Hands-On is Better Than Look-On : Condom Use

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Abstract

Objectives : To compare knowledge about condoms, attitude towards condom use and skill in condom application between the experimental group who received hands-on and the control group who had look-on demonstrations of condom application onto the penile model of third year male primary vocational students.

Method : Self administered questionnaire was used to collect data about knowledge and attitude. Skill was separately evaluated by a skill evaluation form. Pretest and posttest of knowledge, attitude and skill were done separately at 2 week intervals in the same subjects. The pretest and post-test scores were expressed as the mean and standard deviation. Statistic analysis used unpaired *t*-test for comparing scores between the two groups using SPSS.

Results : Comparison of pretest with pretest, posttest with posttest and the different mean score of posttest with pretest between the two groups of knowledge and attitude about condoms were not significantly different in both groups but the skill in condom application score was significantly different (p-value < 0.001). However, the skill score increased in the experimental group more than in the control group.

Conclusions : This study suggested that condom application skill increased with the hands-on than look-on instructional model. It was concluded that hands-on should be used to improve skill to prevent condom user failure and nonuse.

Key word : Hands-On, Look-On, Condom Use

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Adolescence is a phase used to describe the peak development of the body, emotion and intelligence. The body develops in size and shape. Emotion develops in feeling of sexuality in relationship with partners, self-confidence and independence. Intelligence develops in reasonable thought, conceptualization and attitude towards life[1]. According to sexual behavior in adolescence, 30.2 per cent of Thai male vocational students have had sexual intercourse and only 5.8 per cent used condom. In the AIDS era, proper and consistent use of condom when engaging in sexual intercourse can greatly reduce the risk of sexually transmitted diseases (STDs), HIV infection and pregnancies. Consistent use means using a condom from start to finish with each act of sexual intercourse to provide maximum protection[2-5]. In adolescence, condom user failure and nonuse may be due to lack of knowledge, negative attitudes towards condom use and lack of skill in condom application. The objective of this study was to compare knowledge about condoms, attitude towards condom use and skill in condom application between the experimental group who received hands-on, and the control group who had a look-on demonstration of condom application onto the penile model for third year male primary vocational students for understanding factors related to inconsistent condom use and developing strategies to promote condom use.

MATERIAL AND METHOD

This research was an experimental design by intervention in male third year primary vocational students at Ratchaburi Technical College, Ratchaburi Province from February to March 2000. Three hundred and fifty eight students from 15 classrooms were selected for this study using the proportion of students by the simple random sampling method for the experimental and the control group, composed of 39 students in each group. All subjects were willing to take part in this study. The students were randomly allocated into two groups. The experimental group received hands-on and the control group was subjected to a look-on demonstration of condom application onto a penile model. Self administered questionnaire was used to collect data about knowledge which consisted of 12 items with a score range between 0-12 and attitude which consisted of 17 items with a score range between 17-51. Skill was assessed by a skill evaluation form with a checklist to evaluate the subject's skill by the researchers. The skill consisted of 11 items with a score range between 0-11. Subjects started to apply condom one-by-one from first step sequentially step by step until finished at the withdrawal of condom from the penile model. Pretest and posttest of knowledge, attitude and skill were done separately after an interval of two weeks in the same subjects. The pretest and posttest score were expressed as the mean ($\bar{X}$) and standard deviation (SD). Statistic analysis used unpaired *t*-test to compare the score between the two groups using SPSS (Statistical Package for Social Sciences). The significant p-value was < 0.05.

RESULTS

Seventy eight male vocational students were enrolled in the study. The experimental and control group had 39 students each aged between 17-20 years old. Seventy four per cent of the students in this study were in the 18 year old age group (Table 1).

Knowledge in the experimental group, the pretest mean score was 10.90 ± 0.50 and the posttest mean score was 11.28 ± 0.69. In the control group, the pretest mean score was 10.82 ± 0.64 and the posttest mean score was 11.10 ± 0.85. Using *t*-test to analyze the pretest score of knowledge between the two groups revealed, it was not significantly different at p-value 0.588. It was the same with the posttest score of knowledge between the two groups, which was not significantly different at p-value 0.309. When using the *t*-test to analyze the different mean scores of posttest with pretest between the two groups for knowledge, it was not significantly different at p-value 0.636 (Table 2).

Attitude in the experimental group, the pretest mean score was 37.69 ± 4.56 and the posttest mean score was 41.31 ± 4.10. In the control group, the pretest mean score was 38.85 ± 4.08 and the posttest mean score was 41.82 ± 3.29. Using the *t*-test to analyze pretest score of attitude between the two groups, it was not significantly different at p-value

Table 1. Age of the experimental and control group.

Age	Experiment		Control	
	Number	%	Number	%
17	5	12.8	3	7.7
18	27	69.3	31	79.5
19	5	12.8	4	10.2
20	2	5.1	1	2.6
Total	39	100.0	39	100.0

Table 2. Using *t*-test to analyze pretest with pretest, posttest with posttest and the different mean ($\bar{d}$) posttest with pretest between the two groups for their knowledge about condoms.

Group	Time	$\bar{X}$	$\bar{d}$	SD	t	df	P-value
Experiment	Pretest	10.90		0.50	0.588	76	0.588
Control	Pretest	10.82		0.64			
Experiment	Posttest	11.28		0.69	1.025	76	0.309
Control	Posttest	11.10		0.85			
Experiment			0.38	0.81	0.475	76	0.636
Control			0.28	1.07			

Table 3. Using *t*-test to analyze pretest with pretest, posttest with posttest and the different mean ($\bar{d}$) posttest with pretest between the two groups for their attitude towards condom use.

Group	Time	$\bar{X}$	$\bar{d}$	SD	t	df	P-value
Experiment	Pretest	37.69		4.56	-1.178	76	0.242
Control	Pretest	38.85		4.08			
Experiment	Posttest	41.31		4.10	-0.609	76	0.544
Control	Posttest	41.82		3.29			
Experiment			3.62	4.57	0.705	76	0.483
Control			2.97	3.38			

Table 4. Using *t*-test to analyze pretest with pretest, posttest with posttest and the different mean ($\bar{d}$) posttest with pretest between the two groups for their skill in condom application.

Group	Time	$\bar{X}$	$\bar{d}$	SD	t	df	P-value
Experiment	Pretest	2.08		2.13	-6.703	76	< 0.001
Control	Pretest	5.77		2.70			
Experiment	Posttest	9.90		1.55	3.582	76	0.001
Control	Posttest	8.26		2.40			
Experiment			7.82	2.64	8.044	76	< 0.001
Control			2.49	3.19			

0.242. It was the same with the posttest score of attitude between the two groups, it was not significantly different at p-value 0.544. When using *t*-test to analyze the different mean score of posttest with pretest between the two groups for attitude, it was not significantly different at p-value 0.483 (Table 3).

Skill in the experimental group, the pretest mean score was 2.08 $\pm$ 2.13 and the posttest mean score was 9.90 $\pm$ 1.55. In the control group, the pretest mean score was 5.77 $\pm$ 2.70 and the posttest mean score was 8.26 $\pm$ 2.40. Using the *t*-test to analyze the pretest score of skill between the two groups, it was significantly different at p-value < 0.001. It was the same with the posttest score of skill between the two groups, it was significantly different at p-value 0.001. When using the *t*-test to analyze the different mean scores of posttest with pretest between the two groups for skill, it was significantly different at p-value < 0.001 (Table 4). However, the skill score was higher in the experimental group than in the control group (7.82 *vs* 2.49).

DISCUSSION

This was an experimental study by intervention hands-on compared with look-on as the control group and subjects were randomly allocated to both groups using simple random sampling. Thus, subjects of both groups had the same baseline characteristics. The mean age of both groups was 18 years old, which was representative of the students in the vocational college. Therefore, they had the same characteristics of young men in late adolescence.

Characteristics of late adolescence, male is interest in sex without love. Approximately, half of the students had already had sexual intercourse[6,7].

Due to sample size calculation, each group was composed of 39 students which was larger than other studies. DeWit et al[6] had 20 students and Kvalem et al[8] had 30 students in any one group. Being a larger group, concentration and communication of the subjects may be reduced which may affect the score especially of knowledge and attitude. The two week interval since intervention to posttest was the minimum. Kvalem et al[8] reported an interval of 2-3 weeks between pretest and posttest. Ideally, it is suggested that following the intervention, follow-up measurement should be done periodically to observe the changes over time of the alteration in knowledge, attitude and skill in condom use[8,9].

This study did not show any significant difference between pretest with pretest, posttest with posttest and the different mean score of posttest with pretest between the two groups for their knowledge and attitude. The mean score of knowledge at pretest and posttest in both groups was very high. This is probably due to the previous educational efforts of the Ministry of Public Health to lower the incidence of STDs and AIDS in high risk groups such as in male adolescents. According to attitude, the two week interval did not change attitudes towards condom use which was the same as the report by DeWit et al[9]. But with intervention again and again the attitude generally became more positive over time.

When the results of pretest with pretest, posttest with posttest and the different mean score of posttest with pretest between the two groups for skill were compared, all results became significantly different. However, the skill score was very low, less than 50 per cent in both groups, and after the intervention the score increased in the experimental group more than in the control group. The difference in pretest skill score in both groups may be due to prior learning of the individual. But the lower score in both groups suggested that most of the subjects in this study had incorrect skill in condom use. Two common incorrect condom use were firstly, failure to squeeze the tip of the condom when first applied and secondly, exposure to contamination during condom removal. This was probably because the subjects were not concerned with STDs and AIDS.

The skill score increased in both groups because subjects could practice correctly with either method of teaching by hands-on or look-on demonstration. But the experimental group which used hands-on had a higher score than look-on. It was concluded that hands-on should be used to improve skill to prevent condom user failure and nonuse, subjects were more familiar and confident with the condom. Also, a bad experience with condom use during a young man's first sexual experience may affect his view point on future condom use[10]. However, hands-on was time and budget consuming and should also have fewer subjects in small groups for better concentration and communication.

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ให้ทำดีกว่าให้ดู : ถุงยางอนามัย

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การศึกษานี้มีรูปแบบเป็นการวิจัยเชิงทดลองในนักศึกษาอาชีวะชาย ปวช. ปี 3 ที่กำลังศึกษาอยู่ในวิทยาลัยเทคนิคราชบุรี ระหว่างเดือนกุมภาพันธ์-มีนาคม พ.ศ. 2543 แบ่งนักศึกษาเป็น 2 กลุ่ม โดยการสุ่มตัวอย่างจากนักศึกษาทั้งหมด 358 คน ได้กลุ่มศึกษาและกลุ่มเปรียบเทียบกลุ่มละเท่ากัน 39 คน โดยมีวัตถุประสงค์การศึกษาเพื่อเปรียบเทียบ ความรู้ ทัศนคติ และทักษะการสวมถุงยางอนามัยกับหุ่นอวัยวะเพศชาย สำหรับกลุ่มศึกษาจะได้ปฏิบัติจริงกับหุ่น ส่วนกลุ่มเปรียบเทียบให้นักศึกษาสังเกตการสาธิตการสวมถุงยางอนามัยกับหุ่น โดยทำการประเมินเป็นคะแนน ทำ 2 ครั้ง ห่างกัน 2 สัปดาห์ ทำการเปรียบเทียบโดยใช้สถิติ unpaired *t*-test ที่ค่าความแตกต่างที่มีนัยสำคัญทางสถิติที่ค่า p-value < 0.05

ผลการศึกษา โดยทำการเปรียบเทียบคะแนนความรู้และทัศนคติเกี่ยวกับถุงยางอนามัยในทั้งสองกลุ่มพบว่าไม่แตกต่างกันของคะแนนที่ทำการทดสอบครั้งแรกและครั้งหลัง แต่คะแนนทักษะมีความแตกต่างกัน โดยกลุ่มศึกษาจะมีคะแนนทักษะเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติต่างจากกลุ่มเปรียบเทียบ (p-value < 0.001)

การศึกษานี้แสดงให้เห็นว่า การให้นักศึกษาได้ปฏิบัติสวมถุงยางอนามัยจริงกับหุ่นอวัยวะเพศชายได้ผลดีกว่าการสังเกตการสาธิต ดังนั้นการลดความล้มเหลวในการใช้ถุงยางอนามัยนั้น สิ่งที่ต้องทำก็คือให้นักศึกษาได้ฝึกปฏิบัติจริงกับหุ่นอวัยวะเพศชาย จะเป็นวิธีการเรียนรู้ที่เหมาะสมกว่าการสังเกตการสาธิต

คำสำคัญ : การฝึกปฏิบัติ, การสังเกตการสาธิต, การใช้ถุงยางอนามัย

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