

Development of the Home-Based Multimedia System for Mental Health Management in Adolescents via Information Superhighway

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Abstract

The purpose of this study was to develop a web-based multimedia system for mental health management in adolescents via information superhighway. Research process includes needs assessment, needs analysis, design, development/testing, and application release. With this computerized system, adolescents can improved their mental health states. In addition, adolescents who have minor mental health problems can manage it by oneself.

keywords

Mental health, Information system, Nursing Informatics, Internet, Adolescents

1. Introduction

World Health Organization's warning last year that the fastest-growing mental health problem in the world, and particularly in the developed world, was among adolescents. According to the rapid socio environmental change In Korea, many adolescents suffer from their identity confusion. Most of Korean adolescents are under pressure to study hard for an examination. The failure to examine the possible causes of rising levels of mental ill health amongst adolescents provoked much critical commentary, even from those who welcomed efforts to draw attention to the problem. The incidence of depressive symptoms among Korean adolescents has increased to approximately 40%. Even 8% of them reported suicidal idea [1].

Worldwide, about 4.5% of all Internet searches are for health-related information [2]. Access to the rapidly increasing store of web-based information is essential for effective public health practice. In Korea, the Internet has become a most favored source to find health information. About 44.5% of all Internet searches are for health-related information [3]. Thus this project was conducted to develop a health information service system for mental health care in adolescents via internet.

2. Methods

This study used user-centered design model including needs assessment needs analysis, design, development/testing, and application release.

To identify users' information needs, the investigator will conduct a descriptive study by performing surveys, interviews, and workshops in major cities in Korea. 3487 Korean

adolescents participated in this study. A collaborative work between the health professions and information technical engineers began to produce a scrupulous program, which would accomplish meeting the established goals, contents, and methods.

The software used to produce the system includes Flash 4.0, Adobe Photoshop 5.0, Adobe illustrator, MS IIS 3.0, MS NT Serve 4.0, MS FrontPage, and MS SQL 7.0.

3. Results & Conclusion

This system will go through individual data and will be utilized to screen those who have mental health problems. In addition, this system includes intervention programs to relieve mental health problems such as education, exercise, relaxation, deep breathing, visualization, music therapy, family therapy and counseling with researcher or psychiatrist. Using this system, every adolescent who has minor mental health problems can manage it by oneself.

This research interested in the telemedicine and developing home-based multimedia system for management of the adolescent's mental health problems. Therefore, through these system adolescents can save time and cost. And it could be adequately applied to assessing mental health problems and as an intervention strategy for not only adolescents who have mental health problems but also normal adolescents. It is expected that this management system will contribute to the mental health promotion as well as community for the mental health related researchers, professionals and experts to share information on the adolescent's mental health.

This research interested in the telehealth, especially information service system for more efficient psychiatric mental health care. Therefore, this system will be a new way of nursing intervention and contribute to the psychiatric mental health promotion in adolescents.

Acknowledgments

This work was supported by the Korea Research Foundation Grant funded by the Korean Government (R05-2004-000-12694-0)

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