

USER-CENTERED DESIGN IN A SCHOOL-BASED HEALTH EDUCATION PROGRAM

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Our case study reviews a pilot project of an 8-session-long health club carried out in primary schools by teachers and school nurses in Hungary in 2015. The main (and novel) idea was the direct inclusion of parents in the activities: dual attendance of a child and a parent was a requirement for enrolling in the program. Participants' satisfaction level was outstanding, improvement in health knowledge and attitudes was moderate – and still, the pilot project was not followed by a wider-scale adoption of the program. We aim to evaluate how user-centered design during the program development contributed to high level of acceptance and satisfaction by users and the discontinuation of the program at the same time.

1. Introduction

Health education is aimed at inducing lasting changes in knowledge, and attitudes about health as well as actual health behavior of individuals. Providing health education activities in a way which meets the wants and needs of the target group is essential in order to be effective. Primary education has a significant role in forming the health behavior of young children, however, the influence of family background is strong and unavoidable.

Based on this innovative idea a pilot project was initiated and tested in four primary schools in 2015 in Hungary. Planning of the pilot project applied user-centered design with the inclusion of a service design consultant. While participants were very satisfied with the program, and measurement of impacts on health-related knowledge also showed some improvement, the pilot was discontinued and has not been implemented in a wider scale so far (although some materials developed during the project are in use by the participants for their “normal”, “other-than-the-project” activities). Our paper aims to explore why a seemingly successful program might end up in failed broader-scale implementation.

2. Methodology

Document analysis and interviews were carried out in order to prepare the case study. The original project documentation (from 2015) was reviewed: documents included memos about both the development and implementation phases as well as

evaluations prepared by participants and service providers. In 2019 interviews were conducted with experts working on the curriculum, service providers, and a group of children who participated in the club.

3. The case

The pilot was financed from EU structural funds, was part of a much bigger and more complex national health care development project (including other activities like building controlling systems for hospitals, creating methodological guidance for local health capacity planning, developing a national accreditation system for quality development). The beneficiary of this project part was the University of Szeged, with local schools recruited as pilot sites.

The pilot project was aimed at creating a curriculum for an 8-session-long health club, that could be used by schoolteachers and school nurses to provide health development activities in a classroom setting. The sessions covered the following topics: (1) Introduction, health, (2) Dietary habits, (3) Physical activities, (4) Sleeping, (5) Relationships, (6) Television, computers, phones, (7) Health care, (8) Summary.

The main and novel idea of the project was the direct inclusion of parents in the activities of the health club. This idea was supported by the fact that family background (knowledge, attitudes and actual health behavior of parents) is a significant influencing factor of the health behavior of children. This way, health clubs were considered in schools as extra-curricular activities, held in afternoon time slots, when one parent per child could be present. The presence of a parent was a definite requirement for the enrollment, however, in practice, there were some cases where there was a deviation from this protocol (e.g. a grandparent accompanied the child, or the parent stopped visiting the clubs after a few times – of course, no children were sent away for this reason). This setup was unfamiliar for all participants (pupils, parents, teachers, school nurses), but also created unique opportunities to enhance family-school cooperation.

Project members were largely unaware of how and whether service design methodology was used during the project. When the project objectives were set, and the project team from the university side began working on the curriculum, it was realized that a professional designer was needed for creating the visual appearance of the project activities, fit and attractive to the target group of young children. Thus, the project initially looked for a “visual designer” (as described by a project manager). However, the designer, contracted by the project, was a service design consultant, having shown interest in applying service design principles in public services (earlier, she composed a journey map for diabetic patients in Hungary).

Therefore, project participants did not refer to this project as a “service design project”, however, all of them noted that the participation of the designer was highly needed and had a great contribution to the success of the project. The service design consultant herself characterized the project as “not fully or really a service design project”, but she emphasized that it was a “very user-centred design process”.

The pilot project completed two main tangible outputs: the workbook and an accompanying teachers' manual (with some additional materials, like evaluation sheet, leaflets, "key messages to parents" sheets, and a further education short program for school nurses). Based on these materials, any school would be able to reproduce the program – however, as the project manager of the pilot informed us, these materials are not publicly available at the moment. We have no knowledge of any schools continuing or reproducing the program.

4. Results and discussion

All respondents were very satisfied with the design of the workbook, and deemed it essential for being able to communicate with young children. The involvement of a "design expert" was underlined in the leaflet prepared for parents before the program. A teacher and a school nurse emphasized the importance of their inclusion: "university people know the theory, but it is us who know how something works with children". One of the schoolchildren noted that the workbook was "very different from how normal school workbooks look like". A teacher acknowledged that the workbook was innovative and helps a lot in managing the program.

Our interview with the students explored that the layout of these events provided them with ownership: the occasions were designed to be flexible, they could bring in their ideas, their preferred fruits or vegetables. After five years they still remember who brought the most exotic fruit; this and similar personal opportunities for contribution created genuine involvement. The club was also living a life outside of the classroom: parents and kids were doing "homework" and performing little experiments, while the kids could "practice" healthy lifestyle in their own environment, they personalized the tasks for their own every-day-life, motivating each other: "When we did the »chewing measurement« I was watching Harry Potter and my dad counted how many chews I needed to eat an apple."

The project had allocated resources to evaluation from the very beginning: although there was no control group, a pre-post evaluation of health-related knowledge of parents was measured by using a questionnaire. The average score grew from 6.78 to 7.16, however, this change cannot be considered as a significant change. (The pre-selection of children and parents with better health-related knowledge might have played a role here, see later in more details.) An other questionnaire measured how motivated parents were to engage in health education of their children, and how much they knew about the health status / health behaviour of them (for example, a statement like this: "I know how much time my child spends with looking at a screen"). Statements were grouped into categories: "belief in importance of active life" had been and remained highly scored (4.98 before and 5.00 after, on average). In overall small improvements were found in most categories: self-confidence and knowledge for active life (4.58 – 4.71), active participation (4.54 – 4.70), handling stressful situations (3.62 – 3.87), knowledge of health status of children (4.62 – 4.83). Motivation to participate in a health education program like this somewhat decreased (4.62 – 4.51). It is interesting to note that pre-post outcome evaluation was only carried out in the case of parents, not children.

Participation in the pilot project was on a voluntary basis. This way, there was a selection bias: those children (and parents) wanted to participate in the pilot, who had been already interested in living a healthy lifestyle, and had deeper knowledge about health. High-risk groups (e.g. obese children) were not participating. Even the children noticed this problem, as one of them noted: “there are a few other children, who should have been participating in the program”. A school nurse also noted in her evaluation about the possibility for scaling-up the pilot: “only those parents will be willing to participate who take the health of their children seriously already”.

Although the design builds on parents a lot and it is part of its key success factors, it also emerges as a bottleneck: it needs a lot of time and attention from them. This way not everyone can participate, only those, who can attend club activities in the afternoon on a weekly basis (e.g. working parents with less flexible schedules have difficulties).

One of the participating experts noted that the program was carried out after normal working hours, as an extra load for participating educators, and later the enthusiasm vanished, adding that “each project is like this, ends up in the drawer” (referring to the fact that sustainability of results is not a strength of EU funded projects in Hungary since it is the development and not the operation which is supported). A school nurse wrote in her evaluation report right after the pilot: “A few sessions of health clubs can be included [in the workload], but let’s just think about it: sessions with the pupils of one class needed 2 months, and I have got 48 classes, with 35-40 pupils in some of them. I would have to deal with health education of 1400 pupils, not just 10. Additionally, beyond health education, we have a lot of other work to do: vaccinations, screenings, outpatient care, and tons of administration.” Participating students also realized the effort intensity of the health club. During the interview, when discussing why the club was not continued, they suggested, that probably the school nurse did not have the time to continue the programme, although, they would have been happy to carry on with it.

While the health club itself was discontinued after the pilot, several assignments are still used by teachers, and some skills acquired or strengthened during the pilot are evaluated positively (e.g. the school nurse communicates with parents more frequently and more easily).

5. Conclusions

Project outcomes (in terms of improvement of health knowledge and attitudes) remained limited due to selection bias: those families who have already been living a healthy lifestyle were more willing to participate in this pilot program. This fact reflects the difficulty of reaching the right target group during service development. Meeting users’ expectations have been the primary focus, which led to the formulation of a program with high resource use (time consuming for all the participants). A development project can devote much more resources to “being user-centered” than standard, every day operations allow. Sustainability of the service should be taken into consideration to a greater extent, even if it puts a limitation on how user-centered the service can be.

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