

# Attitude towards New Packaging to Reduce Condom-carrying Embarrassment among Thai Youth, A Cross-sectional Study

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## Abstract

**Background:** Human Immunodeficiency Virus (HIV) incidence has been increasing in Thai youth, mostly from unsafe sex. Embarrassment with carrying condom was one of the main reasons. This study aims to evaluate attitude towards condom use, sexual behavior and the new condom packaging that merges with daily life products in Thai youth. **Methods:** A cross-sectional study was conducted among volunteers aged 15-24. New packaging were demonstrated and the volunteers were provided with questionnaires to complete in privacy booth and submit anonymously. **Results:** Of 680 participants with mean age of 19.7±2.7 years and 59.9% females, half of them thought condom should be carried and used. However, the same group did not actually do. Two-thirds of participants were interested and would use the packaging, citing these reasons charming, convenience, and disguise of condom. Females preferred the packaging significantly more than males. **Conclusion:** Disguising condom packaging, as phone charm and key ring, might be another safe and practical way to encourage youth to carry condoms around.

**Keywords:** Condoms, Product Packaging, Adolescent, HIV, Sexual Behavior (Source: MeSH-NLM).

## Introduction

Human Immunodeficiency Virus (HIV) is a retroviruses founded in 1980s.<sup>1</sup> This virus infects and depletes CD4+ T cell, which is a lymphocyte serving in immunological response. After getting infected, the person is known as HIV-positive. When the CD4+ T cell count is less than 200/μL, the current Centers for Disease Control and Prevention (CDC) classification system defines this person to have Acquired Immunodeficiency Syndrome (AIDS), which might further develop opportunistic infection such as *Pneumocystis jiroveci*, atypical mycobacteria, and *Cytomegalovirus*.<sup>1</sup>

In 2007, it was estimated that there were 546,578 people living with Human Immunodeficiency Virus (HIV) in Thailand.<sup>2</sup> The significant modes of transmission include spouse transmission, male sex with male (MSM), injecting drug user (IDU), sex worker, and casual sex.<sup>3</sup> Most of them get infected from unsafe sex.<sup>3</sup> Somehow, these population tend to have more risky behaviors.<sup>4</sup>

Because most Thai people have better HIV education, they accept living with AIDS victims more than the past.<sup>2,5</sup> However, the infected people feel that the stigma is still strong and they are discriminated from the society.<sup>2</sup> This stigma was reported to cause depression, social isolation and shame.<sup>6,7</sup>

Despite a huge collaboration, the HIV incidence has not declined but increased in youth and adolescents, which could be illustrated by an increase in HIV prevalence of military recruits (18-24 years old), blood donors (21-30 years old), and sexually transmitted infection (STI) clinics (15-24 years old).<sup>8-11</sup> Despite good HIV knowledge and negative attitude towards risky behavior, a large number of youth have unsafe sex; almost 50% had sex without condoms and several of them have multiple partners.<sup>12,13</sup> This trend could lead to an even higher HIV prevalence among young people.

Male condom is a barrier tool used during sexual intercourse for contraception and prevention of sexual transmitted disease.<sup>14,15</sup> It prevents male ejaculated semen from entering partner's body and also block secretion from partner to enter his own body. It was reported that the pregnancy rate was 2% per year and the rate of sexual transmitted disease was significantly decreased if condom was used properly.<sup>16,17</sup>

There are many HIV preventive programs which promote the use of condom including campaigns such as "100% Condom Program".<sup>10,13-15</sup> One of the main reasons why youth do not use condom is the embarrassment of carrying condom.<sup>18-20</sup> The reasons against carrying condom were reported that males are

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afraid of being publicly exposed and humiliated while females are afraid of parent disapproval, gossiping, or being considered as anticipating having sex and being promiscuous.<sup>21,22</sup> To solve the problem, new male condom packaging merged with daily life products, such as phone charm and key ring, was developed to promote carrying condom. This study aims to assess Thai youth's attitude towards condom use and sexual behavior, evaluate the new condom packaging in encouraging youth to carry condom, find the key factors in good condom packaging, and find the association between the findings.

## Methods

The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement is followed in writing this article.<sup>23</sup> This was a cross sectional study using self-administered questionnaire which took place in Siam Square, which was the most famous and crowded youth center in Bangkok, the capital city of Thailand, August 2009.

Participants were chosen by purposive sampling. Inclusion criteria was youth, which is defined as aged 15-24 years old by the United Nations.<sup>24</sup> They also had to be Thai and hang out in Siam Square. The study was announced in the national and local television channels, radios, and newspapers a week earlier to invite Thai youth to participate in the study. Participating in this study, the participants were emphasized that their participation was voluntary. They did not have to answer questions they did not want to and their information would be confidential. The study objectives were explained to the participants and the new condom packaging demonstrated. Later, they were asked to completed questionnaire in privacy booths and submitted anonymously.

New condom packaging was designed to merge with daily life products, such as mobile charm, earrings, and bag accessory because they were things youth love to use in their daily life and condom could be in disguise, or designed beautifully despite seeing condom in these products. The packaging was made by students at the Faculty of Medicine, Chulalongkorn University, Thailand. This packaging was piloted in 111 1st - 3rd year volunteer medical students because their age fell in the range of the study participants (**Figure 1**). The packaging was demonstrated by five volunteers. After seeing the demonstration of carrying condom, the subjects were asked for their opinions about the condom products. Their responses were grouped and used to develop the questionnaire.

The questionnaire development was based on previous literatures and the mentioned student responses. The questionnaire was piloted in 20 volunteer medical students. It consisted of four parts: general information, attitude towards condom use,

sexual behavior, and attitude towards AIDS and new condom packaging, respectively.

With 95% confidence interval, the estimated proportion derived from pilot study which students liked the new packaging 71.2%. The desired precision was 0.07. The sample size required was 161.

Data analysis was conducted by using SPSS© software (version 16.0 for Windows, copyright 2007, SPSS Inc.). Percentage was used for descriptive data. Because the participants could choose not to answer any questions that they felt uncomfortable with, missing values were omitted and the percentage calculation was based on the total amount of answers, which was not similar to the total number of participants. Open question answers were grouped into categories and reported as frequency. Cross tabulation and Chi-squared test were used to find the association between categorical variables. Fisher exact test was used in the paired categorical variable with expected value less than 5. A p value less than 0.05 was considered statistically significant.

**Table 1.** Socio-demographic characteristics of participants.

Characteristic	Freq. (%)
Gender	
Female	406 (59.9)
Male	272 (40.1)
Sexual preference	
Heterosexual	497 (75)
Homosexual	70 (10.5)
Bisexual	96 (14.5)
Current Education Study level	
Undergraduate	438 (64.9)
High school	220 (32.6)
Postgraduate	17 (2.5)
Occupation	
Student	549 (81.5)
Employee	84 (12.5)
Business people	28 (4.2)
Merchants	7 (1)
Government officer	6 (0.9)
Other history	
Drinking alcohol	380 (56.4)
Smoking	294 (18.6)
Drug user	39 (5.8)

**Figure 1.** Condoms Packaging Designs.



## Results

### *Socio-demographic Characteristics of Participants*

There were 1,104 participants in this study; 324 were excluded because they were out of age range (15-24 years). Six hundred eighty participants were included in the analysis. Their mean age was 19.7±2.7 years. Their socio-demographic characteristics were described in *Table 1*.

### *Attitude Towards Condom Use*

Most of participants (72.1%) thought it was necessary to always use condom no matter whom they had sex with while 3.4% said they would not use condom in any circumstances. When the participants were asked about their attitude towards carrying condom, 10.8% thought the condom should not be carried. Three major reasons were given including; they could go and buy (44.8%); carrying condoms made them look bad (26.0%) and they did not intend to have sex before marriage (19.8%), respectively. However, embarrassment about buying condoms was reported to be the main reason why the participants did not use condoms (49.0%).

### *Sexual Behavior*

It was found that 30.4% of participants had already had sex. Among the participants that had already had sex, majority of them (44.7%) had sex less than once a week and 33.5% used condom every time. About 13% had multiple partners; over a third of them thought there were differences between having sex with their partners and casual partners. An open question was used to assess the differences. They reported that the differences were difference in sexual emotion between loved and unloved partners (77.5%) and difference in physical appearance (12.5%). Only 6.7% reported safety issues to be the reason for the difference. On the other hand, 88.2% said that there was an increased risk in getting infected from casual partners, while the other 11.8% said there was no increased risk.

The age of first sex experience ranged from 9-23 years with a mean of 17.9±2.5 years. About 40% did not used condom during their first sex. Only 8.9% of the participants actually carried condoms, while most of them (91.1%) did not.

### *Attitude Towards AIDS and the New Packaging*

Most participants thought that AIDS was a very important public health problem and sexual transmission was the major way to get infected.

A lot of participants (85.1%) found that the new condom packaging was interesting. Among the interested respondents, the first three products they liked most were mobile charm, key ring, and accessory that attached to belt, neck tie, shoes or hat. The first three reasons were the product's charming design, the disguise of condom, and the convenience of carrying, respectively.

The products that the participants did not like were earrings, and other accessory such as bracelet and necklet. The reasons were the obviousness of the condom and the bad design.

Most respondents (66.4%) said that they would be confident in using the products and 33.6% said they would not. The reasons why they were confident were similar to the reasons why they

**Table 2.** Summary of results.

Topics	Freq. (%)
<b>Condom attitude (What participants thought)</b>	
Using condom	
Always use before marriage	486 (72.1)
Only with casual partners	42 (6.2)
Would try to use	77 (11.4)
Would not try to use	46 (6.8)
Not use at all	23 (3.4)
Why not use condom?	
Embarrassment by buying	308 (49)
Laziness to buy	110 (17.5)
Embarrassment by carrying	79 (12.6)
Decrease in pleasure	72 (11.5)
Unnecessary to use	59 (9.4)
Carrying condom	
Should carry	602 (89.2)
Should not carry	73 (10.8)
<b>Sexual behavior (What participants really did)</b>	
Frequency of sexual intercourse per week	
<1	88 (44.7)
~1	47 (23.9)
2-3	36 (18.3)
>3	26 (13.2)
Condom use	
Every time	65 (33.5)
>50%	50 (25.8)
<50%	62 (32)
Never	17 (8.8)
Condom use with casual partners	
Always	81 (75)
Occasionally	20 (18.5)
Never	7 (6.5)
If there was no condom at the time they were going to have sex	
Stop having sex	28 (26.2)
Go to buy condoms	51 (47.7)
Continue having sex	28 (26.2)
Condom use in first sex	
Yes	122 (60.4)
No	80 (39.6)
Carrying condom	
Yes	18 (8.9)
No	185 (91.1)
Attitudes toward AIDS	
AIDS problem	
Very important	583 (86.8)
Important	79 (11.8)
Not much important	9 (1.3)
Not important at all	1 (0.1)

**Table 2 (continue).** Summary of results.

Topics	Freq. (%)
<b>Major mode of transmission</b>	
Sexual transmission	639 (96.5)
Intravenous drug use	16 (2.4)
Vertical transmission	7 (1.1)
<b>Attitudes towards the new packaging</b>	
<b>Most interesting packaging</b>	
Mobile charm	283 (45.2)
Key ring	153 (24.5)
Accessory	110 (17.6)
<b>Least interesting packaging</b>	
Earrings	318 (50.8)
Other accessory	204 (32.6)

liked the products. If this new packaging were launched, 72.9% said it would not affect their daily lives. Moreover, 78.3% of the participants said that the government should promote the idea of new packaging, and 66.5% said they would buy if the products were on sale.

#### **Attitude and Behavior in Condom Carrying**

There were two significant associations between attitude and behavior. Concerning carrying a condom, only 10.1% of the participants, who thought they should carry condom, actually carried condoms and 89.9% of them did not carry condom; however, all of the participants, who thought they should not carry condom, did not carry condom ( $p < 0.001$ ). Concerning using condom, only 54.5% of participants, who suggested using condom every time, actually used condom every time, while 6.0% of participants, who suggested not to use condom every time, really used condom every time ( $p < 0.001$ ).

Females were significantly more interested in the products than males. Females were interested in the products 86.0%, while males were interested 80.7% ( $p = 0.025$ ). However, there were no associations between gender and the intention to use the product ( $p = 0.204$ ), gender and the intention to buy the products ( $p = 0.053$ ), and gender and the effect of condom products to daily lives ( $p = 0.292$ ). Summary of results is described in **Table 2**.

## **Discussion**

Most participants thought that condom should be carried and used. However, they did not actually carry and use. The new packaging was also interesting and attractive to use, especially for female.

In this study, there is discordance between attitude and behavior. This might be resulted from social stigma. Sarkar, revealed that the main factors contributing to the failure in promoting condom use in Thailand were social and cultural factors, especially the life style, prostitutes and brothel system and the stigma to HIV/AIDS.<sup>25</sup> This study also showed that the embarrassment with buying or carrying condom is the main factor why Thai people did not carry condoms. Carrying condoms makes young women look like desiring sexual intercourse.<sup>26,27</sup> To sum up, social stigma might cause the discordance between

attitude and behavior, resulting in embarrassment with buying or carrying condom; thus, decreasing this stigma was the key to success for all the HIV campaigns in Thailand. This is also in concordance to previous studies.<sup>28,29</sup>

Although almost all respondents knew that the major mode of HIV transmission was sexual intercourse, only part of them had safe sex or use condom every time. This result is similar to other study findings.<sup>30,31</sup> One study showed that although Thai people knew about HIV and its burden, only about a quarter of the adult and 20% of youth realized that they were at risk of the infection, resulting in the high rate of unsafe sex (United Nations Development Programme, UNDP, Opinion poll on HIV/AIDS Thailand. 2004. Available from: [http://www.undp.org/content/thailand/en/home/library/hiv\\_aids/AIDSopPoll/](http://www.undp.org/content/thailand/en/home/library/hiv_aids/AIDSopPoll/), updated 2004 May 1; cited 2014 Mar 30). Similarly, UNGASS Country Progress Report Thailand indicated that despite high awareness of safe sex and the condom effectiveness in preventing HIV and STI, there is still lack of concern and skill in condom use; therefore, only 20-40% of students reported using condom every time they had sex (United Nations Programme on HIV/AIDS, UNAIDS, United Nations General Assembly Special Session, UNGASS, country progress report Thailand. 2010. Available from: [http://www.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2010countries/thailand\\_2010\\_country\\_progress\\_report\\_en.pdf](http://www.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2010countries/thailand_2010_country_progress_report_en.pdf), updated 2010; cited 2014 Mar 30). Moreover, this study showed that even though the participants knew that they should carry and use condom, they did not actually do it. This showed that, apart from social stigma, there was also a lack of personal concern, which might cause many campaigns to fail.

Most participants appreciated the new condom packaging. The beautiful design is the main reason why they like the packaging. Clement explained that packaging design had an influence on purchasing the products.<sup>32</sup> The more attractive they are, the more likely the consumers would buy the products. Since female participants were interested in the products more significantly than the males, further studies were highly recommended to find the reason why males were less interested in the product than females and how to encourage them to carry condom more.

Limitation of this study includes the fact that it was conducted at Siam Square which was a youth center of Bangkok, the participants had their uniqueness. They were well educated, medium to high socioeconomic group of the population. Moreover, there were differences between Thais and other country citizens as such this study result might not be generalized.

There are discordances between attitude and behavior in using and carrying condom. A new condom packaging could reduce embarrassment of carrying condom. In dealing with youth, charming and disguising condoms are important. Disguising condom packaging as phone charm and key ring, might be another safe and practical way to encourage youth to carry it.

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