Game Based Learning in Nursing - An Innovative Strategy

Safeena Beevi SS¹* and Om Prakash Veragi²

¹Associate Professor, College of Nursing, JNMCH, Aligarh Muslim University, Uttar Pradesh, India

²Tutor, College of Nursing, JNMCH, Aligarh Muslim University, Uttar Pradesh, India

*Corresponding Author: Safeena Beevi SS, Associate Professor, College of Nursing, JNMCH, Aligarh Muslim University, Uttar Pradesh, India.

Abstract

Games have been used as a part of teaching learning process in the ancient time, since 3500 B.C. Till now gaming was not officially incorporated in nursing curriculum in India but after 1980's in European countries has been included video games as a substitute to conventional lecture method.

Adopting a new strategy in methods of teaching is not so easy and many of the nurse educators are typically slow to adopt new innovations in curriculum, even though game-based learning (GBL) is considered to be easy and convenient for enhancing learning skills, decision making and developing critical thinking skills. Research findings had showed that video games in nursing education had reported many potential benefits to nursing students to enhance academic growth. The main aim of this review is to identify the advantages of GBL in nursing curriculum and to check how educational games are useful in this current scenario.

Keywords: Critical thinking; Game based learning; Virtual class room; Video games; Nursing curriculum

Introduction

'Digital game-based learning' (GBL) hypothetically deals with a secure and appropriate milieu that can help nursing aspirants for mounting basic skills. During Covid-19 outbreak we all have shifted to online classrooms rather than sticking on conventional class room teaching. Even though it had pros and cons; but the students learned to use social platforms for educational uses. Similarly, incorporating educational games in nursing curriculum will enable the students to acquire more skills in a user-friendly, stress-free method and will enhance their critical skills in analyzing the answers. Adopting a new strategy in methods of teaching is not so easy and many of the nurse educators are typically slow to adopt new innovations in curriculum [1]. Till now gaming was not formally included in nursing curriculum in India but after 1980's in European countries has been included video games as an alternative to conventional lecture method [2].

Significance of game-based learning (GBL) in nursing

The nursing curriculum for undergraduate students in India is shifting to a competency-based curriculum from 2022 onwards. Game based learning is an important part of undergraduate nursing education as games are changing the conventional methods in which we learn. In the world of digitalization, it is imperative to plan and execute digitalized educational experiences, such as the "digital educational games" retain the students involved and inspired to learn in an exciting and interesting way. The content of the game-based learning should consolidate the knowledge, promote self-reflection, support peer-peer learning and enhance confidence. "Games are perfect resources for in class group work, revision and assessment". They provide fun with a stern aim and flawless educational outcomes in positive way. Microlearning makes education more effective [3].

There are diverse benefits of using educational games in the class room teaching. These GBL strategies employ the students in an inspiring manner and enhance learning. Students with various capacities of abilities can play as team, accentuating the strengths of learners. Group dynamics/cohesiveness and team spirit will develop as an end result of mutual support and interactions with the team. GBL will provide the immediate result and feedback so that learners will be more excited [4]. The reason why nursing teachers are reluctant to use educational games in class rooms are many such as sometimes difficult to control the students, make more noises, chaotic and they will be more playful.

Majority of the studies have assessed the attitude of students towards educational games as an outcome variable [5-6]. While preparing educational games, the teachers should integrate the content, learner's learning styles and the expected outcome of the game. Only few research studies support the beneficial effects of game use in enhancing knowledge level of nursing students [7-8]. Now a days GBL are becoming popular as pedagogical platforms in all areas of education, many more research evidences are required to find out the effectiveness [9].

Many educators work with the "digital nursing student" during the Covid-19 outbreak time and present era students are using technology and daily use of social media platforms and have fast-paced learning [10]. Terminologies such as virtual games, e-learning, simulation, digital games and virtual reality are all correlated with virtual videogame for learning purpose. Common characteristics of games for nursing education should include some rules to be followed, permitting the student to experience control in a controlled environment, and should be challenging and competitive with a good team member [11]. Limited studies are available related to effectiveness of GBL among nursing students and few studies are focused on videogames.

Some research findings showed that videogames can improve the cognitive skills, enhance the fastness of processing while enduring precision [12], enriching attention span such as visuospatial attention [13, 14]. The immediate feedback from videogames facilitates the students to understand the decisions they made, and promote critical thinking and vigorous learning in successive games through brainstorming decisions [15]. Furthermore, video games provide proficiency in creating judgements through recurrent experience, that is chiefly imperative given the significance of proficiency in clinical decision-making for nurses [16-19]. "Videogames permit the nursing undergraduates to practice decisions in a safe, realistic, simulated setting, supporting the exploration of decisions and the capability to take risks without the fear of real-life consequences that are impossible to replicate within the real world for reasons of safety, cost, and time" [20-22]. Videogames also helps to enhance the reaction time of the students [14].

Few research studies reported that videogames can improve motivation among nursing students [23-25] and have concluded that "motivation to play videogames is an important feature of educational videogames". The exact reason why the players get motivated is unclear. It is likely that the content, rules and regulations, interactions are the key elements for the motivation [26].

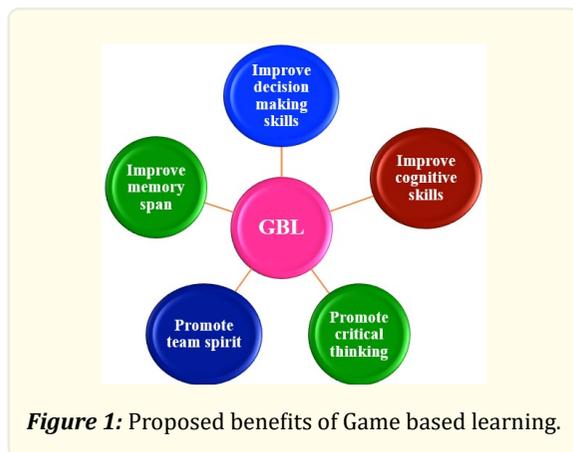The benefits of GBL are summarized in the Figure 1.

Figure 1: Proposed benefits of Game based learning.

GBL provides a vital part in teaching-learning process by creating the learners to intermingle, collaborate, communicate and work as team. The use of the games is simple to manage in a controlled environment and allows the facilitator to focus on group discussions. GBL has the ability to improve analytical skills. The nursing aspirants who are offered with game-based learning will be extra knowledgeable and skilled in their clinical practice by bridging the gap between theory and practice.

Conclusion

Gaming has turn out to be a common method of engaging students. Students are very affluent with technology and they require immediate feedback. Traditional lecturing has become out of vogue, and students prefer stimulating interactive resources to aid in learning. The paucity of research studies related to videogames or GBL within nursing education exists, particularly in terms of the limited number of games that are currently available in India. Videogame-based learning exclusively assigned to aim specific skills essential within the nursing education. Future research studies required to be conducted to assess the effectiveness of game-based learning in teaching for nursing students and assess its suitability and incorporate games in to the nursing curriculum.

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