 al., 2020), as these factors have been shown to contribute to social media use and addiction, as

1 well as body image issues in young women (Hogue et al., 2019; Vall-Roqué et al., 2021).
2 Moreover, Harren et al. (2021) suggest that dimensions of trait perfectionism positively predict
3 social media burnout (in a sample with 85% women and a mean age of 30 years). Therefore,
4 future research may also benefit from examining perfectionistic self-presentation in relation to
5 social media burnout (rather than intrusion/addiction). However, we did find support for the
6 reciprocal effects of Instagram intrusion predicting both non-display of imperfection and non-
7 disclosure of imperfection over time. Therefore, it may be the case that concealment of
8 imperfection initially increases intrusive use of Instagram, but over time, it is the intrusive use
9 of Instagram that is exacerbating the concealment of imperfection in young women. Future
10 research should seek to examine this reciprocal relationship further.

11 In the present study, we conceptualised and measured perfectionistic self-presentation
12 in a new context – that context being Instagram use. In doing so, we find the first evidence that
13 this may be a useful way of considering perfectionistic self-presentation, especially given its
14 explanatory utility in the context of changes in body satisfaction over time. Much like research
15 on domain-specific trait perfectionism, in sport and exercise contexts (see Stoeber & Madigan,
16 2016), we feel this approach may provide further understanding of how the self-presentational
17 features of perfectionism manifest. Future work should therefore seek to extend the work here
18 and could do so by including a wider array of relevant processes and consequences (e.g.,
19 exercise addiction; Çakın et al., 2021).

20 **Limitations and Future Research**

21 The present study has several limitations. First, we had a high attrition rate for Sample
22 2. Although this is common in longitudinal studies (Goodman & Blum, 1996; Gustavson et al.,
23 2012), and particularly online studies (Hochheimer et al., 2016), attrition can pose a challenge
24 for the generalisability of longitudinal findings (Gustavson et al., 2012). As participation was
25 voluntary for both time points, with no incentives given, this may help to explain the high

1 attrition rate in the present study (Khadjesari et al., 2011), and incentivising participation in
2 future work should be considered. Our attrition analyses suggested no significant differences
3 at baseline, nonetheless, future work should determine the generalisability of these findings
4 beyond the present samples (Gustavson et al., 2012).

5 Second, we only used two waves of data and a short time lag for the longitudinal
6 analyses. It is therefore unclear whether these effects persist for longer periods of time. Future
7 research should therefore adopt more waves with longer time lags to examine women's body
8 satisfaction over longer periods of time (Robertson et al., 2021). Moreover, although cross-
9 lagged panel models are widely used to examine causal influences in longitudinal data (Finkel,
10 1995; Wu et al., 2013), it has been suggested that cross-lagged panel models may produce
11 biased estimates, if a construct is of a trait-like nature (such as trait perfectionism), as these
12 models are unable to account for stable trait-level associations, thus potentially leading to
13 inaccurate conclusions about causal effects. Although not possible for the present study (as
14 only two waves of data were used), future research should consider the use of random-intercept
15 cross-lagged panel models, which separates within-person differences from stable between-
16 person differences (Hamaker et al., 2015; Lucas, 2023).

17 Third, we recruited women aged between 18-34 years. Although, reports suggest people
18 within this age range use Instagram the most, it is likely that there will be variance within this
19 age range, in relation to using social media (e.g., social media use may decrease as age
20 increases; Hruska & Maresova, 2020), and also in relation to body image experiences (e.g.,
21 older women may experience higher levels of body appreciation than younger women;
22 Tiggemann & McCourt, 2013). In the present study, we found a very weak negative correlation
23 between age and Instagram intrusion in Sample 1, and no correlation between age and
24 Instagram intrusion in sample 2, or age and body satisfaction in Sample 1 or 2. Although the
25 diversity within this age group is unlikely to have affected the outcomes of the present study,

1 it may be useful for future research to examine narrower age ranges and control for potential
2 age effects. Future research could also prioritise the recruitment of a more diverse sample, due
3 to potentially limited sociocultural diversity in the present study (e.g., Henrich et al., 2010).

4 Finally, we relied on self-report measures. Because the nature of perfectionistic self-
5 presentation is to appear flawless (Hewitt et al., 2017), and Instagram intrusion (or any
6 addictive behaviour) may be perceived as stigmatised and undesirable, this may pose a problem
7 when acquiring accurate self-evaluations. Future research could therefore utilise alternative
8 measurement methods such as naturalistic observations and controlled experiments to evaluate
9 perfectionistic self-presentation on Instagram and Instagram intrusion more accurately.
10 Moreover, experimental methodologies may help to control other limitations regarding the
11 measurement of Instagram intrusion, as we were not able to assess the specific time spent on
12 Instagram or the content that participants were exposed to on Instagram, via the chosen self-
13 report measure. Cohen et al. (2017) reported that women’s engagement with appearance-
14 focused content on Instagram was associated with body image concerns, whereas engagement
15 with travel content on Instagram was not associated with body image concerns. This is further
16 supported by reports that the exposure to thin ideals and “fitspiration” content, via social media,
17 leads to increased body dissatisfaction (Fioravanti et al., 2022; Ozbek et al., 2023; Rounds &
18 Stutts, 2021). Therefore, future research should aim to control the content that participants are
19 exposed to, as well as assessing the time spent on Instagram, to examine how Instagram use
20 impacts the body satisfaction of young women, more accurately.

21 **Conclusion**

22 The present study aimed to examine the relationships between perfectionistic self-
23 presentation (in the context of Instagram use), body satisfaction, and Instagram intrusion in
24 young women, both cross-sectionally and over time. We found that women who present
25 themselves as perfect on Instagram (particularly concealing the display of imperfection) are

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

- 1 less satisfied with their bodies and report greater Instagram intrusion. Our findings offer initial
- 2 support for a contextualized approach to examining perfectionistic self-presentation, and its
- 3 utility in understanding the body satisfaction of young women.

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PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

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PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Table 1

Bivariate Correlations, Means, Standard Deviations and Cronbach's Alphas for Sample 1.

Variable	1	2	3	4	5
Perfectionistic Self-Presentation					
1. SP					
2. NDisp	.80**				
3. NDisc	.64**	.60**			
Instagram Intrusion					
4. II	.37**	.41**	.24**		
Body Satisfaction					
5. BS	-.36**	-.38**	-.26**	-.11*	
M	39.54	38.34	25.14	27.30	4.52
SD	13.89	12.61	7.58	8.81	1.64
Cronbach's Alpha	.93	.90	.78	.81	.86

Note. $N = 392$. SP = Perfectionistic Self-Promotion. NDisp = Non-Display of Imperfection. NDisc = Non-Disclosure of Imperfection. II = Instagram Intrusion. BS = Body Satisfaction. ** $p < .01$. * $p < .05$.

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Table 2

Bivariate Correlations, Means, Standard Deviations and Cronbach's Alphas for Sample 2.

Variable	1	2	3	4	5	6	7	8	9	10
Perfectionistic Self-Presentation T1										
1. SP										
2. NDisp	.82**									
3. NDisc	.57**	.53**								
Instagram Intrusion T1										
4. II	.38**	.47**	.22**							
Body Satisfaction T1										
5. BS	-.26**	-.28**	-.18**	.05						
Perfectionistic Self- Presentation T2										
6. SP	.83**	.69**	.56**	.33**	.27**					
7. NDisp	.73**	.80**	.52**	.44**	-.28**	.85**				
8. NDisc	.57**	.51**	.69**	.21**	-.25**	.68**	.65**			
Instagram Intrusion T2										
9. II	.37**	.43**	.19*	.78**	.02	.37**	.46**	.26**		
Body Satisfaction T2										
10. BS	-.11	-.20**	-.21**	.07	.84**	-.21**	-.27**	-.21**	.06	
M	40.56	39.47	25.74	28.43	4.75	40.72	39.70	24.97	28.21	4.60
SD	12.65	12.34	6.47	9.38	1.72	12.27	12.23	6.76	8.95	1.72
Cronbach's Alpha	.91	.90	.70	.83	.87	.92	.91	.75	.83	.88

Note. T1 N = 383, T2 N = 176. SP = Perfectionistic Self Promotion. NDisp = Non-Display of Imperfection. NDisc = Non-Disclosure of Imperfection. II = Instagram Intrusion. BS = Body Satisfaction. ** $p < .01$. * $p < .05$.

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Table 3

Multiple Regression for Sample 1.

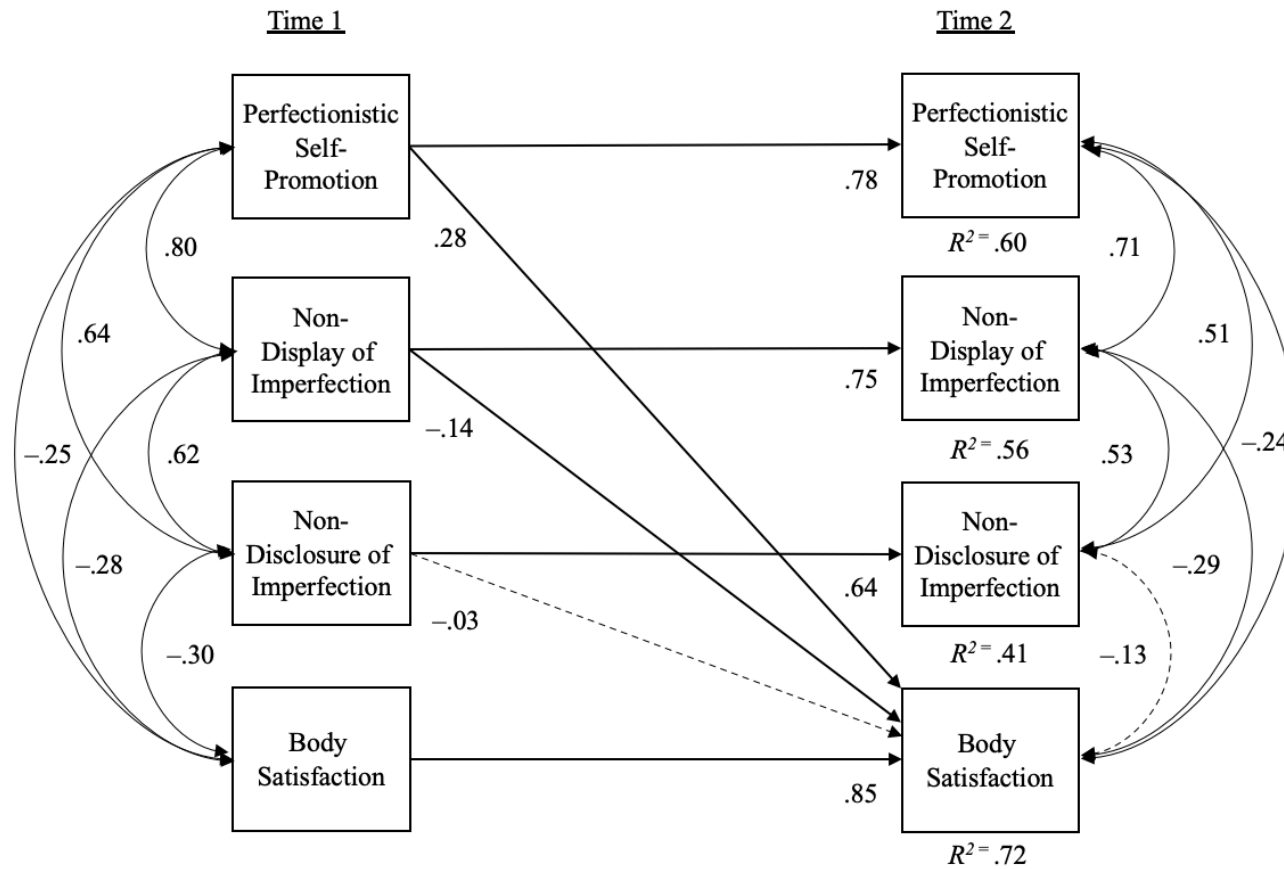
	R ²	β
Model 1 (Body Satisfaction)	.151***	
1. SP		-.151
2. NDisp		-.243**
3. NDisc		-.019
Model 2 (Instagram Intrusion)	.173***	
1. SP		.156
2. NDisp		.308***
3. NDisc		-.044

Note. $N = 392$. SP = Perfectionistic Self Promotion. NDisp = Non-Display of Imperfection. NDisc = Non-Disclosure of Imperfection. β = standardised regression weight.. *** $p < .001$. ** $p < .01$.

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Figure 1.

Cross-Lagged Model for Perfectionistic Self-Presentation Dimensions Predicting Body Satisfaction.

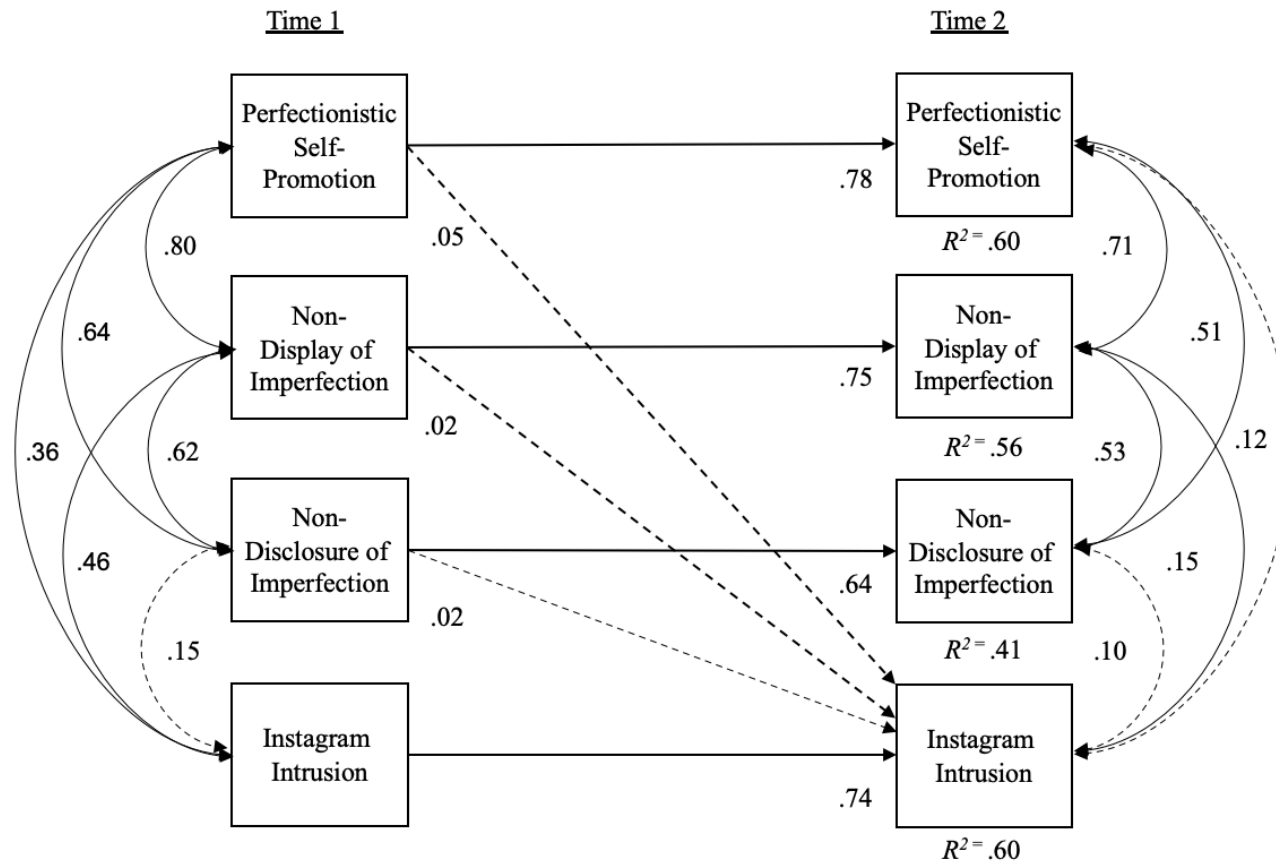


Note. $N = 176$. Dashed paths are nonsignificant ($p > .05$).

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Figure 2.

Cross-Lagged Model for Perfectionistic Self-Presentation Dimensions Predicting Instagram Intrusion.

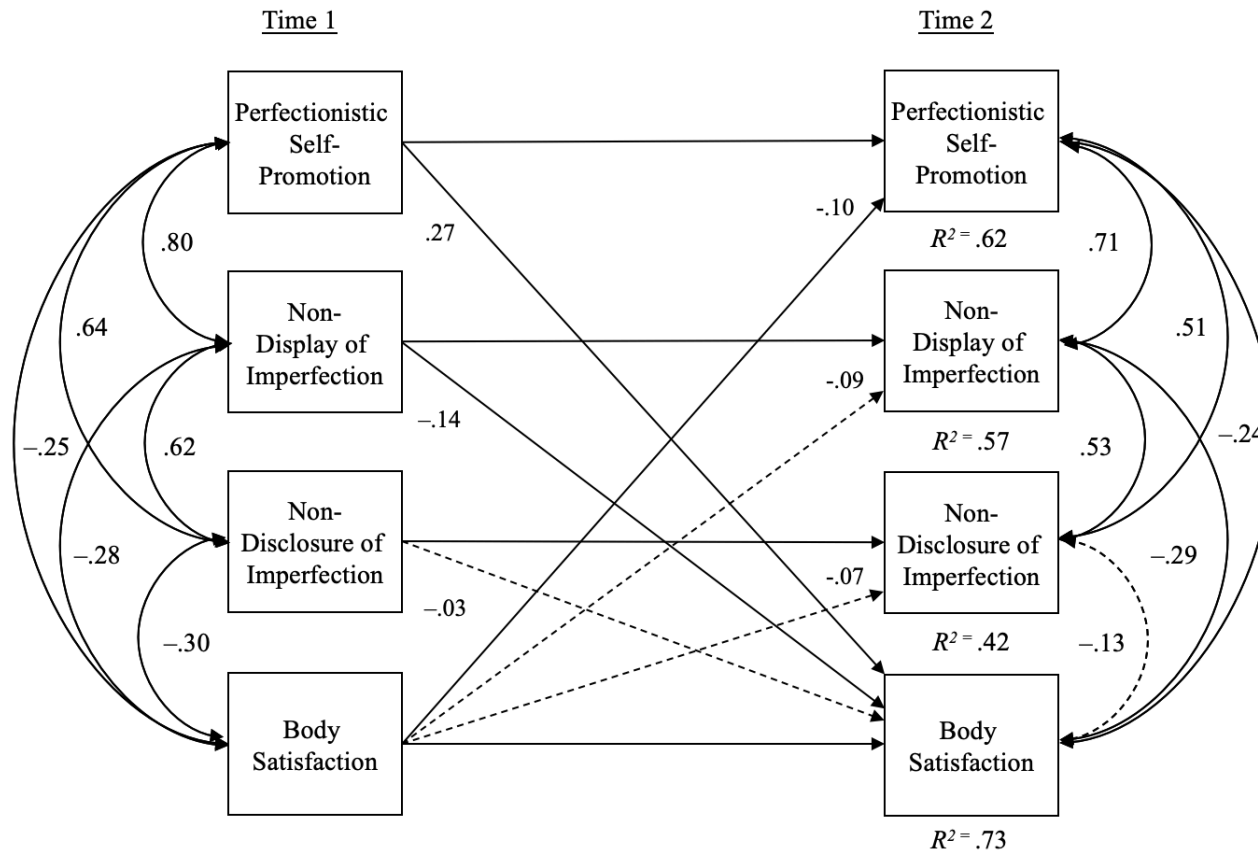


Note. $N = 176$. Dashed paths are nonsignificant ($p > .05$).

PERFECTIONISTIC SELF-PRESENTATION AND BODY SATISFACTION

Figure 3.

Cross-Lagged Model including reciprocal effects of Body Satisfaction Predicting Perfectionistic Self-Presentation Dimensions.



Note. $N = 176$. Dashed paths are nonsignificant ($p > .05$).

