

## Violence against women: evaluation of the “pandora’s box” game as a tool to learn

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### ABSTRACT

It was aimed to assess the potentials of a computer game, Pandora’s Box, as a support tool for nursing students’ learning about the theme of the violence against women. This is a quantitative research, carried out with 62 students of the nursing course from a Higher Education Institution. A questionnaire was applied to analyze the approach to the violence problem and the impact of the game in the teaching-learning process. The answers were analyzed about the impact of the game and its acceptance through the descriptive statistics. The results showed that the game motivated the reflection and favored the building of new knowledge and the learning to the target public. It was concluded that the game was presented as a potent tool to be used in the teaching process and training of health students, specifically to those of the nursing, on the theme of violence.

**Descriptors:** Violence Against Women; Education, Nursing; Video Games.

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## INTRODUCTION

The construction of gender roles, that defines social characteristics for male and female, has originated the oppression and the social inequalities between women and men along the centuries, making the first always play a supportive role and of submission in relation to the seconds<sup>(1)</sup>.

As an example of this hierarchical relation, the work social division has set aside for the female world the household chores, the caring for children, among other duties, while to men, it has been determined the insertion in the public space, as well as the task of the home provider and protector<sup>(1)</sup>.

In this context, the idealistic vision of patriarchal family is to be seen, in which the women become objects of an invisible contract among men. This contract transforms the biological differences into social, with one side of liberty and the other of subjection, resulting in inequalities of rights and the violence against the female gender<sup>(2)</sup>.

The violence against women has been recognized as a judicial matter and of public safety and, since the 1990s, has been considered a severe health world problem<sup>(3)</sup>. Between the years of 1980 and 2013, there was a growth in the mortality rate of women caused by violence, going from 1,353 deaths, in year 1980, to 4,762 deaths, in 2013<sup>(4)</sup>.

In this period, a legislation made progress towards combating impunity and ensuring the protection and the rights of violated women, culminated with the sanction, in 2006, of Law nº 11.340, known as the “Maria da Penha” Law, aims to prohibit and sanction violence crimes against women. Researches have revealed that, after the law have entered into force, the number of female homicides decreased by around 7.6% per year, reaching significantly positive results<sup>(4)</sup>.

Faced with the phenomenon dimension, the violence theme of the violence against women was given highlight and have been discussed worldwide, mainly concerning the need their facing by means of preventing and combating the problem<sup>(1-4)</sup>.

From that point of view, it highlights the need to build and to implement a support service network to women in violence situations. For this purpose, it is relevant to qualify the agents of this network<sup>(1-4)</sup>. For this reason, the professionals’ process of training is emphasized, especially the health professionals, to work in these services. Considering that, very often, they are the first, if not the only them, sought for women, constituting, very often, the entrance door to intervene in the problem that is even more challenging and runs through the public services of the health care network<sup>(1-4)</sup>.

Considering the professional training process, one can affirm that, for having accelerated and contributed to the cases of aggression, the means of communication and technologies have become important tools for teaching, becoming strong allied to the promotion of the visibility of the violence against women phenomenon<sup>(1)</sup>.

The digital games have been emphasized as a strategy in the scope of the teaching and training. With regard to the technological educational tools, as the games, the most highlighted advantages by the literature are: offer to the user easy understanding of the subject presented; enable repetition without representing costs or time; be interesting and attractive due to their graphic peculiarities; beyond respecting the player’s learning pace<sup>(5)</sup>.

Considering the positive points pointed out, this research used the computer game called *Pandora’s Box* to address the theme of violence against women. The game brings the life history of a woman in domestic violence situation that makes use of the health public services in search for care, support and reception to their health

needs. It's a *serious game* or "serious games", since addresses, in a dynamic and attractive way, subjects of great relevance, being, therefore, classified as a game with purpose that goes beyond entertainment<sup>(6)</sup>.

That game was, originally targeted to the health professionals' education about gender issues and used in the Permanent Education processes for qualifying practices, as well as for assessing the degree of learning and knowledge that these professionals already had in their exercise. Pandora's Box addresses the problem of the violence against women with emphasis on the affective aspects of the learning process promoting the motivation for reflection and the consequent change of posture regarding the theme discussed<sup>(6)</sup>.

Considering the possibilities of the ludic strategies use for the learning and in view of the *Pandora's Box*, this study aimed to evaluate the potential of a computer game, the *serious game Pandora's Box*, as a tool for supporting the learning of nursing students about the theme of the violence against women.

## METHODS

This study had quantitative approach of descriptive character. The type of quantitative study can be used with objective focus, whom analyses may involve the aid of standardized and neutral tools and mathematical language to outline the causes of a studied phenomenon<sup>(7)</sup>.

The data of this research were obtained in the Federal University of Paraíba, Campus I, situated in João Pessoa/PB, with nursing undergraduate students, of the Health Sciences Center, between the months of July and August 2016 and who had already taken the disciplines of Woman's Health I and II, and still, who agreed to participate.

According to information obtained in the Coordination of the Nursing Course, it is estimated that the population of interest, during the data collection period, would be around 130 students. In face of this quantitative and considering the calculation for the obtainment a simple random sample, the sampling error of 5% and the level of confidence of 95%, the sample consisted of 98 elements. However, excluding the losses obtained in the data collection process - nearly 30 students - and because of the difficulty of the undergraduate students in gaining access due to they were in the final stages of the course occurred outside the university campus, the sample of this research was comprised by 62 participants, who were in the 7th, the 8th, the 9th and the 10th school term.

The students who addressed to the following inclusion criteria were included in the sample: a) be regularly enrolled at the Bachelor and Teaching degree course in Nursing of the UFPB; b) have already undertaken the disciplines of Woman's Health I and II; and c) address the ethical principles of presenting interest in the study participation, by signing the Informed Consent Form.

In order to meet the objective of this research, the subjects of the study gained access to game and, subsequently, answered a questionnaire. During the data collection, carried out from July to August 2016, the students played individually and, later, answered the questionnaire. The survey was conducted during break times or during the classes through prior authorization of the teachers (male/female). The students were invited to participate in the research and, when agreed, the researcher provided a computer, where the game was installed, or invited the participants to target to the computer laboratory in which the game had already been installed in the computers. The Pandora's Box game is available for Windows platform, for execution in the computer platform (PC) and can be accessed, by download, in the page of the research laboratory that projected it.

The questionnaire, the research tool, contained items for the research subjects' characterization (sex, age, marital status, time for academic formation, among others); it was inquired about the prior contact of the students with the theme violence against women and the way how they evaluated the approach used. It also sought to verify the acceptance of the *Pandora's Box* game among the nursing students and assess the *game* potentials as a support tool for the learning process about the theme of the violence. Four aspects related to the game were investigated: its gameplay, regarding its easy access to handle for the player; appearance (layout), in which it treats of the drawings of the game and graphic presentation and importance of the strategy, such as the relevance of the approached theme.

The questionnaire used was adapted from the game validation research with the health professionals<sup>(6)</sup>. For this purpose, there was an adjustment to the new public target, the nursing students, and to the objectives stated for this study. The answers were recorded into Excel spreadsheets and the absolute frequencies analyzed through descriptive statistics.

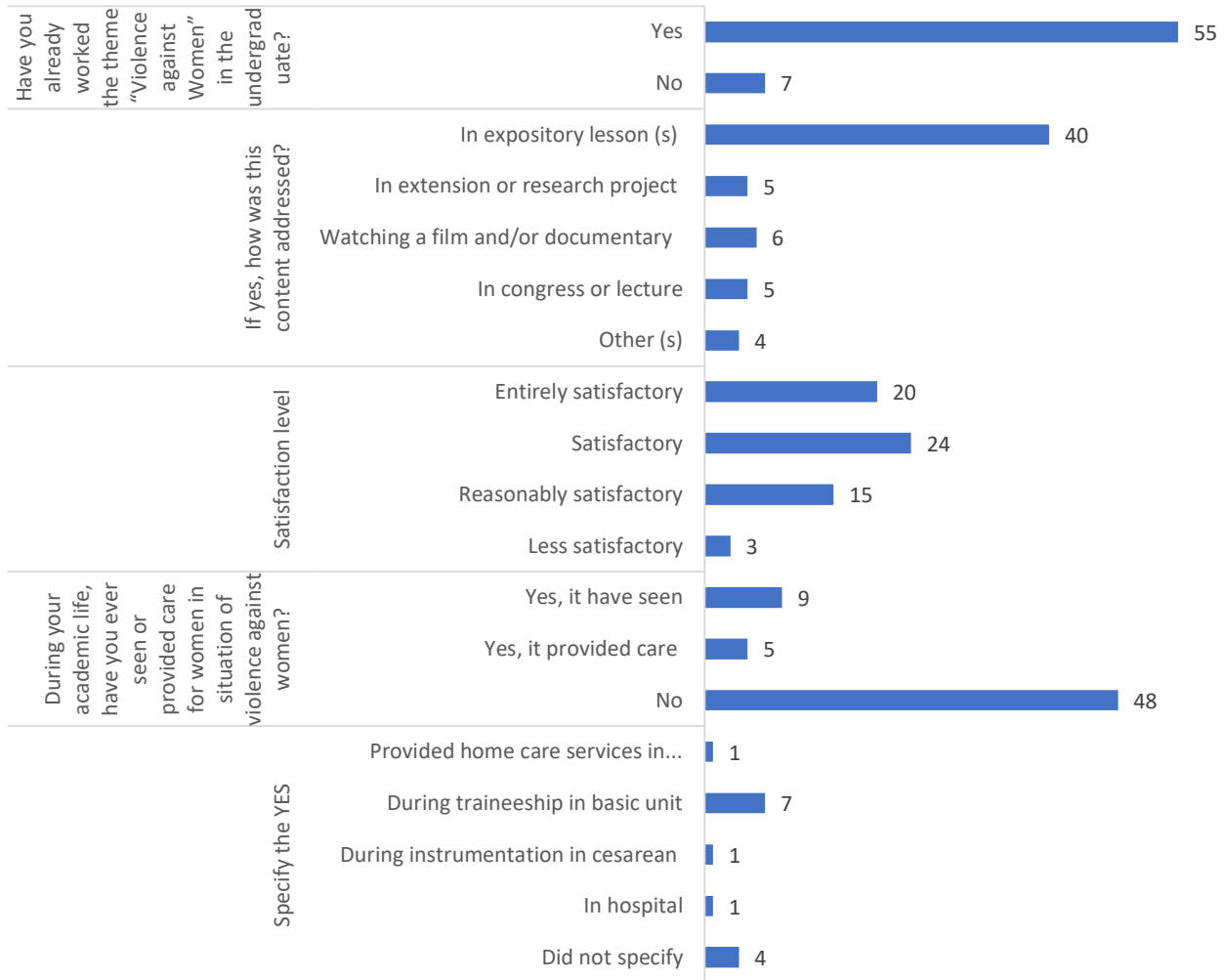
The research was submitted to the Ethics Committee in Research with Human Beings of the Center of Health Sciences– UFPB and was approved for its realization with the CAAE No. 55979416.0.0000.5188. During the realization of this research, the participants were informed about the objective of the study, the justification, the contribution, the reliability in the information analysis and the guarantee of anonymity, as well as the right to the freedom to withdraw from the research anytime, if they so wished, even after having signed the Free Informed Consent Form.

## RESULTS

The descriptive analysis of the players' profile showed that the participants had between 20 and 30 years old, were taking from the seventh to the tenth period and in most cases, were female and of the ninth and tenth periods.

Regarding the prior contact of the participants with the theme of the violence against women during the undergraduate degree (Graph 1), the most stated that the theme was addressed, directly or indirectly, during the course. Among these students, the largest share stated that the study/discussion about the theme occurred during expository classes. In accordance with the menu of the discipline of Woman's Health I, as part of its workload, is intended for that thematic, when the undergraduate students have the opportunity to address it. The other participants had the opportunity to discuss the thematic by means of films or documentaries or by participating in a extension project focused on the theme of the violence against women. Even as for the approach of the theme in the undergraduate degree, most students considered to have been "satisfactory" or "entirely satisfactory".

**Graphic 1:** General Aspects on the Theme of the nursing undergraduate students of the Federal University of Paraíba, Brazil, 2016.

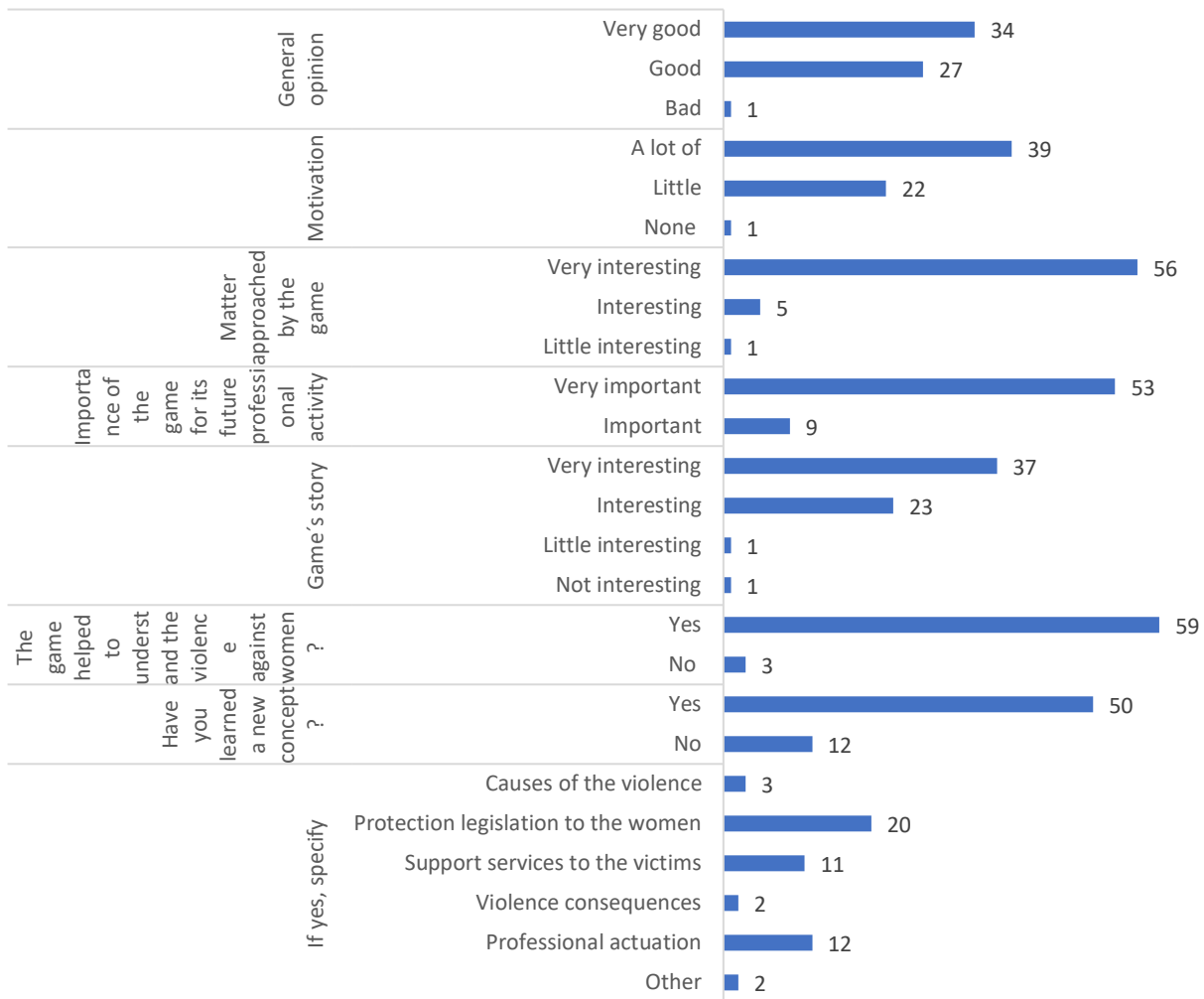


In the field of the practical experiences with situations of violence, most participants have not reached at having the opportunity to provide care to women in situation of violence or to witness cases of violence during the academic period. The small part that reported having witnessed some situation of violence or having provided care to women in this condition, stated that the care given occurred through nursing consultation in the Basic Attention.

Regarding the game in question, the answers indicated good acceptance of the app by the students. The main reasons for most having liked the Pandora’s Box were due to it addresses a complex theme in a didactic way, have an easy language and is dynamic and ludic, allowing the player to reflect about the theme. Almost 100% of participants agreed about the quality of the *serious game*, classifying it as “very good” or “good”, and most students felt motivated to play.

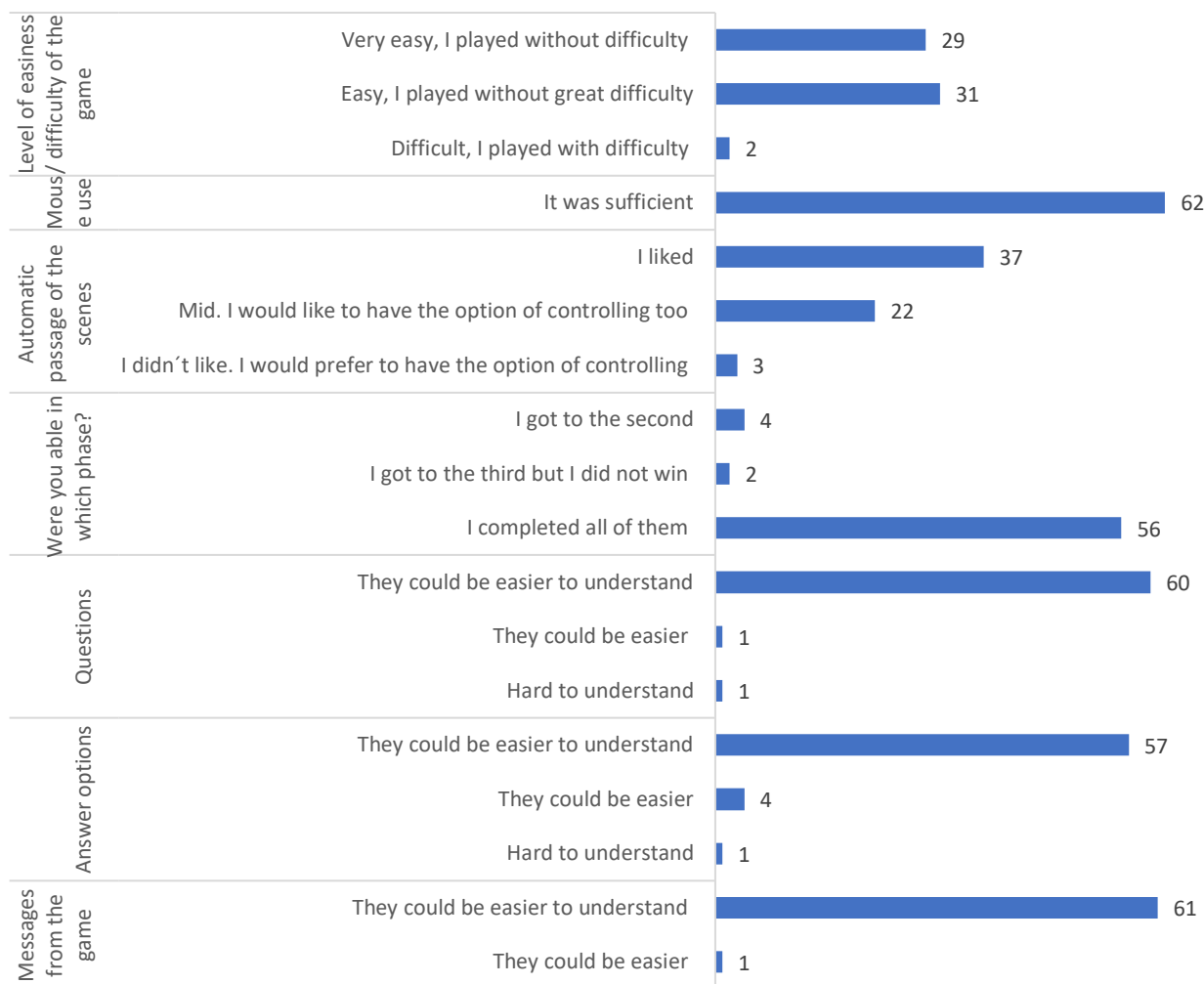
With regard to the level of interest in the subject approached by the *Pandora’s Box* (Graphic 2), almost all students recognize it as “very interesting” and consider it as “very important” for its future professional actuation. Furthermore, more than half of the participants considered the story presented in the game as “very interesting”, as well as, for most students, the *Pandora’s Box* contributed to the phenomenon understanding of the violence against women. Most students have identified the learning of new concepts and the themes more frequently perceived were about legislation, professional actuation and services of support to women.

**Graphic 2:** Impressions of the player and learning of the nursing undergraduate students of the Federal University of Paraíba, Brazil, 2016.



As for the aspects related to gameplay, most students considered the game as very easy and easy, without having any difficulties to use the app. These results have also repeated in relation to the degree of difficulty of the questions and answers, in that almost all considered easy and understandable. About the “automatic” transition of the scenes, more than half stated having liked, while a part somewhat smaller considered that they would have liked that had the option to control these transitions (Graphic 3).

**Graphic 3:** General opinion about the game of the nursing undergraduate students of the Federal University of Paraíba, Brazil, 2016.



## DISCUSSION

In the Nursing Undergraduate Course, in the institution scenario of this study, the theme, violence against women is approached in the discipline of Woman's Health in two expository classes, as compulsory curricular thematic. About the inclusion of this subject in the curriculums of the health courses, to assume this thematic as mandatory in some disciplines means the attachment of due importance, prioritizing it in the students' training, in addition to being a way of motivating the teachers so that they may seek qualification<sup>(8)</sup>.

Despite the nursing undergraduate students had considered the theme approach as a satisfactory experience, many authors discuss the lack of depth about the theme in the curriculums of the Undergraduate Degree Courses in Health. Superficial and incipient approaches and the predominance of the discussion centered in the biomedical model are great obstacles in the professional training<sup>(8-11)</sup>, prejudicing the future actuation of many students, who as professionals will deal daily with violence situations. These professionals, because of their position in the provision of services to the population are considered strategic for the identification of vulnerability and/or occurrence of the violence<sup>(9)</sup>.

Some participants in the study stated that, even in the undergraduate course, during the traineeships, they had already provided care to women in violence situation or had already witnessed any violence situation. Soon in the first year of the course, the students carry out practical activities in Basic Health Units, where come closer to the community and seek intervening in that population's health needs, either through health education acts or through clinical intervention by the tutor/teacher. This early approximation with the health service enables the contact with countless situations of vulnerability, including cases of violence against women. The fact that they had already experienced such situations, still in the undergraduate degree course, announce to the students what they could face in their professional routine, preparing them for future situations when acting as service professionals and no more as students<sup>(8-10)</sup>.

On the wrong way of the above, after graduated, many health professionals have difficulty to approach the woman, user of the service where they work, which, is likely to be undergoing violence<sup>(10-14)</sup>. In this context, authors explain that the main problems that contributes to the invisibility of this type of violence are the reduction of the problem on the biological side and the absence of the theme of the gender violence, race/ethnicity and social condition in the curriculums of the academy. In addition, many times, the professional practice is guided by conceptions and knowledge that reproduce gender stereotypes of victim-blaming, making that, although the theme has been discussed during the formation, the approach does not present potentials to reorient the healthcare work process.

The need to work more effectively on the theme, still in the undergraduate degree course-making use of active methodologies, that encourage the reflection and the building of new knowledge, as the use of *serious games* –, is present in different areas, since the data show that the gender violence is being underreported, occulted or not documented. In most of the courses, the theme is little addressed or, nor even, is worked. Many teachers do not agree with the existence of a discipline that addresses exclusively the theme “violence”, bearing in mind that it can be approached in a cross-sectional way to the disciplines. In this sense, this warning is important in order to avoid the risk of incorporating this theme in a not mandatory way, favoring its invisibility and underestimation<sup>(8-10)</sup>.

With regard to the game, in addition to being well accepted and motivate the students to learn about the thematic, most participants stated that they liked the game, that felt motivated to play and recognized the relevance of the theme approached. This indicates the potential for using new technologies for the teaching learning, particularly the use of *serious games*, with a view to allow addressing in a ludic way themes already worked in the undergraduate period, making this an attractive subject, by motivating to reflect and contribute to the perception that one may learn more about the subject<sup>(12-14)</sup>.

With the advancement of the technology over the last two decades, new systems and equipment have arisen in order to facilitate educational processes. The *serious games* may enable the students to reflect, even in a fictitious situation, simulator, elements that, as nursing professionals, shall face in the future. Such potential is characteristic of these games, developed with the purpose of attaching ludic aspects to specific contents<sup>(10-14)</sup>.

The games put the student in the role of the decision maker, the role, which the nurse will exert, mainly when faced with violence situations. In this aspect, it is necessary that this capacity to make decision start



developing still in the undergraduate degree course, since in this phase the students experience simulated situations and their mistakes will be limited to the virtual world<sup>(6)</sup>.

The findings of this research are similar to those of other study carried out with health professionals who evaluated the same game. In the study, it evidenced that similar to what happened with the students almost all professionals recognized that *Pandora's Box* favored the building of new knowledge with regard to the professional actuation<sup>(6)</sup>.

Most of the students claimed that the game was very easy and addressed a complex problematic in a didactic and ludic way, allowing the player to reflect about the theme and to learn new concepts. The students' impressions about the game agreed with the professionals' perceptions, who recognized the game impact on motivations for the reflection and the awareness in the sense of changing conceptions and practices<sup>(6)</sup>. This potential of the videogames with purpose result from their ludic elements, since the digital games provide a rich visual and spatial aesthetics experience and, hence, are able to attract the players inside the fictitious worlds that can simulate real situations, arousing feelings and reflections<sup>(6)</sup>.

The results of the research conducted with professionals<sup>(6)</sup> corroborate the results presented by this research, in the sense that the game had a good acceptance by the participants who played without great difficulty. This observation indicates a further positive point for the *serious game*, the ease to be used as a teaching strategy, by supporting the traditional techniques.

When it comes to a theme with many different stereotypes, which involves such crystallized sociocultural conceptions and beliefs, as in case of violence, it is necessary that it be approached in a ludic and light way, searching for reaching learning affective aspects in relation to the respect, the valorization and other human affections. These characteristics contribute to the formation of a future more empathetic health professional, knowledgeable about the woman's health prevention and promotion strategies, in order to carry out practices with potential for the emancipation of the gender oppression<sup>(6)</sup>.

## FINAL CONSIDERATIONS

The theme of violence against women demands a wide and complex approach due to its worldwide proportions and impacts that cause in the life and the health of women. This is not just a question of the violence symptoms, but rather, of investigating its root. In this context, it is noticed the need to work the theme in the scope of the undergraduate degree, through methodologies that motivate the reflection by future professionals that, possibly will be faced with violence situations in their practices.

The *serious game Pandora's Box*, assessed by nursing students was well accepted by the target public of this research as an innovative teaching strategy that provided the building of new knowledges and motivated the reflection on the thematic, complementing the students' prior experience, showing itself as an excellent learning tool, mainly in which is referred to the knowledge of the Law Maria da Penha. It was also mentioned the possibility of self-reflection provided by the game concerning the Nursing professional posture in face of a violence situation.

The limitations of this study occurred on behalf of the difficulty of access for the students who, because of being in the course conclusion phase, were in traineeships outside the faculty. In addition, some did not accept to

participate in the research on behalf of the time spent for playing and some questionnaires were lost because of they have answered partially or for having not concluded the game.

Currently, a new version of the game Pandora's Box is being developed, from a *redesign* process, to suit the language for the public use (over 13 years old) in smartphones with the Android system. This Project spreads the possibilities of access and use of the app, favoring future studies of evaluation of the game potentials.

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