Empowering Chinese Young Female Fans on Social Media through Artificial Intelligence to Control their Body Image

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ABSTRACT

The purpose of this qualitative study was to empower the young Chinese fans on social media through artificial intelligence (as virtual influencers) to control their body image. The study aimed to investigate fans' opinions, experiences, and obstacles in relation to body image perception, acceptance and satisfaction through in-depth interviews with 21 informants. Based on the interview questions and research aims and objectives, a total of 11 themes were formulated to perform the thematic analysis. According to the findings, fan involvement, social media use, and exposure to idealized body ideals of virtual influencers had an impact on body image perceptions and among Chinese young female fans. The findings also highlighted the relevance of social support and positive fan groups in fostering body image satisfaction. This study's theoretical and practical implications add to the current literature by shedding light on the complex interplay between virtual celebrity, fan practices, social media and body image satisfaction. The study emphasizes the importance of focused interventions and support networks that meet the specific issues that Chinese young female fans experience in maintaining the confidence for embracing healthy body image. The study's weaknesses and future research directions are also discussed.

1. Introduction

Social media platforms have evolved into strong instruments for communication, self-expression, and knowledge exchange in today's digital age (Lo & Peng, 2022). The phenomenon of celebrity culture and fan activities has received a lot of attention among the numerous components of social media (Kim, 2021). Fans now have unprecedented access to their favorite celebrities and can actively communicate with them and the fellow fans. This has become possible due to the rise of social media platforms such as Instagram, Twitter, and Weibo (Kumar & Qiu, 2021). This dynamic engagement has changed how people see and interact with celebrities, especially among young female fans (Brands et al., 2021). It is crucial to comprehend how celebrity culture and fan behavior affect body image satisfaction and mental health since they have an influence on both person's psychological health and societal dynamics (Monks et al., 2021).

In the modern world, most people particularly the teenagers spend their time with multimedia platforms such as Facebook, WeChat. Instagram and WhatsApp. It has been observed that particularly female teenagers in China are more sensitive towards these platforms. On different online sites, they share a huge quantity of information about themselves. For this purpose, it is crucial to observe the role of artificial intelligence in this regard. Many Chinese brands are utilizing virtual influencers (Artificial intelligence) to promote their products and services (Chiu & Ho, 2023). These virtual influencers have a minimalistic resemblance with the humanistic attributes. The young female fans of these virtual influencers strive to meet the unrealistic beauty standards portrayed by these virtual influencers (Ji et al., 2022). As young Chinese generations are involved in these activities to a great extent and are influenced through all types of social media and are affected. Social media plays an integral role in setting mindsets of users and altering their perspectives regarding different matters. At the same time, social media has the capacity to easily effect the body shape or figure of feminine teenagers. Among Chinese female social media users, the awareness regarding body image or figure has increased significantly (Chidester et al., 2023). By comparing the body image with that of their favorite bloggers and influencers, not only self-esteem or beauty standards have become unrealistic but the mental well-being of people has also been disturbed to a great extent as they are not able to control the body image.

Despite the significance of the subject, the material that has been published on the unique experiences of Chinese young female fans in terms of body image satisfaction and the role of artificial intelligence is scarce (Nazworth, 2022). Due to the prevalence of unrealistic beauty standards people are observed to be in a race of gaining unrealistic beauty standards. Not only human but the virtual social media influencers are also equally influential (Mouritzen et al., 2023). To be believable by fans, it is not mandatory that influencers are human because there are many virtual influencers who are admired, followed and believed by the fans (Arsenyan & Mirowska, 2021). There is a scarcity of research in which this issue has been addressed and an empowerment of Chinese young female fans on social media has been assessed through artificial intelligence so that they can control their body image. As a result, there is a need for a qualitative exploratory study that explores the role of artificial intelligence in controlling body image expectations and satisfaction among Chinese female fans (Campbell et al., 2022).

The purpose of this study was to overcome the existing gap by conducting in-depth interviews with Chinese young female fans to learn about their beliefs, experiences, and issues connected to body image satisfaction and the role of artificial intelligence in this regard. This study aimed to uncover significant themes and determinants impacting body image satisfaction and the role of artificial intelligence to control their body images perception and satisfaction among fans using a thematic analysis of interview data. We can acquire a better knowledge of the mechanisms underlying these occurrences and provide significant insights for the development of tailored therapies and support systems by investigating the interactions between social media, artificial intelligence and body image perception and satisfaction.

In conclusion, this study seeks to add to the body of knowledge by investigating the impact of social media through artificial intelligence on body image satisfaction and perception among Chinese young female followers. It is hoped that this study would capture the complex narratives and experiences of fans by using qualitative exploratory methodologies, highlighting the particular issues they encounter in the context of body image satisfaction by using social media. This study does not only deepen the understanding of the subject, but it also has practical consequences for encouraging practices to control body image among followers in the age of social media through artificial intelligence.

2. Literature Review

Social media and Body image satisfaction has been extensively investigated (Javellana, 2014; Marschin &

Herbert, 2021). This extensive literature review synthesizes the complicated relationship between body image satisfaction, self-perception, and psychological wellness (Alshammari et al., 2023). The review discusses body image and mental health issues such as depression, anxiety, eating disorders, and self-esteem from sociocultural and objectification theories (Ammer, 2021). It also examines media literacy programs and cognitive-behavioral treatment that promote healthy body image and mental health (Lardhi, 2022).

1. Body Image Satisfaction

An individual's subjective perception and evaluation of their physical appearance is referred to as body image satisfaction (Rzeszutek et al., 2021). Exposure to idealized celebrity pictures has been demonstrated to strongly influence body image satisfaction in the context of researching the effects of celebrity culture and fan behaviours on body image satisfaction among Chinese young female followers on social media (Rohimi, 2022). The comparing of one's own appearance to idealized celebrity standards frequently leads to unhappiness and a detrimental influence on self-esteem (Jiotsa et al., 2021).

2. Artificial intelligence/Virtual influencers

According to Conti et al. (2022), the virtual influencers are the characters which are generated by computers that mimic humanistic attributes and personalities to construct associations with the target audience. Through virtual influencers, brands can avoid controversies as these influencers are more realistic, have flexibility and are cost-friendly. Researchers also indicated that virtual influencers have three times more involvement than the real-life human influencers (Sands et al., 2022).

3. Body Image Dissatisfaction

Body image dissatisfaction refers to people's unfavorable perceptions and unhappiness with their physical appearance (Willemse et al., 2021). Celebrity culture and fan practices on social media can contribute to body image dissatisfaction among Chinese young female admirers (Willemse et al., 2021). The ubiquitous effect of celebrity standards, as well as comparing one's own body to the perceived ideal, can lead to body dissatisfaction, low self-esteem, and an increased risk of developing disordered eating practices (Scully et al., 2023).

4. Thin Beauty Ideals

Thin beauty standards, which are frequently promoted by celebrities and the media, emphasize a slim and slender physique as the standard of beauty (Ando et al., 2021). Chinese teenage female followers who are exposed to these thin beauty ideals via social media platforms may absorb them and attempt to conform to them (Shao, 2023). Pursuing a thin body ideal can lead to body dissatisfaction and have a detrimental influence on mental health because people feel inadequate or forced to fulfill unrealistic beauty expectations (Panjrath & Tiwari, 2021). Taking it into the context of virtual models, the example of Shudo Gramm can be considered who is a famous virtual model. Based on the Barbie doll appearance, the exposure of teenage girls with such virtual models can damage the perception of body image among target audience.

5. Virtual Models and Social Comparisons

One of the damaging and negative consequence of virtual models is the social comparison. Through social media usage, a comparison culture has been increased to a great extent (Chae, 2017). A lack of transparency of virtual models is a serious problem concerning social comparisons. Those women who defines "self-worth" by fulfilling the standards of beauty are more likely to involve in the "social comparisons" (Batenburg & Das, 2015). Consequently, such behaviors negatively effects consumers to involve in behaviors in such a way to accomplish unrealistic standards of beauty.

6. Beauty Standards

The beauty standards even prevailed through virtual influencers having a substantial impact on body image satisfaction and acceptance (Jarman et al., 2021). Through the social media usage, Chinese young female followers are exposed to a variety of beauty standards (Pan et al., 2022). Age, physical size, facial characteristics, and general look can all influence these norms. Body dissatisfaction, low self-esteem, and compromised mental well-being can arise from the pressure to comply to these aesthetic standards (Schaller et al., 2023).

7. Body Esteem

The overall favorable evaluation and acceptance of one's own physique is referred to as body esteem. Celebrity culture and fan customs can have an impact on the self-esteem of Chinese young female fans (Bowman, 2023). Continuous exposure to idealized body pictures, combined with societal comparisons, can damage self-esteem and contribute to poor body image beliefs (Graham, 2022). Positive body esteem is essential for promoting body image satisfaction and maintaining mental well-being (He et al., 2021).

8. Objectification

Objectification is a major topic in the context of researching the impacts of social media and virtual influencers on body image satisfaction (Du et al., 2023; Vandenbosch et al., 2022). Celebrity objectification and consequent fan idolization can perpetuate unrealistic body ideals and contribute to body image dissatisfaction and bad psychological effects (Campbell, 2022).

9. Objectification Theory

Objectification theory provides a framework for studying the detrimental effects of objectification on the well-being of individuals (Peterson Fronczek et al., 2022). The objectification of women on social media through virtual influencers, according to this theory, contributes to body surveillance, self-objectification, and internalization of conventional beauty ideals (Yunyi & Yuxuan, 2023). Examining the virtual influencers on social media among Chinese young female fans using this theory can provide insight on how objectification processes influence body image satisfaction (Brooks, 2021).

10. Body Appreciation

Body appreciation is the development of a favorable and accepting attitude toward one's own body, independent of social beauty standards (Wu et al., 2022). It entails understanding and appreciating one's body's functionality, strengths, and individuality (Wu et al., 2022). Promoting body admiration among Chinese young female fans may operate as a buffer against the detrimental effects of virtual influencers portraying unrealistic beauty standards on body image satisfaction (Weaver & Mulgrew, 2021). Promoting a positive body image and promoting self-acceptance can help to control body image perception (Huang & Wang, 2023).

Table 1: Themes and Concepts of the Study.		
	Main Theme	**Operational Definition**
1.	Body Image Satisfaction	The subjective evaluation of one's own body, encompassing feelings of contentment, acceptance, and positive perceptions of one's physical appearance (Arkenau et al., 2022).
2.	Artificial intelligence/ Virtual influencers	The characters which are generated by computers that mimic humanistic attributes and personalities to construct associations with the target audience.
3.	Body Image Dissatisfaction	The negative perception or dissatisfaction with one's body, including feelings of inadequacy, self-consciousness, and negative body comparisons (Howard et al., 2021).
4.	Thin Beauty Ideals	The cultural idealization of a slim, slender physique as the standard of beauty and attractiveness (Lowy et al., 2021).
5.	Virtual Models and Social Comparisons	One of the damaging and negative consequence of virtual models is the social comparison. Through social media usage, a comparison culture have been increased to a great extent (Chae, 2017).
6.	Beauty Standards	The beauty standards even prevailed through virtual influencers have a substantial impact on body image satisfaction and acceptance (Jarman et al., 2021).
7.	Body Esteem	The overall evaluation and acceptance of one's body, incorporating feelings of self-worth, confidence, and pride in one's physical attributes (Bosbach et al., 2023).
8.	Objectification	The perception and treatment of individuals as objects of desire, focusing on their physical attributes rather than their personal qualities or agency (Stanton et al., 2022).
9.	Objectification Theory	Objectification is a major topic in the context of researching the impacts of social media and virtual influencers on body image satisfaction (Du et al., 2023).
10.	Body Appreciation	The cultivation of a positive and accepting attitude towards one's body, valuing its unique qualities and functions (Linardon et al., 2023).
11.	Social Support	The availability and utilization of emotional, informational, and instrumental assistance from social networks to cope with challenges and stressors (Metts & Craske, 2023).

11. Social Support

Social support is critical in minimizing the detrimental impacts of body image dis-satisfaction (see table 1) among Chinese young female followers (Du et al., 2023). Positive peer, family, and friend support can act as a protective buffer against the harmful effects of unrealistic body views constructed through

unrealistic beauty standards on social media (Evens et al., 2021). Building strong support networks and fostering open dialogues about body image and mental health can boost this population's resilience and well-being (Søvold et al., 2021).

3. Method

An interview-based approach with thematic analysis was used to conduct this qualitative research study. The goal was to learn more about the effect of social media and virtual influencers through artificial intelligence on the body image of Chinese young female fans. Purposive sampling was used to recruit informants, who were Chinese young female fans aged 18 to 25 years who actively engage with virtual influencers and social media platforms. Ethical concerns were addressed, assuring participant anonymity before obtaining the informed consent. Semi-structured interviews were conducted with each informant, allowing for open-ended discussions and investigation of their experiences, perceptions, and emotions related to artificial intelligence (virtual influencers) and social media. The interviews were audio-recorded and transcribed verbatim to capture the complexity and intricacies of the informants' responses.

To examine the interview data, thematic analysis, a widely known qualitative analytical method, was used; as suggested by Zaman et al. (2021) and Anwar et al. (2021). Several iterative processes were included in the analysis. The researchers began by reading and re-reading the transcripts to become acquainted with the data. They then developed preliminary codes by identifying essential concepts, ideas, and patterns in the data. These codes were organized into probable topics and sub-themes, resulting in the formation of a first coding system. Further study refined the coding structure, with regular comparison and discussion among the research team. Themes were established based on the data's repeating patterns, differences, and relationships. The researchers made certain that the themes adequately reflected the viewpoints and experiences of the informants.

Peer debriefing, member verification, and reflexive journaling were used to improve the rigor and validity of the findings. Peer debriefing entailed talks with coworkers to get different perspectives and interpretations. Members checked the early findings to ensure correctness and consistency with their own experiences. Throughout the analysis process, the researchers were able to reflect on their own biases and assumptions thanks to reflexive journaling. The final step of the thematic analysis was to analyze and present the findings. The topics were structured into a coherent narrative by the researchers, who were supplemented with illustrated statements from the informants. The study's goal was to give a thorough understanding of impact of social media through artificial intelligence (virtual influencers) on the body image perceptions of Chinese Young female fans.

This qualitative research study used an interview-based technique and thematic analysis to investigate the complex relationship between social media, virtual influencers and the effect that they exert on the body image perceptions among the Young Chinese female fans. The findings will add to the body of research and help to inform treatments and support measures to promote good body image in this community.

4. Results

A total of 21 interviews were done in this qualitative study to investigate the impact of celebrity culture and fan behaviours on body image satisfaction and mental well-being among Chinese young female social media followers. The thematic analysis technique was used to uncover significant themes and acquire insights into the research objectives from the interview replies. The analysis that follows provides an overview of each subject and incorporates relevant research to support the conclusions.
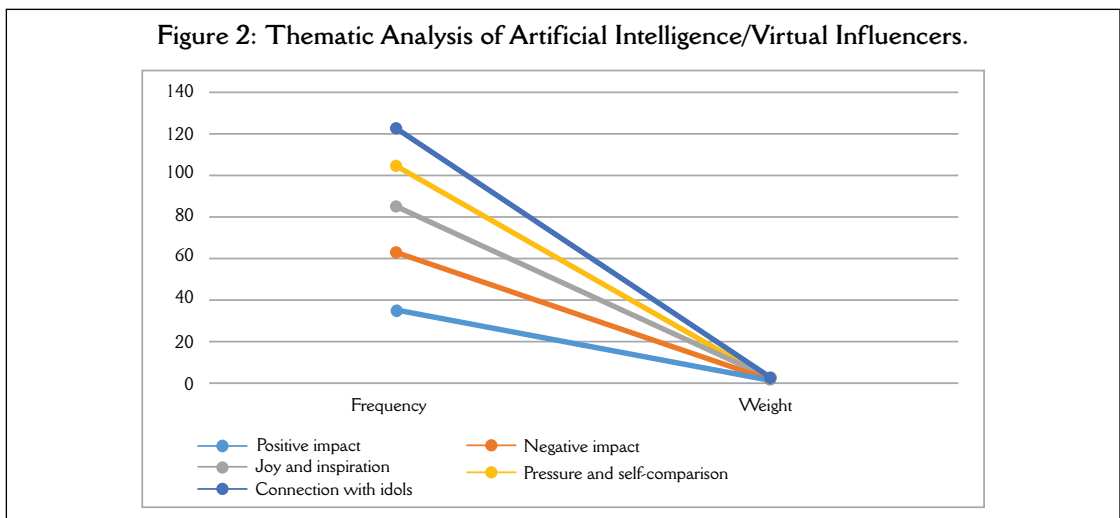
Theme 1: Body Image Satisfaction

According to the interviewees (3, 4 and 9), the majority of the informants admired the body image of their favorite female celebrities (see Figure 1). Certain characteristics, such as admiration for idols, comparison with idols and beauty standards were seen ideal and desired. These results were consistent with earlier research by Betz et al. (2019); Laker and Waller (2022) that emphasized the role of media and celebrity culture in developing beauty norms and body image standards.

Figure 1: Thematic Analysis of Body Image Satisfaction.
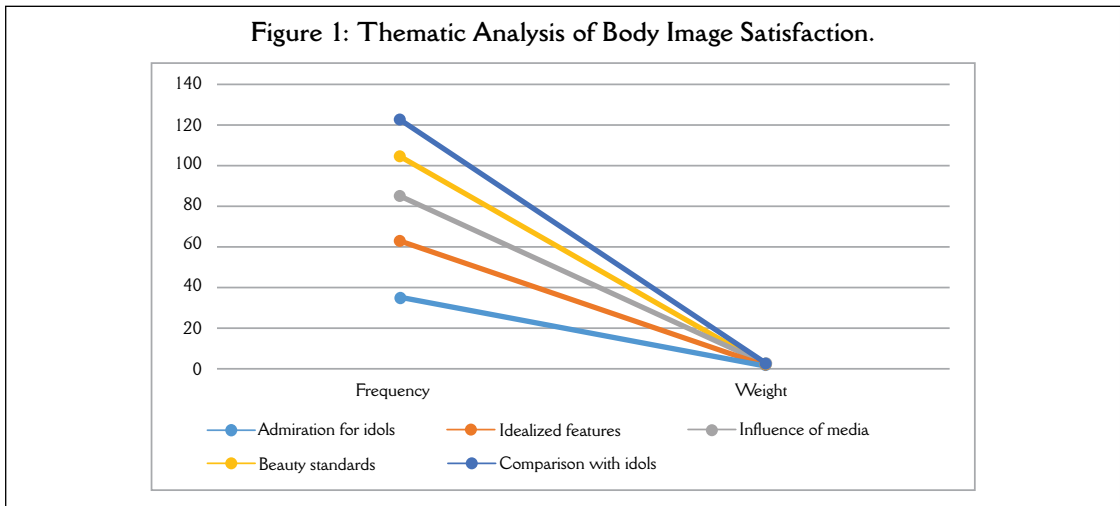
## Theme 2: Artificial Intelligence/Virtual Influencers

The study's results indicate that individuals who follow virtual celebrities reported experiencing both favorable and unfavorable consequences (see Figure 2). Informants (1 and 7) reported positive and negative feelings respectively. Joy and inspiration, pressure and self-comparison and connection with idols were also resulted as the outcomes of artificial intelligence or virtual influencers. The results of Li et al. (2022) suggest that individuals who are fans of celebrities may experience both positive and negative effects on their mental well-being. This effect significantly contributes in the development of perception regarding body image.

Figure 2: Thematic Analysis of Artificial Intelligence/Virtual Influencers.

Theme 3: Body Image Dissatisfaction

A large proportion of informants reported to comparing themselves to the virtual celebrity photographs on social media, which frequently resulted in body image dissatisfaction (see Figure 3). They (interviewee 13, 17 and 20) indicated a desire to be as physically appealing as their idols, which had a significant impact on their self-esteem and desire for ideal body. Unrealistic beauty standards and negative self-perceptions were also some of the key outcomes of this theme as resulted through interview. This is consistent with prior research (Nagl et al., 2021), which indicates that exposure to idealized body images on social media might lead to body dissatisfaction and the development of disordered eating practices.

Figure 3: Thematic Analysis of Body Image Dissatisfaction.
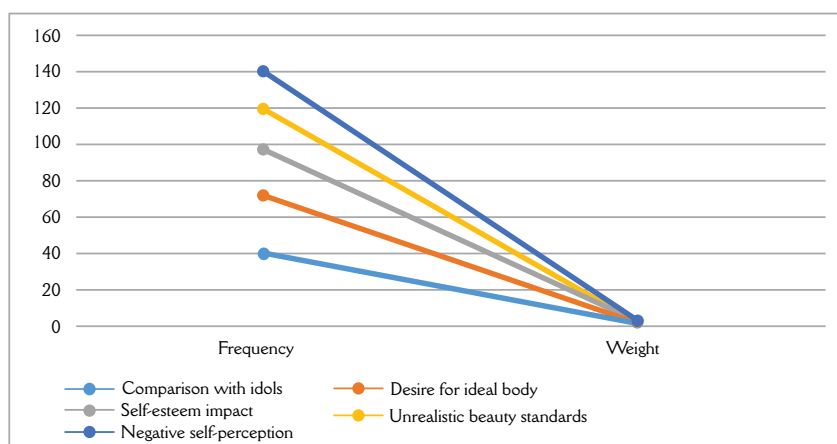

Theme 4: Thin Beauty Ideals

Many individuals acknowledged a preference for thinness, media influence and perception of beauty (interviewee 4, 6 and 18). They believed that being skinny meant being beautiful and successful, which aligned with the prevalent thin beauty ideals promoted by Western media. Results also indicated that the respondents had a western media impact and media influence as important influencing factors for the perception of ideal of thin beauty. This finding is consistent with prior research (Ando et al., 2021) that demonstrates the dominance of slender beauty norms and their influence on body image perceptions (see Figure 4).

**Figure 4: Thematic Analysis of Thin Beauty Ideals.**
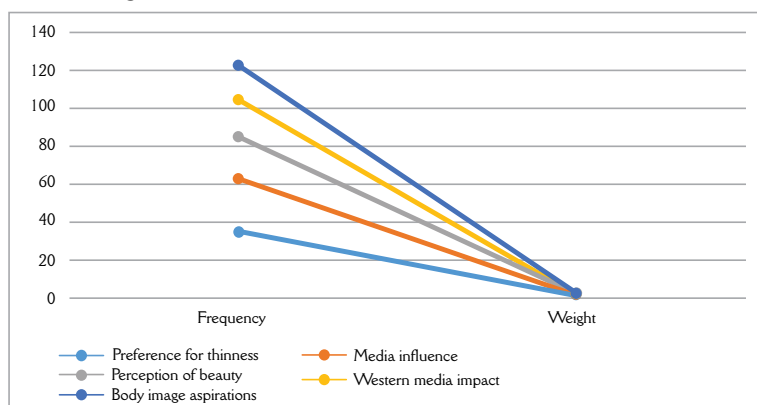
Theme 5: Virtual models and social comparisons

Informants admitted that the virtual models had a substantial impact on their opinions of beauty and body image and results in huge social comparisons. They cited exposure to different fashion trends and perfect body types displayed by the virtual influencers as having influenced their beauty standards and goals. These factors included influence on self-image, celebrity emulations and perceived beauty standards (interviewee 5, 14 and 17). From the psychological perspective, social comparison is the biggest demerit of virtual influencers as the females tend to compare themselves with the beautiful and perfect slim bodies of virtual influencers creating dis-satisfaction and a diminished will to embrace their body type. This finding is consistent with previous research (Selensky & Carels, 2021) highlighting the global reach and influence of Western media on beauty ideals and body image judgments (see Figure 5).

Figure 5: Thematic Analysis of the Virtual Models and Social Comparisons.
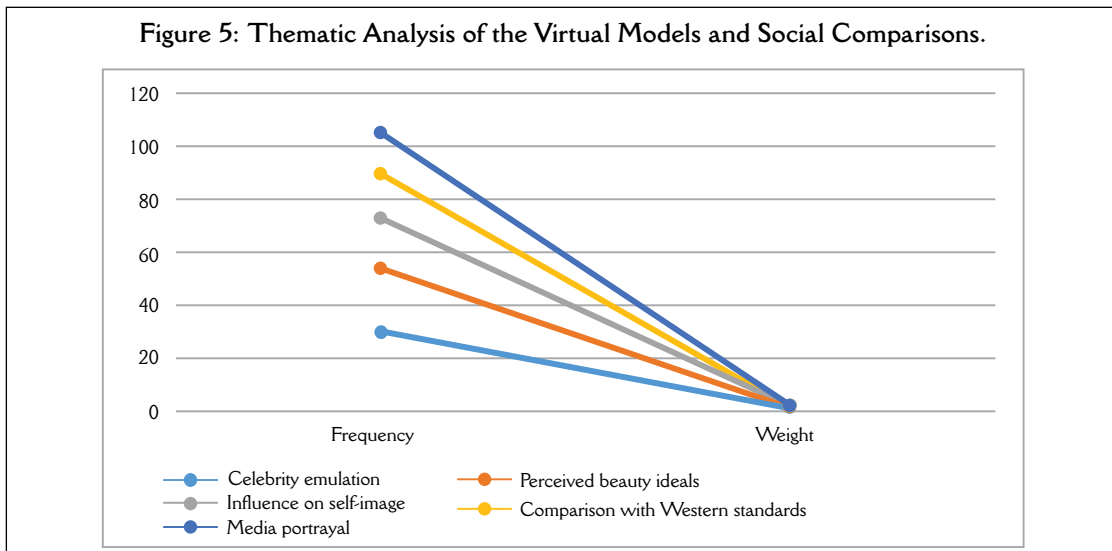
## Theme 6: Beauty Standards

Informants acknowledged the existence of societal beauty standards to which they felt obligated to conform in order to be considered attractive or successful. According to the interviewee 6, 8 and 15, the factors including social pressure, cultural influence and body dissatisfaction played a vital role in beauty expectations of an individual as shown in Figure 6. These criteria included not only physical appearance but also qualities such as talent, charisma, and accomplishments portrayed by the virtual models. This finding is consistent with earlier research (Vendemia & Robinson, 2022) that emphasizes the multifaceted character of beauty standards and their impact on body image satisfaction (see Figure 6)

Figure 6: Thematic Analysis of Beauty Standards.
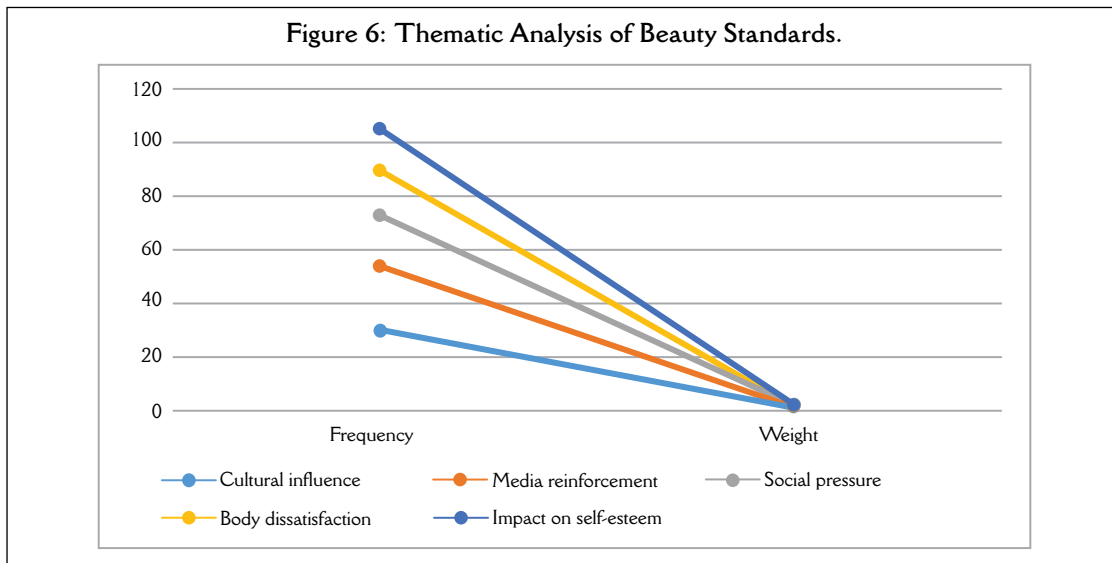
Theme 7: Body-Esteem

There were several people who demonstrated a range of body esteem, from high to poor. The research discovered that variables including self-acceptance, confidence and societal judgements had an effect on body image (interviewee 2, 10 and 16). The results of this study corroborate prior research (Hoseini et al., 2023), which emphasizes the significance of body esteem in determining people's pleasure with their bodies and general wellness (see Figure 7).

Figure 7: Thematic Analysis of Body-Esteem.
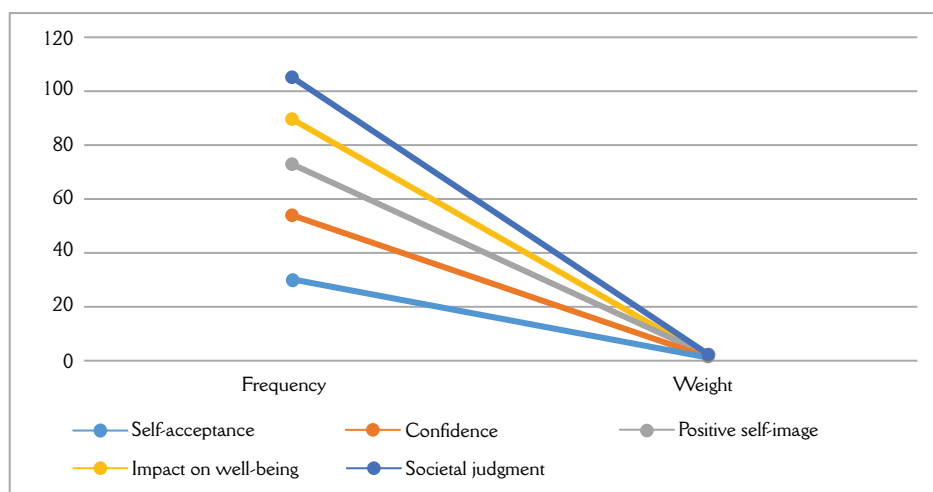
Theme 8: Objectification

Informants discussed instances of female virtual influencer's objectification in the media and how it influenced their own ideas of self-worth. They were aware of the monetization of virtual celebrities' bodies, as well as the focus placed on physical attractiveness rather than talent or achievement. Results depicted that the informants were of the view that self-objectification, sexualization and impact on self-worth were the notable factors regarding objectification (interviewee 20, 13 and 18). This finding is consistent with the objectification theory (Verma & Ray, 2023), which contends that objectifying depictions of women in the media might contribute to body dissatisfaction and mental health difficulties (see figure 8).

**Figure 8: Thematic Analysis of Objectification.**
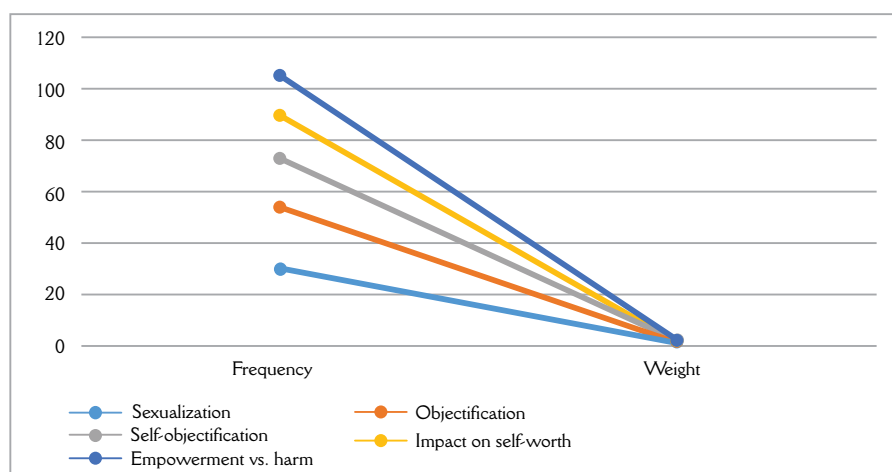
Theme 9: Objectification Theory

The investigation found that the objectification theory provides a useful framework for understanding female fans' experiences with body image satisfaction concerning the virtual influencers (see Figure 9). Informants' assessments of media portrayals of female virtual influencers echoed the theory's emphasis on sexual objectification and the reduction of women to their physical appearance. According to results the respondents were of the view that media consumption, internalization of objectification and body

surveillance were the notable factors that were observed in objectification theory (interviewee 10, 15 and 19). This study supports the objectification theory's usefulness in assessing the effects of virtual influencers on followers' body image perceptions (Tylka et al., 2023).

Figure 9: Thematic Analysis of Objectification Theory.
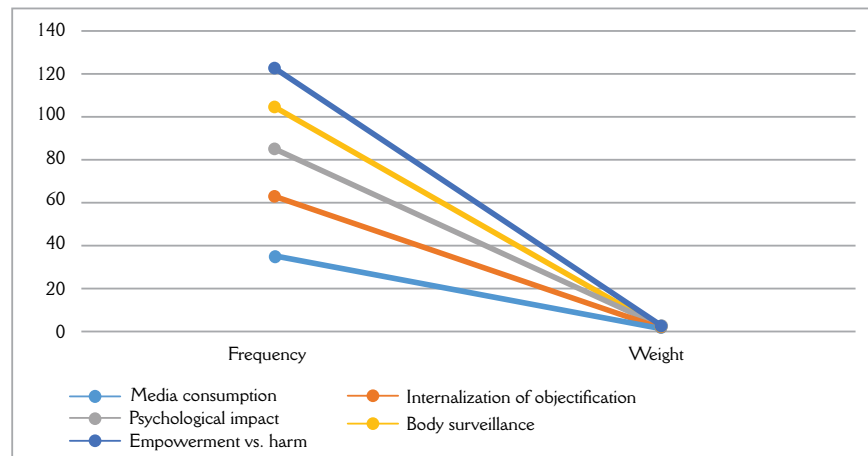
Theme 10: Body Appreciation

Through body appreciation, several individuals reported a favorable adjustment in their body image perceptions (see figure 10). They expressed being more accepting and grateful for their bodies, focusing on self-care, and valuing their total well-being rather than just attractiveness Therefore self-positivity, gratitude for body and mindful self-acceptance were the notable factors in this regard (interviewee 1, 12 and 16). This conclusion is consistent with the concept of body appreciation (Zhao et al., 2023) and implies that it has the ability to shield fans against negative body image and mental health disorders.

**Figure 10: Thematic Analysis of Body Appreciation.**
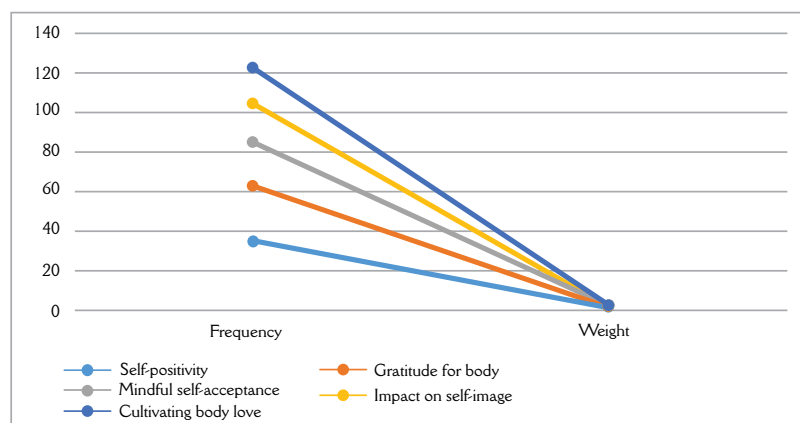
Theme 11: Social Support

The importance of social support from fellow fans and online communities in moderating the detrimental impacts of virtual influencers on body image and mental well-being was emphasized by informants (see Figure 11). They talked about how they found consolation, encouragement, and a feeling of belonging in

fan networks where they could share their stories and support one another. Therefore, friends' support, family support and online communities helped in the social assistance (interviewee 11, 12 and 21). This conclusion is consistent with the importance of social support in improving resilience and well-being among those dealing with body image issues (Lee & Choi, 2023).

Figure 11: Thematic Analysis of Social Support.
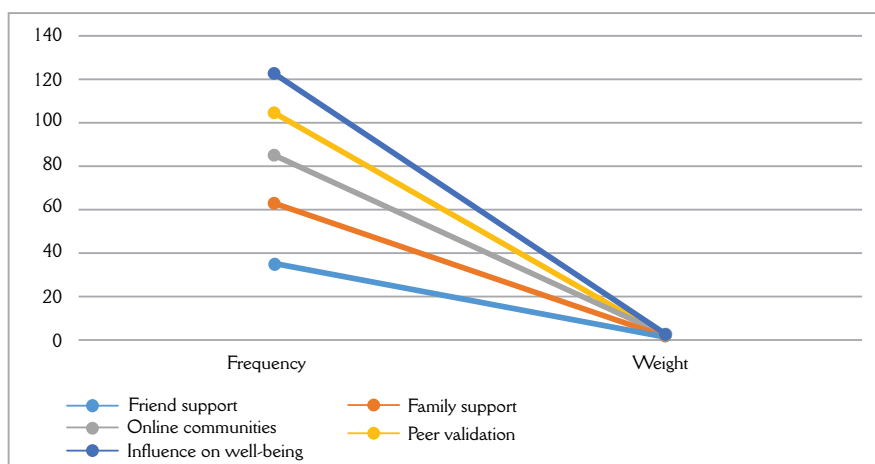
Finally, the study's findings provided insight on the complicated interplay between social media and the virtual influencers (artificial intelligence) among Chinese young female social media followers. The study found that social media, slim beauty ideals, virtual models and social comparisons, and objectification all have an impact on fans' opinions of beauty, body image, and self-worth. Consequently, the way of portraying virtual influencers as slim and perfect looking exerts an impact on their ability to control body image. The themes revealed in this study offer useful insights into the effects of virtual influencers on followers' perception of their body image, and they emphasize the necessity of encouraging body admiration and social support as potential protective factors against negative body image and mental health disorders. These findings advance body image satisfaction and mental well-being research among fans and establish the framework for future therapies.

5. Discussion

The present research aims to analyze the influence of social media through virtual models on the young female fans of China regarding the perceptions of their body image. Several significant themes were revealed through thematic analysis of 21 informants' interview responses, revealing insight on the nuanced interactions between young female fans, body image satisfaction, and the virtual influencers. For this purpose, the results have been evaluated along with how they stack up against earlier research, and consider the consequences in this analysis. This study makes numerous contributions to the body of theoretical knowledge already in existence. It deepens the comprehension of the impact of virtual celebrity (artificial intelligence) on young female fans' perceptions of their bodies. We got deep insights into the lived experiences of these fans and found the underlying themes and causes that influence their perceptions of their bodies via the use of qualitative methodologies and thematic analysis. The application of objectification theory offers a theoretical framework for comprehending objectification's negative impacts and the part that sociocultural factors play in defining desirable body types.

The results showed that the virtual influencers have a big impact on young female fans contentment with their bodies. The informants' expressions of respect for their favorite virtual celebrities' physique and outward looks underscore the importance of celebrity emulation. This result is consistent with other studies that highlighted the influence of media characters on idealized body types (Ooi et al., 2023). The informants' use of social media increased their exposure to glorified pictures of virtual celebrities, upholding

conventional ideals of beauty. This is consistent with the research of Jarman et al. (2023), who discovered that young women's usage of social media substantially predicted their body dissatisfaction.

The current study examined the link between social media's virtual influencers and their impact on the social comparisons. Results declared that taking into the account of psychological perspective, it can be estimated that virtual models trigger social comparisons. The platforms of social media foster a culture of comparison among its users and less transparency among models is the key reason of social comparisons (Arsenyan & Mirowska, 2021). Those female fans of virtual influencers that show self-worth as fulfilling the idealized standards of beauty are more likely to be involved in the "social comparisons". The pressure on young female fans to adhere to conventional beauty ideals was made clear during the debate of beauty standards in our survey. Informants expressed feelings of inferiority and self-objectification while comparing their photos to their favorite virtual influencers on social media. These findings support objectification theory (Alleva & Tylka, 2021), which holds that objectifying women harms their mental health and makes them dissatisfied with their bodies. Consequently, their capacity to embrace their body image decline and comparison increases. Our research shows that the virtual influencers and fan behavior still support the objectification argument. This research has also emphasized the importance of considering the global character of media and its consequences for body image satisfaction in various cultural situations. Objectification theory offers an important framework for comprehending the experiences of young female fans. As they compared themselves to idealized images of virtual celebrities, the informants exhibited sentiments of self-objectification and inadequacy. This study lends credence to the idea that objectification contributes to negative psychological effects and emphasizes the significance of addressing objectification processes in the context of virtual celebrity culture.

The present research found that the beauty standards depicted by virtual celebrities exerts a considerable influence on body image satisfaction. Female celebrities' adulation and emulation of their physique and attractiveness were prevalent among the informants. Social media platforms' exposure to idealized pictures reinforced traditional beauty standards, adding to body image problems. These findings support previous research that stresses the powerful role of social media characters in creating body ideals and fostering body dissatisfaction. Furthermore, our research found a troubling link between fan behaviors and unfavorable body image consequences. Informants displayed internalization of slim beauty norms and frequent social comparison with celebrities. These findings are consistent with prior research that has shown the negative impacts of celebrity adoration and the pressure to adhere to unattainable beauty standards.

The study's results have a number of applications for academics and professionals. First, they draw attention to the demand for media literacy initiatives and programs that cater to young female fans with the goal of fostering critical thinking abilities and advancing good body image. Second, the value of social support networks should be acknowledged. It is crucial to create welcoming places where people may openly express their body image problems and get assistance. The advertisements are observed to be more effective when the "physical features" of virtual models corresponds to the consumers (Conti et al., 2022). Consequently, the consumers are more likely to buy when they find similarities with the model. People prefers brand which are humanized, so it is crucial that these virtual models entail a greater level of similarity with the non-human look. Future studies may also examine the impact of certain social media sites and the function of celebrity endorsement on positive body image and mental health.

The present research has other important applications, especially in terms of encouraging young female fans to have a healthy body image by accepting their physical appearance and getting escaped from social comparisons. The study has observed that when followers and fans compare their body type and physical features with the virtual influencers, not only their self-confidence declines but it also triggers a diminished ability to embrace their actual body type. So those brands who are promoting their products through virtual influencers need to incorporate some similar humanistic features so that the level of similarity among the virtual influencer and consumer can increase. For practitioners, educators, and politicians looking to create focused treatments and support systems, the findings offer useful insights.

6. Conclusion

This research examines the role of social media through artificial intelligence (virtual influencers) on the body image perceptions among young female fans in China. The young female fans require media literacy programs, therapies, and support networks to encourage critical thinking, good body image, and the confidence to embrace

their body image. Recognizing sociocultural factors including beauty standards, objectification, and social support is essential to treating body image issues and its negative consequences such as social consequences. The purpose of this study was to investigate the impact of virtual celebrity on body image among Chinese young female social media followers. We got excellent insights into the complex dynamics of virtual celebrity trends, fan practices and body image satisfaction through qualitative interviews and thematic analysis. The findings offer insight on the impact of sociocultural influences, beauty norms, objectification, and social support on young female fans' experiences. This research adds to our understanding of the complex interactions between virtual influencers, contentment with one's body image, and the ability of embracing or controlling the body image among the Chinese young female followers on social media. We have provided light on the role of sociocultural factors, aesthetic standards and objectification, by studying the themes that arose from the interviews and contrasting them with earlier studies. These results have implications for treatments and future studies that attempt to support young female fans' capacity to embrace their body image and control it.

The present study holds numerous theoretical and practical implications which are stated below:

- Young female fans can be empowered to use social media platforms more skillfully by implementing media literacy programs that improve their critical thinking abilities and media literacy. People can develop a more critical awareness of realistic beauty norms and be more resistant to the harmful effects of idealized pictures by boosting media literacy.
- Creating body positive projects and campaigns that encourage self-acceptance and appreciation can help offset the negative impacts of conventional beauty standards. Through these ads, people might be inspired to accept different body shapes and reject the false beauty standards popularized by unrealistic standards of beauty exhibited by virtual celebrities.
- Social Support Networks: Having pleasant interactions, creating supportive networks within fan groups, and recognizing the value of social support may all help to safeguard one's self-esteem and mental health. Young female fans can feel more a part of the community and supported if there are safe venues for them to talk about their issues and experiences.
- Mental Health Resources: It is important to promote access to mental health services and raise knowledge of these resources. Young female fans can better manage their mental health by receiving therapy treatments designed to address issues with body image.
- Involving parents and educators in efforts to encourage media literacy, body positivity, and mental health among young female fans is crucial. Their wellbeing may be greatly impacted by giving them advice and instruction on critical media consumption, self-acceptance, and positive body image.

Despite the important knowledge this research has provided, several limits must be noted. First, because the study only examined Chinese young female fans, its potential to generalize its findings to other cultural settings or fan demographics is constrained. Future studies should examine how cultural, societal, and demographic aspects may affect fan satisfaction with their body image and mental health using a more varied sample from a distinct context. Secondly, the study relied on interview-based self-report data, which is vulnerable to memory recall issues and social desirability bias. Informants may not have remembered their experiences properly or may have given answers that conform to social norms. The complicated dynamics of virtual celebrities, fan behavior, and body image satisfaction may be better understood by combining interviews with other research methodologies, such as observational studies or longitudinal designs. The study also placed a strong emphasis on qualitative analysis, which gave detailed insights into people's experiences. Quantitative measurements, however, might have added to the findings and enabled statistical analysis, giving a broader view on the incidence and distribution of certain themes or characteristics associated with mental health and body image dissatisfaction. There are various directions that next research might go in order to build on the findings of this study. A more complete knowledge of the diverse fan community and their particular difficulties and experiences would also come from looking into the experiences of male fans and fans from various age groups. Future study might benefit from examining the impact of various social media platforms and the influence of various celebrity types (such as singers, actors, and sports) on body image satisfaction and mental health.

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