REGIONAL LENS

Action-Adventure Game World: Exploring the Impact of Empowering Female Protagonists on the Identity and Social Lives of Pakistani Female Gamers

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Abstract: Video games increasingly serve as a powerful platform for shaping players' perceptions of identity, confidence, and empowerment through interactive storytelling and character engagement. The portrayal of female protagonists in action-adventure games provides meaningful opportunities for female players to engage with empowering representations of their gender, which may influence their psychological well-being and social behaviors. This study aims to explore the relationship between playing as female protagonists in action-adventure video games and the perceived levels of confidence, psychological empowerment, and identity development among Pakistani female gamers. It also examines how these gaming experiences might affect players' real-life social interactions and overall sense of self outside the virtual world. A quantitative approach was employed, using a structured survey to gather data from a purposive sample of 250 female gamers. The findings indicate that playing as an empowered female protagonist in action-adventure games has a positive impact on self-esteem, psychological empowerment, and identity development among Pakistani female gamers. Participants reported feeling stronger, more capable, and more connected to their gender identity, with notable improvements in social confidence and communication skills. The results suggest that immersive gameplay and continual engagement with relatable female characters support better self-expression, emotional resilience, and a stronger sense of personal agency. The study concludes that action-adventure games featuring capable female leads can serve as a powerful tool for empowering young Pakistani women. These virtual spaces provide opportunities to develop resilience, leadership traits, support identity formation, and help players navigate and challenge traditional sociocultural norms in their daily lives.

Key Words: Female Protagonists, Psychological Empowerment, Female Gamers of Pakistan, Gender Representation in Games, Action-adventure Video Games, Confidence and Self-perception

Introduction

The global video game market has experienced substantial growth, reflecting its increasing role in the entertainment industry and its impact on modern society. In 2024, the market value reached approximately USD 274.63 billion and is projected to rise to about USD 721.77 billion by 2034, with a compound annual growth rate of 10.15% (Gursesli, 2024). This tremendous growth shows that video games are more than just entertainment. They are becoming a major part of our daily lives. They influence how we connect with others, how we relax, and how we consume media (Powell, 2018). Also, video games are important in our culture because they help create shared identities, build online communities, and influence music and fashion trends (Kuss, 2022). The gaming industry is making a lot of money and is expected to continue to grow. This shows that it is important to study how gaming affects different groups of people and cultures, especially as gaming becomes an important source of entertainment rather than just a hobby.

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In 2024, there was a major shift in the gaming community with more women joining in. They make up about 46% of all gamers worldwide (Fatima, 2024). This trend is particularly strong in Pakistan, where women make up about 23 percent of the gaming population, equivalent to about 8 million women participants (Wang, 2022). The growing presence of women in the gaming world defies the stereotype that gaming is largely a male pursuit.

However, this progress has also come with challenges, including online harassment and bullying of female gamers, which hinder their gaming experience and raise concerns for their safety (Kuss, 2022). Globally, women represent a greater number of gamers than women gamers in Pakistan. The huge difference in these numbers reflects how culturally bound norms about gender roles are enforced, which emphasizes the need for more contextual research to understand these barriers and plan for creating a safe and inclusive gaming space. The challenges faced by female gamers in Pakistan highlight the need for more research in this area and the urgent need to create support structures that help women feel more confident and empowered while gaming.

Furthermore, in games, the concept of empowerment is linked to the representation of characters in these virtual worlds. Empowerment in games refers to the process by which gamers develop confidence, a sense of control, and self-efficacy through their interactions with games (Gursesli, 2024). Many studies have shown that games with strong, capable female heroes can increase women's self-esteem. (Behm-Morawitz, 2009), Found that playing as a female hero in video games can increase women's self-esteem and make them feel more powerful. This effect is due to how much people relate to the character. Players who see themselves as heroes are more likely to feel good about themselves and their acting ability (Powell, 2018). Video games typically feature stories where characters overcome challenges and achieve important goals. This helps players feel good about themselves and believe in their abilities, increasing their confidence (Kuss, 2022).

In addition, the positive impact of gaming is not limited to female players. Research has shown that playing stories with strong, positive characters can help all players. (McGonigal, 2011) believes that video games can be powerful tools for promoting resilience and a growth mindset (Fatima, 2024). Players often learn to cope with difficulties and problems, which helps with personal empowerment. This positive interaction can increase a player's self-esteem and confidence, whether male or female (Wang, 2022). The effect of gaming on empowerment is complicated and includes many different factors, affecting different groups of people in different ways (Preuß, 2021).

In the past, women in video games were often portrayed as weak or in need of male support. But now, many games portray women as strong and independent characters (Preuß, 2021). Recently, well-known female characters such as Lara Croft and Ally demonstrate this shift by portraying women as leaders and important parts of the story. This shift in character design is considered a significant step in gaming culture (Zhang, 2021). Although there have been some improvements, there are still issues with how female characters are portrayed and how few of them there are. This can negatively impact how players see themselves and how society views women (Chen, 2023). For female gamers, especially in traditional settings like Pakistan, playing games with strong female characters can help boost their confidence and sense of empowerment. It is important to understand how these characteristics affect their gaming experiences and identities.

The way gender is portrayed in video games has been the subject of much debate among gaming enthusiasts and researchers. Women are often portrayed in stories as vulnerable characters who need saving or as objects of desire rather than strong heroes (Zhang, 2021). This trend has reinforced old ideas about gender and has made the way women are portrayed in video games less diverse. But recent changes suggest that female characters are now more interesting and stronger. Games like Horizon Zero Dawn and the new Tomb Raider series feature strong female characters who challenge old stereotypes and are key to the stories (Chen, 2023). These characters are deep and interesting, providing good examples for players to relate to.

Research highlights the importance of diverse gender representation in shaping social attitudes and behaviors. Bandura's social cognitive theory states that how people are portrayed in the media greatly influences the way viewers see the world and form their opinions (Haryanto, 2021).

In video games, strong female characters can help change how people view gender roles and promote positive ideas (McDonagh, 2018). Many games still contain stereotypes and limit the roles that women can take on (Dombrovskis, 2025). Research shows that while there has been some improvement, the industry still struggles to balance diverse representation with established standards (Olivia, 2023).

How characters are portrayed in video games is important for how players see themselves and understand gender roles. Identity theory suggests that players often feel a strong emotional bond with game characters. This helps them see things from the character's perspective, which can influence how they feel about themselves and their opinions about social issues (McDonagh, 2018). Modeling theory states that people learn how to behave by watching characters in movies, TV shows, and other media (Dombrovskis, 2025). This emphasis on portraying diverse characters is especially important in places like Pakistan, where outdated ideas about gender roles are common. Considering how Pakistani women who play video games feel about strong characters in games can help us understand how media representation, personal identity, and empowerment are interconnected (Fatima, 2024).

Furthermore, Action-adventure video games are a popular and growing genre of games. They are known for sharing detailed stories, allowing players to explore fun virtual locations, solve challenges, and make game-changing choices. These games are enjoyable and helpful for learning and mental health. One of the major benefits of adventure games is that they help improve thinking and learning. Studies have shown that these games help players think critically, solve problems, and stay focused because they involve conversation and storytelling (Meng-hua, 2016).

In short, looking at female characters in immersive video games can help us understand how Pakistani female gamers feel empowered. This group has not been studied much in current research (Wang, 2022). This study looks at how gamers connect with female characters and if this connection helps them feel more confident and empowered in their daily lives (Li, 2024). The goal is to show how games can help people grow personally and challenge old ideas about gender roles, making the world of gaming more inclusive (Fatima, 2024). Ultimately, such inquiry may illuminate the potential for video games to act as catalysts for social change across cultures, particularly for women in environments where they face systemic restrictions.

Problem Statement

The representation of women in video games has garnered considerable attention, with research investigating aspects of stereotypes, objectification, and the broader effects of video games on women. However, the literature lacks an understanding of how playable female characters affect female players' empowerment and confidence, particularly in non-Western settings such as Pakistan. Furthermore, most existing studies emphasize Western settings, often ignoring cultural nuances that may shape the immersive gaming quality of women's gaming experiences and interactions

Objectives

▸ To explore how playing as female protagonists in action-adventure video games influences Pakistani female gamers' self-confidence and psychological empowerment in action-adventure video games.
▸ To explore how confidence and empowerment in gameplay featuring strong female protagonists influence the identity development and social interactions of Pakistani female gamers in their everyday lives outside of gaming.

Research Questions

RQ1: How do Pakistani female gamers feel about their confidence and empowerment when playing as female protagonists in action-adventure video game worlds?
RQ2: How does playing action-adventure video games with strong female protagonists influence the identity development and social interactions of Pakistani female gamers in their daily lives?

Significance of the Study

This study is important for both academic and practical reasons. Academically, it adds to research in media studies, game studies, gender studies, and cultural studies by looking at how female characters in video games affect players in a cultural setting that has not been studied much—Pakistan. On the practical side, the research gives useful ideas to game

designers about how to create female characters that connect better with players and help them feel stronger. It also helps teachers, parents, and policymakers in Pakistan understand how video games can have positive effects on young women's confidence and self-worth. Finally, it offers helpful insights for female gaming communities, showing how games can be a space for support, identity building, and empowerment.

Literature Review

Over the past few years, researchers have paid more attention to how female characters in video games affect the confidence and empowerment of female gamers. This is especially important in different cultural settings, including conservative societies like Pakistan. This literature review looks at key studies that explain how female characters in video games can help or hurt the self-image and empowerment of female players.

Representation of Female Protagonist and Empowerment

Female protagonists in virtual games can help players feel more confident and empowered. This study used both interviews and surveys, and the results showed that many players felt better about themselves when they played as strong female characters (Ashcroft, 2024). Similarly, Kaye (2018) explained how harmful gender stereotypes can negatively affect female gamers. Yet they also found that if female players can identify with powerful female game characters, they feel less insecure and are less susceptible to stereotypes. Taken together, these studies suggest that female-centered narratives in games can help counter harmful suggestions and make female gamers feel more empowered and more confident.

Mustafina (2024) discussed how video games are changing to feature stronger and more skilled female characters today. This change supports women's rights and helps fight against outdated, unfair beliefs about women. Hartoonian (2025) studied female characters in horror games and found that they are no longer just victims. Now, they have control and influence, which helps players see women in difficult situations from a different perspective.

Limitations in Representation

Furthermore, not all depictions of women in video games are empowering. Perreault (2016) notes that despite the apparent power of some bold female characters, they are still dependent on male characters and are not truly autonomous. This suggests that with each new advance, some old confusions persist. Eklund (2024) studied how female characters in the *Assassin's Creed* series have changed over time. They found that as real-world gender roles change, the game industry also tries to improve its portrayal of women, but this change is slow.

Some games aim to provide empowering stories with strong female leads, although this does not always resonate successfully. Kim (2018) found that these attempts at improvement sometimes lead female players to feel that they are responsible for solving gender issues in the games themselves, placing unnecessary stress or guilt on the female player.

Gaming Culture and Social Context

Some researchers have also looked at how women are treated in gaming communities. Arnold-Ferencz (2021) pointed out that female gamers are sometimes seen as outsiders, or "tourists," in male-dominated spaces. This limits their ability to fully take part in gaming culture. On a more positive note, Demir (2024) suggested that better female representation in games can help young people, both boys and girls, better understand gender equality and respect different roles in society.

Furthermore, other studies show how harmful stereotypes can still affect female gamers. Anderson (2023) found that a lot of people think men are born better at gaming than women. This expectation can decrease the confidence of the female players. López-Fernández (2019), women have tended to be ignored in game stories or placed in less significant roles, which makes it more difficult for women players to identify themselves in game fiction.

Psychological Empowerment through Video Games

Psychological empowerment in video games refers to how gameplay experiences boost players' feelings of control, agency, and competence, significantly contributing to their self-identity and psychological well-being. This concept highlights the internal process through which players engage with game content, especially during challenges and achievements, which foster feelings of empowerment. Research indicates that games can serve as a powerful medium for psychological empowerment, giving players a sense of mastery over tasks and strengthening their belief in their abilities both inside and outside the gaming environment (Ashcroft, 2024).

In gaming, identity formation is one of the key aspects of psychological empowerment. Gamers often participate in virtual worlds and can make the same choices between key characters and storylines as players do in the real world, thus giving them control over their destiny, and increasing self-esteem and self-confidence in real life. Players who play as female protagonists typically feel a stronger connection to being a woman and have greater self-esteem. This empowerment can be reflected in the participants' daily lives as they feel more confident speaking up for themselves and participating in their communities (Ashcroft, 2024).

Altogether, the psychologically empowering experience in video games is a composite of gameplay dynamics, character involvement, and social interactions. In enabling spaces that allow gamers to experiment with identity and to empower themselves through challenge, video games have tremendous potential to act as mechanisms in personal growth and mental health." (Costa, 2023). This is a crucial reminder of the need to create inclusive stories and potential gameplay mechanics that will enrich and be enriched by player experiences across various cultures, backgrounds, and more.

Game Design and Social Interactions

Furthermore, social ties developed within gaming communities can be a source of psychological empowerment. Multiplayer games can facilitate teamwork and cooperation, support social interaction to reinforce and identify the players' experiences and offer emotional support. These shared tips can also reinforce that sentiment of inclusion and develop resilience, which can further contribute to their psychological empowerment (Yung, 2021).

In addition to social connections, the design of video games plays an important role in psychological empowerment. Elements that give player agencies, such as customization options or meaningful choices, increase their sense of engagement and control. By creatively contributing to their avatar or navigating narratives that reflect their values, players can develop a greater sense of investment in the gaming experience (Li X. B., 2022). Being able to make choices that affect what happens in the game not only makes it more fun but also helps people feel more motivated and confident in themselves. It gives players a sense of power that is very meaningful to them.

Immersion and Cultural Relevance

Previous studies have found that when a game is engaging and immersive, it has a greater influence on how a player thinks and feels. Cheng (2016) found that when gamers feel more engaged in games, it can alter the way they think and learn.

Kaye (2018) explained that the type of character a player controls, known as an avatar, can affect how confident they feel. This is particularly relevant to gender stereotypes. Furthermore, Shaw (2011) and Kuss (2022) reveal that most video games are made mainly for boys, which often overlooks what girls want and feel, especially in non-Western countries. This means that women gamers in Pakistan may have their own special experiences that haven't been investigated very much.

Research has found that when people play realistic and engaging games, they can begin to connect with the game's story and characters as if they were a part of themselves. Yao (2023) discovered that when people play immersive games, they can feel close to the characters. This can change the way they think or act in real life. Similarly, Wong (2017) has shown that intense emotional experiences, even in games, can impact how people behave toward others outside of the game.

In a society like Pakistan, where traditional gender divides are still prevalent, it is pertinent to explore whether these gaming experiences contribute towards making female gamers feel more liberated or self-assured in their day-to-day existence. This idea is upheld by Hsu (2021), who demonstrated that identity development through the gaming experience could be divergent across cultural contexts.

Future Direction and Inclusive Game Design

Desmet (2014) Meta-analysis revealed that game-playing experiences with important narratives of empowerment can enhance self-awareness and increase perceived control over life. In general, female protagonists in games can help boost the confidence and power of female gamers, especially in cultures with traditional gender roles. Some issues, such as treating women like objects and using them only as symbols, still exist. However, more people are looking at these issues and working to improve how women are portrayed in video games. This bodes well for future girls who play games, especially in places like Pakistan.

Still, there are some good signs. Villani (2018) found that playing games can help people feel emotionally better, allowing them to feel more empowered and independent. Tichon (2016) found that female gamers experience increased feelings of power and confidence when they can relate to strong female characters. Similarly, Hanus (2019) reported that gamers prefer game characters who both like themselves and exhibit likable characteristics. These findings suggest that game developers should design female protagonists who are realistic, relatable, and empowered. Furthermore, Valdés-Argüelles (2024) noted a growing trend in video game narratives toward greater diversity and inclusion of female perspectives.

Methodology

This study employs a Quantitative research method to examine how playing as a female protagonist in action-adventure video games affects the confidence and empowerment of female gamers in Pakistan in their everyday lives. A survey was used to gather information from many female players. This helped to find patterns and connections between their gaming experiences and how they feel about empowerment and identity in real life.

Research Design

A structured set of questions was created to collect information. The survey had questions that could be answered with specific choices using a scale from 1 to 10. This method helps in counting and analyzing the responses, ensuring that many different female respondents answer in the same way.

Population and Sample

This study focused on Pakistani female gamers between the ages of 15-30 who enjoy playing action-adventure video games and often play female protagonists as their main characters. The age group was chosen to target young adults aged 15–30 to better understand how playing action-adventure video games affects their identity. This age group was chosen because it represents a key stage in life where young people are actively forming their personal, social, and gender identities. Research shows that people in this age range are heavily involved in gaming and often think about how games influence their confidence, behavior, and self-image (Demir, 2024).

Studies also show that women in this group play video games as much as men, especially in immersive and narrative-rich genres. Their familiarity with technology makes them well-suited for games that feature strong storytelling and female lead characters (López-Fernández, 2019).

Recent research shows that female representation in games has improved, allowing young women to identify with strong female characters. This connection helps them reflect on their roles in society (Tomkinson, 2022). By studying the experiences of Pakistani women in this age group, the research can explore how these characteristics affect their identity, confidence, and cultural beliefs (Millamena, 2022).

So, the 15–30 age range is ideal for this study because it includes active, thoughtful gamers who are at a stage in life where identity is still forming. Using purposive sampling to select 250 female participants enables an in-depth exploration of how female protagonists in action-adventure video games influence the experiences and perceptions of this specific demographic.

Data Collection

The survey will be shared with female university students, and survey forms will also be shared through online gaming groups, social media, and forms that gamers in Pakistan like to use. This method makes it easy to connect with people in different locations. Participants will be told what the study is about, and their information will be kept private. They can choose whether to participate or not. The questionnaire is divided into three key sections.

1. Demographic information (e.g., age, gaming frequency).
2. Gaming behavior (e.g., preferred games, time spent playing, choice of protagonists).
3. Perceived impact of playing as female protagonists on confidence, empowerment, identity, and social relationships.

Analysis and Discussion

The dataset comprises responses from 250 Pakistani female gamers, covering 42 variables that span demographics and detailed survey questions about confidence and empowerment in action-adventure games featuring female protagonists.

Key Findings for Research Question 1: Confidence and Empowerment in Gameplay

Confidence in Action-Adventure Games

The distribution of confidence scores among 250 Pakistani female gamers reveals meaningful patterns in how these players experience confidence when engaging with action-adventure games featuring female protagonists. The data in Figure 1 shows a left-skewed distribution (skewness = -0.814), indicating that most participants report moderate to high levels of confidence. This is further supported by a median score of 6.11, which is slightly higher than the mean of 5.90—an expected feature of left-skewed distributions. The spread of the scores is moderate, with a standard deviation of 1.354 and an interquartile range (IQR) of 1.556, suggesting a noticeable but not extreme variability in player confidence. Most participants scored above the midpoint (5.0) on the 1–10 scale, highlighting a generally positive impact of female protagonists on their gameplay confidence. The left skew also suggests a potential ceiling effect, where many participants reported higher confidence levels, aligning with the study's focus on empowerment. However, the range from 2.00 to 8.56 indicates that a few participants experienced lower confidence, suggesting individual differences. Despite its skew, the distribution is close enough to normal (kurtosis = 0.617) to support the use of parametric statistical analyses. Overall, the distribution supports the conclusion that playing as female protagonists generally enhances confidence among Pakistani female gamers, though some variability in experience remains.
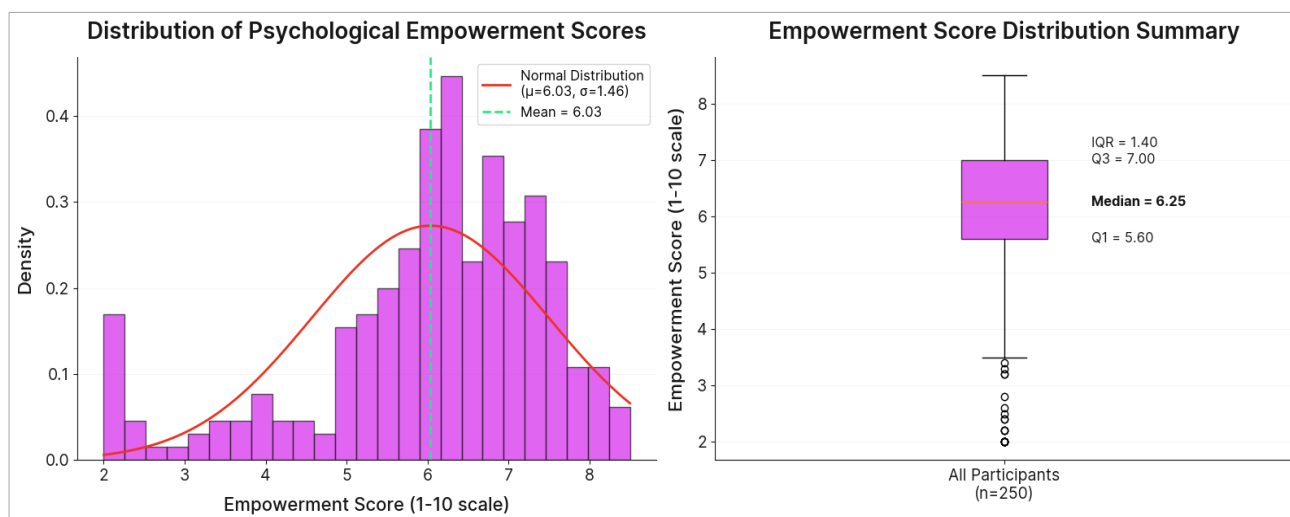
Figure 1
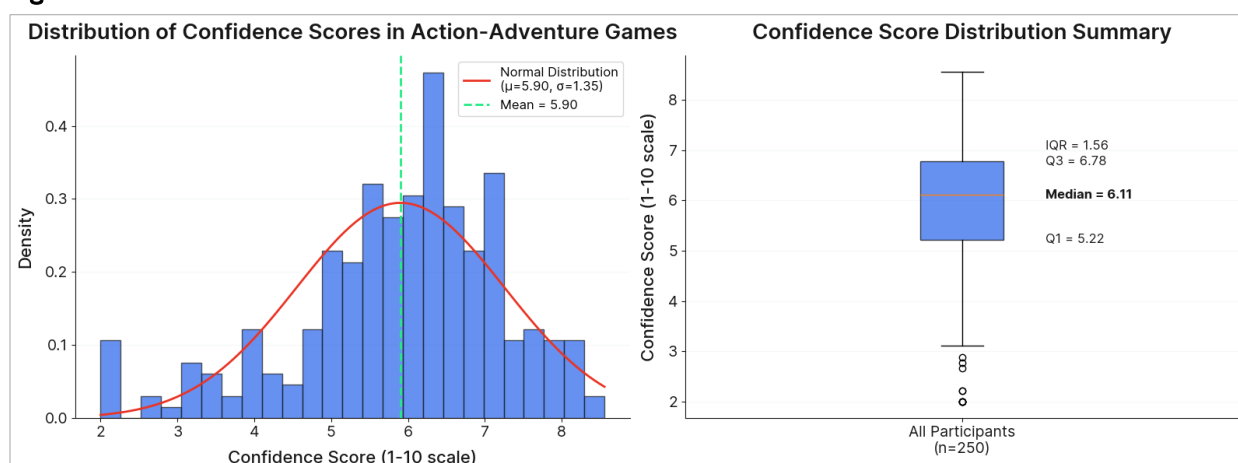
Psychological Empowerment Through Gameplay

Overall empowerment score: 6.03 (SD = 1.46)

Range: 2.00 to 8.50

In Figure 2, the distribution of psychological empowerment scores among 250 Pakistani female gamers reveals a clear pattern of high perceived empowerment when playing action-adventure games with female protagonists. The mean score is 6.03, and the median is slightly higher at 6.25, both on a 1–10 scale, indicating that most participants feel empowered by these experiences. The distribution is left-skewed (skewness = -1.104), most of the scores are clustered at the higher end, while a few lower scores pull the average slightly downward. The standard deviation of 1.465 and interquartile range (IQR) of 1.4 suggest a moderate level of variability in responses. The kurtosis value of 0.99 indicates heavier tails than a normal distribution, showing the presence of some outliers on both the lower and higher ends of the scale. A breakdown of percentiles shows that 75% of participants scored 7.0 or lower, with the top 10% scoring 7.60 or above, reinforcing the overall trend of high empowerment levels. Visual tools like histograms and boxplots confirm that scores are heavily concentrated in the upper range, with a few notable outliers. This pattern suggests that playing as female protagonists in games is strongly associated with feelings of psychological empowerment for most participants, while still allowing for individual variation. When compared with confidence scores, which also showed a left-skewed distribution, the empowerment scores exhibit slightly stronger effects and are more concentrated at the higher end, indicating a more pronounced impact. Overall, these findings support the conclusion that female protagonists in games play a significant role in enhancing both confidence and psychological empowerment among Pakistani female gamers.

Figure 2

Relationship between Confidence and Psychological Empowerment

Pearson Correlation Coefficient: 0.597

P-value: 1.539e-25

The scatter plot above shows a clear positive relationship between confidence and empowerment scores see Figure 3. Each point represents a participant, and the green regression line highlights the trend: as confidence increases, so does psychological empowerment. The Pearson correlation coefficient is $r=0.597$ $r=0.597$, which indicates a strong, statistically significant positive correlation (p-value <0.001 <0.001). This means that participants who feel more confident while playing as female protagonists also tend to feel more empowered by the experience. The data strongly supports the idea that confidence and empowerment are closely linked for Pakistani female gamers in action-adventure games with female protagonists. This relationship is both visually and statistically robust, reinforcing your research findings.

Figure 3

Relationship Between Confidence and Empowerment Scores

Confidence and Empowerment by Gaming Hours

10–20 hours: Confidence = 5.81, Empowerment = 6.02 (n = 84)
Less than 10 hours: Confidence = 5.69, Empowerment = 5.73 (n = 90)
More than 20 hours: Confidence = 6.25, Empowerment = 6.40 (n = 76)

Figure 4 summarizes the mean, median, and standard deviation for both confidence and empowerment scores across three gaming hour groups: Less than 10 hours, 10–20 hours, and more than 20 hours per week. Players who game More than 20 hours per week report the highest average confidence (mean = 6.25) and empowerment (mean = 6.40) scores, with the tightest spread (lowest standard deviation). Those gaming Less than 10 hours per week have the lowest average scores for both confidence (mean = 5.69) and empowerment (mean = 5.73). The 10–20 hours group sits in between, which means close to the overall average.

The boxplots in Figure 5 visually reinforce these findings: as gaming hours increase, both confidence and empowerment scores tend to rise, and the scores become more consistent (less spread). This suggests that more frequent gaming is associated with greater feelings of confidence and empowerment when playing as female protagonists. In summary, the more time participants spend gaming each week, the more confident and empowered they feel in these action-adventure experiences.

Figure 4

|	["Confidence_Score","mean"]	["Confidence_Score","medi...	["Confidence_Score","std"]	["Confidence_Score","count"]	["Empowerment_Score
10-20 hours	5.8095238095	6.0555555556	1.5531221576	84	6.0202380952
Less than 10 hours	5.6913580247	5.7777777778	1.3787296637	90	5.7344444444
More than 20 hours	6.2543859649	6.2222222222	0.9841234807	76	6.4039473684

Figure 5

The ANOVA results reveal that gaming frequency significantly affects both confidence and psychological empowerment among Pakistani female gamers. With an F-statistic of 3.953 and a p-value of 0.020 for confidence scores, and an F-statistic of 4.429 with a p-value of 0.013 for empowerment scores, the differences between groups based on gaming hours are statistically significant ($p < 0.05$). This means that the amount of time players spend gaming per week has a meaningful impact on how confident and empowered they feel when playing as female protagonists in action-adventure games. Notably, there is a progressive increase in both confidence and empowerment scores as weekly gaming hours rise. The highest levels of both were observed among players who game for 20 or more hours per week, with average confidence and empowerment scores of 6.25 and 6.40, respectively. Additionally, these heavy gamers exhibited less variability in their responses, suggesting more consistent positive experiences compared to those who game less frequently. These findings support the conclusion that regular, sustained engagement with female-led gameplay enhances both confidence and psychological empowerment over time, likely due to repeated exposure to empowering narratives and role models.

Mean Scores for Individual Confidence Items

This horizontal bar chart in Figure 6 breaks down the average scores for each confidence-related survey item. Lower mean scores indicate stronger agreement (since the Likert scale is 1–10, with 1 being "strongly agree"). The chart shows that participants generally felt confident controlling female protagonists, believed in their ability to overcome challenges, and felt skilled and competent during gameplay. The highest agreement was with feeling a sense of achievement after completing difficult tasks.
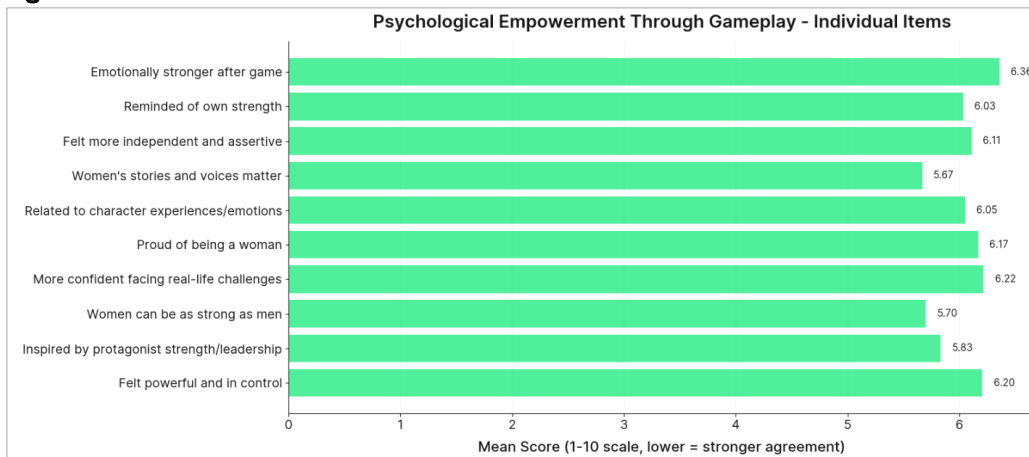
Figure 6
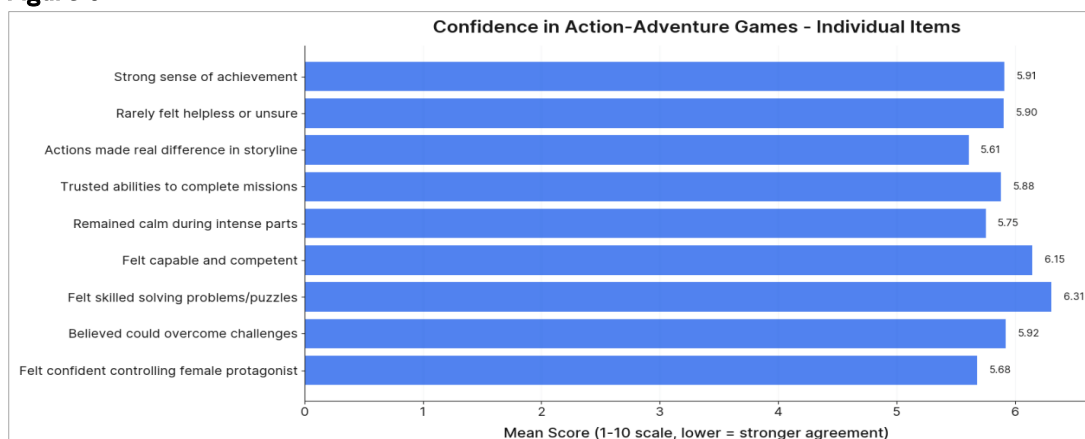
Mean Scores for Individual Empowerment Items

The horizontal bar chart in Figure 7 presents the mean scores for each empowerment-related item. Again, lower scores reflect stronger agreement. Respondents most strongly agreed that playing as a female protagonist made them feel powerful, inspired by the character's strength, and proud of being a woman. There is also strong agreement that these games help them feel more independent, assertive, and emotionally stronger. These visualizations together illustrate that Pakistani female gamers generally experience moderate to high confidence and empowerment when playing as female protagonists, with more frequent gaming linked to even stronger positive outcomes. The item-level breakdowns highlight which aspects of confidence and empowerment are most strongly felt.
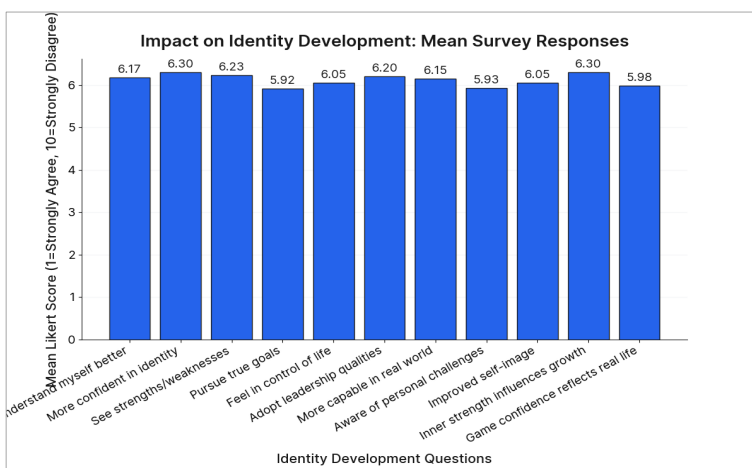
Figure 7

Psychological Empowerment Through Gameplay - Individual Items

Identity Development Impact (Blue Bars)

The graph illustrates the impact of playing action-adventure games with female protagonists on the personal identity and Self-perception of Pakistani female gamers. The results in Figure 8 show a consistently positive trend across all identity-related questions, with an overall mean score of 6.12 on a 1–10 scale. The strongest effects were observed in responses to Questions 2 and 10, both scoring 6.30, suggesting that players feel these games significantly enhance their confidence in their identity as women and help them connect with a sense of inner strength that contributes to their personal growth. The lowest score, though still positive, was for Question 4 (5.92), indicating slightly less certainty about whether gaming inspires them to pursue goals aligned with their true self and deeper self-understanding. However, the narrow range of only 0.39 points across all questions reflects a high level of consistency in responses, suggesting that the identity-related impact of female protagonists in games is relatively uniform among participants. Overall, the findings support the interpretation that action-adventure games featuring female protagonists contribute meaningfully to players' self-awareness, confidence, and personal development.

Figure 8

Impact on Identity Development: Mean Survey Responses

Social Interactions Impact (Green Bars)

Figure 9 highlights the impact of gaming on the social interactions and interpersonal skills of Pakistani female gamers, particularly when engaging with female protagonists in action-adventure games. The overall mean score of 6.04 indicates a positive social effect, with participants generally reporting improved confidence in social settings. The strongest impact is seen in personal and professional assertiveness, where many participants feel more empowered to express themselves and stand their ground in relationships. On the other hand, the lowest score, though still positive at 5.78, reflects a relatively lower confidence in initiating connections and expressing opinions in group environments. The range of 0.48 points across all responses suggests that while gaming influences various aspects of social behavior, some areas, such as assertiveness, are more affected than others, like group communication. Overall, the data suggests that playing as strong female characters not only supports internal growth but also helps players develop more confident and empowered social behaviors in their real lives.

Figure 9
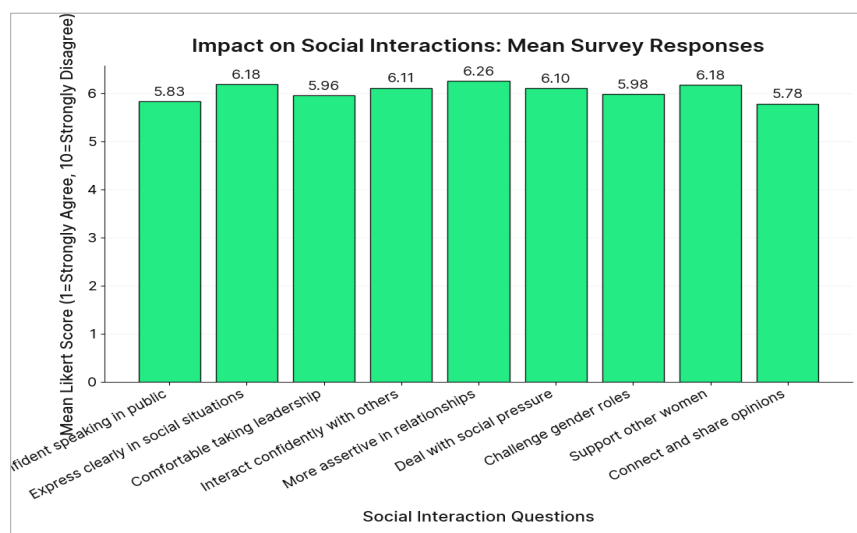
Combined Comparison - Identity vs Social Impact

This side-by-side visualization allows direct comparison between internal (identity) and external (social) impacts.

Visual Analysis

The side-by-side visualization presents a clear comparison between two distinct domains impacted by gameplay with female protagonists: internal identity development and external social interactions. In Figure 10, the left panel, shown with blue bars, represents identity development and highlights how gaming influences internal self-perception. The highest-rated aspects in this panel relate to enhanced confidence in one's identity as a woman and connection with inner strength, each averaging a score of 6.30. The lowest-rated item, at 5.92, reflects a slightly more uncertain response about the extent to which gaming inspires the pursuit of personal goals that reflect one's authentic self. The score range for identity development is narrow (0.38), suggesting a consistent positive impact across all related dimensions.

Social Interactions

The right panel in Figure 10, illustrated with green bars, focuses on how gaming with female protagonists influences external social behaviors. The most positively rated aspect here, with a score of 6.26, is increased assertiveness in relationships, indicating that participants feel more confident expressing themselves in social contexts. In contrast, the lowest score of 5.78 is associated with the ability to connect with others and openly share opinions, revealing a slightly less pronounced impact in this specific area of social engagement. The overall score range for social interactions is 0.48, showing slightly more variability than in the identity domain, and suggesting that some social behaviors may be more influenced by gaming than others.

Comparative Insights

When comparing the two panels, identity development shows a slightly higher overall mean (6.12) than social interactions (6.04), indicating that internal psychological changes are slightly more affected than external behaviors. Furthermore, the greater variability in social scores suggests that while some social aspects benefit significantly from gaming experiences, others may be less consistently affected. This supports the interpretation that internal change or changes, such as self-understanding and empowerment, may precede external behavioral changes, such as improved communication and social assertiveness.

These findings suggest important implications for understanding the broader psychological effects of gaming. The visual data suggests that playing as a female protagonist not only empowers the female gamers of Pakistan internally but may also influence how they interact with others socially. These findings reinforce the idea that identity development can serve as a foundation for improved social functioning, making female-led action-adventure games a potential means of promoting both personal and social confidence.

Figure 10
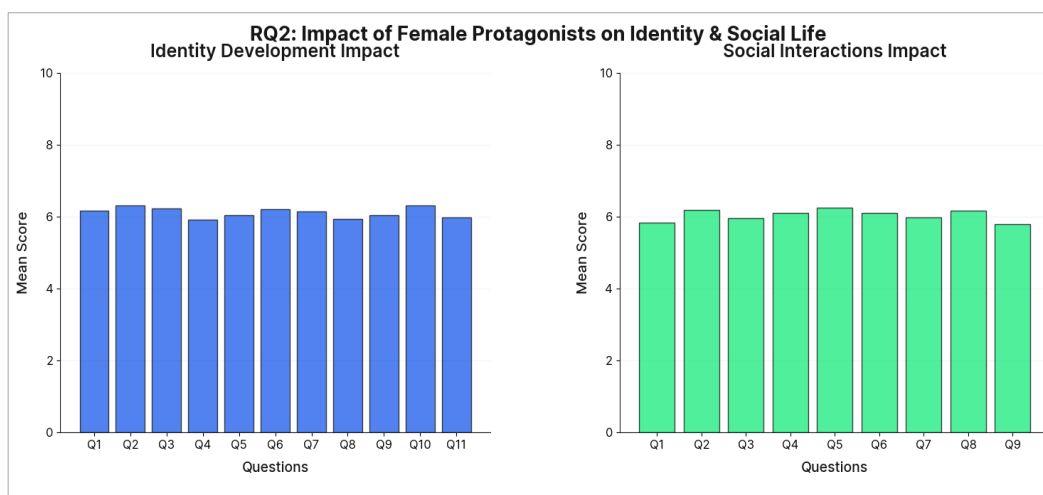
Conclusion

This research examined the association between playing as female protagonists in action-adventure video games and perceived self-confidence and empowerment of the Pakistani female gaming community. The findings suggest that the presence of powerful female protagonists in immersive game worlds can enhance players' sense of self-efficacy and psychological empowerment. Most participants identified themselves as having moderate to high levels of confidence (M = 5.90, SD = 2.34) and empowerment (M = 6.03, SD = 2.33) as measured on a 10-point Likert scale. The scores have a left-skewed distribution, which can be understood as the effect being positive for most of the players (especially when playing time is larger). These results are consistent with previous research, which indicates that a representation of powerful female characters can facilitate empowerment and agency in players.

A strong positive correlation was observed between confidence and empowerment levels, with a statistically significant correlation coefficient (r = 0.597, p < 0.001). This indicates that the more confident the player felt while playing, the more psychologically resourced they felt. The frequency of gaming also contributed to this effect. Participants who played for more than 20 hours a week reported the highest levels of confidence and empowerment, indicating that frequent interaction with empowering game content can enhance these psychological benefits.

The playing of female characters was also shown to have a significant impact on identity construction. Participants felt more secure in their identity as women and felt more connected to their sense of inner strength. The average identity development score was 6.12, ranging from 4 to 7, meaning that players could explore and discover themselves through the game world and improve their spiritual self. In addition, the women reported that these experiences influenced real-life behavior, including communicating more assertively and being more confident in social encounters.

With an average score of 6.04, the psychological empowerment gained through gaming can translate into better social interactions and interpersonal communication. Over, the results suggest that action-adventure video games that feature strong female protagonists have the potential to serve as a tool for empowering young women of Pakistan. These games not only provide entertainment but also provide a space where female players can explore and reinforce positive aspects of their identities. However, the study has some limitations. Reliance on self-reported data may introduce bias, and the sample is limited to Pakistani female gamers aged 15 to 30.

Future research should include a more diverse demographic and explore a wider range of character types and game genres beyond action-adventure to deepen the understanding of how video games influence empowerment across cultures and contexts. Furthermore, longitudinal studies are recommended to examine how the experiences of empowerment through gaming develop and change over time.

In conclusion, this research shows that female protagonists in action-adventure games can positively impact the confidence, empowerment, identity, and social behavior of female gamers in Pakistan. By promoting strong and relatable female characters, game developers can design and develop inclusive gaming experiences that support the personal development and psychological well-being of players in non-Western societies.

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