

207 Using human-centred design (HCD) to develop community-led interventions for preventing drowning among children under 2 years in rural Bangladesh

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Abstract

Background About 14,000 children die due to drowning in Bangladesh annually with lack of supervision cited as a major cause. Community day-care centres reduce the risk of drowning in children under 5 years by up to 84% but only 15% of enrolled children are aged 12–24 months. This is attributed to factors including cultural acceptability, accommodating children’s sleep patterns, and lack of facilities for mothers to breastfeed. Human-Centred Design (HCD) can be used to engage key stakeholders in the design of interventions that are suitable for this age group and the local context.

Objective The aim of the research is to develop and test intervention prototypes that address the drowning risks of children aged under 2 years in rural Bangladesh, using HCD.

Methods The research will be a multi-phase community-based study using a mixed methods approach. Explorative context analysis will be conducted to understand the problem, its causes, and the key stakeholders. Based on this understanding, collaborative workshops of experts and community members will be held to identify and prioritise possible solutions. The most promising solutions will be taken forward to an iterative prototype development and testing phase. The final prototypes from this phase will be piloted and evaluated. The research will be conducted in Sherpur Sadar, Northern Bangladesh and Kalapara, Southern Bangladesh between 2023 and 2026.

Results The study will explore the context of child drowning in the study areas, supervision practice for children aged under 2 years and identify gaps and challenges with existing drowning prevention interventions. This will lead to prototype being designed with key stakeholders, which will be piloted in the study communities. The findings of the research will be disseminated among the national and international stakeholders for scaling up alongside current drowning prevention interventions.

Conclusions Through this research an evidence-based community-led drowning prevention intervention will be developed which may also be used in other low- and middle-income countries where child drowning is high.