The Impact of Exquisite Content in Rednote on the Self-esteem Level with the Mediating Role of Social Comparison and the Moderating Role of Gender

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Abstract: In recent years, browsing exquisite content, showcasing delicate makeup, and high-quality lifestyle and consumption patterns on the rednote platform have become the new trend among teenagers. However, users' mental health might be affected by exposure to ideal images and content of the rednote. The study examines the impact of exposure to exquisite contents in the rednote on the Chinese young generation's self-esteem, social comparison as the mediating variable, and gender as the moderating variable. 209 questionnaires were collected through Wenjuanxing and WeChat. Correlation, regression, and factor analysis were applied through SPSS and Process. The results show that exposure to exquisite content, social comparison (r=0.348, p<0.001), and self-esteem (r=0.320, p<0.001) are significantly correlated. It indicates that the impact of social comparison on the self-esteem of males is more prominent than that of females. This research contributes to addressing the existing gaps in the interaction mechanism of the content of online social media, social comparison, and self-esteem with gender as the moderator. It reveals the possible pathway from the content of social media to users' self-perception and social psychology. Further, it provides suggestions in terms of the operation mechanism of the online platform, social narrative, and education for the online social media user group.

Keywords: Social Media, Social Comparison, Self-esteem

1. Introduction

1.1. Research background

The Internet and smartphones are an inseparable part of daily life. According to the 53rd Statistical Report on the Development of China's Internet Network, the number of Chinese internet users has grown to 1.092 billion by December 2023 [1]. Rednote was established in 2013 and has grown the fastest among all other Chinese online social media platforms. In 2023, rednote already accumulated over 300 million users. The 2024 official data of rednote shows that the proportion of the 2000s generation is 35%, and they are the largest active user group in the rednote community. This

indicates the main user group is users under 25 years old [2]. Some studies have revealed that, compared to text, images are more prominent in triggering negative psychological impacts [3]. Viewing beauty tutorials and idealized fitness imagery can markedly reduce individuals' perceptions of their own attractiveness, which is closely linked to a decline in self-esteem [4]. These studies demonstrate that image content in online social media could affect participants' self-esteem. The top 5 user penetration rated contents of rednote are: gourmet food, fashion and style, makeup, health, film, and visual entertainment [5]. Hence, this study speculated that the exposure to exquisite content through images, text, and video, could affect University students' self-esteem.

1.2. Literature review

In this study, "the exposure of exquisite content" refers to the frequency and extent to which users encounter content on the rednote platform that displays high-quality lifestyles, ideal appearances, or high-consumption scenes. Such content typically constructs the image of an "ideal other" through filters, brand stacking, and emotional storytelling, thereby reinforcing users' perception of the gap between themselves and the ideal state [6].

Social comparison is a psychological process based on information about others to judge one's own situation, which is particularly common in social media and has been identified as an important mediating mechanism influencing individual psychological states [7]. According to social comparison theory, when objective standards are lacking, individuals will evaluate their own worth by comparing themselves with others. Exposure to highly idealized content tends to prompt individuals to make upward comparisons, meaning they compare themselves with those they view as more successful or superior [8].

Self-esteem refers to a person's general assessment of their own worth and competence, and it serves as a key indicator of psychological well-being [9]. Studies have shown that increased tendencies toward upward social comparison often weaken an individual's level of self-esteem [10]. Therefore, it was speculated that when users are exposed to exquisite content on the rednote platform, it may indirectly reduce users' self-esteem by triggering upward comparisons.

In terms of the case platform in this research, female users dominate the whole user group of rednote, which indicates a significant difference between different genders. At the beginning of its operation, rednote has been prioritizing the female market, and nowadays, it always has the largest number of female users. The high-quality community contents, which is dominated by exquisite content, such as beauty, fitness, outfit, and publications of high-end brands, are based on an algorithm that creates a uniquely feminine atmosphere. Hence, these contents will be displayed according to the preferences of different genders, which will affect the informational descriptions from different genders and lead to differences in social comparison [11]. What's more, the young generation is relatively confused about their growth problems, such as the pressure of further education, career selection, emotional dilemmas, and interpersonal communication, and has different performance when they are facing them. Additionally, social media serves as a crucial platform for them to learn new things and express themself so that there is no doubt that different genders have different preferred contents which they tend to present and are always attracted by [12].

Moreover, social media can affect people by presenting different content based on the characteristics of different genders. For instance, one study points out that the typical contents of cosmetics highly shape the behavior and the cognition of the female users, and gradually affect their ideology through the contents presented by social media [13]. Another study also suggests that male users are more easily influenced by social media images, which may lead to upward social comparison and even trigger higher social anxiety, compared to female users [14]. According to the

research that aims at social media usage behavior of college students, the appearance anxiety of female college students is much severe than that of males under the influence of the mediating factors of social comparison [15]. Therefore, this research is designed to observe if different genders have different manifestations of social comparison and whether these comparisons can ultimately affect the overall self-esteem state of college students.

1.3. The hypothetical model

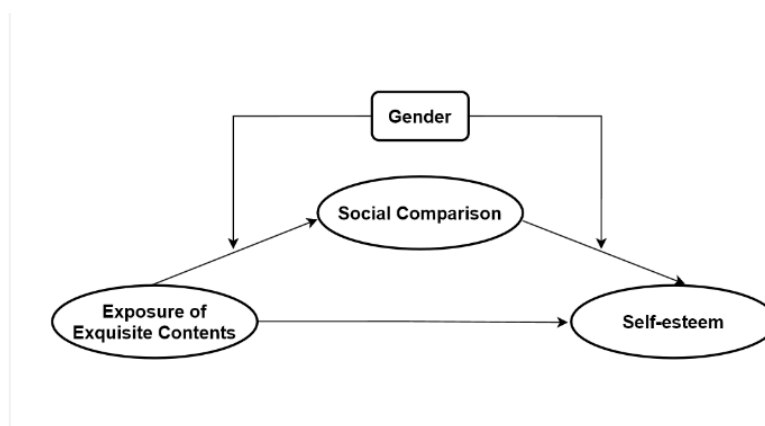This research proposes the following hypothetical model (See Figure 1):

Figure 1. The hypothetical model (Picture credit: Original)

1.4. The conclusion of the introduction

While the relationships among social media, social comparison, and self-esteem have been increasingly explored in the Chinese psychological context, research that focuses on the impact of "exquisite lifestyle" content—considering social comparison as a mediator and gender as a moderator—remains scarce and retains important pioneering value. Thus, this research aims to thoroughly investigate the mechanism behind the influence of exquisite content in rednote on the self-esteem level of the young generation.

2. Method

2.1. Questionnaire

This study used three scales to measure (1) exposure to exquisite content, (2) social-comparison tendency, and (3) level of self-esteem. The Exquisite Content Exposure Scale and the Social-comparison Tendency Scale used a 5-point rating (1 = never/strongly disagree, 5 = very often/strongly agree). The Revised-Positive Rosenberg Self-Esteem Scale used a 4-point rating (1 = strongly disagree, 4 = strongly agree). For all three scales, elevated total scores represent higher degrees of the corresponding psychological characteristic.

Exquisite Content Exposure Scale (self-developed). Based on the Content-based Media Exposure (C-ME) Scale proposed by den Hamer et al. and adapted to the content characteristics of the rednote platform, this study localized and compiled the "Exquisite Content Exposure Scale" [16]. The scale measures how often individuals encounter exquisite content on the rednote. The scale includes one screening item to ensure that participants use the rednote platform, three distractor items to prevent respondents from detecting the study purpose, and eight key items. Structural validity was examined

through exploratory factor analysis on the eight key items, resulting in two latent factors—Aesthetic Content and Value Content—that explained 60.21% of the total variance. Factor 1 covers aesthetic content such as appearance and cosmetics (e.g., "tall and slim figures, toned bodies, good skin"), while Factor 2 involves emotionally charged or value-laden messages such as "you deserve better". A Kaiser-Meyer-Olkin (KMO) value of 0.827 and a significant Bartlett's test indicated that the dataset met the criteria for conducting factor analysis. The scale was therefore treated as both a total score and as two subscales in subsequent analyses. Reliability analysis showed that the Cronbach's α for the eight items was 0.822, demonstrating good internal consistency. Sample items include: "How often do you see posts featuring tall, slim figures and good skin while browsing rednote?" and "How often do you see posts conveying ideas like 'you deserve better' or 'treat yourself' while browsing?"

Social Comparison Tendency Scale. The Chinese version of the Iowa–Netherlands Comparison Orientation Measure (INCOM), translated and revised by Wang Mingji, Wang Lei, and Shi Junqi, was used in this study. The scale assesses the extent to which individuals compare themselves with others in daily life. It contains 11 items. The Chinese version has good reliability, with Cronbach's α= 0.88 and a four-week retest Cronbach's α = 0.89 [17].

Self-Esteem Scale. To evaluate self-esteem, this study employed the Chinese version of the Revised Positive Rosenberg Self-Esteem Scale. The scale evaluates individuals' overall sense of self-worth and contains 10 items. In Chinese samples of university students, adults, and active-duty soldiers, Cronbach's α ranges from .83 to .89, showing good reliability and validity [18].

2.2. The methodology of data analysis

In terms of data collection, the questionnaire was edited and released on Wenjuanxing. The large-scale data collection was conducted on some social media, such as WeChat Moments, public accounts, rednote, and Sina Weibo. Meanwhile, the small-scale data collection was conducted in different school communities. The whole process collected 209 effective data points in total, with 53 male data points and 156 female data points.

With respect to the data analysis, quantitative analysis is the main method of data analysis in this research. The analysis of these 209 data points was conducted with SPSS, the big data analysis software. The main aim of the analysis was to explore the correlation among these three variables: the exposure to exquisite content, social comparison, and the self-esteem level. Furthermore, model validation was performed using SPSS PROCESS to examine the mediating role of social comparison and the moderating effect of gender in the relationship between exposure to exquisite content and self-esteem.

3. Result

This study has collected 209 valid questionnaires. There are 53 male respondents and 156 female respondents. The age distribution of the respondents is as follows: 18-24 years (49.5%), 25-29 years (38.3%),30-34 years (11.0%), and under 18 years and over 30 years (0.5%), respectively.

3.1. Descriptive analysis

Exposure of Exquisite Contents of Rednote Scale, with a maximum score of 40 (excluding 3 distractor items), has the mean value of 28.455, accounting for 71.138% of the total. It shows that respondents generally think that the exposure to exquisite content of rednote is at a relatively high level. Iowa-Netherlands Comparison Orientation Measure, INCOM, with a maximum score of 55 (2

items were subjected to reverse scoring), has a mean value of 39.507, accounting for 71.831% of the total. It reveals that respondents compare themselves with others relatively frequently. Self-Esteem Scale, with a maximum score of 50, has a mean value of 41.531, accounting for 83.062% of the total, indicating that overall, respondents are in a comparatively high level of self-esteem.

3.2. Correlation analysis

Table 1. Correlation between exposure to exquisite contents of rednote, social comparison, and Self-Esteem

		Exposure of Exquisite Contents	Social Comparison	Self-Esteem
Exposure of exquisite contents	Pearson correlation	1	.348**	.320**
	Sig.(2-tailed)		.000	.000
Social Comparison	Pearson correlation	.348**	1	.219**
	Sig.(2-tailed)	.000		.001
Self-Esteem	Pearson correlation	.320**	.219**	1
	Sig.(2-tailed)	.000	.001	

** Correlations are significant at the 0.01 level (two-tailed)

Based on the data of Table 1, 1) Exposure of Exquisite Contents, Social Comparison, and Self-Esteem are significantly correlated. 2) Exposure of Exquisite Contents is positively correlated with Social Comparison; Exposure of Exquisite Contents is positively correlated with Self-Esteem. 3) Social Comparison and Self-Esteem are significantly correlated, and they are positively correlated. From the data mentioned, it indicates that Exposure of Exquisite Contents, Social Comparison, and Self-Esteem are related. From another perspective, Exposure to Exquisite Content was moderately positively correlated with Social Comparison and Self-Esteem, while Social Comparison showed a weak positive correlation with Self-Esteem. Referring to the hypothetical model assumed in this study, the path from Exposure of Exquisite Contents to Social Comparison, and the path from Exposure of Exquisite Contents to Self-Esteem are valid. However, the relationship within the path from Social Comparison to Self-Esteem is tenuous.

3.3. The analysis of independent samples t-test

Table 2. The differences in gender in the exposure to exquisite life content, social comparison, and Self-Esteem

		Levene's test		Mean equivalence t-test		
		F	Sig.	t	Degree of freedom	Sig.(2-tailed)
Exposure of exquisite contents	Homoscedasticity	.077	.781	-.875	207	.383
	Non-Homoscedasticity			-.866	88.197	.389
Social Comparison	Homoscedasticity	2.133	.146	.388	207	.698
	Non-Homoscedasticity			.413	101.124	.680
Self-Esteem	Homoscedasticity	2.219	.138	-2.193	207	.029
	Non-Homoscedasticity			-2.112	84.416	.038

There is no statistical significance in the mean value between male and female respondents on the Exposure of Exquisite Contents and Social Comparison based on the data shown in Table 2. Moreover, there is a difference in mean value among genders; female respondents' scores in Self-Esteem are statistically higher than those of male respondents.

3.4. The analysis of regression

The ANOVA test yielded a significant result ($F = 7.275$, $p < 0.001$), indicating the model's overall explanatory power. Hence, the following analysis concentrates on the effect coefficient and the conditional effect of gender moderation.

Table 3. The regression model table of the moderating role of gender for Self-Esteem

Variable	coeff.	se	t	p	LLCI	ULCI
Constant	17.946	9.757	1.839	0.067	-1.291	37.183
Exposure of exquisite contents	-0.033	0.307	-1.084	0.914	-0.638	0.572
Social Comparison	0.529	0.223	2.378	0.018	0.091	0.968
Gender	6.619	5.399	1.226	0.222	-4.027	17.264
Interaction of exquisite life content and gender	0.178	0.170	1.043	0.298	-0.158	0.513
Interaction of social comparison orientation and gender	-0.244	0.121	-2.020	0.045	-0.481	-0.006

The coefficient of Social Comparison on Self-Esteem level, as shown in Table 3, is 0.529 ($p<0.05$), indicating that Social Comparison exerts a significant positive impact on Self-Esteem. Based on Table 1, the manifestation of positive prediction of Social Comparison on Self-Esteem level is conditional on the exclusion of Exposure to Exquisite Contents and Gender. The interaction term coefficient of Social Comparison and Gender is -0.244 ($p<0.05$), indicating that this interaction term exerts a significant influence on Self-Esteem level. This result corroborates that the mediation effect of Social Comparison on Self-Esteem level would be restrained by the moderation of Gender, which means Gender fulfilled the role as a moderator of the path from Social Comparison to Self-Esteem.

Table 4. The conditional effects of the moderator variable gender at different levels

The moderating role	Effect	se	t	p	LLCI	ULCI
Male	0.286	0.108	2.645	0.009	0.073	0.498
Female	0.042	0.054	0.782	0.435	-0.064	0.148

Table 5. The conditional direct impacts of exposure to exquisite content on Self-Esteem

The moderating role	Effect	se	t	p	LLCI	ULCI
Male	0.144	0.147	0.979	0.329	-0.146	0.435
Female	0.322	0.085	3.782	0.000	0.154	0.490

As shown in Table 4, Social Comparison significantly predicts Self-Esteem among males ($\beta = 0.286$, $p < 0.05$), but not among females ($\beta = 0.042$, $p > 0.05$), indicating a gender-based moderating effect. In contrast, Table 5 demonstrates that the effect of Exposure to Exquisite Contents on the Self-Esteem level of females is relatively higher than males, with the effect of males as 0.144 and

females as 0.322. Furthermore, only in the female group, the effect of Exposure to Exquisite Contents on Self-Esteem level is significant ($p < 0.05$).

3.5. Factor analysis

To assess the structural validity of the self-constructed Exquisite Content Exposure Scale, an exploratory factor analysis (EFA) was performed on its eight core items. The KMO measure was 0.827, and Bartlett's test of sphericity was statistically significant, confirming the suitability of the data for factor analysis (see Table 6). Applying principal component analysis with varimax rotation, two factors with eigenvalues exceeding 1 were extracted, jointly accounting for 60.21% of the total variance (see Table 7). Additionally, reliability analyses were conducted for the two extracted factors. The factor-loading pattern showed that Factor 1 primarily involved appearance, fashion, and cosmetics, and consumption scenes. It was therefore named "Aesthetic Content." Factor 2 focused on phrases such as "you deserve better" and "self-improvement," which express ideals or value orientations. This factor was named "Value Content." Cronbach's α for Aesthetic Content was .774, and for Value Content it was .763. These results support the stability and usability of the two-factor structure. This two-factor structure provides both theoretical and statistical grounds for distinguishing content types and for testing their respective pathways to self-esteem. To further examine the commonality and independence of the two latent factors, this study calculated the correlation between them. The two subscales showed a moderate positive correlation ($r = .508$, $p < .001$), indicating conceptual distinction yet empirical interdependence. Thus, the total score was used in the main mediation model. Future research may consider analyzing the two subdimensions separately to capture more nuanced effects.

Table 6. KMO and bartlett's test

Indicator	Value
KMO Measure of Sampling Adequacy	0.827
Bartlett's Test Approx. Chi-Square	533.255
df	28
Significance (p)	< .001

Table 7. Rotated component matrix

Item Content	Factor 1: Aesthetic Content	Factor 2: Value Content
Limited-edition or luxury cosmetics and skincare products	0.819	—
Tall and slim figures, toned bodies, good skin	0.762	—
Beauty tutorials, fitness tips, plastic surgery guidance	0.704	—
Luxury goods, mansions, and high-consumption scenes	0.694	—
Ideas such as "you deserve better" or "treat yourself"	—	0.835
Expressions like "self-improvement" or "clear-minded"	—	0.805
Linking exquisite lifestyle with self-discipline or social status	—	0.737
Aesthetic lifestyle scenes (Instagram-style rooms, table settings)	—	0.519

Correlation Analysis by Sub-dimensions. To explore gender differences in the effects of the two Exquisite Content factors, Pearson correlation analyses were conducted separately for males and

females (see Table 8). For male participants, Value Content was positively and significantly associated with both social comparison and self-esteem, whereas Aesthetic Content showed no significant correlations. In contrast, among females, both Aesthetic and Value Content were significantly positively correlated with social comparison and self-esteem.

Table 8. Correlations between exquisite content factors and social comparison/Self-Esteem, by gender

Gender	Variable	Aesthetic Content (r)	Value Content (r)
Male	Social Comparison	.223 (p = .108)	.478 (p < .001)
Male	Self-Esteem	.173 (p = .216)	.304 (p = .027)
Female	Social Comparison	.315 (p < .001)	.278 (p < .001)
Female	Self-Esteem	.288 (p < .001)	.294 (p < .001)

Regression and Mediation Analysis for Sub-dimensions. To further test the path mechanisms, separate regression analyses were run for male and female samples (see Table 9). Among males, Value Content significantly predicted both social comparison and self-esteem in a positive direction. Aesthetic Content showed no significant effects. Among females, both Aesthetic and Value Content positively predicted social comparison and self-esteem.

Table 9. Predictive paths from exquisite content sub-factors to Self-Esteem, by gender

Path	B(Male)	P(Male)	B(Female)	P(Female)
Aesthetic→Social Comparison	.223	.108	.315	< .001
Aesthetic→Self-Esteem	.173	.216	.288	< .001
Value→Social Comparison	.478	< .001	.278	< .001
Value→Self-Esteem	.272	.027	.331	< .001

Note: results from multiple linear regression.

3.6. Comprehensive analysis

Table 10. Indirect effects of social comparison orientation on Self-Esteem through exposure to exquisite life content

Gender	Effect	BootSE	BootLLCI	BootULCI
Male	0.152	0.074	0.046	0.334
Female	0.022	0.027	-0.034	0.076

Table 11. Indirect effects of social comparison orientation on Self-Esteem through exposure to exquisite life content

The moderating variable	Index	BootSE	BootLLCI	BootULCI
Gender	-0.130	0.079	-0.321	-0.015

Table 10 demonstrates that when the respondent is male, Social Comparison mediates the path from Exposure of Exquisite Contents to Self-Esteem level, while there is no statistically significant

mediating effect when the respondent is female. As shown in Table 11, gender moderates the indirect pathway through which exposure to exquisite content influences self-esteem via social comparison. The findings from Tables 4 and 10 further illustrate that the effect of social comparison on self-esteem varies significantly by gender, indicating that the mediating role of social comparison in this pathway differs between male and female participants. The results collectively demonstrate that gender plays a moderating role in the positive association between social comparison and self-esteem. Comprehensively considered, the final path model is derived (see Figure 2).
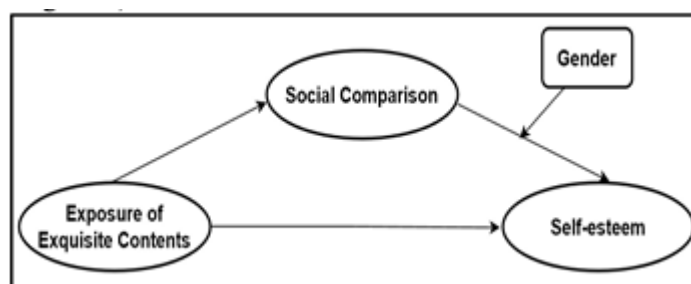

Figure 2. The final model (picture credit: original)

4. Discussion

4.1. Results compared with previous studies

High-scoring on Self-Esteem: rednote Users' Characteristics and the Relationship Between Usage of Online Social Media and Self-esteem. Rednote, as an online social media platform, in which female users occupy a dominant proportion, 71% of the total users acquired a Bachelor's degree or above [19]. According to the statistics from March 2021, rednote Chinese users in first-tier and second-tier cities account for 90% of the total [20]. These might suggest that the majority of rednote users were relatively affluent in terms of economic and environmental conditions, and their self-esteem related to their external conditions might be relatively high. This may be the underlying reason for the high-scoring results on self-esteem collected in this study. Wan's longitudinal study suggests that self-esteem may serve as an antecedent influencing individuals' patterns of social media use [21]. This implies that users with different self-esteem levels may interpret the same exquisite content in distinct ways. Moreover, a positive relationship between social media use and self-esteem has been established. Valkenburg and Peter found that adolescents with higher self-esteem tend to use social media to reinforce their positive self-image—for example, by sharing uplifting content and receiving affirmative feedback from peers [22]. In contrast, studies reporting a negative correlation between self-esteem and social media use often focus on problematic or excessive usage patterns [23]. This states that self-esteem and social media usage may not be negatively correlated, but vice versa. This research postulates that the high level of exposure to exquisite content in rednote, might be an intentional browsing behavior of high self-esteem teenagers to further boost up their self-esteem. Therefore, this caused the positive correlation between the exposure to exquisite content and self-esteem.

Female's Higher Self-Esteem: Platform Discourse and Presentation Bias. The present study found that females' self-esteem was significantly higher than males. Traditional studies have generally reported slightly higher self-esteem among males, yet recent evidence from East-Asian contexts, especially among young, active social-media users, suggests this gap is narrowing or reversing [24,25]. On rednote, where female users predominate, the content ecosystem amplifies messages

such as "self-reward consumption" and "female empowerment", encouraging females to embrace the belief that "self-love is justice" [26]. Factor analysis and correlations further show a significant positive link between Value Content and females' self-esteem, implying that such content may be internalized as a positive self-affirming resource. Caution is warranted because the cross-sectional design only yields correlational evidence, and it cannot establish whether platform discourse causes higher self-esteem in females. It is plausible that females who already possess higher self-esteem selectively engage with exquisite content. Longitudinal research is needed to disentangle this bidirectional pathway. Additionally, as a self-report measure, the Self-Esteem Scale may be influenced by social desirability bias. Prior research has shown that females are more prone than males to present idealized self-images on social media [10]. As "females should be confident" becomes a social norm, some female respondents may unconsciously inflate their positive self-views, thereby overestimating their actual self-esteem. High self-esteem scores may also contain defensive or fragile components that require further differentiation [7]. In conclusion, the observed female advantage in self-esteem likely results from an interplay of platform value cues, gender socialization, and measurement bias. Future studies should control social desirability and employ multi-wave longitudinal designs to clarify the underlying psychological mechanisms.

Comparing Mediating Mechanisms by Gender. Gender significantly alters the mediating role of social comparison. Mechanistically, males appear more likely to regard cues such as "clear-minded" as external standards, using social comparison to activate self-improvement motives and enhance self-evaluation—a process consistent with Lockwood & Kunda's "role-model motivational effect" [27]. Yet these elevated self-esteem scores may also reflect defensive high self-esteem for both genders. High scores do not necessarily denote stable, internalized self-worth [7]. In contrast, among females, both content factors correlated significantly with self-esteem, but social comparison neither mediated the relation (see Table 11) nor predicted self-esteem directly. This implies that females bypass the comparison route and may build self-evaluation through emotional identification with the content itself. Although the present study did not measure "emotional identification", the pattern suggests that females may elevate self-esteem via resonance and value internalization. Prior work also indicates that females are more susceptible to shame and anxiety on social media [10]. These emotions may offset any positive effects of social comparison, further attenuating its mediating role. In sum, gender produces a structural difference in the pathway from Exquisite Content to self-esteem: males rely more on social comparison, whereas females appear to achieve self-affirmation through direct identification with the content.

Positive Correlation between Aesthetic Consumption-related Contents and Self-Esteem. On the basis of the factor analysis in this study, in terms of female respondents, the level of exposure to Aesthetic Contents is positively correlated with self-esteem. Also, the regression coefficient of exposure to Aesthetic Contents on self-esteem in the model is statistically significant ($p<0.001$). This indicates that the positive impact of exposure to aesthetic consumption-related content on self-esteem is confirmed to exist. The 2016 study of Vandenbosch and Eggermont discovered that lots of Belgian teenagers would follow other users' accounts to build up their understanding of social standards, whereas female respondents were more likely to accept unrealistic standards of appearance [28]. In light of the above findings, this study suggests that images, text, and video content that content creators post could possibly transform the social standards of appearance of the teenage followers. The diverse Aesthetic Contents ecology in rednote, not only limited to the "pale, young, and thin" aesthetic standard, may unconsciously construct a more accommodating social standard of appearance. This may enhance one's acceptance of their physical appearance, and

subsequently, lead to the positive correlation from aesthetic consumption-related contents to self-esteem.

4.2. Suggestions

This research concludes some socially significant results through deeply exploring the specific mechanism behind the process by which the exquisite content in rednote affects the self-esteem level of the users. Following this, this research will propose suggestions from three different aspects--the operating system of the platform, social narrative, and the education towards the users.

This research found that the general users of rednote were highly exposed to exquisite content. Rednote functions as a platform that always shapes users' values and dominates contemporary popular culture. Hence, rednote must attach great importance to performing social responsibility through further enhancing the system of recommending and screening content so that it can provide users with increasingly varied content. Besides, the platform also needs to encourage the creation of positive and varied content so that the various values carried by this content can enhance the self-worth identification of the users. Lastly, commercial inducement should be clearly indicated to avoid making exquisite content become the tool of consumerism.

Furthermore, this research concludes that users' states of self-esteem were generally at a high level, presenting a trend that as the degree of social comparison deepened, the self-esteem level was higher. This result further verifies that, to a certain extent, social media and the internet have a positive impact on users. However, in today's society, increasing press coverage takes advantage of people's preference that they are more easily attracted by negative information, so as to shape people's opinions and attitudes towards the internet and social media. Therefore, from parents' perspectives, they cannot correctly comprehend the positive influence that the internet gives children because they are exposed to a wide spectrum of negative coverage, and they have been completely shaped by such media narratives. Therefore, the mass media must eliminate this prejudice and narrative patterns rather than keep spreading the negative sides of the internet. Governments also need to strengthen their positive impact with the aid of social media so that they can create a more harmonious society.

Lastly, this research has also found that gender plays a significant moderating role. Therefore, the users of rednote must make their efforts to continuously maintain a friendly and healing atmosphere. They need to actively publicize and support positive and various values to create an inclusive community atmosphere, in order to reduce the negative impact of social comparison and build users' identity towards the Red Note community and themselves.

4.3. Limitations and future development

For sample selection, the sample of this research presents a significant drawback in that there is an imbalance between the number of male samples and the number of female samples. Male respondents accounted for only 34% of the sample. Meanwhile, the market penetration of male users in rednote is far lower than in other applications, which may cause the results of this research to only fit the applied scenario of females rather than males. So, future research can be conducted with the methodology of quota sampling, which can lead to more generalizable and precise results.

As for variable setting. The variable self-esteem includes many different dimensions, such as learning ability, social skills, physical fitness, appearance, and work performance. The current self-esteem state is a result of the various factors working together, but this research only examines certain aspects of these dimensions, resulting in an inability to accurately predict the self-esteem

level just through the exquisite contents. So future research needs to further analyze the different dimensions of self-esteem.

Regarding the research design, the applied questionnaire of this research just measured the degree of exposure to exquisite contents, but it did not deeply explore the usage frequency and whether the exquisite contents are received actively or passively in rednote. During data collection, due to a large number of questions, the participants may realise the intention of the test and then respond fraudulently, and there is also a possibility that they may respond honestly in order to chase social praise. So future research can be improved by adding a post hoc back interview to distinguish proactively reach and passively reach. When designing the questionnaire, it needs to add the survey of using time and frequency, and add some interference questions to conceal the intention of the test.

With respect to data analysis, the results of this research implied that the variance of male statistics is higher than that of females. It may further affect the validity of the gender moderation effect. So future research is supposed to pay more attention to controlling the variance to enhance the robustness of the results through a larger sample size.

In terms of future expansion, as social media goes deep into people's real lives, it has influenced every aspect of people's lives. So future research should further exploit different psychological domains deeply, such as interpersonal behaviours, consumption behaviours, and positive and negative psychological states.

5. Conclusion

This research mainly explores the influences of exquisite content in rednote on the self-esteem level of the young generation, with the introduction of the mediating variable and the moderating variable, social comparison, and gender, respectively. This research found that the users' exposure to exquisite content, social comparison, and self-esteem level in rednote is generally at a high level. There is a significant correlation among these three variables. Finally, the regression analysis supports the hypothesized path model, confirming the positive effect of social comparison on self-esteem, as well as its mediating role and the moderating effect of gender. Therefore, this research also proposes further improvement suggestions based on the results from three different aspects, which include further enhancing the system of pushing and reviewing content, changing the social narrative habits, and deepening the education for the users to improve their quality. Meanwhile, there are some limitations occurring in sample selection, variable setting, research design, and data analysis. According to these problems, this research also proposes potential solutions to improve the research and the foresight about deeply exploring other psychological domains in future development. These findings will grant readers different insights into the mechanism behind the phenomenon that contemporary development of social media tightly links with the self-esteem level to promote a deeper understanding of this phenomenon. Moreover, these findings help address a gap in the psychological literature by exploring the mediating role of social comparison and the moderating role of gender in the relationship between exposure to exquisite content on rednote and self-esteem. Finally, this research also reflected the limitations of this research based on the findings and proposed some constructive suggestions, which can effectively help people become the dominant ones in social media.

Authors contribution

All the authors contributed equally, and their names were listed in alphabetical order.

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