

Results The injuries decreased close to the half at the SSP promoting schools, while the other groups didn't show significant change. As for the intentional injuries and mental harms related to bullying, the clear changes were not identified yet, but the number of students who have uncomfortable experience with others have declined and the behaviors and/or conversations among students become more positive and friendly.

Conclusion With SSP programs, the schools can reduce injuries and increase positive communication. Those achievements in making schools safer have been made through the development of the capacities and the ownership of the students as well as teachers. In addition, the network with parents and communities have been developed through the programs.

Learning Outcomes Children's capacities gained through SSP can be applied not only to injury prevention but also to any risks for the rest of their lives.

5B – Child – General, March 24, 2021

5B.001 DEVELOPING BEHAVIOURAL THEORY GROUNDED AND USER-CENTRED MOBILE APP TO PREVENT INFANT FALLS

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10.1136/injuryprev-2021-safety.124

Background Digital behaviour change interventions (DBCI) are common public health tools but their use in injury prevention is limited. This paper presents the development and user-testing of the first module to be implemented in a mobile app designed as a DBCI to prevent infants falls.

Methods We used the Behaviour Change Wheel (BCW) to guide DBCI development, and review of literature and parental forum discussions to identify target behaviours. These were mapped to Behaviour Change Techniques (BCTs) and a logic model was constructed. For pilot-testing, pregnant mothers were provided the app to review. Feedback through think-aloud interviews and an iterative process of user-testing was used to refine the app until comprehension criteria was reached: 80% of participants achieving $\geq 90\%$ correct comprehension.

Results Development work identified key target behaviours, including mother getting adequate rest, safe feeding practices and safe infant placing after a feed. BCTs identified were information on health consequences, credible information, social support, prompts and cues, instruction and self-monitoring. For pilot-testing, 20 pregnant mothers were recruited, and 4 iterations of app refinement were required to reach the comprehension target. Acceptability was high and logic model changes were minimal.

Discussion and Conclusion This project demonstrates our novel development pathway and likely acceptance of the DBCI but further work is required to examine app engagement. Once fully implemented, the impact on behaviour change will be examined.

Learning Outcomes Use of the BCW and a user-centred approach is a feasible method for development of DBCI for injury prevention.

5B.002 DEVELOPMENT OF AR APPLICATION AND DATABASE TO VISUALIZE RISKS OF HOME INJURIES

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10.1136/injuryprev-2021-safety.125

Background/Aims Accidental injuries among young children at home is a global issue. Previous research has indicated that some home injuries are preventable. Although the potential for home injuries is everywhere, it is sometimes difficult to anticipate injuries before they happen. Therefore, it is important to visualize children's behaviors at home as part of an effort to mitigate the risk of injuries at home. This study presents a prototype augmented reality (AR) mobile application and web database system aimed at visualizing various children's actions toward their home surroundings in order to prevent injuries.

Methods To visualize how children interacted with their surroundings in everyday environments, we conducted longitudinal observations of 15 children aged 4 to 12 months at their homes in Japan and Portugal. After shortlisting videos that related to the most frequently observed 10 objects, we then developed an AR application, converting the videos into line drawings so as to protect the identity of the participants. The database integrates all observational data and content of the AR application, comprising texts and movies of over 530 everyday objects that infants directly touched at home from 4,100 episodes.

Results As a result, AR application users are able to select the object in their own home environment and see how children interact with it. The AR application provided insight into the interests and behaviors peculiar to young children, and the database enabled users to look for information that could identify potential causes of home injuries.

5B.003 IMPACT OF UNINTENTIONAL CHILD INJURIES IN KAVREPALANCHOK DISTRICT OF NEPAL

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10.1136/injuryprev-2021-safety.126

Background Among the children who meet unintentional injuries every year globally, many are left with some form of disability. The rehabilitation of these children is costly and difficult to afford due to poor economic resources. Thus, it highlights the importance of prevention of unintentional injuries.

Methods A cross-sectional analytical study was done in rural and urban areas of Kavrepalanchok District in Nepal. A total of 667 children aged 1–16 years were included. Impacts of injury on the children and their families were assessed.