



## Effects of Health Education on Hygienic Self-Care Practices among Female Adolescent

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### Abstract

**Background:** As an older child enters the stage of adolescence, several changes happen within the human body, particularly female adolescents. The researcher as a Nurse educator realized the need to include health education on hygienic self-care practices in the subjects to be taught in Junior High School. The study aimed to determine the effect of health education on the hygienic self-care practices among adolescents' female junior high school in Yogyakarta City, Indonesia.

**Methods:** This study used a quantitative design utilized pre-experimental with one group pretest-posttest design. The researcher used health education on the hygienic self-care practices module as the intervention and a self-made questionnaire as the instrument.

**Results:** Data shows a mean score on the before health education which is 2.96 had increased after health education to a mean score of 3.68. There is a mean difference of 0.72 and a p-value of 0.000 in between the scores which indicates a significant result. The proposed health education program developed by the researcher needs to be implemented in the participating schools.

**Conclusion:** The role in the collaboration of the school nurses and teachers are needed to the success of a health education program to their students who are in the stage of adolescence.

### How to Cited

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## Introduction

Good self-care and hygiene go hand in hand. Self-care is incomplete without good hygiene. Hygiene is a concept related to cleanliness and hygiene mostly means practices that prevent the spread of disease-causing organisms (Vandegrift et al., 2017). Likewise, personal cleanliness is the first step in good self-care and hygiene (Ranasinghe et al., 2016). Personal hygiene is the self-care by which people attend to such functions as bathing, toileting, general body hygiene, and grooming. Furthermore, hygiene is a highly personal matter determined by individual values and practices (Kozier, B., & Erb, 2015). Everybody has their personal hygiene activities and standards that have been taught or that they have learned from family and environment (Gadsden et al., 2016). These practices are learned in the early years of one's life and are modelled after family, friends, and other community members such as caretakers, teachers, and parents (Kericho & Rebecca, 2016; Ranasinghe et al., 2016).

As an older child enters the stage of adolescence, several changes happen within the human body. During this stage, hygienic self-care activities become more important as the body begins to mature and physiologic changes start to occur (Mensah et al., 2013). One of the best ways to develop good hygienic self-care practices is to start teaching and educating adolescents on the importance of personal hygiene (Sarkar, 2013; Tamiru et al., 2017). Parents can help their adolescents to take the right steps when it comes to hygienic self-care practices. Supported by the resulting study by Rompas, Ismanto, and Oroh found that there were some bad practices or habits on personal hygiene among adolescents in Indonesia. With all these concerns, Indonesian female adolescents cannot ask questions to their parents or teachers about hygienic self-care practices because they felt embarrassed and uncomfortable talking about it (Rompas et al., 2018). Moreover, it was observed that health education on personal hygiene or hygienic self-care practices were not included in the list of subjects to be taught in school (Kusuma, 2019).

At present, health education on personal hygiene or hygienic self-care practices is not included in the subject to be taught despite its

importance. This was based on the interview conducted by the researcher with some female adolescents' junior high schools in Yogyakarta, Indonesia. The researcher as a Nurse educator realized the need to include health education on hygienic self-care practices in the subjects to be taught in Junior High School. The findings from this study may contribute to increasing knowledge and improving practice on hygienic self-care among adolescents' female junior high school in Yogyakarta City, Indonesia.

## Methods

This study used a quantitative design utilized pre-experimental with one group pretest-posttest design. Data were collected before and after the intervention. The total population in 8 schools was 2,408 female students junior high school was aged 12-14 years old. The researcher used Slovin's formula to determine the number of samples in the study and there were 343 respondents. The researcher calculated the number of samples in each school by dividing the total population of female students in a school with the total population and then it was multiplied by the number of samples. However, 146 questionnaires were complete in all respects.

The researcher used a self-made questionnaire on hygienic self-care practices. This was composed of two (2) parts; the first part was for the demographic profile while the second part was for the hygienic self-care practices. The questionnaire on the demographic profile consisted of age and religion, while the hygienic self-care practices questionnaire consisted of 40 statements regarding the practice of Hand Care, Clothes Care, Foot and Nail Care, Eyes, Nose and Ear Care, Hair Care, Genital Care, Skin Care, Mouth and Teeth Care. The self-made questionnaire was used before and after health education. The researcher used the Likert Scale to measure the hygienic self-care practices of the respondents before and after health education. The pilot study was conducted on thirty (30) female adolescents' outside the school which was the implementation of the study. Ethics approvals and permissions for the informed consent forms, information sheets, and other requested documents, or any subsequent modification was obtained from the

ethical committee of St. Paul University Manila. Participants in this study were 12-14 years old so consent from their parents or guardians was required. This included also their rights and assurance of the confidentiality of their identity as they answer the self-made questionnaire.

A health education program was used as the intervention in this study. The researcher used three sessions: the first session was lecture-discussion using powerpoint presentation, the second session focused on demonstration of the hygienic self-care practices and the third session was a continuation of a demonstration on the hygienic self-care practices.

## Results and Discussion

The percentages and frequency distribution of respondents according to age and religion. Frequency distribution of respondents according to age can be gleaned from the data that the respondents in the study were in the stage of pre-teens which pertains to age 12 years

old and early adolescence from age 13 to 14 years old. The junior high school in Indonesia consists of grade 7, grade 8, and grade 9. One vital life skill to teach children in the stage of pre-teens and early adolescence is hygienic self-care practices. Understanding hygienic self-care practices is part of their transition as they cope with their physical, physiological, and emotional changes (Gustina & Djannah, 2015).

The percentages and frequency distribution of respondents according to religion showed the result that the majority of female adolescents in junior high school were Muslim (94.5%), followed by Christian (4.1%), and Catholic (1.4%), and the rest were Hindu (0%) and Buddha (0%). This result is following the state of Indonesia which has a majority of the Muslim population. The percentage of the Muslim population in Indonesia is 87% followed by Christian with 7%, Catholic is 2.91%, Hindu is 1.69%, and Buddha is 0.7% (Markus, 2014).

**Table 1** Difference Mean between the Hygienic Self-Care Practices Before and After Health Education

Characteristic	Before (Mean)	After (Mean)
Hair Care Practices	3.08	3.73
Eyes, Nose and Ear Care Practices	2.87	3.59
Mouth and Teeth Care Practices	3.24	3.59
Skincare Practices	3.14	3.62
Hand Care Practices	2.75	3.38
Genital Care Practices	3.09	3.85
Clothes Care Practices	2.66	4.00
Foot and Nail Care Practices	2.83	3.70

Table 1 shows there is a difference between the mean score of practices on hygienic self-care before and after health education. Data shows each part of the hygienic self-care practices before health education on hair care is 3.08, eyes, nose and ear care is 2.87, mouth and teeth care is 3.24, skincare is 3.14, hand care is 2.75, genital care is 3.09, clothes care is 2.66,

foot and nail care is 2.83. While, for each part of the hygienic self-care practices after health education shows the increase mean score on hair care became 3.73, eyes, nose and ear care became 3.59, mouth and teeth care became 3.59, skincare became 3.62, hand care became 3.38, genital care became 3.85, clothes care became 4.00, foot and nail care became 3.70.

**Table 2** Significant difference between the Hygienic Self-Care Practices Before and After Health Education

	Mean	SD	Mean Difference	z computed	p-value	Conclusion
Before	2.96	.11				
After	3.68	.10	0.72	-10.489	0.000	Significant

Table 2 showed that there is a significant difference between the hygienic self-care practices before and after health education. Data shows a mean score on the before health education which is 2.96 had increased after health education to a mean score of 3.68. There is a mean difference of 0.72 and a p-value of 0.000 in between the scores which indicates a significant result. On the importance of health education that this is a consciously planned process to create opportunities for individuals to continue learning and become aware of the importance of hygienic self-care practices (Rendi et al., 2017). Health education is a way to reinforce the practices through strengthening knowledge based on the given information (Rendi et al., 2017; Sekarwati, 2017; Shrestha & Angolkar, 2014).

This study compared the knowledge and practices among female adolescents of selected Government Junior High School students in Yogyakarta, Indonesia. The hygienic self-care practices before health education indicate that the respondents still have low knowledge and only imitate the practices from their parents and their friends. Adolescent knowledge about personal hygiene practices is still low because many of the practices carried out are not following correct hygiene practices, and one of the factors is that the adolescent's parent teaches their children to follow parental hygiene (Astuti, 2017; Atakro Alorse Confidence, Boni Sedinam George, 2017). They also did not have enough information regarding practices of hygienic self-care include hair care, eye, ear, and nose care, mouth and teeth care, skincare, hand care, genital care, clothes care, foot and nail care. There was a need to conduct health education on hygienic self-care practices among female students. Health education on personal hygiene practices is needed to increase students' knowledge and practices then can improve the high level of health. (Komariyah, 2018; Rendi et al., 2017; Sih, 2019).

This study discovered that after health education the mean scores were higher than before health education on hygienic self-care practices among female students. The purpose of this intervention was to reinforce what they know and to improve their current practices. The researcher was conducted a lecture

discussion using powerpoint presentation, demonstration, and return demonstration on hygienic self-care practices. These results were similar to other studies that health education on personal hygiene practices can increase student's knowledge and practices to reach a high level of health and also can develop their mental health to study well (Anggraini et al., 2019; Pal & Pal, 2017; Wang et al., 2018). The demonstration activities on personal hygiene practices can remind adolescents of each step practices because demonstration activities make the brain remind easily (Asthiningsih & Wijayanti, 2019; Pal & Pal, 2017).

The researcher conducted three (3) sessions, the first session was lecture-discussion using powerpoint presentation. The second session focused on demonstration of the hygienic self-care practices. The participants were given the time to practice. The third session was a continuation of the demonstration. The interval given for each session was one (1) week. This was to allow the participants to process and appreciate the learning from the lecture discussion and the demonstration. The allocated time in the conduct of health education on hygienic self-care practices was three (3) weeks. The researcher conducted a home visits randomly among the female adolescents' junior high school and interviewed the participants and the parents to find out if there is a change in the hygienic self-care practices. The hygienic self-care practices after health education indicate that the respondents understand more about the hygienic self-care practices through lecture-discussion, demonstration, and return-demonstration the respondents more understand the procedure to practice hygienic self-care and can remember step by step of the practices. The results also show the need to follow up by the parent at home and by the teacher at school on the practices on hygienic self-care practices to reinforce the practices of the respondents. Parents' cooperation will help to double-check both in terms of knowledge and especially in practice in hygienic self-care. Parents can monitor the practice of hygienic self-care for adolescents at home (Education & Services, 2014; Helal et al., 2015).

The researcher also observed the importance of demonstration for the

respondents to remember how to perform such practices considering that they are in the stage of adolescence. Rendi et.al explained that practice is the realization of knowledge and attitude (Rendi et al., 2017). Furthermore, Mustikawati et.al described that practice is all forms of experience and individual interaction with the environment especially concerning knowledge, attitudes, and actions (Mustikawati & Faradillah, 2013). The researcher observes that gaining knowledge is one factor that influences hygienic self-care practices among the respondents. Someone who has a higher education will tend to practice their knowledge.

This study did not represent all genders. This study only examined hygienic self-care practices among female adolescents and was not among male adolescents. Based on findings, a health education program among adolescents can be developed and be included as one of the courses in junior high school. This can be implemented through sessions based on the coverage of hygienic self-care practices. This proposed health education program developed by the researcher can be implemented by the school nurse in collaboration with the guidance counsellor and the teacher assigned for each section of junior and senior high school. The respondents will not only focus on female adolescents.

## Conclusion

The demographic profile of the respondents is in the stage of adolescence, this indicates the need for parental guidance and school should come up with a health education program on hygienic self-care practices. There was a significant difference between the hygienic self-care practices of female adolescents before and after health education. This showed there was an effect of health education on the hygienic self-care practices among female students in Junior High School in Yogyakarta, Indonesia.

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