52 - RISKS FACTORS TO PRODUCE DROWNING: CONTRIBUTION IN ACTION OF PREVENTIVE MESURIES

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INTRODUCTION

To understanding the predisposition the occurrence of drown, we need to remember that aquatic environments are more visited today than 100 years ago. In this way, are obviously the increase accidents number and the risk factors. In this context, the alcohol and drugs consume associated to entertainment like swimming especially in summer time, increase drowning numbers (CLAESSON et al., 2008; ARAUJO et al., 2008).

Szpilman (2005) say that, all over the world, about 500.000 persons annually die from drowning. This problem is associated probably to danger environments (VAN BEECK et al. 2005).

Are many causes of drowning in United State of America (USA) and the major cause occur in swimming pool, but in Brazil, also occur in lakes and pounds, both considered accidental events (SZPILMAN, 2005; SANCHEZ, 2005). The same authors say that also the events can be produced by suicides or homicides.

Claesson et al. (2008) reinforced saying that in Sweden, drowning is intentional or homicide. Varnik et al. (2008) in their research in 16 countries part of european alliance, pointed that in Belgium the highest number of intentional drowning are related to depression in women, when compared to men.

According official statistics of Datasus in 2006, the incidence of death from drowning in Brazil, was of 6135 cases (BRASIL, 2006).

Relating to determinant`s factories to prevent drowning, Santos (2004) conclude that are influence between socioeconomic and instruction level, because its helps to gets the information and understanding the impact of this accident. Espin Neto et al. (2006) says that 97% of drowning all over the word, in the year 2000, occur not only in lower socioeconomic level, but also in developed countries.

To understand what is drowning, is important to define it – drowning is a continuum process resulting in a respiratory failure caused by submersion or immersion in a liquid environment that could cause death (AMERICAN HEART ASSOCIATION, 2005).

In relation to the impact cause from drowning, still some problem, because the difficult to have a definition internationally accepted, causing some obstacle for investigation in this area. The real incidence is not clear do the sub notification, especially in area where does not have good habit to register deaths. Adding to all this problems, the morbimortality by drowning in children and adults economically active, cause socioeconomics impacts, producing expenses with hospital stay and medications, making it a public health problem (ESPIN NETO et al., 2006; BALLESTEROS, 2009).

Martins (2006) investigating children accidents, detect further than socioeconomics and emotional disturbance, this problem cold cause also not fatal traumas and persistent neurologic deficits.

Considering drowning an evitable accident, is unquestionable the need to implement effective measures to decrease its occurrence. However, is important to know the risk factors for drowning, to identified danger environments and direct prevention actions to the risk group.

Based on this problem we questioned: what is the risk factors for drowning? What is the nursing teem participation on drowning prevention?

The objectives of this study are: identified on literature risk factors for drowning and nursing teem participation on drowning prevention.

In this way, we which that results of this investigation could contribute to direct and stimulate implementation of programs and politics on prevention of this event, also conduct the nursing prevention actions based on risk and stimulate the need for more research in this area.

METODOLOGY

To right this paper, we used the Portal da Biblioteca Virtual em Saúde/Biblioteca Regional de Medicina (BVS/BIREME), Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), Internacional Literature in Heath Science (MEDLINE); Portal da CAPES, (CINAHL), in 2009, from May to July. Using the key words “drowning“, “risk factors” and “nursing”.

The date was collected using a structured questionnaire according with our objectives. The criterions of inclusion were: full length articles published in lest five years (2004-2009), righting in portuguese, english and spanish. The articles published in more than one data base were counted only once. The data collection was analyzed by descriptive statistics.

RESULTS AND DISCUSSION

The Quadro 01 show the scientific articles distribution investigated on data bases from . 2004-2009.

Data Base	Nº of articles analyzed	Nº of articles excluded	Nº of articles selected
LILACS	02	00	02
MEDLINE	96	79	17
CINAHL	03	03	00
Total	**101**	**82**	**19**

FIGURE 01 – Distribution of publications articles about risk factors for drowning according data bases from 2004 to 2009. Natal/RN, 2009.

According with Figure 01, from 101 founded articles, we excluded 82 because was published as abstract form. Four was available in more than one data base and was counted only once. The MEDLINE had the greatest number of selected

articles (17). On CINAHL was not founded any articles.

TABLE 01 – Distribution of publications articles about risk factors for drowning according language and year of publication*. Natal/RN, 2009.

Variáveis	N	%
Language		
Portuguese	07	36.9
English	10	52.6
Spanish	02	10.5
TOTAL	**19**	**100.0**
Publication Year		
2004	02	10.5
2005	05	26.3
2006	05	26.3
2007	01	5.3
2008	04	21.1
2009 **	02	10.5
TOTAL	**19**	**100.0**

*Source: LILACS, MEDLINE e CINAHL.

** Coletaded data until july, 2009

The Table 01 show that from those 20 selected articles, 10 (52.6%) was published in english, 07(36.8%) in portuguese and 02 (10.5%) in spanish.

Relating to publication year, 2005 and 2006 has 05 (26.3%) for each year, and the year 2008 with 04 (21.1%) articles. We detected a small decrease in number of publications in latest fill years.

The publications about risk factors for drowning shows that usually the victims are from male gender. Araújo et al. (2008) researchers from Ribeirão Preto (SP), investigated drowning in a population on a region located off coast in Brazil, detected that from 89 victims analised, 81 (91.01%) has male and 08 (8.99%) female gender.

Sanchez et al. (2005) also detected in Canada that 85% of male death, are related to drowning. Romero (2007); Paes (2005) e Espin Neto et al. (2006) agree that male gender is a risk factor.

Szpiman (2005) rapport says this may occur because the male exposure to risk factors and adventured spirit, when compared to female gender. Adding to this are a lack of supervision and absence of life guard in risk places like dam, lakes and rivers and association of alcohol or other kind of drugs during recreation activities.

The age is also a risk factor for drowning and the age running from 01 to 04 years are the most susceptible. The DATASUS registered in 2006, 488 children victims of drowning with this age, in Brazil. The number of death on adult group was superior to the children, with 1203 registered cases with age between 20 to 29 years old (BRASIL, 2006). An investigation done in Cuba, confirmed this results and reinforced the death in this age (SANCHEZ et al., 2005).

Returning to the children discussion, an investigation about home accidents, identified that children with age lower or equal to 04 years old are more susceptible, once a simple bath table cold produce an accident. This kind of accident in most of times is quiet; making difficulty the first aid and two minutes after stop breathing the victim loose conscience and after four minutes can have irreversible cerebral damage (SANTOS, 2004).

The places of occurrence of drowning, chance according the countries regions and children age. In general the places of occurrence was justified, do to geographic structure, more observed in areas with larger volume of water like swimming pool, reveres, lakes, brooks and ocean (ARAÚJO et al. 2008; SANCHEZ et al, 2005; SANTOS, 2004).

Investigation developed about most frequent accidents in Chile (Latin America) detected that height risk of drowning accidents in children between 01 to 09 years old are the swimming pool, special when they play or walk over the border (ROMERO, 2007). Santos (2004) and Araujo (2008) discussed about lack of adult supervision, presence of bath tubes and bucks full of water inside the house and neighborhood water canal, increase the chance of drowning accidents in children.

Another study developed in Vitoria (Australia), evaluating understand knowledge about risks environments to drowning accidents, detected that 69% of death between the years 2001-2003was produced during sports and leisure (GABBE et al., 2005).

Our investigation pointed out others related factors for occur drowning accidents like persons with mental and physical disorders for example, epilepsy, and for them is extremely relevant do supervision during bath or swimming. Alcohol and drug consumption increase significantly probability of drowning, once decrease physical and judgment capacity (CLAESSON et al., 2008; BELL et al., 2008; SANCHEZ et al., 2008).

Driscoll; Harrison; Steenkamp (2004) agree with this arguments after developed a study about alcohol use and its associated with swimming practice and say that 30% to 70% of death from drowning accidents had alcohol in their blood in necropsies examination.

Also the seriousness of this problem, its prevention associated with understanding of risk factors, are the best way to avoid drowning accidents. The author say that it is possible when the work is done by inter-sector and directed interventions, based on specifics factors (MARTINS, 2006).

Santos (2004) e Paes (2005) commented that after recognize importance of prevention, professional heath personal has a special obligation to give information's to the citizens about this accidents. This process aim to reinforce the most frequent kind of accident, susceptible age and how to prevent, including orientation to adult and children about dangerous drowning places and remember the parents that for each age has a different risk factor.

In relation to health professional Peres e Ciampone (2006) comment that all should be

prepared to developed prevention, promotion and protection actions, isolated or collective. Each professional has to make sure to do integrated and continuous practice with other heath sectors, capable to analyze society problems and identified solutions. Should considered also, that responsibility to health attention does not finest with a technical action, but with problem solution affecting heath e consequently change life quality.

In this process, Santos (2004) focused the nursing participation on education area, once this professional is characterized to give care and can developed an active function to develop prevention actions for safety and wellbeing.

CONCLUSION

The many risk factors of drawing accidents can happen in any age, but its prevalence is in children and adult between 20 to 29 years of age.

We detected also that male gander are the principal victims, and swimming in risk areas without supervision, sport practice and leisure associated with alcohol and drugs increase numbers of accidents. The persons with epileptic crises during the bath or swimming need a close supervision.

Referring to vulnerable places for drawing accidents lake lakes, swimming pool, rivers and brooks is very important to adopt preventive public politics campaign aiming advice about risk factors including environments and regions more susceptible to swimming accidents.

Special attention has to done as nursing responsibility to prevent drawing reinforcing her education function with community. Also can help elaborating specifics strategies, conferences and education programs, making stronger her responsibility in safety and care.

We believe the results of this study, can direct our practice is a nurse to prevent drawing and decrease this event. Emphasize is given for the need to implement public politics of safety and preventive measures to avoid drawing accidents.

KEYWORDS: Drowning, Risk Factors, Nursing.

REFERENCES

AMERICAN HEART ASSOCIATION. Afogamento in: Diretrizes 2005 da American Heart Association para Ressucitação Cardiopulmonar e Atendimento Cardiovascular de Emergencia. **Rev. American Heart Association**, vol, 12, n. 24, dez. 2005.

ARAUJO, R.T. et al. Dados médico-legais sobre afogamentos na região de ribeirão preto (SP, Brasil): um passo para a prevenção. **Medicina (Ribeirão Preto)**. vol. 41, n. 1, p. 50-7, jan./mar. 2008.

BALLESTEROS, M. A. et al. Prognostic factors and outcome after drowning in an adult population. **Acta Anaesthesiol Scand;** vol. 53, p. 935–940. 2009

BRASIL. Ministério da Saúde. **Óbitos por causa externa**- Brasil. 2006.

BELL, G.S. et al. Drowning in people with epilepsy How great is the risk? **Neurology. August**.Vol 71. p. 578-82. 2008.

CLAESSON, A. et al. Characteristics and outcome among patients suffering out-of-hospital cardiac arrest due to drowning. **Resuscitatio**n . Vol. 76, p. 381—87. 2008.

DRISCOLL, T. R.; HARRISON, J. A.; STEENKAMP, M. Review of the role of alcohol in drowning associated with recreational aquatic activity. **Injury Prevention**. Vol. 10, p. 107–13. 2004.

ESPIN NETO, J. et al. Situação dos afogamentos em duas regiões do interior do estado de São Paulo. **Rev. Ciênc. Méd. Campinas,** v. 15, n. 4, p.315-20, jul./ago. 2006

GABBE, B J et al. Incidence of serious injury and death during sport and recreation activities in Victoria, Australia. **Br J Sports Med** . vol. 39, p.573–577. 2005.

MARTINS, C. B. G. Acidentes na infância e adolescência: uma revisão bibliográfica. **Rev Bras Enferm** . vol. 59, n.3, p. 344-8. maio-jun. 2006.

PATRICIO ROMERO P. Accidentes en la infancia: Su prevención, tarea prioritaria en este milenio. **Rev Chil Pediatr**; vol. 78, n. 1, p. 57-73, 2007.

PERES, A.M.; CIAMPONE, M.H.T. Gerência e competências gerais do enfermeiro. **Texto Contexto Enferm**. vol.15, n.3, p. 492-499, 2006.

SZPILMAN, D. Afogamento na infância: epidemiologia, tratamento e prevenção. **Rev Paul Pediatria**. v. 23, n. 3, p.142-53, 2005.

SANTOS, R. S. Acidentes domésticos e de lazer na infância – uma revisão. **Rev Port Clin Geral.** 2004.Vol. 20; p. 215-30.

SANCHEZ, M.H. et al. Ahogamiento y sumersión accidentales: mortalidad en Cuba, 1987-2002. **Instituto Nacional de Higiene, Epidemiología y Microbiología** (INHEM). 2005.

VARNIK, A. et al. Suicide methods in europe: a gender-specific analysis of countries participating in the "european alliance against depression". **J Epidemiol Community Health**. vol.62, p.545–51. 2008.

VAN BEECK E.F. et al. A new definition of drowning: towards documentation and prevention of a global public health problem. **Bull World Health Organ**. v. 83, n. 11, p. 853–6, 2005.

PAES, C.E.N.; GASPAR, V.L. V. As injúrias não intencionais no ambiente domiciliar: a casa segura. **Jornal de Pediatria**. vol. 81, n.5,p. 146-54, 2005.

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RISKS FACTORS TO PRODUCE DROWNING: CONTRIBUTION IN ACTION OF PREVENTIVE MESURIES

ABSTRACT

Drawing is a global public heath problem requires politics enclosing risk factors to guarantee effective preventive measures. However, notification of drawing cases, affecting specially regions with poor death registration, making difficulty observation of relevant cases and consequently preventive measures. This article object`s is identified on literature risk factors for drowning and nursing teem participation on drowning prevention. Bibliographic investigation on LILACS, MEDLINE e CINAHL data bases using the keywords drowning“, “risk factors” and “nursing”.complete article, in last five years, writing in portuguese, english and Spanish. The most important risk factors for drowning: male gander, children between one and four yeas old, adults between 20 and 29 years old, alcohol associated with leisure activities. In this context, nursing has a important participation to disseminates preventives measures based on reality and nature of drawing. This investigation show`s the risk factors for drawing are children and adults, male gander and alcohol associated with leisure activities. In this way, are need to formulate public politics toward to identified danger environments together with preventive measures, to decrease number of drowning accidents.

KEYWORDS: Drowning, Risk Factors, Nursing.

FACTEURS DE RISQUE POUR L'OCCURRENCE DE NOYADE ET LA CONTRIBUTION DES SOINS D'INFIRMIER À L'ACTION DE MESURES PRÉVENTIVES

RÉSUMÉ

La noyade est un problème de santé publique globale, qui requiert des politiques abordant les facteurs de risque pour assurer une prévention effective. Cependant, le manque d'une définition uniforme acceptée internationalement rend difficile la surveillance de ces évènements, ce qui entraîne une sous-notification des cas de noyade, par conséquent les régions où il y a une précarité de certificat de décès sont les plus affectées. Cette réalité empêche l'observation de cas importants pour implanter des moyens de préventions. Cet article a pour but d'identifier dans la littérature examinée des facteurs de risque pour la noyade et le travail des infirmiers dans la préventions de ces évènements. Il s'agit d'une recherche bibliographique dans la base de données, LILACS, MEDLINE et CINAHL, utilisant les descripteurs : noyade et facteurs de risque, être parus en tant que texte complet dans les cinq dernières années en portugais, anglais et espagnol. Nous mîmes en relief comme les principaux facteurs de risque pour la noyade: le sexe masculin, enfants de un à quatre ans, adultes de vingt à vingt-neuf ans, et l'association de la consommation d'alcool aux activités récréatives. Dans ce contexte, les soins d'infirmier jouèrent un rôle fondamental dans la divulgation de mesures préventives qui se basent sur la réalité et la nature de la noyade. Cette investigation montre que les facteurs de risque identifiés à la noyade sont enfants et adultes du sexe masculin et la consommation d'alcool associés aux activités récréatives. De cette façon, il est nettement nécessaire la formulation de politiques publiques portées à l'identification d'espaces dangereux et en harmonie d'actions avec la divulgation de mesures préventives pouvant contribuer à la diminution du nombre de noyades.

MOTS CLÉS: Facteurs de Risque; Causes Externes; Noyade; Soins d'Infirmier.

FACTORES DE RIESGO PARA LA OCURRENCIA DE ASFIXIA POR INMERSIÓN Y LAS CONTRIBUCIONES DE LA ENFERMERÍA EN LAS MEDIDAS PREVENTIVAS.

RESUMEN

La asfixia por inmersión es un problema de salud pública global, que requiere de políticas que aborden los factores de riesgo para garantizar una prevención efectiva. Sin embargo la falta de una definición uniforme aceptada internacionalmente dificulta la vigilancia de estos eventos, causando una sub-notificación de los casos de asfixia, afectando a las regiones donde hay una precariedad en el registro de muertes, lo que impide una observación de casos relevantes para implementar medidas de prevención. Este artículo tiene como objetivo identificar en la literatura evaluada factores de riesgo para la asfixia por inmersión y la actuación de la enfermería en la prevención de estos eventos. Se desarrolló una investigación bibliográfica en las bases de datos: LILACS, MEDLINE y CINHAL, utilizando los descriptores: asfixia por inmersión y factores de riesgo que fueran publicados como texto completo en los últimos cinco años, en portugués, ingles y español. Fueron destacados como principales factores de riesgo para la asfixia por inmersión: el sexo masculino, niños entre uno a cuatro años de edad, adultos entre 20 a 29 años y asociación de consumo de alcohol en actividades recreativas. En este contexto la enfermería se destacó con un rol fundamental en la divulgación de las medidas preventivas basadas en la realidad y la naturaleza del las asfixias por inmersión. Esta investigación muestra que los principales factores de riesgo identificados para la asfixia por inmersión son: niños y adultos del género masculino, el consumo de alcohol asociado a las actividades recreativas. De esta manera se hace necesaria la formulación de políticas públicas dirigidas a la identificación de los ambientes peligrosos y conjuntamente la divulgación de medidas preventivas, las que contribuyan a disminuir el número de asfixias por inmersión.

PALABRAS CLAVES: Factores de riesgo, causas externas, asfixia por inmersión, Enfermería.

FATORES DE RISCO PARA OCORRÊNCIA DE AFOGAMENTO E A CONTRIBUIÇAO DA ENFERMAGEM NA AÇÃO DE MEDIDAS PREVENTIVAS

RESUMO

Afogamento é um problema de saúde pública global, que requer políticas que abordem os fatores de risco para garantir uma prevenção efetiva. Entretanto, a falta de uma definição uniforme aceita internacionalmente dificulta a vigilância desses eventos, causando uma subnotificação dos casos de afogamento, afetando especialmente as regiões onde há uma precariedade no registro de óbitos, o que impede a observação de casos relevantes para implementar meios de prevenção. Este artigo tem como objetivo identificar na literatura pesquisada fatores de risco para o afogamento e a atuação da enfermagem na prevenção desses eventos. Trata-se de uma pesquisa bibliográfica na base de dados, LILACS, MEDLINE e CINAHL, utilizando os descritores: afogamento, fatores de risco e enfermagem; estarem publicados como texto completo, nos últimos 05 anos, em português, inglês e espanhol. Foram destacados como principais fatores de risco para o afogamento: o sexo masculino, crianças entre um e quatro anos, adultos entre 20 e 29 anos, e associação do consumo de álcool as atividades recreativas. Neste contexto, a enfermagem destacou-se com papel fundamental na divulgação de medidas preventivas, baseadas na realidade e na natureza do afogamento. Esta investigação mostra que os fatores de risco identificados para o afogamento são crianças e adultos do sexo masculino e o consumo do álcool associados às atividades recreativas. Dessa forma, torna-se necessário a formulação de políticas públicas voltadas para a identificação de ambientes perigosos e em conjunto com a divulgação de medidas preventivas, possam contribuir para reduzir o número de afogamentos.

PALAVRAS CHAVES: Afogamento, Fatores de Risco, Enfermagem.

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