

## DROWNING IS THE MOST COMMON CAUSE OF ACCIDENTAL DEATH DURING CHILDHOOD IN BANGLADESH

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### ABSTRACT

Bangladesh is a riverine country and about 700 rivers, including tributaries flow through the country also middle income country. Drowning is the leading cause of death in children in Bangladesh. Children are more vulnerable in rural area than urban. Flood disasters are becoming more frequent in Bangladesh and this trend is expected to continue. During rainy season, drowning risk increases in flood prone area.

**KEY-WORDS:** Drowning, Risk factor, Children, Death and Prevention.

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### INTRODUCTION

The geography of Bangladesh has established water as a common feature of the landscape. In the villages inmates totally depend upon ponds and river water. They used it for bathing, washing, drinking, agriculture, fishing, cooking and for playing by the children. Age is a great factor during drowning. In majority of the cases, children are the most common victims. In children aged five and under, fatal drowning occur in ponds and ditches less than 20 meters away from the home. In children over five drowning occur further away from the home, usually whilst swimming without adult supervision. Almost all fatal drowning in Bangladesh occur during the daytime, particularly between 9am and 2pm when parents and supervisors are preparing food, cleaning the house or working. Drowning deaths, mostly occur in remote areas like villages.

### CASE-HISTORY

**1<sup>st</sup> Case:** A 5 year old girl's mother, a handloom worker was busy working inside their house and checking on the baby once in a while. After some time, the girl child disappeared and her panic-stricken parents searched for her everywhere. Soon, they recovered the child's body from a nearby pond on 13<sup>th</sup> April, 2017. It was too late to resuscitate her. Unknowingly, the girl child had walked into danger. Her parents are yet to recover from the shock.

**2<sup>nd</sup> Case:** Two cousins drowned in a pond at Kasempur village in Golapjong upazila of Sylhet district on May 4, 2017. Quoting locals, police said that a 6 year old male child drowned in a pond when he was playing with his cousin. His cousin tried to save him, but he also drowned with him. Later, they were rushed to a local hospital

where the attending doctors declared them dead.

**3<sup>rd</sup> Case:** In another incident, two minor sisters drowned in a pond in Jaflong, Sylhet area in Bangladesh when they were cleaning their hands after playing. Police narrated the history that one of them drowned and her sister tried to rescue her, but failed to do so and both drowned.

**4<sup>th</sup> Case:** In another incident a 3 year old female child suddenly fell down into a lake at a remote area of Sylhet, when she was playing outside her home and her mother was busy in gossiping with her neighbor.

**5<sup>th</sup> Case:** In one more case of drowning near Surmavillage in Sylhet, two schoolboys of 6 & 8 years of age drowned in a river when they were trying to take out the football from the river. As per history, both were playing with football near the bank of the river and their body were recovered from the water with football.

## DISCUSSION

In all cases finding were in favor of asphyxia and typical drowning feature were present. On external examination mouth and nostrils show fine, white, copious, leathery froth, which was sometimes blood stained also. Due to cadaveric spasm the hands of the deceased clenched and on opening show mud, sand, and plants, etc. Hypostasis developed on the entire anterior surface of the body. On internal examination lungs were found pale, voluminous and bulge out like a balloon while the other organs were congested.

The cases presented here are not an exception. Thousands of children died in Bangladesh every year due to the presence of large numbers of rivers, ponds and lakes in the vicinity of the area, which was

commonly accessible to the children. Accidental drowning constitutes a significant public health problem that is often neglected in developing countries. The World Health Organization (WHO) estimated that 372,000 deaths occurred from drowning in 2012, which has made it the world's third leading unintentional injury killer.<sup>1</sup> Drowning kills a Bangladeshi child every half hour.<sup>2</sup> In the developed country, drowning often occurs in recreational swimming pools<sup>3</sup> whereas in developing countries drowning happens in natural water bodies such as ponds, ditches, rivers, lakes, and dams.<sup>4</sup> Risk factors for childhood drowning include, inadequate supervision, male sex, lack of physical barriers between people and water bodies, and lack of swimming ability also lack of water safety awareness. During rainy season travelling on overcrowded or poorly maintained vessels and water related disasters (e.g. flood, extreme rainfall, storm surges, and tsunamis or cyclones) are also common risk factors in all age groups globally.

Bangladesh Health and Injury Survey (BHIS) 2005 reflect the trend that rural children of 1–4 years of age are the worst affected by drowning in Bangladesh, and this trend has not changed over the past decade.<sup>5</sup> Similar findings have also been reported in other East-Asian countries such as Thailand, Vietnam, and China.<sup>6</sup> As a tropical climate in Bangladesh, monsoon rainfalls may lead to floods and increased water levels in rivers, canals, ponds, and ditches puts children and other individuals at higher risk of drowning. Virtually all (95%) drowning events occurred in the daylight hours.

## CONCLUSIONS

Drowning is a major public health concern in Bangladesh and common victims are children. It's time to need national efforts

and logistics to reduce drowning in rural Bangladesh. Also conducting awareness campaigns, increasing knowledge and efficiency among the parents for looking after their children, ensuring effective family and social security as well as giving training on how to swim could reduce the children's death risk.

**Conflicts of Interest:** Nil.

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