



LEVEL OF KNOWLEDGE ABOUT FIRST AID IN UNINTENTIONAL INJURIES IN STUDENTS OF THE NURSING CAREER

***Melva Guzmán Aguilar¹, María De Jesús Heredia Covarrubias², Ma. Del Pilar Pastor Durán³, Maribel Sepúlveda Covarrubias⁴ and Lorena Inés Bernal Mendoza⁵**

¹Maestra en ciencias de enfermería, Profesor investigador de TC de la UAGro, perfil prodep

²Maestra en ciencias de enfermería Profesor investigador de TC de la UAGro

³Maestra en administración de enfermería, Profesor investigador de TC de la UAGro

⁴Dr. En Bioética con Maestría en enfermería en salud comunitaria, Profesor investigador de TC de la UAGro, perfil prodep, coordinadora de CA-162.

⁵Maestra en Salud Publica, Profesor investigador de TC de la UAGro, perfil prodep

ARTICLE INFO

Article History:

Received 6th October, 2018

Received in revised form 15th

November, 2018

Accepted 12th December, 2018

Published online 28th January, 2019

Key words:

Knowledge, unintentional, injuries, students and nursing

ABSTRACT

First aid is immediate care, which can be given to an injured person to stabilize their health status. Objective: To determine the level of knowledge about first aid of unintentional injuries in students of Nursing no.1 of the UAGro. Methodology The design was quantitative, not experimental, transversal and descriptive, a self-applied survey was used with 18 items in a sample of 92 students, the data obtained were analyzed in the statistical program SPSS version 22. Results: more than half of the students have a regular level of knowledge (54.3%), only 32.6% know the correct definition of first aid, 33.7% have not participated in drills for the care of injuries, only 33.7% would act in the correct way to a burn, most identify a cardiorespiratory arrest and perform the appropriate techniques in 87%, in case of hemorrhage 69.6% would use an adequate method to stop it, and 72.8% would properly immobilize a fracture. Conclusion: First aid training in nursing students should have priority during their training, as it would help them to provide adequate care in the presence of an unintentional injury. Bibliographic references: Muñoz R D. Uso de guías didácticas en el Taller de Primeros Auxilios para Enfermería. Rev. Enfermería Actual en Costa Rica. [Internet]. 2011 feb [citado 18 nov 2017]; 20. Disponible en: <http://www.redalyc.org/html/448/44821178003/>, Villar A. M. Nivel de conocimiento de primeros auxilios relacionado a traumatismo encéfalo craneano por accidente de tránsito en los estudiantes y docentes de la FAEN-UNJBG. Tacna, Perú. [Internet]. 2011 [citado 18 de noviembre 2017]. Recuperado a partir de: <http://repositorio.unjbg.edu.pe/bitstream/handle/UNJBG/216/TG0066.pdf?sequence=1&isAllowed=y>, Mathews D. J., Pinedo V. M., Zavaleta M. P., Gutiérrez C. J. Conocimiento y actitudes hacia accidentes ocupacionales biológicos en estudiantes de enfermería de la Universidad Nacional de la Amazonía, Peruana. [Internet]. 2012 [Citado 18 de noviembre 2017]. Recuperado a partir de: <http://revistas.unapiquitos.edu.pe/index.php/Conocimientoamazonico/article/view/88/174> Canales M, Palomino S, y Peña G. Nivel de conocimientos de primeros auxilios en estudiantes de la institución educativa "Josefina Mejía De Bocanegra". Nazca 2012. Rev.enferm. vanguard. 2014; 2(2): 161-167.

Copyright©2019 Melva Guzmán Aguilar et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Each year, around 10 million children and adults around the world require hospitalization as a result of unintentional injuries; Of these, 95% occur in countries with intermediate or low incomes.¹

According to WHO and UNICEF report, more than 2,000 people die every day due to unintentional injuries and tens of millions of people enter the hospital every year with injuries that often leave them disabled for life.²

According to the World Report on the Prevention of Injuries to Children³, 260 000 children die each year in traffic accidents and about 10 million suffer injuries, this being one of the main causes of disability in children, and the main cause of death in the group of 10 to 19 years, followed by drowning, which kills more than 175,000 children a year and survives some 3

*Corresponding author: **Melva Guzmán Aguilar**

Maestra en ciencias de enfermería, Profesor investigador de TC de la UAGro, perfil prodep

million, however the brain injuries left in some survivors cause non-fatal drowning to be the type of injury with the greatest health and economic impact for a lifetime.

Likewise, burns caused by fire are the cause of death of about 96 000 children a year, and whose mortality rate is 11 times higher in low and middle income countries than in high income countries. On the other hand, about 47,000 children die each year from falls, and more than 45,000 children from unintentional poisonings. In the UK more than 10,000 people die as a result of unintentional injuries and more than 5 million suffer serious injuries each year.⁴

During the period from 1999 to 2004, a total of 625,328 deaths were reported as secondary to unintentional injuries in the United States, of which 256,239 (41.0%) were caused by traffic injuries, of the other accidental deaths 96,978 (15.5 %) corresponded to poisonings, followed by deaths caused by falls with a total of 93,796 (15.0%) and by suffocation 33,963 (5.4%).⁵ According to PAHO, road accidents represent one of the greatest health concerns. Just in 2013 more than 154,000 people died as a result of traffic accident injuries in the Americas region and of these 47% occurred in Cuba and the Dominican Republic.⁶

In Mexico, accidents, injuries and traumas are the main causes of death among the age group of 15-29 years of age. According to the Ministry of Health, in 2010 there were 367,186 hospital admissions due to external causes (accidents, poisonings and intentional injuries) only in public hospitals, including all age groups. The national institute of public health estimates that 1.1 million people suffer non-fatal injuries each year and that 7.2% of hospitalizations are for this type of injury. According to the PAHO, during 2013, 2,478 children and adolescents under 20 years old died in traffic accidents.⁷ In the state of Guerrero, it is estimated that 3.3% of the population under 10 years of age has suffered an accident, a percentage that increases in the population from 10 to 19 years old to 13.1%. The prevalence of accidents in adults over 60 years old was 7.9% with an increasing trend in health damage due to accident as age increases. Regarding the type of accident, the fall was the most frequent followed by another type, 66.8% and 22.8%.⁸

The minutes after the accident are crucial to save life and prevent or stop damage to the injured person. 57% of deaths due to traffic accidents occur in the following moments of the collision, of these 85% are caused by airway obstruction and hemorrhages.⁹ According to the European Emergency Data, the time factor is one of the main elements once an unintentional injury occurs.¹²

Reduce the time in which the injured receives attention, decreases mortality and reduces sequelae. It is therefore important to have knowledge of first aid, which aims to provide immediate attention at the accident site. Hence, training in first aid for nursing students should have a priority during their training, as it would help them provide adequate care in the presence of an unintentional injury.

METHODOLOGY

Design and type of research: non-experimental, transversal and descriptive quantitative research, aimed at fourth-year students, of the morning and evening shifts, in the Nursing School No. 1, of the Autonomous University of Guerrero,

Chilpancingo de Los Bravo, Guerrero.

The universe of study was 230 students, 122 of the morning shift, and 108 of the evening, 38 belong to the male gender and 192 to the female gender.

The sample was a simple random type and was determined through the statistical formula.

$$n = \frac{Npq}{d^2 (N-1)+pq}$$

Where:

- n is the sample size
- p is the positive variability
- q is the negative variability
- N is the size of the population or universe
- d is the precision or the error

$$n = \frac{230 (.25) (.75)}{0.035^2 (230-1)+ (.25) (.75)}$$

n=92

Inclusion criteria

All students legally registered and who appeared in the official lists of the School of Nursing No. 1, in the morning and afternoon shift, eighth semester of degree.

Sources of information gathering

Data was collected directly from each participant of the study through the application of a questionnaire with 18 questions: 3 on personal data of the participants and 15 related to knowledge about the types of unintentional injuries and first aid, of the which 7 are rated with Likert scale and 8 multiple choices.

Analysis of the information:

The data obtained were captured and processed in the statistical program SPSS version 22, with the purpose of ordering the information in a reliable database.

Ethical considerations

In this research the ethical principles were applied in all the participants for the respect of their autonomy. They were explained in detail what their participation consisted of, and if they did not agree to participate, their decision was respected. For this they signed an informed consent, which endorses the use of the information provided only for the development of the study, at the time the individual so decided, could stop participating.

RESULTS

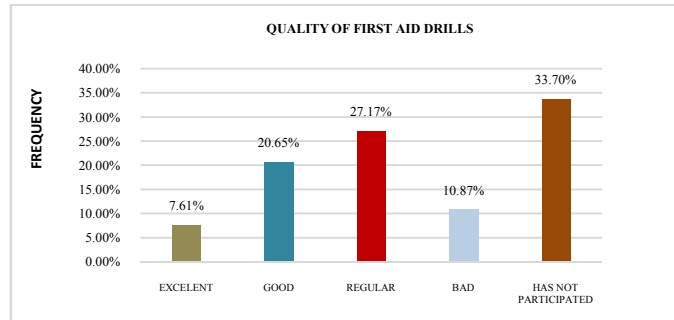
Table 1 Definition First Aid

	Frequency	Percentage
Immediate prevention measures that are carried out when there is an unintentional injury.	14	15.2
Immediate and appropriate care that is provided where the event occurs.	30	32.6
Care provided to the population when they are in danger.	2	2.2
All the previous ones	46	50.0
Total	92	100.0

Source: Survey of knowledge of first aid of unintentional injuries.

15.2% of students believe that first aid are immediate prevention measures that are carried out when there is an unintentional injury, 32.6% consider that they are immediate and adequate care provided in the event, 2.2% say they are care provided to the population when they are in danger, and 50% think that all the previous answers are correct.

Evidence that two thirds of the student population do not know the definition of first aid so we believe that the school should reinforce this issue.

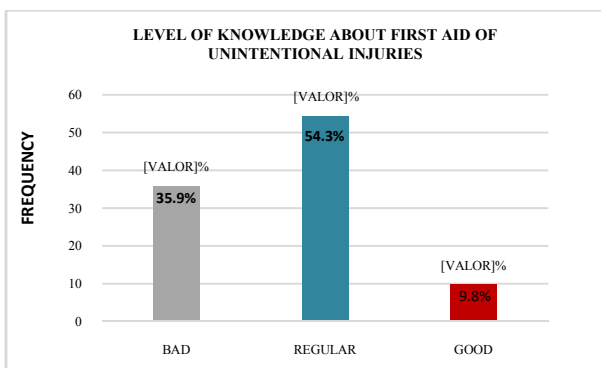


Graphic 1 Quality of first aid drills

Source: Survey of knowledge of first aid of unintentional injuries

66.3% of the participants said they had attended first aid drills, of this percentage, 7.6% considered them excellent, 20.7% good, 27.2% considered them regular, 10.9% considered them bad, and 33.7% said did not have attended one.

Therefore, the drills must be well planned and organized in both shifts so that students can obtain this knowledge.



Graphic 2 Level of knowledge about first aid of unintentional injuries.

Source: Survey of knowledge of first aid of unintentional injuries.

35.9% of students have a bad knowledge level, 54.3% have a regular level, and only 9.8% have a good level of knowledge.

Table 2 Level of knowledge about first aid actions in unintentional injuries

Indicator	Knows		Do not know	
	f	%	f	%
Burns	31	33.7	61	66.3
Hemorrhages	64	69.6	28	30.4
Fractures	67	72.8	25	21.8
Choking	73	79.3	19	20.7
Cardiorespiratory arrest	80	87.0	12	13

Source: Survey of knowledge of first aid of unintentional injuries.

87% do know how to detect if a person has a cardiorespiratory arrest and act in a correct way to save their life, which would be to perform a CPR correctly, 79.3% would act correctly in a choking manner by performing the Heimlich maneuver. However, the figures on knowledge decrease significantly in

situations such as hemorrhages, since only 69.6% would act correctly; as for fractures, 72.8% do know what to do; and in burns only 33.7% know how to act, this being the issue of the least known, which indicates that teaching should be reinforced.

Table 3 Level of knowledge by groups

Knowledge	Group of participants						Total
	801	802	803	804	805	806	
Bad	6.5%	7.6%	5.4%	4.3%	5.4%	6.5%	35.9%
Regular	12.0%	10.9%	8.7%	6.5%	7.6%	8.7%	54.3%
Good	.0%	1.1%	1.1%	2.2%	2.2%	3.3%	9.8%
Total	18.5%	19.6%	15.2%	13.0%	15.2%	18.5%	100.0%

Source: Survey of knowledge of first aid of unintentional injuries

6.5% of the participants of the 801 group, 7.6% of the 802, 5.4% of the 803, 4.3% of the 804, 5.4% of the 805 and 6.5% of the 806 have a bad knowledge level.

From 801 12%, from 802 to 10.9%, from 803 only 8.7%, from 804 to 6.5%, from 805 to 7.6% and from 806 to 8.7% of the participants reflected having a level of regular knowledge.

1.1% of the 802 and 803 group participants have a good level, 2.2% of the 804 and 805, and 3.3% of the 806 group. Regarding the 801 group, this group does not have any student with a good level of knowledge.

CONCLUSION

The students of the nursing degree have a level of regular knowledge about first aid, indicating that they would be prepared to act in front of an emergency event where they can put into practice the basic measures of first aid, a large part of the students have not participated in drills for action in case of an emergency or have had poor quality drills, so they do not feel prepared to provide first aid to the community, the preparation in first aid included in the learning units is of a regular level according to the surveys, which indicates that it is necessary to reevaluate the content of these.

Recommendations

It is necessary to improve the contents of the learning units, where they include and reinforce topics such as the prevention of unintentional injuries, as well as their primary treatment, that is, first aid techniques.

The interaction between theoretical classes and practices must be closely related to increase learning and retention of knowledge, generating appropriate skills in the subject of first aid, which is why it is recommended to reinforce teaching in the subject of first aid including practices or playful simulations.

The deficiencies in the knowledge of first aid can be overcome through the implementation of educational interventions, since in many contexts and studies its effectiveness has been demonstrated; making it possible to improve knowledge and the ability to act in an emergency.

References

Bustos E, Cabrales R, Cerón M y Naranjo M. Epidemiología de lesiones no intencionales en niños: revisión de estadísticas internacionales y nacionales. Bol. Med. Hosp. Infant. Mex [En línea]. 2014 mar-abr: [citado 30 nov 2017]; 71(2). Disponible en:

- http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1665-11462014000200002
- Valdez E, Ferrer N. y Ferrer A. Accidentes en los niños: un problema de salud actual. Revisión bibliográfica. *Rev Cubana Med Gen Integr.* [Internet]. [citado 19 nov 2017]; 12(3). Disponible en: http://www.bvs.sld.cu/revistas/mgi/vol12_3_96/mgi11396.htm
- Peden, M, Oyegbite, K, ozanne J, Hyder, A, Branche, C, Fazlur, A, Rivara, F, Bartolomeos, K. Informe mundial sobre prevención de las lesiones en los niños. Organización Panamericana de la Salud, 48. [en línea] 2012: [citado 30 nov 2017] Recuperado de: http://cdrwww.who.int/iris/bitstream/10665/77761/1/9789275316566_spa.pdf
- Garzón N. Las lesiones no intencionales un problema de salud pública. Instituto Nacional de Medicina Legal y Ciencias Forenses. [en línea] 2010: [citado 30 dic 2017]: 297-340. Disponible en: <https://www.anmm.org.mx/publicaciones/CANivANM150/L9-Los-accidentes-como-problema-salud-publica.pdf>
- Rodríguez C, Pactavita Izquierdo M, Y Pérez O, D, Peña C. Incidencia de traumas por accidentes de tránsito que ingresan al servicio de urgencias del Hospital Universitario Erasmo Meoz, la clínica Santa Ana S.A, E IPS Unipamplona. *INBIOM.* [Internet] 2017 [citado 30 nov 2017]: 4(1); 34-43. Disponible en: http://revistas.unipamplona.edu.co/ojs_viceinves/index.php/INBIOM/article/view/2558/1305
- OMS, Organización mundial de la salud. Informe sobre la situación mundial de la seguridad vial 2015. [Internet] 2015, oct: [citado 30 nov 2017] recuperado de: http://www.who.int/violence_injury_prevention/road_safety_status/2015/es/
- Instituto Nacional de Salud Pública. Accidentes. Encuesta Nacional de Salud y Nutrición (ENSANUT). [Internet] 2012 [Citado 30 de noviembre 2017] ISBN 978-607-511-037-0. Recuperado de: <http://ensanut.insp.mx/informes/ENSANUT2012ResultadosNacionales.pdf>
- Escamilla C., Allen B., Rojas R. Accidentes y Violencia. Encuesta Nacional de Salud y Nutrición Resultados por entidad. Instituto Nacional de Salud Pública. [en línea] 2013 [citado 30 de noviembre 2017]. Recuperado a partir de: <http://ensanut.insp.mx/informes/Guerrero-OCT.pdf>
- Náyade E. Manual de Primeros Auxilios. Vida universitaria UC. [en línea] 2011:[citado 30 nov 2017]. p.5. disponible en: <http://vidauniversitaria.uc.cl/liderazgoestudiantil/documentos/documentos/manual%20de%20primeros%20auxilios.pdf>

How to cite this article:

Melva Guzmán Aguilar *et al* (2019) 'Level of knowledge about first aid in Unintentional Injuries in students of the Nursing Career', *International Journal of Current Advanced Research*, 08(01), pp. 16829-16832.
DOI: <http://dx.doi.org/10.24327/ijcar.2019.16832.3126>
