

Drowning profile in the state of Parana

Dr David Szpilman¹, Major Antonio Schinda^{1,2,3}, Prof. Roberto Antonio Deitos²

¹SOBRASA - Brazilian Lifesaving Society, Rio de Janeiro, RJ, Brazil, , , ²UNIOESTE - State University of West Parana, Cascavel, PR Brazil, , , ³Fire Department of Parana, Cascavel, PR, Brazil, ,

Poster Session 1, Poster Foyer, November 4, 2015, 9:00 AM - 5:15 PM

Introduction

Drowning is a problem with difficult solution. In 2012, 6.369 people (3,3/100.000 inhabitants) died by drowning (SOBRASA, 2014). Understanding this dynamic and knowing the drowning profile is very important to develop the best preventive measures. Bearing in mind that drowning is one of the diseases with greater impact on health and on the world's economy, we consider it should be treated as an Endemic problem likely to be mitigated. To this end, it is essential to better understand the risk factors involved in these fatal incidents since there is a great cultural and geographical variability between Brazilian regions and states. The State of Paraná has 399 municipalities, totalling a population of 10.439.601 inhabitants (IBGE-2010).

The objective of this study was to analyse the profile of drowning in the State of Paraná to support the development of public policies and the implementation of different prevention programs.

Material and Methods

For this study we analysed the drowning data for Paraná State, to create a profile based on variables such as the season, age, sex, day of the week, environment, activity and probable cause of death, retrieved from the occurrences record system of Paraná's Fire Department (SISBM), which is the source containing more detailed information regarding this type of occurrence. We've compared the number of occurrences obtained from this source with the number of records retrieved from the National Health System Database (DATASUS), which contains all death certificates, in order to understand the number of cases lost in this full evaluation. Data from a period of 3 years (2010-2012) was analysed.

Results

Between 2010 and 2012, 1.043 people from Paraná drowned to death (3, 32 deaths/100.000 inhabitants in the state), representing an average of 347 people/year. The majority of deaths (62%) registered in DATASUS was attended by teams of Paraná Fire Department (n=650) and this was the sample used to assess the drowning profile.

In 36, 45% of all cases, summer was the season when there was the highest number of drownings. Drowning deaths occurred predominantly in males (90%) and people aged between 15-19 years old (17, 54%). 47% of cases occurred during the weekend and 92% in fresh water. The main activity prior to drowning was bathing/recreational swimming (49.53%) followed by fishing (15.53%). The most probable precipitating cause for these deaths were difficulties during swimming as conveyed by witnesses in the reports. Rivers were the setting for 378 deaths of the 650 analysed, making 54% of all cases.

It is important to stress the fact that pools and bathtubs accounted for 0.028% of all cases but made up 23% of deaths in children aged 1 to 4 years old.

Conclusion

The risk of drowning occurs where there is exposure to water. Knowing the drowning profile is crucial to guide public policies to prevent it. This work identified the need to develop a unified and standardized database comprising more information regarding the drowning profile and its causes, among the agencies and stakeholders directly involved in the intervention in case of drowning.

References

- SCHINDA, Antonio. Drowning Epidemiology: State and public policy in Paraná. Cascade, PR: PPGE, UNIOESTE, 2013. 146 p. (Masters Dissertation).
- SOBRASA. Institutional. Rio de Janeiro. Available at <<http://www.sobrasa.org>>. Accessed: 09 January 2015.
- Spellman, David. Drowning - epidemiological profile in Brazil - 2012. Brazilian Society of Aquatic Rescue - SOBRASA, Rio de Janeiro, 2012. Available at: <<http://www.sobrasa.org>>. Accessed: 10 May 2013.