Development of Mobile Web-Based Education Programs for Safe Medication Administration

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Background and Purpose:

Considering that children are given medicine by their parents, who are their primary caregivers, parents must be educated in administering medication. This study aims to develop a mobile web-based education program for administering medication in order to increase parents’ knowledge and to allow them to administer medication to their children at home safely.

Methods:

The education program was developed according to the steps outlined by ADDIE model.

1) Analysis: The previous studies on the administration of medication to children were analyzed. In-depth interviews of mothers and experts’ opinions were collected.

2) Design: In information step, the content of the program was organized according to the results of analysis of the parent’s educational needs. In interaction step, a user interface was designed for the interaction between learners and the learning content. In motivational step, a manual was created to help learners use the program easily. In evaluation step, to measure the degree to which the website was used for learning, a management system was built to provide each learner with an individual ID and monitor the frequency and time they used on it.

3) Development: The development consisted of storyline development, media production, and integrated production.

4) Evaluation: A preliminary survey of five experts and five mothers was conducted to assess the system efficiency and convenience, design, information validity and usefulness, and level of understanding of the content.

Results:

A mobile web-based education program for administering medication was developed to offer six-week courses, with each session consisting of 20 minutes of video-watching and quizzes.

The weekly topics were as follows: Week 1 – “Understand your Children,” Week 2 – “Understand the Medication You Administer (part 1),” Week 3 – “Understand the Medication You Administer (part 2),” Week 4 – “Learn How to Administer Medication,” Week 5 – “Things to Know about Medication,” and Week 6 – “Summary and Evaluation.”

Conclusion:

The mobile web-based education program developed in this study for administering medication is expected to contribute to the management of children’s health problems through the safe and effective administration of medication and to promote health by preventing the misuse or abuse of drugs.
Title:
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Keywords:
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References:


Abstract Summary:
This study aims to develop a mobile web-based education program for administering medication in order to increase parents' knowledge and to allow them to administer medication to their children at home safely.

Content Outline:

1. Introduction

1) It is need to increase parents' knowledge and to allow them to administer medication to their children at home safely.

2) This study aims to develop a mobile web-based education program for administering medication.

2. Body

1) A mobile web-based education program for administering medication was developed to offer six-week courses.

2) The weekly topics were as follows: Week 1 – “Understand your Children,” Week 2 – “Understand the Medication You Administer (part 1),” Week 3 – “Understand the Medication You Administer (part 2),” Week 4 – “Learn How to Administer Medication,” Week 5 – “Things to Know about Medication,” and Week 6 – “Summary and Evaluation.”

3. Conclusion
1) The website development process was implemented through continuous meetings with mobile web developers. It consisted of website development planning, web design development, manager module development, web hosting, and maintenance.

2) The mobile web-based education program developed in this study is expected to contribute to the safe and effective administration of medication and to promote health by preventing the misuse or abuse of drugs.

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**Author Summary**: Dr. Mi-Ae You is an associate professor from college of nursing, Ajou University and teaching student about pediatric nursing. She has published research papers in international journals and has been serving as a reviewer. One of her interest areas of research is safe administration of medication. She is currently conducting the project granted from government entitled development and evaluation of mobile web based program about safe medication administration for Kids' parent.