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## The Associations of Relatedness Need Frustration and Socioeconomic Status With Youth Perfectionistic Self-Presentation on Social Media: The Mediating Role of Social Comparison

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### Abstract

*The phenomenon of online perfectionistic self-presentation (PSP) poses significant risks for young people, contributing to heightened anxiety, depression, and social isolation as individuals strive to project idealized versions of themselves on social media. This pressure to conform to unrealistic standards often leads to detrimental psychological outcomes, necessitating an understanding of the factors that drive such behaviors. This study examines the relationship between relatedness need frustration (RNF)—a psychological state arising from feelings of social exclusion or disconnection—and online PSP among college students, alongside the moderating effect of family socioeconomic status (SES) and the mediating role of social comparison on social media. Utilizing a sample of 1,924 college students aged 17 to 26 years ( $M = 18.59$ ,  $SD = 0.75$ , 65% females), we assessed RNF, PSP, social comparison on social media, SES, and demographic information through questionnaires. The results revealed that (a) RNF was positively associated with online PSP; (b) SES moderates the relationship between RNF and PSP, with individuals from low and average SES families exhibiting a significant positive correlation between RNF and PSP, while those from high SES families do not; (c) the moderating effect of SES occurs through the mediating process of social comparison. These findings highlight the psychological mechanisms underlying unhealthy self-presentation behaviors on social media and emphasize the need to address socioeconomic disparities in mental health interventions, promoting healthier social media engagement among youth.*

**Keywords:** online perfectionistic self-presentation; relatedness need frustration; social comparison; socioeconomic status; mediated moderation model

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## Introduction

The use of social media has become a central aspect of social life for young people, with platforms like TikTok exemplifying this trend. As of April 2024, TikTok has been downloaded over 4.92 billion times and boasts 1.58 billion monthly active users. Notably, 36.2% of these users are between the ages of 18 and 24, highlighting the platform's role as a primary communication tool among young people (Statista, 2024). Although social media apps vary (e.g., TikTok, Facebook, Twitter), Ellison and Boyd (2013) identified three defining features common to all: (a) the ability to generate a list of online connections; (b) the ability to view and interact with a stream of frequently updated content; and (c) most importantly, the ability to freely create a personal profile. These features enable individuals to curate and project an idealized image of success on social media—a phenomenon in psychology referred to as Perfectionistic Self-Presentation (PSP). Young people, in particular, may experience negative outcomes such as stress, loneliness, and depression when they focus excessively on maintaining a flawless self-image online while concealing their imperfections (Flett et al., 2016; Mun & H. Kim, 2021). Thus, understanding the risk factors contributing to young people's online PSP and providing guidance on appropriate social media use is critical for safeguarding their mental health.

PSP refers to a form of interpersonal expression in which individuals feel compelled to appear perfect to others, often to avoid judgment, criticism, or rejection (Hewitt, Flett, Sherry, et al., 2003). While most research focuses on the detrimental effects of PSP on physical and mental well-being, fewer studies address the underlying mechanisms that generate PSP on social media. A systematic review suggests that perfectionists often exhibit high levels of neuroticism, which can result in negative emotional responses when they encounter challenges. This predisposition may drive them to engage in self-criticism as a way to restore inner balance and security (Hewitt & Flett, 1991; Xie, 2015). Additionally, a study in college students found that individuals with high levels of insecure attachment may be more motivated to present a perfect self-image (Cho & Kyoung, 2024). However, while these studies link personal traits to PSP, they often overlook environmental factors such as interpersonal alienation and family environment. Just as other pathological social behaviors can be triggered by specific events, it is plausible that PSP on social media may also be influenced by particular environment-related factors (Loas et al., 2011; Merikangas et al., 2003).

One such factor is relatedness need frustration (RNF), a concept within Self-Determination Theory (SDT). It captures the active thwarting of the basic psychological need to feel close, connected, and significant to others. Some evidence suggests that social disconnection is significantly associated with young people's PSP (C. Chen et al., 2012). College students may use social media to compensate for social anxiety or loneliness in real life, seeking recognition from others (Hewitt, Flett, Sherry, et al., 2003; McLeod & Genereux, 2008). Unfortunately, this inauthentic behavior can have long-term negative effects on mental health (Hewitt, Flett, Sherry, et al., 2003). However, research findings remain mixed. For instance, Skinstad (2008) found that some individuals engage in selective honesty to satisfy their need for recognition, while other studies indicate that RNF does not significantly predict PSP (P. Wang et al., 2018). A potential reason for these contradictions is that prior studies have not fully explored the internal processes through which RNF elicits PSP, nor have they considered moderating mechanisms that might make certain groups more susceptible to PSP. To address this gap, the current study investigates the association between RNF and PSP on social media among college students, examining the mediating role of online social comparison and the moderating effect of family socioeconomic status in this process.

### **Relatedness Need Frustration (RNF) and Perfectionistic Self-Presentation (PSP)**

In SDT, the relatedness need is conceptualized as one of the three basic human psychological needs. According to Deci and Ryan (1991), relatedness need “encompasses a person's strivings to relate to and care for others, to feel that those others are relating authentically to oneself, and to feel a satisfying and coherent involvement with the social world more generally” (p. 243). When individuals experience relational exclusion, rejection, or loneliness, they may suffer from RNF (Vansteenkiste et al., 2020). While conceptually related to the fundamental need to belong (Baumeister & Leary, 1995), which emphasizes the universal motivational drive for social connection, RNF specifically captures the subjective psychological distress and thwarting of that connection. Deci and Ryan (2000) argue that frustration of basic psychological needs often leads to maladaptive outcomes. One prominent manifestation of such maladaptation is the pursuit of need substitutes—external objects or behaviors that offer a temporary illusion of satisfaction, but fail to satisfy basic needs in a sustainable way. For example, when the need for relatedness is thwarted, individuals may engage in compensatory behaviors such as excessive

reassurance-seeking, problematic internet use, or superficial socializing to artificially manufacture a sense of relatedness (B. Chen et al., 2015). In the context of modern digital interactions, emerging literature suggests that a potential maladaptive outcome is Perfectionistic Self-Presentation (PSP).

Leary and Kowalski (1990) described self-presentation as a goal-driven behavior aimed at controlling and managing others' perceptions of the self. Accordingly, the core of PSP is to "appear perfect in the eyes of others" (Sherry et al., 2007, p. 478). Hewitt, Flett, Besser, et al. (2003) conceptualized PSP as a maladaptive self-presentational style comprising three dimensions: perfectionistic self-promotion (i.e., displaying one's perfection), non-display of imperfection (i.e., avoiding the exposure of flaws), and non-disclosure of imperfection (i.e., refraining from verbally admitting imperfections). Compared to traditional social interactions, social media enables individuals to freely construct and curate their personal profiles for others to view (Tiggemann & Velissaris, 2020). This affordance facilitates greater control—and even fabrication—of self-relevant information, thereby making PSP more easily enacted online (Buffardi & Campbell, 2008). Consequently, social media has become a prominent platform for PSP among contemporary youth (Keutler & McHugh, 2022; Seekis & Kennedy, 2023; Wilson et al., 2024).

The most widely accepted explanation for the development of PSP is Perfectionism Social Disconnection Model (PSDM, Hewitt et al., 2017). Early research suggested that individuals with perfectionistic tendencies often experienced weak emotional bonds with their parents during childhood, which contributed to heightened sensitivity and insecurity regarding social connectedness. This insecurity may evolve into a strong desire for acceptance in later interpersonal relationships (Hollender, 1965). The PSDM builds on this perspective and extends it to broader social contexts, emphasizing that PSP frequently emerges following experiences of social rejection or exclusion. As Hewitt et al. (2017) noted, PSP is "an attempt in the interpersonal domain to procure the sense of mattering, belonging, being accepted, and being good enough" (p. 126). However, the model also posits that the nature of PSP may paradoxically lead others to perceive perfectionistic individuals as cold, distant, and hostile, or even provoke jealousy—ultimately intensifying the individual's interpersonal difficulties (Chua & Chang, 2016; Hewitt et al., 2017). This dynamic closely mirrors the mechanism described in SDT, wherein individuals experiencing RNF seek out need substitutes to compensate for unmet psychological needs. Thus, theoretically, we can assume that PSP is a maladaptive outcome of RNF.

Several studies provide empirical support for this view. For instance, in a clinical sample of children and adolescents, Roxborough et al. (2012) assessed social disconnection using measures of peer bullying and social hopelessness and found a significant positive association between social disconnection and PSP. Similarly, C. Chen et al. (2012) reported that social connectedness was negatively related to PSP among adolescents. Extending this to young adults, a study by C. Chen et al. (2015) involving 513 undergraduate students further supported the idea that promoting one's perceived perfection or concealing imperfections serves as a response to frustrated relatedness needs. Recent longitudinal research further clarifies this temporal relationship. Blackburn et al. (2025) demonstrated that negative peer experiences prospectively predict increased PSP in youth over time. Collectively, this evidence suggests that individuals may deploy "perfect" facades to compensate for fragile social bonds.

Based on the theoretical framework and empirical foundation, we hypothesize that RNF is positively related to PSP (**Hypothesis 1**).

## **Social Comparison on Social Media as a Mediator**

In classical psychological theory, social comparison refers to the process by which individuals evaluate their own abilities, opinions, and characteristics by comparing themselves with others during social interactions (Festinger, 1954). With the rise of the internet, interpersonal interactions have increasingly shifted from face-to-face settings to online platforms, making social comparison more frequent and accessible in cyber space (Vogel et al., 2014). Some investigations show that college students not only compare their abilities and achievements but also their posts, social media followers, likes, and seemingly "flawless" lives on platforms like TikTok and Instagram (Chua & Chang, 2016; S. Y. Lee, 2014).

Social comparison theory (Festinger, 1954) posits that individuals often compare themselves with others to obtain self-evaluations, especially in the absence of objective standards. Individuals who feel socially isolated may develop negative emotions such as depression, anxiety, and confusion (Schmidt et al., 2020). To alleviate these negative feelings and gain recognition, they may use social comparison as a means of adjusting their self-perceptions and achieving comfort or compensation (Martin et al., 2002; Sun & Q. Zheng, 2004). In digital contexts,

this tendency often manifests as comparing oneself to peers who appear more successful or socially rewarded, reflecting a general leaning toward upward comparison. For instance, a study of 466 high school students revealed that RNF leads to upward social comparisons on social network sites, enabling teenagers to validate their values and find emotional relief (Shao et al., 2024). Similar findings suggest that individuals who experience loneliness are more likely to compare themselves with others perceived as superior on platforms such as Facebook (Vogel et al., 2015). A study among Chinese college students showed that a lack of realistic interpersonal relationships is significantly associated with greater social comparison on social network sites (X. Zhang et al., 2020), a phenomenon also observed among Facebook users in the UK (Dibb & Foster, 2021).

On social media, where curated images of success and beauty are pervasive, social comparisons frequently lead to self-dissatisfaction and self-criticism (Niu et al., 2024; J.-L. Wang et al., 2017). To cope with these negative self-perceptions and project a desirable image, individuals may engage in PSP, seeking external validation and positive feedback. Empirical studies consistently show that online social comparisons—particularly with idealized content such as filtered selfies or aspirational lifestyles—lead to body dissatisfaction, reduced self-esteem, and emotions like envy and shame among college students (Myers & Crowther, 2009; Zuo, 2014). These negative responses, in turn, heighten the motivation for both undergraduates (Ubaradka et al., 2023) and the general population (Ballara, 2023; Y. Wang et al., 2019, 2024) to curate an enhanced online persona through strategic PSP behaviors, such as photo editing or deleting less popular posts. Furthermore, Jin and Hee (2024) confirmed that social comparison serves as a significant predictor of PSP in college students. Similarly, Danielsen et al. (2023) found that exposure to others' seemingly perfect lives intensifies self-dissatisfaction in adolescents, prompting individuals to conceal their authentic selves and present a more idealized version online (Fox & Vendemia, 2016).

Based on this body of evidence, it is reasonable to propose that RNF may increase individuals' susceptibility to engage in social comparison behaviors on social media, which in turn could lead to higher levels of PSP. Therefore, we hypothesize that social comparison might mediate the relationship between RNF and PSP among young people (**Hypothesis 2**).

### **Family Socioeconomic Status (SES) as a Moderator**

Despite the theoretically established relationship between RNF and PSP via social comparison, not all individuals with RNF engage in social comparison behaviors (Meier & Johnson, 2022), suggesting the presence of additional risk factors that may predispose certain individuals with RNF to social comparison. One such factor is family socioeconomic status (SES). SES refers to an individual's or family's relative position in the social hierarchy, based on wealth, prestige, and power (Mueller & Parcel, 1981). As a composite indicator, SES provides an overview of a family's economic background, cultural environment, and interpersonal relationships (Matthews & Gallo, 2011; W. Zhang et al., 2007).

SDT posits that RNF motivates individuals to seek recognition, establish social connections, and take related actions to fulfill their unmet needs (B. Chen et al., 2015). However, such actions do not always yield positive outcomes. For instance, J. Zhou (2017) argued that students experiencing RNF may spread rumors about classmates in an attempt to gain popularity and feel valued. Similarly, Robillard et al. (2025) found that RNF can lead individuals to feel worthless. These feelings of worthlessness, along with the desire to be acknowledged, are key triggers of social comparison (Alfasi, 2019; Festinger, 1954; Schlechter et al., 2023).

Individuals from high SES families typically demonstrate higher academic and job achievement (Kuncel et al., 2014; Liu et al., 2022; Sirin, 2005). These social achievements may help them attain recognition and a sense of self-worth independently of social comparison (Tong et al., 2022; L. R. Zheng et al., 2020). Numerous studies have shown that individuals from high SES backgrounds also exhibit higher levels of self-esteem (Renger et al., 2024; Twenge & Campbell, 2002). Moreover, high SES individuals tend to endorse more self-oriented values, suggesting that their self-esteem is derived more from internal standards than from external validation (Kraus et al., 2012; Stephens et al., 2014). Consequently, they may not rely on social comparison to satisfy psychological needs when experiencing RNF. Furthermore, individuals from high SES families exhibit greater self-acceptance (Guo, 2024), which has been shown to moderate the relationship between interpersonal relationships and negative emotional reactions. Specifically, when faced with interpersonal frustration, those with high self-acceptance are more likely to tolerate exclusion and are less prone to depression and anxiety (S. H.-S. Kim, 2012). Therefore, we hypothesize that RNF may not predict social comparison behavior in individuals from high SES backgrounds.

In contrast, individuals from lower SES backgrounds face limited access to social resources, which often imposes greater constraints and life challenges (Shah et al., 2012), making it more difficult for them to pursue self-oriented goals (Kraus et al., 2012). Compared to their high SES counterparts, who tend to emphasize unique self, individuals from low SES backgrounds are more likely to seek approval and derive self-worth from external sources, such as social relationships and environment (Kusserow, 1999; Miyamoto et al., 2018; Stephens et al., 2007). As a result, they may be more inclined to engage in social comparison following experiences of RNF. Q. Zhang (2017) found that SES is significantly correlated with social comparison tendencies among college students. Additionally, a substantial body of research has shown that low SES is strongly associated with lower self-esteem (Bai et al., 2021; Malka & Miller, 2007; Yan et al., 2021). Individuals with low self-esteem are, in turn, more likely to engage in social comparison (Buunk & Gibbons, 2006). In an effort to enhance self-esteem and perceived self-worth, such individuals may resort to false self-presentation (Grieve et al., 2020).

Taken together, we hypothesize that SES moderates the relationship between RNF and PSP. Specifically, individuals from lower SES backgrounds may be more prone to engage in social comparison on social media when experiencing RNF, ultimately exhibiting online PSP (**Hypothesis 3**).

## The Current Study

Most previous studies on PSP have emphasized its negative consequences (Casale et al., 2024), such as affective disorders (Besser et al., 2010; Manova & Khoury, 2024), eating disorders (Stoeber et al., 2017), and problematic social network use (Fioravanti et al., 2024). However, there is limited research examining the upstream psychological and social factors that drive this behavior. Existing studies often treat PSP as a static trait linked to perfectionism or personality, but less is known about how situational psychological experiences—such as RNF—may be associated with online self-presentation. Moreover, the role of social comparison as a mechanism, and family SES as a contextual vulnerability factor, remains underexplored. From a motivational perspective, individuals may adopt PSP as a compensatory strategy—seeking validation and managing social insecurity (Flett et al., 2016; Hewitt et al., 2017; Mun & H. Kim, 2021). To address these gaps, our study proposes a novel integrative model linking RNF, social comparison, and PSP within a mediated moderation framework grounded in Self-Determination Theory and the Perfectionism Social Disconnection Model. This approach not only advances theoretical understanding of maladaptive online behavior, but also offers practical insights into the mental health disparities that emerge in digital spaces, especially among youth from lower socioeconomic backgrounds.

Several factors that may influence online PSP were measured and included as control variables in the analysis—specifically, online self-disclosure, frequency of social media use, gender, and age.

Online self-disclosure was controlled because, although it sometimes entails revealing vulnerable aspects of the self, social media users frequently engage in the strategic disclosure of selectively positive information to construct a desirable online persona (Schlosser, 2020). Given this context-dependent relationship, we treated self-disclosure as a control variable in order to isolate the unique effects of RNF and SES. Frequency of social media use was also included, as engaging in PSP requires a baseline level of social media activity. Therefore, low PSP may simply reflect infrequent social media use, while higher levels of use are positively associated with online PSP (Milson & Madigan, 2025; Zhu & Xiong, 2022). Finally, gender and age were included as covariates based on evidence suggesting they affect patterns of social comparison and self-presentation. Females are generally more likely to engage in appearance-related social comparisons and experience pressure to present an idealized self online (Dobson, 2015; Fardouly & Vartanian, 2016). Similarly, younger users are more developmentally sensitive to peer evaluation and use social comparison more frequently to gain approval (Nesi & Prinstein, 2015; Yang & Robinson, 2018). Statistically controlling for these variables ensures a more accurate interpretation of our primary findings.

Moreover, in this study, we assessed PSP as a general behavioral tendency across social media platforms, rather than restricting measurement to a single site. This approach was informed by both theoretical and practical considerations. Theoretically, our primary interest lies in the psychological mechanism of social comparison as a general process through which RNF may give rise to PSP. Because social comparison occurs across a wide range of platforms, employing a generalized measure allows us to more accurately capture this underlying mechanism in diverse online contexts. Practically, among Chinese college students—the target population of this study—multi-platform usage is the norm. Platforms such as WeChat, Weibo, Xiaohongshu, and TikTok are frequently used in parallel, each serving distinct social functions. Restricting the assessment to a single platform would therefore compromise ecological validity and limit the generalizability of our findings to the broader landscape of social media use.

In summary, the current study seeks to investigate the mediating role of social comparison on social media and the moderating role of SES in the relationship between RNF and PSP. Based on the literature review, this study proposes the following hypotheses: (1) RNF is positively related to young people's PSP on social media. (2) social comparison on social media mediates the relationship between RNF and PSP, with RNF positively affecting social comparison, which in turn is positively related to PSP. (3) Family SES moderates the relationship between RNF and social comparison.

## Methods

### Participants and Procedure

Data were obtained from Beijing Normal University in Beijing and Northeast Agricultural University in Heilongjiang Province in September 2023. Course instructors at both universities distributed a link to an online questionnaire via their respective course chat groups and invited students to participate during class. Due to varying class schedules, the exact timing of participant responses differed by up to two weeks. Students who complete the entire questionnaire can receive extra course credit. Data collection utilized the online questionnaire platform Wenjuanxing. 357 students in Beijing Normal University and 1,569 students in Northeast Agricultural University voluntarily participated in the research. After excluding the incomplete questionnaires, 1,924 complete questionnaires were included in the final analysis. The sample comprised 678 (35%) males and 1,246 (65%) females, aged between 17 and 26 years ( $M = 18.59$ ,  $SD = 0.75$ ). Demographic information for the sample is shown in Table 1. All participants provided electronic informed consent. The Ethics Committee of Beijing Normal University approved the current study.

**Table 1.** Demographic Information ( $N = 1,924$ ).

Variables	<i>N</i>	%
Gender		
Female	678	35.24%
Male	1,246	64.76%
Father occupation		
Unskilled employees or small-scale farmer	928	48.23%
Machine operators or semiskilled employees	200	10.4%
Skilled manual employees	326	16.94%
Clerical, sales workers, technicians, or owners of little businesses	196	10.19%
Administrative personnel, small independent businesses, or lesser professionals	147	7.64%
Business managers, proprietors of medium-sized businesses, or lesser professionals	51	2.65%
Higher executives, proprietors of large concerns, or major professionals	76	3.95%
Mother occupation		
Unskilled employees or small-scale farmer	894	46.47%
Machine operators or semiskilled employees	155	8.06%
Skilled manual employees	368	19.13%
Clerical, sales workers, technicians, or owners of little businesses	205	10.65%
Administrative personnel, small independent businesses, or lesser professionals	149	7.74%
Business managers, proprietors of medium-sized businesses, or lesser professionals	59	3.07%
Higher executives, proprietors of large concerns, or major professionals	94	4.89%
Father education level		
Less than three years of education	394	20.48%
Elementary school	386	20.06%
Middle school	996	51.77%
High school	81	4.21%
Bachelor's degree	40	2.08%
Master's degree or above	27	1.40%
Mother education level		
Less than three years of education	508	26.4%
Elementary school	522	27.13%
Middle school	777	40.38%
High school	83	4.31%
Bachelor's degree	18	0.94%
Master's degree or above	16	0.83%

## Measures

### ***Relatedness Need Frustration***

RNF was assessed using the RNF subscale of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) developed by B. Chen et al. (2015). The RNF subscale includes four items (e.g., *I feel excluded from the group I want to be a part of*) rated on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*), with higher scores indicating higher levels of RNF. In the current study, the Cronbach's  $\alpha$  value for the RNF subscale was .79. Confirmatory factor analysis (CFA) was conducted using maximum likelihood estimation with the lavaan package (version 0.6-19) in R (version 4.4.0). For the RNF subscale, the model showed acceptable fit:  $\chi^2 = 39.12$ ,  $df = 2$ , CFI = .98, TLI = .94, RMSEA = .09 (90% CI = [.07, .13]), SRMR = .02. While the RMSEA slightly exceeded the conventional threshold of .08, this index is known to be inflated in models with few items and low degrees of freedom (Kenny et al., 2015). Considering that other fit indices were within acceptable ranges and internal consistency was high, the model was judged to have adequate construct validity.

### ***Perfectionistic Self-Presentation on Social Media***

A common measure for PSP is the Perfectionistic Self-Presentation Scale (PSPS; Hewitt, Flett, Besser, et al., 2003). Keutler and McHugh (2022) adapted the PSPS to measure PSP specifically on social media, modifying items to reflect social media-related behavior (e.g., *I try to present a picture of perfection on social media*). The PSPS on social media consists of 27 items rated on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores indicating higher levels of PSP. Previous studies have shown that the PSPS on social media has favorable measurement properties and retains the same factorial structure as the original version (Hellmann, 2016; Keutler & McHugh, 2022). In the current study, the Cronbach's  $\alpha$  value for the PSPS on social media was .92. CFA results showed a good model fit ( $\chi^2 = 1756.80$ ,  $df = 222$ , CFI = .95, TLI = .92, RMSEA = .06, 90% CI of RMSEA = [.06, .06], SRMR = .05).

### ***Social Comparison on Social Media***

Social comparison on social media was measured using an adaptation of the 11-item Iowa-Netherlands Comparison Orientation Measure (Gibbons & Buunk, 1999), which was originally developed to measure social comparison activities on Facebook (Cramer et al., 2016). Since this study focuses on various types of social media, the word "Facebook" was replaced with "social media" in the original prompt, such as: *Please think about your experiences while using social media (Facebook). Do you compare yourself to others on social media (Facebook)? Please indicate your level of agreement with the statements below*. Participants should rate on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Higher scores indicate a greater inclination to engage in social comparison on social media. In the current study, the Cronbach's  $\alpha$  value for the social comparison scale was .92. CFA results indicated a good model fit ( $\chi^2 = 236.88$ ,  $df = 32$ , CFI = .98, TLI = .96, RMSEA = .06, 90% CI of RMSEA = [.05, .06], SRMR = .03), demonstrating the scale's reliability and validity.

### ***Family Socioeconomic Status***

Hollingshead's Two-Factor Index of Social Position (ISP) was utilized to measure participants' family SES (Hollingshead, 1971). Hollingshead's ISP is based on two weighted components: parents' education and occupation. Occupation is categorized into seven ranks, from 1 (*Unskilled employees or small-scale farmer*) to 7 (*Higher executives, proprietors of large concerns, or major professionals*). Education level is scaled from 1 (*Less than three years*) to 6 (*Master's degree or above*). The ISP was obtained by averaging the standardized scores of parents' education levels and occupations. Numerous studies have confirmed Hollingshead's ISP as a valid indicator of family SES (Gottfried, 1985; Xing et al., 2022).

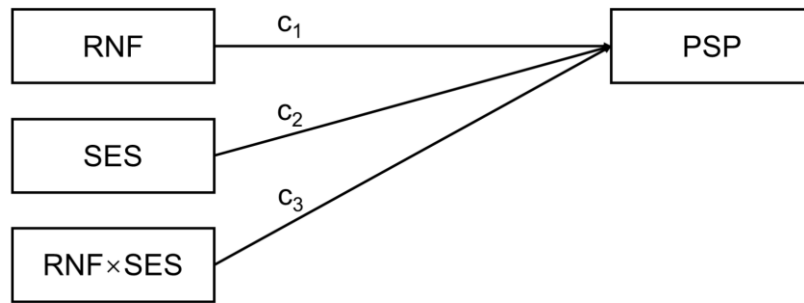
### ***Control Variables***

Participants' social media usage frequency and self-disclosure were included as control variables. Social media usage frequency was assessed with a single item: *On average, how often do you use social media?* Participants responded on a scale from 1 (*less than once per day*) to 6 (*more than 3 times per hour*). Self-disclosure on social

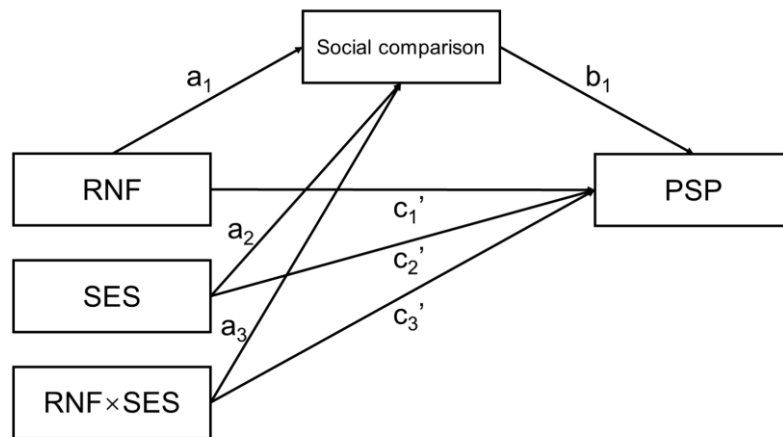
media was measured using three 5-point Likert items adapted from K.-T. Lee (2013), such as *I often discuss my feelings about myself on social media* and *I fully reveal myself in my self-disclosures on social media*. The average score of the three items was used as an index of self-disclosure, with higher scores indicating a greater inclination to self-disclose on social media.

**Figure 1.** *The Proposed Models.*

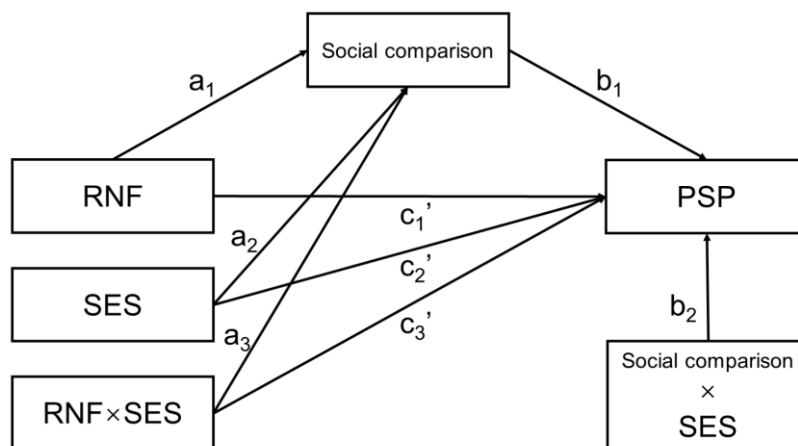
A. Model 0



B. Model 1



C. Model 2



## Statistical Analysis

All data were analyzed using SPSS v22 and lavaan package in R v4.4.0 (Rosseel, 2012). First, Harman's single-factor test was used to test for common method bias (Harman, 1967). The factor analysis extracted 4 factors (eigenvalue > 1), with the most important factor accounting for 19.62% (less than 40%) of the variance, suggesting no significant common method variance. Second, a multicollinearity analysis was conducted to check whether the predictor variables were related to each other. The variance inflation factor (VIF) of all predictors were 1.01~1.09 (less than 5), reflecting no severe multicollinearity. Next, the kurtosis and skewness values were used to test

whether variables had a normal distribution. Hair et al. (2009) and Byrne (2016) argued that data is considered to be normal if skewness is between  $-2$  to  $+2$  and kurtosis is between  $-7$  to  $+7$ . According to this criterion, all main variables were in line with normal distribution.

The moderating effect of SES and the mediating effect of social comparison were tested using hierarchical regression models while controlling social media usage frequency, online self-disclosure and demographic characteristics (gender and age). All predictors were centered before included in the model. To test the mediated moderation effect, we followed the procedure suggested by Ye and Wen (2013). First, a moderation model was constructed (see Model 0 in Figure 1). The effect of the interaction between RNF and SES ( $c_3$ ) must be significant in the Model 0. Second, a mediated moderation model was constructed (see Model 1 in Figure 1). Based on our hypothesis, the moderating effect of SES was mediated by social comparison, which means, the mediated moderating effect ( $a_3*b_1$ ) should be significant. If the regression coefficient of the interaction term between RNF and SES on PSP ( $c_3'$ ) is significant, SES can directly moderate the impact of RNF on PSP. We further tested the significance of  $c_3-c_3'$ . The interactive effect between the independent variable and moderator on the dependent variable should be reduced significance in magnitude compared with the overall effect of moderation.

To explore the possibility of processes beyond our hypothesis, we constructed the third competitive model (see Model 2 in Figure 1). If  $a_1*b_2$  is significant, SES moderates the latter half of the mediating process. A bootstrap test with 5,000 iterations was conducted to calculate the 95% confidence intervals (CIs) of these effects.

## Results

### Preliminary Analyses

The descriptive statistics and Pearson correlations for all variables are presented in Table 2. RNF and social comparison were significantly positively correlated with PSP ( $p < .001$ ), while SES was significantly positively related to RNF ( $p < .01$ ) and negatively correlated with PSP ( $p < .05$ ).

**Table 2.** Descriptive Statistics and Correlation Analysis.

Variable	<i>M</i>	<i>SD</i>	Skew	Kurtosis	1	2	3	4	5
1. RNF	2.34	0.75	0.51	0.07	—				
2. Social comparison	2.88	1.08	0.60	-0.63	.06**	—			
3. PSP	3.96	1.35	0.10	-0.26	.11***	.37***	—		
4. SES	-0.01	0.45	1.12	2.25	.06**	.00	-.05*	—	
5. Frequency	4.90	1.11	1.11	-0.52	-.02	.12***	.09***	.07**	—
6. Self-disclosure	2.82	0.91	0.81	0.35	-.02	.17***	.10***	.04	.16***

Note. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . RNF = Relatedness Need Frustration; Social comparison = Social Comparison on Social media; PSP = Perfectionistic Self-Presentation on social media; SES = Family Socioeconomic Status; Frequency = Social media usage frequency; Self-disclosure = Self-disclosure on social media.

### Test of Hypotheses

First, the moderating effect of SES was tested. The regression analysis results of Model 0 are presented in Table 3. The full regression results are presented in the appendix. The results showed that RNF was significantly positively associated with PSP ( $c_1 = 0.23$ ,  $t = 5.62$ ,  $p < .001$ ), and the moderating effect of SES was significant ( $c_3 = -0.31$ ,  $t = -3.86$ ,  $p < .001$ ). Specifically, when family SES is one SD below the mean or equal to the mean, RNF was significantly positively associated with PSP ( $\beta = 0.37$ ,  $t = 6.42$ ,  $p < .001$ ;  $\beta = 0.23$ ,  $t = 5.62$ ,  $p < .001$ ). When family SES is one SD above the mean, the association between RNF and PSP is not significant ( $\beta = 0.09$ ,  $t = 1.77$ ,  $p = .076$ ). To further examine the overall association between RNF and PSP, we constructed an additional model that included RNF, SES, and other control variables, but excluded the interaction term. Results indicated that the association between RNF and PSP remained significant:  $\beta$  (unstandardized) = 0.21,  $SE = 0.04$ ,  $t = 5.20$ ,  $p < .001$ .

**Table 3.** Regression and Model Comparison Results ( $N = 1,924$ ).

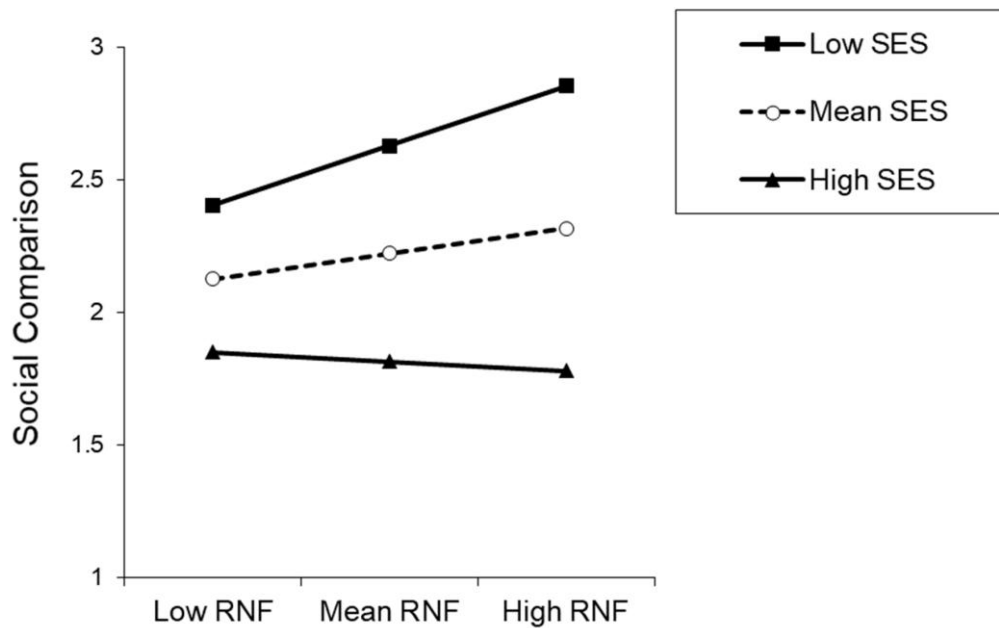
Dependent variable	Predictors	Model 0		Model 1		Model 2	
		$\beta$	$SE$	$\beta$	$SE$	$\beta$	$SE$
1. Social comparison	Constant			1.92**	0.60	1.92**	0.60
	Age			-0.06*	0.03	-0.06*	0.03
	Sex			-0.44***	0.05	-0.44***	0.05
	Frequency			0.11***	0.02	0.11***	0.02
	Self-disclosure			0.20***	0.03	0.20***	0.03
	RNF ( $a_1$ )			0.13***	0.03	0.13***	0.03
	SES ( $a_2$ )			0.01	0.05	0.01	0.05
	RNF*SES ( $a_3$ )			-0.38***	0.06	-0.38***	0.06
2. PSP	Constant	1.09	0.77	0.24	1.66	0.14	0.73
	Age	-0.05	0.04	-0.03	-0.02	-0.01	0.04
	Sex	-0.12	0.06	0.03	0.07	0.07	0.06
	Frequency	0.10***	0.03	0.05*	0.03	0.06*	0.03
	Self-disclosure	0.14***	0.04	0.06	0.04	0.05	0.04
	RNF ( $c_1/c_1'$ )	0.23***	0.04	0.17***	0.04	0.16***	0.04
	Social comparison ( $b_1$ )			0.44***	0.03	0.44***	0.03
	SES ( $c_2/c_2'$ )	-0.15*	0.07	-0.15*	0.06	-0.17**	0.06
	RNF*SES ( $c_3/c_3'$ )	-0.31***	0.08	-0.14	0.08	-0.16*	0.07
	Social comparison*SES ( $b_2$ )					-0.11	0.06
		$R^2 = .04$		$R^2 = .15$		$R^2 = .15$	
		$F(7, 1916) = 11.61^{***}$		$F(8, 1915) = 42.95^{***}$		$F(9, 1914) = 38.68^{***}$	
Conditional estimates of the RNF–PSP association across different SES levels in the model including social comparison				Effect	Bootstrapped $SE$	Bootstrapped 95% $CI$	
-1 from $SD$				0.13***	0.02	[0.09, 0.17]	
Equal to the mean				0.06***	0.02	[0.02, 0.09]	
+1 from $SD$				-0.02	0.02	[-0.05, 0.02]	
Index of mediated moderation ( $c_3 - c_3'$ )				-0.17*	0.03	[-0.23, -0.10]	

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . RNF = Relatedness Need Frustration; Social comparison = Social Comparison on Social media; PSP = Perfectionistic Self-Presentation on social media; SES = Family Socioeconomic Status; Frequency = Social media usage frequency; Self-disclosure = Self-disclosure on social media. All  $\beta$ s are unstandardized coefficients.

Second, the mediating role of social comparison was included in the model (see Table 3). Social comparison was regressed on the control variables (sex, age, social media usage frequency, and self-disclosure on social media), RNF, SES, and the interaction term. The results showed that the regression coefficient of the interaction term on social comparison was significant ( $a_3 = -0.38$ ,  $t = -6.16$ ,  $p < .001$ ), the regression coefficient of social comparison on PSP was also significant ( $b_1 = 0.44$ ,  $t = 15.86$ ,  $p < .001$ ). The 95% bootstrapped CI of  $a_3*b_1$  was  $[-0.23, -0.10]$ , which did not include 0. The test of the indirect effect of moderation ( $c_3 - c_3'$ ) showed that the direct moderating effect was significantly reduced after including the mediating term ( $c_3 - c_3' = -0.17$ ,  $t = -4.92$ ,  $p < .001$ , 95% CI =  $[-0.23, -0.10]$ ). Meanwhile, in Model 1, the direct moderating effect of SES was not significant ( $c_3' = -0.14$ ,  $t = -1.85$ ,  $p = .064$ ). These results indicated that the moderating effect of SES on the relationship between RNF and PSP was completely mediated by social comparison. Specifically, the estimated RNF–PSP association in the model including social comparison was larger among individuals from low-SES families ( $\beta = 0.13$ ,  $t = 6.20$ ,  $p < .001$ , 95% CI =  $[0.09, 0.17]$ ) than those from high SES families ( $\beta = -0.02$ ,  $t = -1.10$ ,  $p = .273$ , 95% CI =  $[-0.05, 0.02]$ ).

A simple slope analysis was conducted better to understand the interaction effects of RNF and family SES. As shown in Figure 2, the association between RNF and social comparison among individuals from low SES families (simple slope = 0.30,  $SE = 0.04$ ,  $t = 6.74$ ,  $p < .001$ , 95% CI =  $[0.21, 0.39]$ ) was stronger than those from high SES families (simple slope = -0.04,  $SE = 0.04$ ,  $t = -1.09$ ,  $p = .275$ , 95% CI =  $[-0.12, 0.03]$ ). These findings support Hypothesis 3, indicating that family SES moderates the relationship between RNF and PSP through social comparison.

**Figure 2.** *The Relationship Between RNF and Social Comparison With Family SES as a Moderator.*



Note. RNF = Relatedness Need Frustration; SES = Family Socioeconomic Status.

We further tested whether SES moderates the relationship between social comparison and PSP (Model 2 in Figure 1). The regression analysis results (Table 3) indicated that the effect of the interaction term between social comparison and SES on PSP reached borderline significance ( $b_2 = -0.11$ ,  $t = -1.93$ ,  $p = .054$ ). The 95% bootstrapped CI of  $a_1*b_2$  was  $[-0.22, 0.00]$ , which included 0. Thus, based on the current evidence, we can conclude that SES moderates only the first half of the mediating process.

## Discussion

This study investigated the relationship between RNF and PSP on social media, revealing that RNF was more strongly associated with PSP among individuals from low SES families, while this association was not significant for those from high SES families. We further found that SES exhibits the moderating effect that works by mitigating the association between RNF and social comparison.

### Relatedness Need Frustration and Perfectionistic Self-Presentation

This study demonstrated that RNF positively relates to PSP on social media (H1). Consistent with SDT and PSDM, the results indicate that PSP on social media can be a behavioral strategy for individuals attempting to gain the attention and acceptance of others after experiencing RNF. Several studies have provided empirical support for this finding (Gil-Or et al., 2015; Mun & H. Kim, 2021), suggesting that individuals compensate in other ways when their psychological needs are frustrated. For example, a study involving 338 women found that loneliness is a significant factor leading individuals to embellish their images on internet platforms (Yu & H.-C. Kim, 2020). Additionally, individuals lacking approval from others are more likely to misrepresent their self-presentation on Instagram (Mun & H. Kim, 2021). In the context of online socializing, individuals may create “false selves” to cope with external pressures and satisfy their psychological needs (Gil-Or et al., 2015). This pursuit of perfection becomes a coping strategy: to minimize the risk of rejection, people often change their thoughts and attitudes, or learn to act or present themselves in a way that they can gain recognition and acceptance.

### The Mediating Role of Social Comparison on Social Media

Hypothesis 2 was supported, with results indicating that social comparison on social media mediates the relationship between RNF and online PSP. This finding is consistent with prior research showing that online social comparison can trigger self-exaggeration and strategic self-presentation, particularly when individuals experience emotional insecurity or social disconnection (Chua & Chang, 2016; Y. Wang et al., 2024). In the Chinese cultural

context, similar patterns emerge: envy elicited through online comparisons frequently motivates users to enhance or idealize their public image (Y. Wang et al., 2024). Indirect evidence further suggests that loneliness predicts increased Facebook use, which amplifies opportunities for social comparison (Song et al., 2014).

Beyond these empirical parallels, this mediation effect can be further explained through several theoretical frameworks. According to SDT, frustration of the relatedness need motivates individuals to engage in compensatory behaviors aimed at restoring belongingness (Deci & Ryan, 2000). In online settings, one such behavior is social comparison, which provides indirect cues about one's social standing and self-worth through others' curated content (Cramer et al., 2016). Social Comparison Theory also suggests that those who feel interpersonally disconnected are especially prone to engaging in comparisons to evaluate their own value in the absence of affirming offline relationships (Buunk & Gibbons, 2006). Social media exacerbates this tendency, given the abundance of idealized portrayals and the prominence of impression management. Although psychological distress was not directly measured in the current study, it is theoretically plausible that these comparisons elicit negative emotional states, which individuals may then attempt to regulate by engaging in PSP. In this sense, PSP serves as a behavioral response to the psychological threat posed by RNF and intensified by unfavorable online comparisons. While previous research has emphasized external attributes—such as appearance or achievement—as the basis of social comparison, our findings underscore the importance of internal psychological factors, including self-worth and need frustration, as precursors to PSP (Suls & Wheeler, 2012).

Taken together, these perspectives suggest that social comparison is not merely an outcome of the lack of interpersonal relationships, but also a key mechanism through which individuals seek emotional compensation and external validation. This sheds light on why social comparison functions as a bridge between RNF and PSP, offering a deeper understanding of the motivational and cognitive dynamics underlying perfectionistic behaviors in digital contexts.

## **The Moderating Role of Family Socioeconomic Status**

The findings indicate that family SES moderates the relationship between RNF and social comparison, exhibiting a significant mediated moderating effect. Specifically, in the low-SES group, RNF significantly predicts PSP via social comparison, whereas in the high-SES group, this association is not significant. Higher family SES provides individuals with more resources to compensate for a lack of relatedness. The combination of abundant resources and opportunities (e.g., quality education, sufficient material goods) enables them to achieve success more easily and perceive their significance and value during development (Q. Zhou et al., 2018). Consequently, they may not rely excessively on online comparisons to recognize their self-worth. These findings align with previous research, which indicates that individuals from high SES backgrounds are more likely to base their self-worth on self-appraisal rather than on others' evaluations, and are therefore less likely to engage in social comparison (Gerber et al., 2018; Kraus, 2018; Miyamoto et al., 2018). The current study reveals the role of family SES in moderating the relationship between RNF and social comparison and highlights the differing social network behaviors of individuals across various SES levels. Therefore, this finding has significant implications for understanding the psychosocial roots of undesirable social networking behaviors across the socioeconomic spectrum.

## **Gender Differences in Social Comparison**

While gender was included as a control variable in all models, the regression results revealed that it was among the strongest predictors of social comparison on social media. Specifically, female participants reported significantly higher levels of social comparison than males. This result is consistent with a large body of research indicating that women are more likely to engage in appearance-based and upward social comparisons online, which are often associated with increased self-consciousness, negative self-evaluations, and greater pressure to present an idealized version of the self (Dobson, 2015; Fardouly & Vartanian, 2016). These gendered patterns of online comparison may help explain why females also tend to exhibit stronger PSP behaviors. Therefore, our findings contribute to a growing literature that emphasizes the importance of gender in understanding both the antecedents and expressions of online perfectionism.

## Limitations and Future Direction

This study demonstrates that RNF is positively related to online PSP through social comparison, revealing differences in this process among individuals from families with varying SES. However, certain limitations warrant emphasis.

First, this study explored PSP behaviors on social networks and their psychological roots. However, different social platforms possess unique characteristics (e.g., anonymity, interaction styles, and social environments). For instance, on Facebook, “excessively emotional” expressions are often viewed as norm violations, may place certain restrictions on a user's social media presentations (Waterloo et al., 2018). Weibo, the largest social media platform in China, requires users to sign in with real names (Weibo Corporation, 2024). Real-name social comparisons may induce greater fluctuations in an individual's mental state and limit their online PSP. Therefore, these differing characteristics may influence users' online performance, including positive and negative social comparisons, as well as upward and downward comparisons (Michinov & Bavent, 2001; Olivos et al., 2021). Given these possibilities, individuals' PSP may vary across platforms. The present study demonstrates that individuals from low SES backgrounds who experience RNF are more likely to engage in social comparison on social media, which in turn contributes to online PSP behaviors. However, the measure of PSP employed in this study reflected a general tendency across platforms and did not account for potential differences in PSP expression on specific social media sites. Given that platform-specific characteristics may moderate the relationship between SES, RNF, and PSP, future research should examine how these dynamics vary across different online environments. Such investigations would provide a more nuanced understanding of how structural features of social media platforms influence perfectionistic self-presentation.

Second, the cross-sectional design employed in this study limits the ability to identify causal relationships between variables. The mediated moderating model presented here is grounded in theoretical frameworks of self-determination theory and perfectionism social disconnection model, suggesting that RNF may be linked to greater PSP. However, we must also acknowledge the possibility of bidirectional or reverse relationships. For instance, individuals who actively engage in PSP may become highly attuned to peer feedback and more prone to continuous social comparison; this exhausting cycle could, in turn, exacerbate feelings of social isolation and elevate their RNF. To definitively establish directionality and confirm these theoretical links, future studies should adopt longitudinal designs or experimental paradigms.

Third, the current study did not include a measure of self-esteem, which represents an important limitation. As highlighted in our literature review, self-esteem is closely intertwined with family SES, social comparison tendencies, and perfectionistic behaviors. It is highly probable that individuals with lower self-esteem are more vulnerable to the adverse impacts of RNF, rendering them more likely to engage in social comparisons and subsequent PSP as compensatory mechanisms. Future studies should incorporate self-esteem into the research design to provide a more comprehensive understanding of the complex psychological mechanisms driving online perfectionistic self-presentation.

## Implications

Despite certain limitations, this study offers several novel and meaningful contributions from both theoretical and clinical perspectives. From a theoretical standpoint, this research reconceptualizes PSP not merely as a stable trait or antecedent to mental health problems, but as a situational coping strategy shaped by unmet psychological needs and social-cognitive processes. By integrating Self-Determination Theory with the Perfectionism Social Disconnection Model, this study demonstrates that RNF predicts PSP through social comparison. These findings shed new light on the motivational roots of PSP, which have often been overlooked in favor of trait-based explanations. Our results align with previous evidence that individuals high in PSP are motivated by unmet interpersonal needs and a desire for acceptance (C. Chen et al., 2012; Roxborough et al., 2012). In doing so, this study expands the literature by situating PSP within a broader framework of need frustration and mediated self-regulation, contributing to a more dynamic understanding of how perfectionistic behavior is cultivated and sustained in digital environments.

In addition, this study introduces family SES as a contextual moderator, offering a critical extension to previous research that has largely focused on individual-level predictors. While existing work has explored how personality traits and cognitive styles relate to PSP, few studies have examined how structural variables such as SES influence

vulnerability to maladaptive social comparison and compensatory self-presentation. Our findings show that individuals from lower SES backgrounds are more likely to engage in social comparison when experiencing RNF, which in turn is linked to heightened PSP. This pattern echoes broader research showing that individuals from lower SES backgrounds are more sensitive to status-based comparisons and more reliant on external validation (Bai et al., 2021). Conversely, individuals from higher SES families tend to derive self-worth from internal standards and exhibit less dependence on environmental affirmation (Kraus et al., 2012; Stephens et al., 2014). These findings deepen our understanding of how social class conditions the psychological impact of unmet relational needs in the context of digital self-presentation.

From a clinical perspective, the current findings inform the design of therapeutic and digital mental health interventions. Given that PSP can be understood as a maladaptive strategy to cope with psychological distress, interventions should target the motivational deficits and cognitive distortions that maintain such behavior. Cognitive Behavioral Therapy (CBT)—especially versions tailored for perfectionism—has demonstrated efficacy in reducing PSP (Crăciun & Holdevici, 2013). More recently, digital therapies, including guided internet-based CBT (ICBT) and brief online programs focused on perfectionism and social comparison, have shown moderate effects in decreasing maladaptive self-presentation and associated distress (Kothari et al., 2016; Rozental et al., 2017). Based on our findings, we speculate that these interventions may be particularly valuable for individuals from disadvantaged backgrounds, who are more prone to PSP as a compensatory response to social exclusion and perceived inferiority. As socioeconomic disparities become increasingly salient in online spaces, digital mental health interventions must not only foster healthier self-presentation practices but also address the underlying structural inequities that exacerbate the effects of RNF and social comparison. Our findings thus highlight the importance of recognizing and responding to the disproportionate psychological burdens faced by youth from low SES backgrounds in navigating social media environments.

In sum, this study broadens the conceptualization of PSP by framing it as an outcome of frustrated psychological needs and socially contingent self-worth, rather than as a fixed personality trait. By accounting for contextual vulnerability and emphasizing the need for targeted intervention, the findings offer a new theoretical lens and a foundation for the development of evidence-based strategies aimed at fostering resilience and reducing perfectionistic pressures in digital youth culture.

## **Conclusion**

This study explored the relationship between RNF and online PSP. The findings indicate that RNF is significantly associated with online PSP via the mediating role of social comparison on social media. Furthermore, individuals from low SES families are more likely to be affected negatively in this process, while favorable family conditions appear to mitigate the adverse effects of RNF. These results suggest that an individual's actual SES and the self-image presented on social media may sometimes be incongruous, providing both theoretical and empirical support for psychological interventions aimed at addressing undesirable social networking behaviors. Current findings remind us that in today's information age, socioeconomic disadvantage can harm individuals' mental health by fostering negative online behaviors, with real-life interpersonal frustrations acting as potential triggers. Despite the widespread adoption of online social interactions, we should remain vigilant regarding individuals' real-world relationships and their sense of social acceptance, while also acknowledging the new threats posed by lower socioeconomic status in the digital era, thereby further promoting social and economic equality.

## **Conflict of Interest**

The authors have no conflicts of interest to declare.

## **Use of AI Services**

The authors declare they have not used any AI services to generate or edit any part of the manuscript or data.

## Authors' Contribution

**Shujian Wang:** formal analysis, writing—original draft, writing—review & editing, conceptualization. **Xinze Liu:** writing—original draft. **Xiangping Liu:** investigation, writing—original draft.

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## Ethics Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Ethics Committee of Beijing Normal University (IRB number: 202309080128).

## Data Availability Statement

Data are available from: <https://osf.io/yp5jr>.

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## Appendix

**Table A1.** Full Regression Results for Model 0. Outcome: Perfectionistic Self-Presentation (PSP).

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI (LLCI, ULCI)
Intercept	1.09	0.77	1.41	.159	[-0.43, 2.60]
RNF	0.23	0.04	5.62	< .001	[0.15, 0.31]
SES	-0.15	0.07	-2.20	.028	[-0.28, -0.02]
RNF × SES	-0.31	0.08	-3.86	< .001	[-0.46, -0.15]
Sex	-0.12	0.06	-1.93	.054	[-0.25, 0.00]
Age	-0.05	0.04	-1.16	.246	[-0.13, 0.03]
Social Media Frequency	0.10	0.03	3.72	< .001	[0.05, 0.16]
Self-Disclosure	0.14	0.04	3.77	< .001	[0.07, 0.22]

**Table A2.** Full Regression Results for Model 1. Outcome: Social Comparison on Social Media.

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI (LLCI, ULCI)
Intercept	1.92	0.60	3.21	.001	[0.75, 3.10]
RNF	0.13	0.03	4.04	< .001	[0.07, 0.19]
SES	0.01	0.05	0.19	.851	[-0.09, 0.11]
RNF × SES	-0.38	0.06	-6.16	< .001	[-0.50, -0.26]
Sex	-0.44	0.05	-8.95	< .001	[-0.54, -0.35]
Age	-0.06	0.03	-2.02	.043	[-0.13, -0.00]
Social Media Frequency	0.11	0.02	5.26	< .001	[0.07, 0.15]
Self-Disclosure	0.20	0.03	6.78	< .001	[0.14, 0.26]

**Table A3.** Full Regression Results for Model 1. Outcome: Perfectionistic Self-Presentation (PSP).

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI (LLCI, ULCI)
Intercept	0.24	0.73	0.33	.739	[-1.18, 1.67]
RNF	0.17	0.04	4.49	< .001	[0.10, 0.25]
Social Comparison	0.44	0.03	15.86	< .001	[0.38, 0.49]
SES	-0.15	0.06	-2.41	.016	[-0.28, -0.03]
RNF × SES	-0.14	0.08	-1.85	.064	[-0.29, 0.01]
Sex	0.07	0.06	1.17	.242	[-0.05, 0.19]
Age	-0.02	0.04	-0.50	.616	[-0.09, 0.06]
Social Media Frequency	0.05	0.03	2.03	.042	[0.00, 0.10]
Self-Disclosure	0.06	0.04	1.53	.125	[-0.02, 0.13]

**Table A4.** Full Regression Results for Model 2. Outcome: Social Comparison on Social Media.

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI (LLCI, ULCI)
Intercept	1.92	0.60	3.21	.001	[0.75, 3.10]
RNF	0.13	0.03	4.04	< .001	[0.07, 0.19]
SES	0.01	0.05	0.19	.851	[-0.09, 0.11]
RNF × SES	-0.38	0.06	-6.16	< .001	[-0.50, -0.26]
Sex	-0.44	0.05	-8.95	< .001	[-0.54, -0.35]
Age	-0.06	0.03	-2.02	.043	[-0.13, -0.00]
Social Media Frequency	0.11	0.02	5.26	< .001	[0.07, 0.15]
Self-Disclosure	0.20	0.03	6.78	< .001	[0.14, 0.26]

**Table A5.** Full Regression Results for Model 2. Outcome: Perfectionistic Self-Presentation (PSP).

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI (LLCI, ULCI)
Intercept	0.14	0.73	0.19	.852	[-1.29, 1.56]
RNF	0.16	0.04	4.24	< .001	[0.09, 0.24]
Social Comparison	0.44	0.03	15.97	< .001	[0.39, 0.50]
SES	-0.17	0.06	-2.68	.008	[-0.30, -0.05]
RNF × SES	-0.16	0.08	-2.16	.031	[-0.31, -0.01]
Social Comparison × SES	-0.11	0.06	-1.93	.054	[-0.22, -0.00]
Sex	0.07	0.06	1.22	.223	[-0.05, 0.19]
Age	-0.01	0.04	-0.36	.721	[-0.09, 0.06]
Social Media Frequency	0.06	0.03	2.16	.031	[0.01, 0.11]
Self-Disclosure	0.05	0.04	1.28	.201	[-0.02, 0.12]

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