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CASE REPORT ARTICLE

STRATEGIES BASED ON ACTIVE METHODOLOGIES IN FIRST AID TEACHING-LEARNING: EXPERIENCE REPORT

ESTRATÉGIAS BASEADAS EM METODOLOGIAS ATIVAS NO ENSINO-APRENDIZAGEM DE PRIMEIROS SOCORROS: RELATO DE EXPERIÊNCIA

ESTRATEGIAS BASADAS EN METODOLOGÍAS ACTIVAS DE ENSEÑANZA Y APRENDIZAJE DE PRIMEROS AUXILIOS: RELATO DE EXPERIENCIA

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ABSTRACT

***Objective*:** to describe the experience of applying active methodology strategies during the first-aid health workshop. ***Method*:** this is a descriptive study, an experience report. The target audience consisted of participants from courses in the health field. ***Results*:** the workshop had 27 participants, most of them nursing students (88.9%). The workshop consisted in studies with small groups of problem situations, dramatization, and dialogued expository class; victim and scene assessment; cardiorespiratory arrest (CRA) and cardiopulmonary resuscitation (CPR), associating a practical class with simulation. ***Conclusion*:** the workshop was regarded as a successful experience, demonstrated by the results of each stage, participants' satisfaction, and level of acquired knowledge. There is a need to appreciate teaching and learning through active methodologies, associating theory with practice, in order to favor knowledge construction and critical, ethical, and reflective vocational education. ***Descriptors*:** Active Methodologies; Teaching; Learning; First Aid.

RESUMO

***Objetivo*:** descrever a experiência de aplicação de estratégias de metodologias ativas durante a oficina em saúde de primeiros socorros. ***Método*:** trata-se de um estudo descritivo, do tipo relato de experiência. O público-alvo foi composto de participantes de cursos da área de saúde. ***Resultados*:** a oficina teve 27 participantes, sendo a maioria estudantes de enfermagem (88,9%). A oficina consistiu em estudos com pequenos grupos de situações-problema, dramatização e aula expositiva dialogada; avaliação da vítima e da cena; aula sobre parada cardiorrespiratória (PCR) e ressuscitação cardiopulmonar (RCP), com associação de aula prática e simulação. ***Conclusão*:** a oficina foi considerada uma experiência exitosa, demonstrada pelos resultados de cada etapa, satisfação dos participantes e nível de conhecimento adquirido. Há necessidade de valorização do ensino e aprendizagem por meio de metodologias ativas, associando a teoria à prática, para favorecer a construção do conhecimento e a formação profissional crítica, ética e reflexiva. ***Descritores*:** Metodologias Ativas; Ensino; Aprendizagem; Primeiros Socorros.

RESUMEN

***Objetivo*:** describir la experiencia de aplicar estrategias de metodologías activas durante el taller en salud de primeros auxilios. ***Método*:** se trata de un estudio descriptivo, un informe de experiencia. El público objetivo consistió en participantes de cursos en el área de la salud. ***Resultados*:** el taller contó con 27 participantes, la mayoría estudiantes de enfermería (88,9%). El taller consistió en estudios con pequeños grupos de situaciones problemas, dramatización y clase expositiva dialogada; evaluación de la víctima y el escenario; parada cardiorrespiratoria (PCR) y reanimación cardiopulmonar (RCP), asociando una clase práctica con simulación. ***Conclusión*:** el taller fue considerado como una experiencia exitosa, demostrada por los resultados de cada etapa, la satisfacción de los participantes y el nivel de conocimiento adquirido. Es necesario valorar la enseñanza y el aprendizaje a través de metodologías activas, asociando la teoría con la práctica, para favorecer la construcción del conocimiento y la educación vocacional crítica, ética y reflexiva. ***Descriptores*:** Metodologías Activas; Enseñanza; Aprendizaje; Primeros Auxilios.

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INTRODUCTION

Future education calls for a reform of mentalities, as it reveals in its core a transdisciplinary effort that can unite sciences and humanities in order to break with the opposition between nature and culture, so that it becomes key to teach methods to face what is unexpected and change the way of establishing mutual relations and reciprocal influences between parts and the whole in a complex world. It is crucial that human relations come from their state of misunderstanding and uncertainty to develop understanding and rationality, based on new teaching and learning ways.[1]

In this way, we may infer that the great challenge of this early century is the endless quest for innovative methodologies that provide a pedagogical praxis capable of going beyond the limits of a purely technical and traditional education, in order to manage preparing the subject as an ethical, historical, critical, reflective, transformative, and humanized person.[2]

In the interim of the new pedagogical trends, the active methodology is one of the strategies that enables student's empowerment, making her/him the lead protagonist, i.e. co-responsible for her/his educational pathway and the teacher emerges as a supporting character, a facilitator of experiences related to the learning process.[3]

Thus, in face of the growing concern in the quest for resources that lead to experimentation of innovative teaching-learning methods that exceed these technical education limits, there emerges the proposal to carry out the first-aid workshop with implementation of strategies based on active methodologies.

First aid consists in actions that have as immediate procedures the maintenance of vital signs and life assurance in victims who have suffered an accident without being provided with care by a health professional. So, these immediate actions can save many lives and minimize sequelae and traumas. Thus, it is necessary that people are encouraged to improve through first aid training courses, so that they can apply aid procedures without endangering a victim's life.[4]

Defining the new professional profile in the world context has required from the basic education and health policies new pedagogical guidelines that can guide vocational education. However, it is worth mentioning that in addition to reviewing the curricular contents involved in this transformation process, it is also necessary to rethink the teaching-learning methodologies, from the perspective of designing this new professional profile required by society, in which she/he aims to graduate.[5]

New technologies increasingly applied to knowledge of the various health areas enabled a fragmentation of the medical education, thus new fields of highly specialized knowledge emerged, as well as an endless quest for technical efficiency. In this context, simulation and information and communication technologies (ICT) may be alternatives to tackle the difficulties faced during education based only on knowledge transmission, which in turn may lead to disuse, and/or those outside of current demands, such as opportunistic clinic-based learning, where it is only possible to rely on the participation of patients available at specific moments.[6]

Simulation has been widely highlighted as an active methodology in health teaching from the interdisciplinary perspective, in courses of the health field and nursing. In this context, clinical simulation emerges differently in relation to other teaching methodologies, since it promotes experiential learning, critical reflection, student-driven and supported by a teacher in a safe environment. Several forms are used in simulation-based teaching, and this includes: using a patient simulator (manikin), simulated patients (people instead of patients), virtual learning objects (educational game software, videos, audios, web technology), as well as mixed methods.

From the perspective that students and teachers are in a continued interaction and construction process, we considered the construction of this workshop based on active methodologies from the perspective of rethinking formal practices in the teaching-learning process that impose a unilateral communication of knowledge transmission and lead to replace this communication type by the model that favors cyclical and dynamic communication.[8] Thus, the student's role undergo a transformation process, in which she/he ceases to be a mere knowledge receiver to become an active and participatory student in the knowledge construction process.

Based on the above, the objective of this study is:

- To describe the experience of applying active methodology strategies during the first-aid health workshop.

METHOD

This is a descriptive study, an experience report, with active methodologies, carried out through workshops in the first half of 2016. The object was teaching-learning of first aid aimed at a multiprofessional audience in the health field, a proposal of the subject "Teaching-Learning Process in Health Sciences" from the Graduate Program in Nursing and Health of the Southwestern Bahia State University (PPGES/UESB).

The workshop was held at the Faculdades Unidas de Pesquisa, Ciências e Saúde (FAPEC), in commemoration of the X Nursing Week, with the theme: [Brazilian Nursing Association] ABEn 90 years, Historical and Political Construction of Nursing.

The workshop consisted of 27 participants from courses in the health field, with a duration of 4 hours, and registrations were made in advance, online. The Nursing Week takes place every year, always in May, in homage to nursing professionals. The first-aid workshop was held on May 17, 2016.

This report was based on the experience of authors who work in urgency and emergency care, in addition to dialogue with professors in the discipline and organizers of the event. Other sources of information were used, such as books, manuals, and scientific articles available on the Virtual Health Library (VHL). It is worth mentioning that no data from workshop participants were used, and there were no interviews, moreover, no information that enables identifying the participants or professionals involved was included in this article.

In the first moment, an integration dynamics session was conducted, soon after the participants were divided, randomly, into four groups coordinated by facilitators, who carried out the activities on an individual basis and they distributed the clinical case studies with these themes: Acute Coronary Syndrome, Burns, Hemorrhages, Syncope, and Convulsive Crisis, and the last two situations were under the responsibility of a single group. After reading and discussing the clinical cases, group members planned the proposed simulation. In the end of presentation, facilitators mediated a discussion of the behaviors adopted by each group.

In the second moment, there was participation of a firefighter from the fire department, addressing the theme "victim and scene assessment," through a dialogued expository class.

In the third moment, there was a dialogued expository class on Cardiorespiratory Arrest (CRA) and Cardiopulmonary Resuscitation (CPR) based on the updated guidelines for CPR and emergency cardiovascular care (ECC), by the American Heart Association, published in 2015. At that time, a practical class was conducted with simulation of adult CPR in the manikin.

In the end of the proposed activities, participants answered two instruments, one for workshop assessment and one for knowledge assessment.

RESULT AND DISCUSSION

Whereas the world has an increasing complexity of problems and rapid changes, the great challenge for planning Higher Education in this early century passes through the transformations in the education paradigms, focused on activity comprehensiveness and competences that constitute student education in line with knowledge evolution, based on a comprehensive view of the individual and collective awareness of this expansion.[5]

Thus, reinforcing the need to rethink teaching-learning practices, the health workshop was implemented based on active teaching-learning methodologies for first aid. Initially, it was scheduled to be held with 20 previously registered participants, however due to demand, the event organizing committee enrolled a larger number of people.

The workshop had 27 undergraduate students from the health field as participants, with 26 women (92.9%) and 2 men (7.1%), but 1 participant did not report all items requested in the application form and she/he was excluded from the survey.

Thus, out of the participants who provided the data requested in the application form, 24 were nursing students (88.9%), 2 biomedicine students (7.4%), and 1 pharmacy student (3.7%).

In the first moment, the participants were randomly divided into 4 groups coordinated by different facilitators, who conducted the activities individually. After reading and discussing the clinical cases prepared by facilitators, group members planned the proposed dramatization. Each group demonstrated how it would act in the specific situations and how it would provide the victim with care in an adverse situation based on previous knowledge brought by the participants, on the approach suggested in each case.

Studies were carried out in small groups of problem situations, followed by a dramatization of the solution in each case, expository class on each theme worked in, lecture "victim and scene assessment" by a rescuer from the Military Group of Firefighters, dialogued expository class on CRA and CPR, with association of a practical class and demonstration of the techniques discussed in a simulation manikin.

Corroborating the strategies adopted, active methodologies resort to problematization as a teaching/learning model, aiming to encourage the student in search of solutions to questions, since, before the problem, she/he examines, thinks through, relates things to her/his history, and starts to re-signify her/his findings. Such a strategy may lead the student to contact information and knowledge production, mainly in order to promote her/his very development.[9]

From this perspective, the participants initially had difficulty in systematizing dramatization in the sequence they thought to be more appropriate, but facilitators' guidance in order to first establish who would play each role in the dramatized situation made the accomplishment of this activity easier. In the end of presentation, each group explained the reason for choosing the behaviors adopted.

Facilitators' feedback on the correctness and appropriateness required in each presentation was provided in the end of dramatizations by means of a dialogued expository class and discussion of each theme. We observed that all groups conducted the situations adequately, requiring few considerations with regard to the adequacy of first aid care, demonstrating to have prior information on how to assess the victim's status, the event site, ask for skilled help, according to their knowledge and constraints. They also described the importance of knowledge on first aid, recognizing that at any time they may face situations that require immediate care, in the most varied places.

In this way, the use of educational actions starts from grasping the interface between health and education, which ends up providing the development of knowledge based on the methodologies of complexity, holism, problematization, and activities experienced, this leads those involved to cease being mere protagonists and become co-participants in the quest for skills that appreciate the quality of care.[10]

In the second moment, there was the participation of a rescuer from the fire department of the municipality, who also used the dialogued expository class technique to present the theme "victim and scene assessment." Due to a question made by a student during her/his presentation, the professional inserted a scene dramatization about the behavior of the Military Group of Firefighters/Military Police in early care, through telephone communication, to the mother of a newborn baby, victim of upper airways obstruction. The participation of this professional contributed to improve learning, but some students reported, in the final evaluation, that the discussion was very limited to the corporation's role.

In the third moment, an expository lecture on CRA and CPR was conducted, based on the updated guidelines for CPR and ECC, by the American Heart Association, published in 2015; we also used, at that moment, the association of practical class with demonstration of the techniques discussed in a simulation manikin. Students' performance and participation in the practical class strategy exceeded facilitators' expectations, confirming its importance in approaching themes that need theoretical knowledge and practical experience.

Simulation is an educational methodology that takes into account students' learning needs by associating these two knowledge domains, theory and practice, since its purpose is focused on the student and not on the patient, as it occurs in the clinical context, as well as it allows students to get closer to potentially fatal situations, in a systematic, proactive, and controlled way, where they could not be trained in other ways, and it considers the most complex clinical challenges.[6]

In the end of activities, participants answered an instrument to assess the workshop and another instrument to assess knowledge, regarded as having an average difficulty level, assuming that we did not know the participants' profile.

Considering the 28 activity participants, 23 answered the workshop assessment instrument (82.1%), out of these 14 participants classified the workshop as good (60.9%) and 9 participants classified the workshop as optimal (39.1%). The suggestions and critiques, also requested in this instrument, demonstrated the positive opinion of participants regarding the methodology used, as we can observe in students' reports: "content presentation was very good," "I suggest more simulation of scenes showing what the correct behavior is," "there might have more practice," "they were quite useful

activities, where learning was very clear," "a success, practice without theory is not relevant."

Knowledge assessment consisted of 4 objective questions considering the topics addressed and also the 2015 updated guidelines for CPR and ECC. Out of the 28 participants, only 17 answered the knowledge assessment (60.7%), something which may be justified by delayed onset of the workshop, affecting the participation of everyone until the end.

Analyzing the answers found in the assessments, we can observe that most answered the questions adequately: 88.2% hit the correct sequence how a rescuer should start CPR; 94.1% hit the frequency of chest compressions in adult victims; 100% hit how CPR should be performed and the definition of sudden cessation of systemic blood circulation and respiratory activity.

In view of these results, it is worth noting that the professional practice of students starts from the academic education process and this becomes clearer when getting closer to practical health experiences, where they often face technical, social, and personal constraints.[11]

Thus, simulation provides practical application without endangering a patient's life, it allows us to start again as many times as needed when a mistake is made, as well as to fix an error committed in the past and it improves the practice by reviewing algorithms, protocols, and prioritization of actions.[12]

CONCLUSION

The use of active methodologies in the first-aid workshop was considered successful by the organizers. In the results obtained at each stage of the activity we could perceive the satisfaction of those involved in the workshop, the level of acquired knowledge, and the conscious participation of each participant in the process, reinforcing the need to appreciate teaching and learning through active methodologies, dynamic ones, which encourage the association of theory and practice, something which favors knowledge construction and critical, ethical, and reflective vocational education, so timely in our reality.

We could observe some difficulties inherent to the use of new methodologies that challenged the group of facilitators to seek, during the activity, new strategies to review situations, adapt and/or modify the techniques to be used. Managing the workload was another challenge, considering the fruitful discussions that were established and the diversity of planned activities to be accomplished.

Thus, it is worth thinking of some specificities required by active methodologies in the teaching-learning process, such as number of participants, quantity and adequacy of strategies used, materials available, and sizing of the place where the practice will be carried out.

It is relevant to think through active educational methodologies as facilitators of this teaching-learning process, since it provides those involved in the strategies with moments of reflection, analysis, preparation, and reformulation of new techniques according to the plan for the educational experience proposed.

It is worth emphasizing that educational institutions, teachers, students, managers, and the community as a whole must rethink the need to construct alternative and/or supplementary possibilities to traditional teaching practices.

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