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Development of an intervention platform for a school-based salt-reduction programme in China

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Background

Reducing population salt consumption is considered as one of “best-buy” preventive strategies. Previously, school-based health education programmes have been shown to be effective in reducing salt intake of both children and adults. However, the development process and features of such programmes are usually complex and less likely to be clearly reported. As a result, it is common that the intervention development study is treated as a “black box” in certain degree.

Purpose

This study aimed to elaborate the development of an intervention platform for a school-based salt-reduction programme in China (EduSaltS), so as to facilitate the implementation to a larger scale.

Methods

The development process of EduSaltS intervention platform is an evidence-based systematic procedure following four steps:

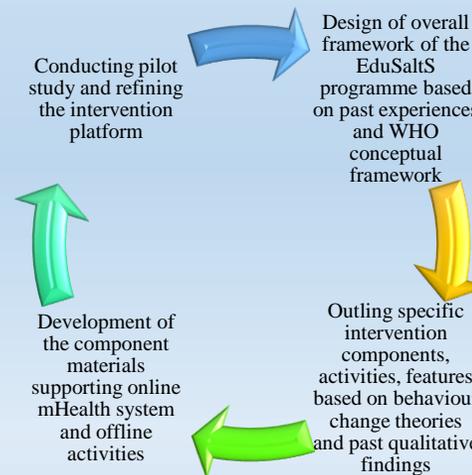


Fig 1. Flow chat of the development process

Four adaptations in our study design:

- ❑ integrate the scale-up package into the existing education system;
- ❑ fit in the refined salt reduction education programme that should be attractive and conducive with the existing education curriculum;
- ❑ leverage innovative technologies, e.g. deliver education programme via mHealth, not only reducing the burden for teachers and schools, but also making the curriculum more attractive and convenient for children and their families;
- ❑ adapt the scale-up package to different geographical, economic and cultural settings.

Should you have any enquiries, please feel free to contact us at jsun1@georgeinstitute.org.cn



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Results

The output is an innovative mHealth-based health education system, called “The EduSaltS platform”, targeting primary school students and their families. Facilitated by a WeChat application, it provides standard and flexible support on school healthy environment development, classroom, home health education curriculum and real practice, and performance evaluation and governance.

Online health education cartoon curriculums

- Online Health education cartoon curriculum is the main intervention component of the EduSaltS platform

Health knowledge battle

- By timely participating one-to-one health knowledge battle with other online users or robot, students and their families can cultivate interests in learning salt-related knowledge and other health knowledge.

Ranking

- This part is displayed on the home screen where participants can easily find out their own ranking position assessed by the intervention activities they completed and the functions of the intervention platform they used.

Salt reduction resource kit

- In this module, users could use all developed intervention materials of EduSaltS programme, to enhance their self-learning.



Health information

- This is a continuous update module that researchers would continuously update new health information and useful materials. Users were welcome to use this module to learn more health knowledge

FoodSwitch

- By scanning the bar code or searching food name, users can identify and compare the sodium content on the nutrition label of prepackaged food, at the same time, it also recommends healthier products of the same kind that contain lower salt

3-day Salt monitoring

- By weighing household salted condiments and continuously recording every meal for 3 days, it can estimate salt intake and realize the main sources of salt for users.

Fig 2. Descriptions on main functions of the ‘EduSaltS’ intervention platform

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Salt reduction health education



Health education

Health education cartoon curriculum



Low-sodium salt



Home cooking



Eating out



Take-out



'Hidden' salt

Posters



Salt reduction handbook



Foldouts

Conclusion

This study has revealed the development process of such an mHealth platform for a school-based health education programme. In the pilot study, this platform has achieved high degree of satisfaction among participants because of its creativity and flexibility. This platform is expected to achieve the higher compliance and effectiveness during the phase of national-wide promotion.

Fig 3. Developed materials supporting the 'EduSaltS' intervention platform