

# THE DEVELOPMENT OF 3F'S APPLICATION OF JUNIOR NURSING STUDENTS.

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## ABSTRACT

**Background:** 3F's– Being Healthy is a smartphone application which can be downloaded on IOS and Android system similar to online TV, Line applications, YouTube, Twitter, Camera, Spotify, etc. This feasibility study aimed to develop “3F's Being Healthy” application guide for health promotion by junior nursing students.

**Methods:** Based on Thailand Healthy Lifestyle (2012), “3F's– Being Healthy” is transformed to digital format in order to promote health for senior citizen. Fifty-five junior nursing students of Food- Fit- Fun (3F's). The participants' receiving 3F's - information on Line application, consisted of 5 pages; the 1<sup>st</sup> page was main menu; the 2<sup>nd</sup> page was food; the 3<sup>rd</sup> -4<sup>th</sup> page were Fit, referring to physical activity; and the 5<sup>th</sup> page of screen was fun, referring to leisure time and recreation. Application feedback was reviewed via Line application on smartphones.

**Finding and Conclusion:** The overall opinion was agree to strongly agree. Most of respondents were satisfied with 3F's-Application. Some respondents expressed that two ways interactive information is more interesting.

**Keywords:** 3F's - Being Healthy, Mobile Devices, Junior Nursing Students. Health Education

## INTRODUCTION

Population-based approaches are an important aspect in primary health care strategies and need community support and contribution to ensure improved health outcomes [1]. The focus on health promotion is necessary for quality of life. Many of the challenges relate to the activity interventions by modification of health systems [2]. Also, using smartphones and other mobile applications such as Line applications, camera, audio, TV, etc., is a normal way of communication using technologies for social purposes [3, 4]. Moreover, a smartphone may foster anytime and anywhere interactions between one user and other users , for example, teachers and students, students and students, or students and patients [5]. These devices attributes nursing students for clinical practices which may promote patients' health. From previous studies, the use of smartphones by nursing students indicated that smartphones are useful in fostering clinical efficacy, assisting decision making, and developing competencies [6]. For individual health promotion, typical line application can update and access to health information, also, the application help track progress in food choices, physical activities, and psychological managements. Therefore, this study evaluates “Being Healthy with 3F's, a line application on smartphone by junior nursing students.

## METHODOLOGY

### Development of screen pages via Line application for junior nursing students

“3F’s-Being Healthy ” via Line application based on the self-care theory and the literature review [2, 7, 8]. The categorized data were evaluated by three experts: the senior professional nurse, the community health nursing instructor, and the information technology lecturer.

“Healthy @3F’s” screen pages started with a homepage attached to the URL(<https://marvelapp.com/aed77a7/screen/51977051>)



Figure 1: Main menu



Figure 2: 3F's

### How to play

1. Click <https://marvelapp.com/aed77a7/screen/51977051> , figure 1 shows “Being Healthy with 3E’s”, main menu
2. Press the blue button, the figure 2 presents a page of 3F’s
3. Press any of 3F’s buttons

Figure 3 shows F1 referring to Food

Figure 4-5 shows F2: referring to Fit

Figure 6 shows F3: referring to Fun



Figure 3: F1 Food



Figure 4 : F2 Fit



Figure 5: F2 Fit



Figure 6: F3 Fun

## DESIGNS, POPULATION AND SETTING

Before using “3F’s-Being Healthy” among patients in a community. This study was tested individually by undergraduate nursing students of College of Nursing and Health, Suan Sunandha Rajabhat University, Bangkok, Thailand. The nursing students, who were eligible to participate (เพิ่มเติม) provided that they were enrolled in a community nursing subjects that including nursing innovation topics. The students who were willing to participate in the study, were invited to try the screen “3F’s-Being Healthy” and to fill eight items of

questionnaire which could be divided into two parts. The first part comprised of 1) title name, 2) screen mode, 3) attractive& colorful screen, 4) font size 5) content 6) screen of F1-food 7) screen of F2-Fit and 8) screen of F3-fun. Likert scale was employed in this section with the scale) from 1 which refer to strongly disagree to 5 which refer to strongly agree. The second part consisted of open-ended questions to gather feedback about all experiences after using 3F's-Being Healthy application. The activities took place as a part of subject learning during academic year of the semester 3/2018. Fifty- five nursing students were recruited into this study. Written consent was obtained from all participants. Then “3F's-Being Healthy” was launched via line application, and participants freely response, respectively.

The evaluation of “3 F's-Being Healthy” categorized by 3F's-Food-Fit-Fun, routine activities using figures on self-care Line application. The Line application provided the participants the information about F1: Food referring to healthy food, as well as, F2: Fit referring to physical activity, and F3: Fun referring to leisure time and recreation. The number and percentage were analyzed and presented as descriptive statistics.

### ETHICAL CONSIDERATIONS

Institutional ethics clearance for this study was obtained from Suan Sundha Rajabhat University (SSRU), and all participants completed a consent form before the study started .

### RESULTS

The study shows that 55 junior nursing students used smartphones regularly. The participants' characteristics were women with age range  $19-22 \pm 2.12$  years, most of them used smartphones more than 6 hours/day (74.6%). The results for each item related to smartphone usage, as shown in Table 1

**Table 1**  
**General characteristics (n =20)**

Lists	Number ( %)
Sex: Female	47 (85.5)
Age (20 Years)	25 (45.5)
	( $\bar{x}$ =19.8 S.D.= 2.12 Max=22 Min=19)
Smartphone usage duration	
Less than 3 hours	5 (9.0)
3-6 hour(s)	9 (16.4)
More than 6 hours	41 (74.6)

All participants responded to “3F's -Being Healthy” questionnaire after trying Line application , an eight items were asked as the result shown in Table 2.

**Table 2**  
**3F's -Being Healthy screen via Line application (n 55)**

Lists	n (%)	Average Score (1 to 5)
1. Interestedness of the title	28 (50.9)	4.6
2. Understandable screen display	29 (52.7)	4.6
3. Attractive & Colorful screen	36 (65.5)	4.8
4. Optimal font size and visibility	38 (69.1)	4.9

Lists	n (%)	Average Score (1 to 5)
5. Detailed & clear content	33 (60.0)	4.7
6. The screen page of F1: 1 Food	28 (50.9)	4.6
7. The screen page of F2: 2 Fits	31 (56.4)	4.7
8. The screen page of F3: 2 Fun	35 (63.6)	4.4

Furthermore, the open-ended questions were completed, such as “What do you think about the links screen for 3F’s Being Healthy?, And why?” All participants can freely answer. The result finding shows that the main point was a positive feedback about the title interestedness, the colorful background and understanding screen display. The answers are as shown in Table 3

**Table 3**  
**3F’s-Being Healthy screen open-ended question**

Items	Examples of Responses
1. Title name	“Nice, brief, easy to understand”
2. Easy mode using	“I think it would be easy for elderly people to use” “It can help me as a tool to assist patients when I teach them”
3. Colorful display	“Cool!, and it’s easy to read”
4. The health activity	“Boring! There should be two ways like a phone call”

## CONCLUSION DISCUSSION AND RECOMMENDATIONS

This pilot study observed individually nursing students to try health education tool which was based on the Thailand healthy lifestyle program. Participants in this study agreed with smartphone using in order to give health education via mobile application, their general characteristics were women with aged range 19-22 years. The main point of 3F’s -Being Healthy was optimized font size and color of the screen which cause the positive effect to the viewing experiences. However, the screen should be able to display more real-time interactive messages[9, 10].

From this result findings, most of the participants agree with the 3F’s- Being Healthy via Line application. However, some expressed that two ways interactive message should be developed and the screen should be added message response as a phone called [3, 4]. Finally, functions of Line application could be more developed in the future in order to provide more accessibility to other groups of people.

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