

BEYOND TABOOS AND TEXTBOOKS: A PILOT STUDY ON BSN STUDENTS' PERCEPTIONS ABOUT GAMIFICATION IN SRHR LEARNING

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Abstract

Background

In Pakistan, prevailing socio-cultural norms surrounding sexuality and reproduction contribute to significant gaps in nursing students' knowledge of Sexual and Reproductive Health and Rights (SRHR). Due to limited exposure through formal education, many students lack the confidence and competence to engage in SRHR-related discussions or provide comprehensive care in clinical settings. Traditional didactic teaching methods often fail to foster critical engagement with sensitive topics, reinforcing discomfort and silence. Integrating gamification into nursing education offers a pedagogically innovative solution, promoting active, stigma-free learning environments that enhance students' communication skills, knowledge retention, and readiness to address SRHR issues in practice.

Objectives

To explore perceptions of undergraduate nursing students about gamification strategy in teaching Sexual and Reproductive Health and Rights (SRHR).

Methodology

This qualitative descriptive study explored perceptions of undergraduate nursing students about gamification strategy while teaching sensitive topics like SRHR. A total of 12 students from two nursing colleges, 6 students from public and 6 students from private college in Lahore were selected through purposive sampling to ensure diverse representation across first to four academic years. A semi structured interview guide was developed to explore perceptions of BSN students about gamification use as teaching strategy in SRHR learning. The questions focused on perceptions about game-based strategy, students' engagement while using scenario-based games, their

comfort level in discussing taboo topics, motivation, knowledge retention and their preparedness for clinical practice after practicing real word scenario-based case studies on all SRHR components. Ethical approval was taken before conducting a study in both institutes. Participants recruited according to inclusion criteria that students who are enrolled in a BSN program and had completed at least one SRHR module. The data collection tool was validated through expert review and pilot testing for clarity and cultural appropriateness, then use for data collection by ensuring confidentiality and informed consent, and analyzed through manual coding to generate themes.

Results

Students perceived gamification as a highly effective approach that probably increased their engagement by providing interactive and emotionally safe learning environments. Many expressed those gamified activities helped reduce discomfort and anxiety when discussing sensitive and often taboo topics such as contraception, consent, dilemmas, sexual & reproductive rights and gender identity. Participants highlighted that scenario-base and case study games enabled them to practice clinical decision-making and communication skills in realistic, consequence-free settings, which boosted their confidence. Despite these positive perceptions, students also perceived some challenges that may be occur, including technical glitches, insufficient faculty training on gamification tools, and a need for content that better reflects cultural diversity and context. They emphasized that gamified learning should be closely integrated with real clinical experiences to enhance their preparedness for delivering quality patient care.

Conclusion

This study shows that nursing students view gamification as a powerful alternative to traditional SRHR education. It enhances engagement, motivation, retention, and decision-making while easing discussions on sensitive topics. Gamification fosters safe, ethical reflection on complex issues like consent and reproductive rights. Students see it as an evidence-based, not novel, strategy. They recommend culturally grounded, context-specific content for future implementation into Nursing education.

Keywords:

Gamification in SRHR, Nursing Education, Cultural Sensitivity, Undergraduate Nursing Students

Introduction

Firstly, Sexual and reproductive health and rights (SRHR) are crucial elements of comprehensive nursing care, SRHR instruction is frequently left out of nursing curricula, especially in contexts where talking about sexual health is frowned upon. In addition to impairing students' academic proficiency, this educational content deficiency and traditional method of teaching makes it more difficult for them to confidently and sympathetically offer SRHR in clinical settings. Students experience hesitation and fear because they are not fully equipped with practical scenario-based learning (Harunaa et al., 2021; Hussein et al., 2021). Therefore, through reviewing published material theory and practice gap still exist and need to develop innovative strategies through evidence base research studies.

Secondly, Conservative societal standards in Pakistan prevent SRHR topics from being openly discussed. The lack of safe learning spaces, reliance on informal sources, and restrictive curricula sometimes result in adolescents and nursing students entering training with little understanding regarding gender identity, puberty, and contraception (Saad et al., 2016; Mansoor et al., 2021; Talpur & Khowaja, 2012).

Gamification, which uses game components like point systems, simulations, and narrative challenges to engage students more actively, is being used by educators to close this gap. Comparing these interactive methods to traditional lecture-based learning in nursing education, it has been demonstrated that they can improve critical thinking, empathy, motivation, engagement, and knowledge retention (Sanz Martos et al., 2024; Pangandaman et al., 2025).

International studies show, gamified activities in nursing contexts have been associated with statistically significant improvements in satisfaction, critical thinking, and clinical competency (Sanz-Martos et al., 2024; Day-Black et al., 2015). Mixed-methods research likewise reports high perceptions of gamification among both students and educators, demonstrating strong links between positive attitudes and increased learner confidence (Pangandaman et al., 2025; Botros et al., 2025).

However, gamification is not without challenges. Poorly designed systems especially those relying heavily on competition, leaderboards, or superficial rewards can create anxiety, distract from learning, or even reinforce stigma (Almeida et al., 2023; Tomé Klock et al., 2023). This underscores the necessity for culturally responsive, learner-centered design aligned with pedagogical and ethical standards.

So, Sexual and Reproductive Health and Rights (SRHR) education is critical in nursing, yet it remains underrepresented in many conservative countries like Pakistan. Cultural taboos and institutional hesitance often leave students underprepared to address sensitive topics such as contraception, consent, ethical dilemmas and STIs in clinical settings. Traditional lecture-based methods fail to engage learners or foster open discussion. Gamification has shown global promise in breaking down such barriers through interactive, student-centered learning. However, research on its effectiveness in SRHR education for Pakistani nursing students remains scarce.

Research Question

What are the perceptions of undergraduate nursing students toward the use of gamification strategy for teaching Sexual and Reproductive Health and Rights (SRHR)?

Aim of the study

To explore the perceptions of undergraduate nursing students regarding gamification as a strategy for teaching sensitive and taboo topics like Sexual and Reproductive Health and Rights (SRHR).

Methodology

This qualitative descriptive study explored perceptions of undergraduate nursing students about gamification strategy while teaching sensitive topics like SRHR. A total of 12 students from two nursing colleges, 6 students from public and 6 students from private college in Lahore were selected through purposive sampling to ensure diverse representation across first to four academic years. A semi structured interview guide was developed to explore perceptions of BSN students about gamification use as teaching strategy in SRHR learning. The questions focused on perceptions about game-based strategy, students' engagement while using scenario-based games, their comfort level in discussing taboo topics, motivation, knowledge retention and their preparedness for clinical practice after practicing real word scenario-based case studies on all SRHR components. Ethical approval was taken before conducting a study in both institutes. Participants recruited according to inclusion criteria that students who are enrolled in a BSN program and had completed at least one SRHR module. The data collection tool was validated through expert review and pilot testing for clarity and cultural appropriateness, then use for data collection by ensuring confidentiality and informed consent, and analyzed through manual coding to generate themes.

Results

This result represents the perceptions of undergraduate nursing students in themes or code format that reflect if gamification strategy will used in teaching sensitive topics like SRHR that enhance our engagement, improve scenario-based knowledge that ultimately reflect in our clinical practice.

Participant's Demographics

Participant	Academic Year	Institution Type	Age
1	First Year	Public	20
2	Third Year	Public	24
3	Third Year	Public	23
4	Fourth Year	Public	24
5	Third Year	Private	21
6	Third Year	Private	25
7	Fourth Year	Private	21
8	Fourth Year	Public	20

9	Third Year	Private	22
10	Second Year	Public	22
11	Second Year	Private	25
12	First Year	Private	21

A total of 12 undergraduate nursing students participated in the study, representing both public and private institutions. Participants were from various academic years (first to fourth year), providing diverse perspectives across educational stages. Their ages ranged from 20 to 25 years, reflecting a age group of BSN students.

Theme 1: Gamification Enhances Engagement in Learning SRHR

Students overwhelmingly expressed that gamified learning methods such as simulations, role-plays, digital activities, and interactive games enhanced their engagement with Sexual and Reproductive Health and Rights (SRHR) topics. Many participants perceived traditional lecture-based instruction as less effective, particularly when addressing sensitive or culturally taboo subjects such as contraception, consent, ethical dilemmas, and gender identity. Among the participants, from private nursing college highlighted the motivational impact of gamified strategies, with majority student stating: “Learning SRHR through games and simulations makes the experience more interesting and less boring than traditional lectures.”

On the other hand, participants from public nursing college highlighted the psychologically safe atmosphere fostered by innovative gamified instruction. many participants remarked: “gamification in teaching culturally sensitive topics allow us to ask more queries to learn more without hesitation or feeling awkward in SRHR classes that equipped me more focused and motivated.”

Therefore, both institutes students’ responses suggest gamification because this innovative Evidence base method decrease psychological barriers and create a more supportive environment to explore complex and culturally taboo topics.

Theme 2: Gamification improve critical thinking and decision making in clinical setting

Sub-Theme 1: Improve confidence and competency in clinicals

First of all, students from both institutes emphasized this experiential strategy through case study or scenario-based learning that provide opportunity essential skills and critical thinking in classroom setting. As, majority of the students from private institute expressed: “this strategy improves our clinical decision making and allow me to practice realistic problems before facing them with real patients that helps us to think critically, build confidence.”

Similarly, some participants from public colleges explain: “it closes the critical gap between theory and practice because if we prepared with real life situations it prepared us for clinical.”

Sub-Theme 2: Stronger Ethical Decision making and overcome learning barriers

Initially, students from both institutes emphasized this experiential strategy through simulated ethical dilemmas and time sensitive decision-making scenarios improve clinical judgment that is essential in nursing practice. As, majority of the students from public institute expressed: “this strategy will enhance ethical decision-making abilities in critical.”

Similarly, many participants from private colleges explain: “through this method we can improve effective communication between patients and our colleagues when we well equipped with ethical issues and their dealing with rationales.”

This reflection represents the innovative gamification strategy is critically overcome the students’ barriers that they faced in clinical areas.

Theme 3: Gamified SRHR Learning Reduces Discomfort and Enhances Confidence in Discussing Culturally Sensitive Topics

Gamification in SRHR education has demonstrated a great deal of promise in dismantling cultural taboos and reducing anxiety around delicate subjects like gender identity, consent, and contraception. Students at both public and private universities agreed that case studies, role-plays, and interactive exercises provided secure, accepting environments for candid conversation. These techniques helped mainstream subjects that were frequently shunned in conventional classrooms, encouraged involvement, and fostered civil discourse.

Sub-Theme 1: Creating Safe Spaces to Talk About the “Unspeakable”

Likewise, the majority of the students was agreed upon this simulation method helps to reduce discomforts associated with culturally taboo topics. Majority students says “Gamification will give us a safe space to discuss about our reproductive rights and gender identity without restrictive environment.”

Sub-Theme 2: Active Participation Translates to Deeper Understanding and Retention

Similarly, many participants agreed that they remembered content better when it will teach through games compared to traditional lectures or textbooks. As more students from a private institution put it: “I am more likely to retain because require active participation.”

Following the same, students from a public institution emphasized stating: “It will help us feel more confident talking about SRHR after playing a decision-making game related to SRHR content, because it will show us different scenarios and how to respond effectively.”

These experiences often involved realistic decision-making and role-based scenarios, will allowing students to connect emotionally and intellectually with real-world issues that will strengthening key nursing skills like critical thinking, communication, and confidence.

Sub-Theme 3: Breaking Stereotypes and Promoting Cultural Empathy

First of all, many participants reflected that these experiences shifted their views and supported both personal growth and professional development.

As, more student from a public institution noted, "The use of storytelling games gave us perspectives from different cultures and identities, which helped me understand and respect others those will come from more cultural diversity areas." likewise, participants from a private institution shared, "Discussing consent through gamified cases made the topic feel real and urgent, not just theoretical. It pushed me to think more deeply." These reflections show how using relatable stories and ethical challenges changes the learning experience. Gamification goes beyond memorization by building critical thinking, emotional awareness, and cultural sensitivity key skills for future healthcare professionals.

Theme 4: Game-Based Learning as a Confidence Catalyst for Real-Life SRHR Conversations in Clinical Practice

One more common theme across student responses was that gamified learning will create a non-judgmental, low-pressure space to explore sensitive SRHR topics. Many described these interactive activities as "safe simulations" where they make mistakes, reflect, and improve their communication without fear of judgment or consequences.

Initially, students from a public institution summarized, "The safe environment in games allows me to make mistakes and learn without feeling fair, so I'm less scared in real-life situations." Similarly, students from a private institution reflected, "Role-play activities will simulate real conversations, which reduces anxiety when I face actual patients." These statements underscore the value of gamification as a pedagogical bridge translating theoretical classroom knowledge into practical, empathetic and will improve clinical engagement.

Theme 5: "From Points to Purpose" How Gamification Fuels Motivation and Meaning in SRHR Learning

According to students at both public and private sectors, these game-based components greatly increased the SRHR content's emotional resonance, memorability, and engagement.

Sub-Theme 1: Point Systems Spark Progress & Personal Satisfaction

This strategy creates based on badges and point system, that is a way toward structure achievement, engagement and consistent efforts. This method moves learning into a goal-oriented experience, in which student easily tracked your progress in real time and find out explanation. Many students reflected: "through this game-based strategy we will earn badges and points that make learning fun and rewarding, which pushes me to keep improving and stay engaged with the material."

This technology driven learning can enhance motivation because it offers real time feedback and recognition to learners that enhance commitment for completion of task and become a positive and conducive learning for all students.

Sub-Theme 2: Storytelling Transforms Learning into Empathy-Driven Exploration

Among the various gamification strategies, interactive storytelling and scenario-based learning emerged as the most emotionally impactful motivators. These methods enabled students to immerse themselves in diverse SRHR situations, fostering deeper emotional engagement, improving retention of complex information, and humanizing topics often considered taboo. As one student expressed, “Storytelling helps me connect emotionally with the topics, making the information easier to remember and more meaningful.” Another added, “I’m more motivated to learn when gamified activities tell a story.” A third reflected, “When gamification includes scenarios, it feels like I’m part of the experience, not just memorizing facts.”

These reflections underscore the power of narrative in transforming passive learning into active emotional participation.

Theme 6: “Safe to Try, Ready to Act” Gamified Scenarios Build Clinical Confidence in SRHR Across Institutions

In both institutes students reflected how immersive, positive outcome driven simulation method that allow us to practice independently with fully equipped knowledge with reasoning and effective communication skills. This method enables students emotional and cognitive less stressful and more natural in clinical setting that improve decision making speed and accuracy. Ultimately, this foster a sense of preparedness and professional identity that is necessary for providing respectful patient centered care.

Theme 7: Challenges about digital tool and suggestions

However, gamification is widely regarded by students as an effective approach as well as there are some technical difficulties that will be handled by using wisely. Students emphasize gamification should be a regular part of our learning because it is necessary to become competent and independent Nurses.

Discussion

In current study both institutes students’ responses suggest gamification because this innovative Evidence base method decrease psychological barriers and create a more supportive environment to explore complex and culturally taboo topics. These findings are supported by a study in which nursing students reported grater emotional engagement, and reduce anxiety in clinical setting (Rosa-Castillo et al., 2021). Likewise, another study supported to current study in which gamification strategy in teaching increase motivation and active participation that ultimately improve competency and decision-making skills, communication skills in clinical setting (Sanz-Martos et al., 2024). On the other hand, there are contradictory findings exist in literature that shows simulation-based gamification can improve theoretical

understanding but technical issues or unfamiliar to new strategy limit institutional strategy that negatively impact student learning engagement and continuity in learning (El-Sayed et al., 2025).

In present study students from both institutes emphasized this experiential strategy through case study or scenario-based learning that provide opportunity essential skills and critical thinking in classroom setting. This experiential strategy through simulated ethical dilemmas and time sensitive decision-making scenarios improves clinical judgment that is essential in nursing practice. This reflection represents the innovative gamification strategy is critically overcome the students' barriers that they faced in clinical areas. Some studies from literature align with current study findings that shows BSN students improve decision making skills as compare to those who was on traditional teaching methods (Jannah et al., 2019). Similarly, another study shows game-based learning enhance students' confidence and decision making in critical settings of hospital among BSN students (Smith & Lee, 2024). However, contradictory finding shows, traditional scenario-based learning also improve competency in clinical setting and suggest gamification not only method that stimulate it depending on content and context (Zhang et al., 2021).

Current study shows Gamification in SRHR education has demonstrated a great deal of promise in dismantling cultural taboos and reducing anxiety around delicate subjects like gender identity, consent, and contraception. Students says it often involved realistic decision-making and role-based scenarios, will allowing students to connect emotionally and intellectually with real-world issues that will strengthening key nursing skills like critical thinking, communication, and confidence. These results are aligned with present study shows through innovative gamification utilization to teach sensitive content to BSN students can significantly decrease embracement and hesitation and increase engagement in sensitive issues (Johnson & Brown, 2022). Another study support to these findings shows through this strategy students increase classroom participation (Johnson and Brown., 2022). One more finding align that shows this is a thought driven method that enhance students' comfort and participation on sensitive topics like SRHR (Kim et al., 2023). On the other hand, some contradictory findings are available in literature shows sensitive abs taboo topics discussion in classroom worsened and students feel awkward by digital tools and techniques (Rivera et al., 2024).

The current study shows one more common theme across student responses was that gamified learning will create a non-judgmental, low-pressure space to explore sensitive SRHR topics. Many described these interactive activities as "safe simulations" where they make mistakes, reflect, and improve their communication without fear of judgment or consequences. The results underscore the value of gamification as a pedagogical bridge translating theoretical classroom knowledge into practical, empathetic and will improve clinical engagement. Few studies are aligned to present study findings shows scenario-based learning significantly enhance competency and confidence while students well equipped with theoretical knowledge ultimately it reduces fear and anxiety among students working in hospital setting (Botros et al., 2025). One more study in favor to present study findings noted, simulation-based gamification not only increase knowledge but also encourage and motivate students to participate in real world clinical setting culturally sensitive issues with patients (Lee et al. (2024). Another study in support to present results shows scenario and case-based learning not only improve communication skills it also improves emotional preparedness and cultural empathy that are critically corelated with culturally taboo topics like SRHR. Gamification decrease social awkwardness and provide safe environment for discussion

on stigmatized topics (Muir et al., 2024). However, some contrasting findings also highlighted through literature review that shows game base learning just for fun or entertainment not learning of complex topics, it increases hesitation and emotional intelligence.

According to present study results these game-based components greatly increased the SRHR content's emotional resonance, memorability, and engagement. This technology driven learning can enhance motivation because it offers real time feedback and recognition to learners that enhance commitment for completion of task and become a positive and conducive learning for all students. These findings align with present results shows real time feedback to students and explanation clear more concepts and students become motivated on your achievements (Domínguez et al. (2013). Another study shows gamification deep understanding through narrative learning that deepens empathy and relational understanding in clinical settings (Powell & Kalina., 2019). However contradictory studies also exist that shows gamification increase anxiety due to competition leaderboard, most participants concerned about their scores (Schouten et al., 2021).

In current study both institutes' students reflected how immersive, positive outcome driven simulation method that allow us to practice independently with fully equipped knowledge with reasoning and effective communication skills. This method enables students emotional and cognitive less stressful and more natural in clinical setting that improve decision making speed and accuracy. Ultimately, this foster a sense of preparedness and professional identity that is necessary for providing respectful patient centered care. Some studies are in support of current findings shows innovative evidence-based strategies increase active absorption of knowledge and active decision making in undergraduate nursing students. This quality improves students' confidence and reduce anxiety while working with colleagues in culturally sensitive departments (Botros et al., 2025). Another study results are aligned with current study findings shows rehearsal through game-based scenario learning by using technology significantly improve preparedness among undergraduate nursing students (Shah et al., 2023). However, a study results are contradictory with present study findings shows high fidelity simulation through computer initially gain competence but it effects knowledge retention after three months (Liang et al., 2024). Another study represents if gamification added into curriculum it led to superficial learning and distract most of the students from basic and core components and skills from clinical setting (Dichev & Dicheva, 2017).

Limitations

This is a pilot study and sample were small and drawn from a limited institutions which restrict the generalizability of the findings. Therefore, this study provides a pathway for further research studies on gamification.

Conclusion

This study represents the compelling evidence that students perceive gamification is a transformative pedagogical strategy as compare to traditional lecture-based instructions on SRHR education for undergraduate nursing students. The qualitative feedback from students of all academic year across private and public nursing departments shows that innovative experiential teaching pedagogy enhance learners'

engagement, motivation, cognitive retention and clinical decision making while it decreases hesitation to speak up about culturally sensitive topics.

Additionally, gamification is not only a tool for engagement it is also a catalyst for taboo topics, psychologically safe and ethical reflection toward ethical dilemmas in clinical setting. By using this reflective strategy in learning students make difficult conversations around consent, contraception, reproductive rights, gender identity, dilemmas and terminal abortions could be approached clearly with competence and confidence.

The suggestions from students' side are that gamification is a not a novelty but also a evidence strategy that reshaping SRHR in nursing curricula. Therefore, it should be thoughtfully designed this framework with minimal technical limitations to be need for mor contextually grounded content strongly favor culturally grounded patient scenarios that align with today's complex health care settings.

Recommendations

1. Innovative gamification should be formally added into teaching strategy
2. Gamification intervention must be developed culturally appropriate that cover all components of SRHR components according to WHO guidelines
3. Further studies must be conducted on broader context to test the gamification strategy and develop evidence-based findings

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