

# *Relationship Between Otome Games and Female Body Image Anxiety*

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**Abstract:** Otome game is a kind of role-playing game developed for female players. In the past few years, otome games have become very popular in China, with the number of female players rising rapidly. Although there are previous studies exploring the impacts of otome games to players in real lives, relationship between players' body image and otome games has never been studied before. During the research, we collected 286 valid responses from both female and male participants in China, including those who play and not play otome games, and then compared their different extent of body image anxiety according to the data. The research found that female players are more likely to have negative attitudes towards their body image, and otome game players' perception of body image seems to be more likely to be influenced by games. The deeper relationship the players have developed with the fictional character, the more likely their attitudes towards their body image seem to be influenced. Most players think gaming has made them more confident about their body and appearance. The avatar image in the game does not affect the body image of the majority of gamers.

**Keywords:** otome games, body image, impacts of gaming

## 1. Introduction

Nowadays, due to the advancement of the Internet, most people often feel anxious about their appearance when using different social media and they play games to relax or entertain [1]. With over 400 million active female players in China, otome games may have effects on their real lives, including their attitudes toward their body image [2]. Whether or not otome games can influence female players' perceptions of their body image, and why and how otome games make impacts on attitudes towards their body image, are questions worth exploring.

Otome games, originating in Japan, have gained immense popularity worldwide, including China. These narrative-driven video games are targeted primarily at women and offer players the opportunity to engage in virtual romantic relationships with various characters within the game. Players assume the role of a female protagonist who navigates a complex web of romantic interactions, choices, and storylines [3].

Body image is a person's perception of their own body and sexual attractiveness. The negative effects from media argue that body image is not a simple perceptual phenomenon and that, even when an individual's perception of their own body is measured, the individual's judgments are highly influenced by cognitive, affective, attitudinal, and other variables [4]. The study aims to investigate the relationship between otome games and the body images of players, the positive and negative opinions toward body images of otome game players, and why they feel positive or negative about themselves when playing otome games.

## **2. Literature Review**

In the last several decades, scholars' writing about game theory and design have referenced the work of Danish designer and theorist Jesper Juul. He proposed six characteristics of games: 1) Rules: All games are developed and produced based on established rules; 2) Diverse and measurable outcomes: There needs to be a diversity of clearly measurable outcomes in games; 3) Assigning different values to possible outcomes: A large number of potential outcomes need to be assigned positive and negative meanings and values; 4) player effort: any possible outcome requires the player to invest his or her energy and effort; 5) player dependence: different outcomes will result in different psychological mappings for the player, either happiness in success or sadness in failure; and 6) negotiable outcomes: uncertainty in outcomes is allowed under the same game and the same rules [5]. These six characteristics proposed by Jesper Juul have greatly influenced later research in the field of games. As technology and players have changed, Juul himself and other scholars have built on earlier theories to consider how gaming intersects with reality [6].

There are numerous foreign studies on both online games and players and body image, and we have categorized the studies that we have browsed and that are most closely related to this research into three areas: Body image, body image and social and digital media, and otome games.

### **2.1. Body image**

Body image satisfaction is a measure of an individual's satisfaction with their body image [7]. Body image can be defined as what people perceive, think, and feel about their bodies [8]. Body dissatisfaction occurs when people have negative perceptions of their bodies [9]. Scholars use mixed methods, including surveys, focus groups, and so on to study the impacts of low body image satisfaction and found that body image is of great significance to both people's mental and physical health: The lower a woman's body image satisfaction, the more psychological stress she will experience and the worse her physical and mental health will be [10]. Low body image satisfaction is not only a risk factor for some of the more serious outcomes but also significantly impairs many aspects of women's quality of life [11].

### **2.2. Body image and social digital media**

A large number of studies have explored the relationship between social media use and body image satisfaction, concluding that social media use is negatively associated with body image satisfaction and that this association exists among adolescents, adults, and people from different cultural backgrounds, especially women [12]. It has further been suggested that it is not social media use in general that triggers body image dissatisfaction, but rather the use of appearance-related features on social media, such as photo sharing that brings about more body image-related distress [13]. Facebook use among college women was found to be significantly and positively associated with body dissatisfaction [14]. Compared to young adults who did not use social media, those who used social media have higher levels of body dissatisfaction and dieting habits [15]. These types of empirical

studies provide preliminary validation of the mechanisms of negative effects of social media use on body dissatisfaction.

Researches on the association between games and body image are rare. One of them is conducted by Matthews and Martins in 2016. They investigated the effects of game characters on body image by using the 31-item Body Esteem Scale (BES; Franzoi & Shields, 1984) to assess participants' positive and negative feelings for each body part after playing a chosen video games with idealized fictional characters in it, and found that hyper-idealized game characters negatively affected men but positively affected women [16]. Whether the sample of game they chose is representative and how ideal body size in games is defined remains open to discussion, but their study provides a viable approach for subsequent research.

### 2.3. Otome Game

There are few studies on female gamers and even fewer studies on otome game players, let alone Chinese otome games and the relationship between otome games and players' body image. After analyzing the contents of otome games and doing ethnographic research by talking and playing with otome game fans in the Ikebukuro district of Tokyo, Andlauer found a dissonance between the hetero-normative fairy tales of love and the gendered dynamics of the actual game structure and fan practices [17]. His research is limited in Tokyo and with limited samples and does not focus on the impacts of otome games on reality, however, this research talks about what otome games are and how the relationship with a fictional character is built. Moreover, it offers some opinions about how gender is constructed through otome games and how otome games shape girls' and women's perceptions and practices. Another research that is focus on the interaction between otome games and reality is from China. Their study is conducted from a psychological perspective. In their research, responses from 615 female otome game players from China are analyzed by using structural equation modeling [18]. This research used parasocial phenomena to understand female players' emotional psychology and interactive behaviors. The sample size of this study is sufficient, the data processing method is scientifically rigorous, and the conclusions are convincing.

### 2.4. Uses and Gratification Theory

As for the reason behind the interaction between games and reality, part of them might be explained in terms of the uses and gratification theory. Uses and Gratifications Theory originated in the 1940s when the popularity of radio and broadcasting was high in American households. To better understand the communication effects of media, scholars became interested in the audience's media exposure behavior and the reasons behind it. Early studies on "use and gratifications" mainly focused on the audience's exposure to media such as radio and television. For example, In 1944, Herzog surveyed radio listeners, focusing on the reasons why women watched continuous programs during the daytime. The study found that women enjoyed the serials as an outlet for their feelings, to satisfy their imaginations, and for the guidance they expected from them in dealing with the world [19].

Beginning in the 1960s, McGuire and others focused on observing what satisfactions are brought about by the use of media, they categorize the gratification functions provided by media as follows: "the function of diversion; the function of intensify personal relationships; the function of intensify personal identity; the function of surveillance." [20] Since then, communication studies have had a new focus on researching the audience's media usage. In the 1970s, Katz and other scholars summarized the current audience research and made a concentrated summary of the process of audience's media choices: the social and psychological roots of the needs; the media expectations resulting from the needs; the process of media contact; the contact with different forms of media; and

the fulfillment of the needs after the contact. From then on, the study of use and gratifications was formalized [21].

Our research bridge the gaps in the interaction between gaming and body image, especially concerning otome game players. Gaming is becoming a part of many people's lives. The impact of games on players' lives is undeniable, although today there is no lack of research on the interaction between games and real life, and perceptions of body image are also an important factor influencing a person's mental and physical state. Research of body image and gaming are still in the minority. In addition, in the Chinese context, the first otome game was born in 2017, despite the large quantity of otome game players, there is still a lack of research on otome games. This study both supplements some of the gaps in terms of the impact of games on real life and fills the gap in research on otome games in the Chinese context.

### **3. Methodology**

#### **3.1. Questionnaire method**

A platform called SurveyMonkey is used in this study on gamers and body image. An anonymous questionnaire was distributed for 3 days on different social media platforms such as WeChat, Weibo, and QQ. 324 different responses were collected over three days. Filtering out some of the responses that were not filled out carefully, the remaining 286 responses are analyzed as a sample (74% accuracy). To study the relationship between otome games and female body image anxiety, this study distributed surveys related to gaming and body image. This study mainly focuses on otome game players who suffer from body image anxiety, their reasons for feeling anxious, and the relationship between the settings (avatar, plot, design, etc.) of the otome games and the anxiety it impacts on the attitude of the players. To test if there are only otome games leading anxiety, the survey analyzed the similarities and differences in the impact on players' body image between otome games and other games. Basic personal physical and mental conditions of the gamers are also included in the analysis, in order to measure the similarities of otome game players with different body images. The paper includes the positive and negative impacts of otome games on players and the reason why the players have different feelings about their body image. Because the theme of the questionnaire is the relationship between otome games and female body image, questions with parallel jumping options are set up, for example, the questionnaire has a question "Do you play games?" When the respondent selects the option "I do not play games", the questionnaire will jump to the non-game content survey option. The reason why the questionnaire was distributed to both gamers and non-gamers was to verify whether the dominant image in the game, causes gamers to be more anxious about their body image.

### **4. Findings and Discussions**

Most people who are asked about social media use for 3-5 hours accounted for (67%) of the total number of people surveyed. Among this group, those who do not have anxiety due to social media and gaming accounted for 62% of the total number of people surveyed.

The research found that female gamers are much more likely to feel anxious about their body image than male gamers. Twice as many girls who play games with highly-human-liked avatars as boys feel anxious about their appearance. Moreover, in real life, men were less likely to have gaming-induced appearance anxiety than women, who made up two-thirds of the questionnaire respondents. The appearance of the avatars, especially female avatars in games are usually flawless and very much in line with the public's aesthetics. Most of them have slim limbs and perfect faces, soft hair, and smooth skin. The assumption is that these avatars may make female gamers compare their avatars in games to their appearance in real life when they play these games. In particular, young girls aged 15-

18 are most affected by gaming and social media, accounting for 63% of all participants who take the survey. The data shows that the body parts that cause female gamers to have anxiety in the game are: legs, buttocks, body shape, weight, and face shape. A small percentage of women wish to change the parts of their body that they are not satisfied with through plastic surgery at a later date. This may be because women are subject to too much scrutiny in society that they unconsciously constrain themselves with various frameworks.

Both gamers and non-gamers are affected by appearance anxiety at very different levels of severity. Gamers experience varying degrees of doubt and suspicion about their body image both in their daily lives and in game, whereas non-gamers body image anxiety is more evident in their use of social platforms.

The impact of gaming on players' attitudes towards body image seems to be larger for those who play otome games. Nearly two-thirds of those who have played otome games in half a year and experience dissatisfaction with their body and appearance thought that games have impacts on their attitudes towards their body image, either positive or negative. However, for players who play other games who experience body or appearance anxiety, over eighty percent of them think that playing games have never influenced their attitudes towards their body image or caused any kind of anxiety. Different from our initial hypothesis, that otome game players might be more likely to get anxious about their appearance, because of the perfect avatar and fictional characters in the game, two-thirds of otome game players hold the view that otome games even release their anxiety towards their body and appearance, either because their fictional partners have given their unconditional love or they think they are not sexualized when they are playing the game. This result overturns our initial assumption. Only one-third of those otome game players think that games have caused their anxiety towards their body appearance. Some of them think that it is because the avatar or the fictional partner is too perfect, and some think it is because other players are more good-looking than themselves. This finding to some extent echoes what Andlauer found in his research. Through the interview, he found that girls think in a relationship with a fictional character, they do not need to act like sexualized individuals [17]. And our survey takes this finding a step further, it reveals that this kind of interaction may ease players' appearance anxiety.

Moreover, the research found in addition that it seems that the deeper relationship the players have developed with the fictional character, the more likely their attitudes towards their body image seem to be influenced. For those otome game players who think they have developed romantic relationships with fictional characters and view them as partners, over eighty percent of them think that gaming has influenced their attitude towards their body image. However, for those otome game players who have affection for a fictional character and only view them as emotional companionship, half of them think that their anxiety towards appearance has nothing to do with games and games can not release this anxiety. What is worth mentioning is that among players who have developed romantic relationships with fictional characters, which accounts for more than twenty percent of those otome game players, over half of them think gaming has made them more confident about their body and appearance.

The reason why otome games can ease players' anxiety towards their bodies might be explained by the theory of uses and gratifications [20]. According to our survey, ninety-eight percent of our participants who play otome games are girls between 15-25 years old, and more than sixty percent of them spent more than three hours on social and digital media a day. Over eighty percent of them are not satisfied with their appearance. While the Internet has brought them great convenience, it has also aggravated their anxiety about appearance in reality [15]. Nearly half of them feel anxious about their appearance when they see beauty on social media, and more than half of them feel anxious when they receive comments from others about their appearance. In terms of social identity, typically, most girls in this age group are newcomers to the workplace or students, and social pressures such as confusion

about the future and anxiety about appearance make them need to seek more psychological care, support, and care, while otome games bring them an idealized platform [22]. The need for unconditional love to accept them no matter who they are is deeply rooted in society. This fantasy world of otome is identified as a space for reverie, far different from the reality of relationships in reality that awaits them [17]. The process of playing otome games can be viewed as media contact. In the fantasy world, they do not have to adapt their behavior to the demands of others, their fictional lovers will give them unconditional love no matter how they look like. And in this world, they will not receive negative comments from others or need to compare themselves with others. The needs are satisfied after they play this game. Moreover, the gratification function of intensifying personal identity might be provided during the process. Since they are the ones who take control of everything and decide how their love story look like, they tend to view themselves as subjects rather than sexualized object that is gazed at by males, which is the dilemma that most girls may encounter in reality.

The survey shows that the avatar image in the game does not affect the body image of the majority of gamers, as gamers believe that the real world can be distinguished from the virtual world, and gamers are more interested in the content and gameplay of the game, so the game does not cause body anxiety to them. Whether or not the main avatar of the game is human-like does not affect the body anxiety of gamers. Most gamers believe that the avatar they control is just a vessel for them to interact with the game, and although they often do not have the option to choose their dominant avatar's personal information such as gender and appearance, they are happy with their main avatar in the game, and they are not overly anxious about their appearance.

The majority of gamers with appearance anxiety due to gaming are high school and college otome game players. Most have long hours of internet use and relatively immersive levels of otome game use, and they have anxiety about their appearance due to the perfection of their gaming avatars and the perfection of better-looking players of the same game they see offline. Interestingly, all of the otome game players with body anxiety because of their game avatars were unanimous in their dissatisfaction with the shape of their legs and faces, and most of them thought they were too heavy. Like what D.G. Chen found in her research, “all the female avatars have features associated with a youthful and cute aesthetic, evoking a sense of innocence and non-aggression, in line with the popular expectation of a sweet and charming girl.” [3] In China, a society where thinness and youth are considered beautiful, the female avatars with first-person viewpoint in otome games have a perfect and youthful appearance, and an overly exaggerated, bony figure, which makes gamers feel the gap between the virtual game avatars and real human being in reality, which would further be contributing to their level of appearance anxiety.

The exaggerated game plots in otome games (such as when the female protagonist encounters a life-threatening situation, the male avatars are always able to use all of their abilities to save her, even superpowers) make the male and female avatars in the game produce distinct gender stereotype and social consensus: a girl is supposed to be weak and vulnerable, and waits for a boy to save her, whereas the male avatars in the otome games are handsome and strong, and able to powerfully save the girl. At this point, the more the player is immersed in the game plot, the more the fixed and stereotypical game plot will deepen gender stereotypes and gender oppositions so that the player will compare his appearance with the idealized avatar more often, and there is a great possibility that he or she will feel anxious about his or her appearance [23].

## 5. Conclusion

According to the research, we have found that female players are more likely to have negative attitudes towards their body image, and otome game players' perception of body image seems to be more likely to be influenced by games, and the deeper relationship the players have developed with

the fictional character, the more likely their attitudes towards their body image seem to be influenced, and among players who have developed romantic relationships with fictional characters, most of them think gaming has made them more confident about their body and appearance. The avatar image in the game does not affect the body image of the majority of gamers. Otome game players with body anxiety because of their game avatars were unanimous in their dissatisfaction with the shape of their legs and faces, and most of them thought they were too heavy.

There are also many limitations and problems with our study. For example, the data collection period was too short, which resulted in our inability to obtain sufficient sample data, especially data from other game players. Due to time constraints, the survey was only placed on three social media platforms, and most of the data came from high school and undergraduate students, with fewer data from other age groups, which made the results of the study less representative. In addition, due to technical constraints, we were unable to make participants' attitudes toward body image measurable and were only able to study their appearance anxiety through their self-report. This is not scientific and rigorous enough. And due to the limitations of the length of the questionnaire. We also did not set up questions to compare the changes in participants' perceptions of their body image before and after playing the game, and we could only learn about them through participants' self-reports, which made the results subjective and made it difficult to control variables to accurately derive the role of the game in influencing gamers' body image perceptions. Future research could take a more scientific approach to quantify participants' perceptions of body image and control variables to objectively determine the role of games in influencing gamers' body image perceptions.

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