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CASE REPORT ARTICLE

THE USE OF AN EDUCATIONAL GAME IN THE TEACHING-LEARNING PROCESS OF THE MADELEINE LEININGER'S THEORY: EXPERIENCE REPORT

A UTILIZAÇÃO DE UM JOGO EDUCATIVO NO PROCESSO ENSINO-APRENDIZAGEM DA TEORIA DE MADELEINE LEININGER: RELATO DE EXPERIÊNCIA

EL USO DEL JUEGO EN EL PROCESO DE ENSEÑANZA-APRENDIZAJE DE LA TEORÍA DE MADELEINE LEININGER: RELATO DE EXPERIENCIA

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ABSTRACT

Objective: to describe the experience in the construction and validation of an educational game in the teaching-learning process of the Cultural Care Diversity and Universality Theory of Madeleine Leininger. **Methods:** We have conducted a descriptive, evaluative and experience report-centered study, which was held along with students from the Undergraduate Nursing Course at the UFS, developed in three stages: 1) Construction of an educational game, 2) application of this didactic resource through the assessment of the knowledge acquired by the students; 3) Validation of the aforementioned game. The research project of this study was approved by the Ethics Research Committee, under CAAE nº 0351.0.107.000-11. **Results:** Students who only experienced the lecture class method, as a teaching resource, had a lower performance; students who exclusively made use of the dynamics of the educational game have reached a better performance, while the students subjected to both teaching methodologies showed an intermediate performance in comparison to the others. **Conclusion:** The use of Sunrise Game, as a teaching resource, was considered suitable for the topic at stake. **Descriptors:** Teaching, Learning; Games and Toys; Nursing Theory.

RESUMO

Objetivo: descrever a experiência na construção e validação de um jogo educativo no processo ensino-aprendizagem da Teoria da Universalidade e Diversidade do Cuidado Cultural de Madeleine Leininger. **Metodologia:** foi realizado estudo descritivo, avaliativo, do tipo relato de experiência, com discentes do Curso de Graduação em Enfermagem da Universidade Federal de Sergipe, desenvolvido em três etapas: 1) Construção do jogo educativo; 2) Aplicação deste recurso didático com avaliação do conhecimento adquirido pelos alunos; 3) Validação do mesmo. Este estudo teve seu projeto de pesquisa aprovado pelo Comitê de Ética em Pesquisa, sob CAAE nº 0351.0.107.000-11. **Resultados:** os alunos que tiveram apenas aula expositiva como recurso didático obtiveram um menor rendimento; os que utilizaram exclusivamente a dinâmica do jogo educativo apresentaram melhor desempenho, enquanto que os alunos submetidos às duas metodologias de ensino apresentaram um rendimento intermediário com relação aos demais. **Conclusão:** a utilização do Sunrise Game, como recurso didático, mostrou-se adequado para a temática em questão. **Descritores:** Ensino; Aprendizagem; Jogos e Brinquedos; Teoria de Enfermagem.

RESUMEN

Objetivo: describir la experiencia en la construcción y validación de un juego educativo en el proceso de enseñanza-aprendizaje de la Teoría de la Universalidad y de la Diversidad del Cuidado Cultural de Madeleine Leininger. **Metodología:** se realizó un estudio descriptivo, evaluativo, en la forma de relato de experiencia con alumnos del curso de graduación en Enfermería de la Universidad Federal de Sergipe. Se desarrolló en tres etapas: la construcción de un juego educativo; aplicación, de este recurso didáctico con evaluación de los conocimientos adquiridos por los estudiantes, seguidos por la validación del mismo. **Resultados:** los estudiantes que sólo tuvieron clases expositivas como recurso didáctico tuvieron un desempeño más bajo, los que utilizaron sólo la dinámica de juego educativo mostraron un mejor desempeño, mientras que los estudiantes sometidos a los dos métodos de enseñanza mostraron un comportamiento intermedio en relación a los demás. **Conclusión:** el uso del Sunrise game como recurso didáctico demostró ser adecuado para el tema en cuestión. **Descriptores:** Enseñanza; Aprendizaje; Juegos y Juguetes; La Teoría de Enfermería.

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INTRODUCTION

This current experience report started from reflections between professors and students of the academic discipline “Nursing Fundamentals” from the Federal University of Sergipe (UFS), in order to construct new ways of sharing knowledge in the context of theoretical and professionalizing disciplines of the nursing course. The shared teachings are based on theoretical/pedagogical subsidies that allow to structure the work process oriented towards the integration between the technical and scientific dimensions, theoretical and practical of the health and education performance.

Ludic activities are mandatory components of higher intellectual and social activities and, therefore, essential to the educational practice. The teaching process associated to the ludic aspects of the game/playing in the teaching and caring processes in the nursing leads to a detachment from the traditional conceptions that prioritize the content transference, the discipline and the systemic arrangement in these processes.¹ Hence, it should be realized that both the concept of game and the concept of training are culturally established. Thus, the game is understood as a ludic activity in which participants experience a situation of social engagement in a given time and space, with characteristics defined by the rules of participation in the imaginary situation.²

The choice to use the ludic method for teaching the Cultural Care Diversity and Universality Theory of Madeleine Leininger is based on the idea that the teaching of the transcultural nursing contributes to the development of confident and competent professionals towards the social practice.^{3,4} For this purpose, it is suggested to use a variety of methodological teaching strategies³, in this case, the ludic method. In this context, it is believed that studies on the nursing theories are crucial in the use of one or more of these theories as benchmarks in research, teaching, management or consultancy; in promoting the potential of constructive changes and greater development of the theory; in identifying schools of thought of a discipline; promoting changes in clinical practice, as well as in setting priorities and identifying content for the teaching and guidelines for nursing administration, besides to identifying strategies for the development of theories.⁵

The Leininger Theory is essentially thrifty, by incorporating the required concepts in a way in which its model might be applied to

different scenarios. The theory at stake is not easy to be understood at first sight, however, the presentations of the theory and its model foster the need for a new way to learn and seize the concepts, as well as demonstrating how their components are interrelated.⁴ The use of ludic activities, in this case, stimulates to bring forward the whole process and calls upon the constant rethinking about its principles and procedures, by pursuing the best alternatives that are presented to help with the training of the human being for the labor and the citizenship.

In an attempt to unveil, in a group perspective, the education methodologies and technologies, this study aims at describing the experience in the construction and validation of an educational game in the teaching-learning process of the Cultural Care Diversity and Universality Theory of Madeleine Leininger. Through the use of the constructed educational game in the light of this theory, it is hoped to provide to students and teachers, nurses and researchers, a viewpoint of the human being to be cared, in systemic and ethical aspects, by emphasizing that the individual is inserted into a cultural context which requires further investigation by the nursing field, in order to achieve a culturally congruent care.

METHODOLOGY

It is a descriptive, evaluative and experience report-centered study, conducted with students of the first semester from the Undergraduate Nursing Course at the UFS, and developed in three stages: the first dealt with the idealization and construction of educational game; the second phase matched to the game implementation and the evaluation of the knowledge acquired by the students, whereas, at the third phase, we proceeded the validation process of the constructed educational resource with regard to: language, appearance, structure and understanding.

At the first stage, the students were motivated to produce an educational game that could embody the programmatic content regarding the Cultural Care Diversity and Universality Theory of Madeleine Leininger.

In order to implement the second phase, 27 students enrolled in the aforementioned discipline in the subsequent semester were randomly divided into three groups of nine (09) pupils, called groups A, B and C. The group A received the programmatic content concerning the topic by means of lecture class; the group B was involved in the dynamics of the designed educational game,

and group C was subjected to both methodologies, in other words, lecture class and educational game.

For assessing the acquired knowledge by students according to the applied pedagogical method, the participants of the three groups were asked to answer a questionnaire containing 30 objective questions, with only two choice alternatives (true or false), that addressed aspects related to the theory at stake.

Regarding the validation of language, appearance, structure and understanding of the constructed game, only the groups B and C have held it, because only these two groups had been exposed to such a methodology.

It is noteworthy that the requirements of the Resolution 196/96 of the Brazilian National Health Council were met at all study phases and that the knowledge evaluation and game validation processes occurred after approval of the research project by the Ethics Research Committee of the University Hospital from the UFS (CAAE nº 0351.0.107.000-11).

DEVELOPMENT

• Choice of the pedagogical approach

Because of the experienced difficulties in understanding the nursing theories by the nursing students, we have pursued to assign higher values in the ludic aspects of absorption and learning of the Madeleine Leininger's Theory. With the purpose of working the theme "nursing theories", we suggested to the students that they made use of creativity, besides the theoretical knowledge of the topic, with a view to creating innovative tools to be applied in the classroom, in order to ease the seizure of the content at stake in an efficient, educational and ludic manner.

Although the ludic conduct, the spontaneity and the expressiveness are faced by school institutions, in general, as something oblivious to the educational process, it should be emphasized the ludic aspect as a privileged form of education, given its relevance to the learning practice.⁶

From this perspective, the choice to work with the ludic aspect permeates the premise that ludic procedures "enhance sensations and perceptions and allow a total immersion in the present, by awakening new biophysical and social attributes".^{7:208}

• Preparation of the educational game

In possession of the topic to be developed, the Cultural Care Diversity and Universality Theory, initially several game ideas emerged, which would enable exercising the specific

knowledge of the theory, in a ludic manner, which has culminated in the Sunrise Game. The choice of the term "Sunrise" was due to the fact that this refers to theoretical-conceptual model proposed by Madeleine Leininger.

The Sunrise Game was organized in an "educational box" in which the necessary elements for the game are contained, namely: rulebook; handout about the theoretical elucidation of the topic; one game board; four pins; one dice; a set of 30 playing cards and one CD-ROM. The handout, in addition to addressing the fundamental aspects of the theory, indicates bibliographic references for further researches.

Two game modalities were provided: conventional and electronic. At the first one, we made use of the game board, cards with questionings, a set of pins and one dice. The game board is formatted containing 47 houses of sequential advancements, which guide the pathway to be covered by the player, by indicating when to move forward, await, play again or answer the questionings. The players, at least two and at most four, decide among themselves which will be the first one to start the game. The number displayed on the dice, when thrown, equals the amount of houses that can be surpassed. Upon falling into one of 14 colorful houses of advancement, randomly distributed on the game board, the player is challenged to answer a questioning. If he/she hits, remains in the house where it is already placed and gets a point on the score scale; otherwise, he/she has to restart the game. In the option in electronic media, it should be used a CD-ROM, through which the player can check all the material interactively and answer the questions regarding the content in a slideshow similar to the game board.

• Application of the teaching-learning methodologies

A lecture class given to the groups A and C was developed in the classroom with duration of 50 minutes, by using multimedia as the only didactic resource. The students were encouraged to discuss on the topic by means of questionings and/or individual observations, however, of the 18 students who made up these two groups, there was the manifestation index of only three (16.6%) students, with questions about the applicability of the theory into the practice.

For the students of the groups B and C, we made use of the Sunrise Game as an educational dynamic. Initially, they were organized in a circle and performed a dynamic reading of the content of the game's handout for twenty minutes. It should be noted, at this

stage, that there was a greater participation of students in the sense of exposing their thoughts, doubts and opinions with regard to the topic, as well as they requested clarifications from the mediators of the educational game.

During the thirty minutes subsequent to the handout reading and discussing, the game itself was directed to the two groups.

As described, the students of the group C were subjected to both methodologies. In this case, the exposure time to the topic was approximately one hour and forty minutes, which corresponds to twice the time spent with the groups A and B.

• Assessment process of the knowledge

The assessment of the knowledge acquired by the 27 students participating in the survey, conducted in line with the categorization of the previously established groups (A, B and C) showed performances that ranged from 21,2 to 25,1 hits. The group A (lecture class) has obtained a frequency of 71,1%, with an average of 21,3 correct answers, whereas the group B (educational game) correctly answered to 83,7% of the questions, with an average of 25,1. The group C (lecture class and educational game) showed a percentage of 70,7%, with an average of 21,2 correctly answered questions.

It is noteworthy that the group A showed a standard deviation equal to 6,1; followed by the group C, whose deviation was 3,4. The group B, by presenting a standard deviation of 2,6, indicates a greater homogeneity in its results at the expense of the remaining.

Thus, it should be realized that the students subjected only to the lecture class, as a didactic resource, have demonstrated a lower performance. Studies showed that the pedagogical practices prevalent in the training of the nursing professional deal with complex knowledge through fragmented content and traditional teaching methods, severe and mechanical, thereby committing the development of a critical and analytical sense by the students during this process.⁸

The students of the group C, although they were subjected to both teaching methodologies, won an intermediate performance in comparison to the others. It is believed that the longer exposure time to the topic targeted towards these students might have influenced with this outcome, since this aspect can lead to physical and mental fatigue and consequent student demotivation for learning.

In contrast, students who used only the dynamics of the educational game showed a

greater benefit in their learning process, which is a fact that reflects the use of the Sunrise Game as a didactic resource suitable for the topic at stake.

In a reflective study⁹ on the challenges of the nursing training process, some aspects based on the basis of the contemporary education, authors suggest the use of different methodologies for the nursing education. With regard to the “articulation between theory and practice in nursing education”^{9:182}, the authors point out to the need for pedagogical actions that go beyond the walls of the academy, which insert the subjects of the training process in the areas of production of new subjectivities. By referring to the stanchion “teacher-student interaction”^{9:182}, they attribute to the teacher the accountability to articulate teaching methodologies, endowed with stimulating activities of creativity with sights to encourage students to conduct the production of new knowledge. Finally, the authors recommend the “use of teaching strategies”^{9:182} that enable future professionals to hold the development of ways of thinking and acting and, with that, discover new ways of addressing the problems in the healthcare context.

Accordingly, in a study¹⁰ conducted on the factors involved in professional dynamics, it was found that the absence of theoretical and practical knowledge about the nursing models interferes with the professional practice based on a healthcare model. Hence, it should be highlighted the need to emphasize, in the academic scope, the teaching and the use of healthcare models based on nursing theories.

• Validation process of the Sunrise Game

In order to use the game with greater accuracy, we proceeded to the content and appearance validation process, which is defined as “the extent to which a tool measures what it assumes to be measuring”.^{11:207} Only the groups B and C have held it, because only these two groups had been exposed to such a methodology.

The assessed criteria were: language, appearance, structure and understanding, referring to the board, the questionnaire and the game’s rules. Each criterion was rated as: *Approved*, *Needs Reworking* or *Inappropriate*.

Of the 18 students who performed such an evaluation, it might be established that 75% of appraisers approved the form in its entirety. The remaining 25% rated the items as *Needs Reworking*, being that 50% of these were related to the game board appearance and structure, 25% regarding the understanding of

the questionnaire and 25% in relation the structure of the game's rules. It is noteworthy that the appraisers did not describe the way in which these adjustments could be performed.

Whereas 75% of students agreed with the composition and organization of game's items, this was conceptualized by the authors as suitable for dissemination and usage as a means of entertainment in the teaching-learning process of the Madeleine Leininger's Theory.

CONCLUSION

It becomes clear that the use of teaching strategies, as the presented one, imply a breaking with pre-established concepts about the construction model of the knowledge of a given theory in the teaching-learning process. Accordingly, we want to divide and disseminate this experience developed within the Nursing Course at the UFS, by considering its transcendence, regarding the student/professor achievement and satisfaction.

The results obtained by means of this activity belonging to the discipline "Nursing Fundamentals" have shown that well-planned and systematic activities can provide an effective learning when combined with an actual context.

It is worth noting that, during the work conducted in the aforementioned discipline, it was realized the motivation and the self-esteem elevation of the involved students, which is a fact that, in the viewpoint of teachers, might generate a greater interest in the area and, consequently, contribute to an effective learning. Accordingly, it is hoped that this report can contribute to the work of those who care about the quality education.

Overall, being present in such an experience demonstrates how the research can be an important tool for the collective construction of knowledge, by identifying ways that contribute to the solution of educational problems and the construction of more effective and inclusive public policies.

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