Development and Implementation of Community-Based Drowning Prevention Interventions in a Selected Urban Coastal Community in the Northern Philippines

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The Philippines

- An archipelago of 7,107 islands with a total land area, including inland bodies of water, of approximately 300,000 square kilometers
- Its 36,289 kilometers (22,549 miles) of coastline makes it the country with the 5th longest coastline in the world
- The Philippines has become the world's 12th most populous nation, with a population of over 92 million
- Three major islands are Luzon, Visayas and Mindanao
According to the World Report on Child Injury Prevention (2008), 175,000 children and youth less than 20 years old around the world died of drowning in 2004. Ninety eight percent (98%) of deaths due to drowning occurred in low-income and middle-income countries.

- In South East Asia, the death rate was 6.6/100,000.
- In 2003, death rate among children 1 to 4 years was 17/100,000, while that among 10 to 14 years was 10/100,000 (PNIS)

Objectives

- Describe the knowledge, attitude and practices of community residents in an urban coastal community on drowning prevention.
- Identify drowning-prone areas in the pilot site
- Plan community-based interventions in the site
Materials and Methods

- Quantitative (community-based survey) and qualitative (key informant interview, focus group discussion, observation) data collection methods were used.
- Results were presented to the community through a community assembly.
- Community leaders and residents actively participated during the planning phase and were highly involved in the implementation of local drowning prevention initiatives.

The Site
(Bonuan Gueset, Dagupan City)

- One of the coastal villages (barangays) of Dagupan City
- It is located northwest of the city
- Has a total land area of 485.70 hectares, has fishponds, and other bodies of water
- Tondaligan beach is located in this barangay
- Bonuan Gueset has 5,063 households
Less than 1% claimed to be aware of any drowning prevention programs
Less than 10% claimed how to perform CPR
Only less than 2% had households with certification to perform CPR
Only 7% have participated in drowning prevention activities
40% claimed to have not supervised their children when playing near or swimming in bodies of water
Qualitative data also revealed “drunkenness, strong water current, negligence of parents” as among the causes
Several drowning prone sites were identified: open manholes, narrow foot bridges on top of bodies of water

Community-Based Drowning Prevention Interventions

- Information campaign
- Community drowning prevention messages
- Capability-building measures
- Improvised throw lines/devices
- Covering of manholes/drowning-prone areas
- Barriers/Fences
Information Campaign

The Bonuan Gueset Midwife and Barangay Health Worker (BHW) President discussing the contents of the IEC material to other BHWs and members of the Tondaligan Beach Shed owners Association

Distribution of leaflet to community residents of Bonuan Gueset and Community Drowning Message Posted near the riverbank

Community Drowning Prevention Messages

Drowning Prevention Messages posted in strategic locations in the village
First Aid and Basic Life Support Training

The First Aid and Basic Life Support Training was attended by the City Health Officials, Health workers in the barangay, community residents and officials of the Tondaligan Beach Shed owners Association.

Topics included in the FA and BLS Training

* Introduction to First Aid
* Guidelines in Giving Emergency Care
* Common Emergencies
* Bandaging Techniques
* Methods of Carries
* Introduction to Basic Life Support
* Cardiopulmonary Resuscitation
* Skills Evaluation
The training participants doing the different bandaging techniques

Demonstration and return-demonstration – Cardiopulmonary Resuscitation (CPR)

Basic Survival Swimming

Attended by CHO personnel, Bonuan Gueset health workers and residents, lifeguards in Tondaligan Beach
Basic Forms of Rescue

Use of Improvised throw line
(rope with styro materials and empty water gallon)

Development of Improvised Rescue Devices
Construction of Barriers/Fences in Drowning-prone areas

Children crossing wooden foot bridges

Community Residents working together to construct higher foot bridges with handles

Drowning Prone Areas

Manholes without covering at Sitio Calamiong, Bonuan Gueset. These pose danger to children and adults especially at night because this area has no streetlights
The community residents making the covering of the manholes

Orientation on the Online National Electronic Injury Surveillance System (ONEISS)

The Participants

The Orientation Proper
Conclusion/Recommendation

* Active involvement of the community paved the way for the successful implementation of the interventions
* Authorities must support the local initiatives on drowning prevention.
* In the same way, the community leaders and trained community members must join hands in looking for ways and means to sustain the efforts that they have started.

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- Department of Health
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- Barangay Council, Bonuan Guest, Dagupan City
- Philippine Red Cross, Pangasinan Chapter
- Department of Health Promotion and Education, College of Public Health, University of the Philippines Manila
- Tondaligan Beach Shed owners Association