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RESEARCH ARTICLE

UNIVERSITY'S STUDENTS HIV/AIDS PREVENTION MESSAGE FRAMING PREFERENCES: JIMMA'S AND GONDAR'S UNIVERSITIES STUDENTS IN FOCUS

*Solomon Mekonnen

Wolaita Sodo University, Ethiopia

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*Corresponding author: Solomon Mekonnen

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ABSTRACT

University students are often viewed as being at higher risks to acquire STIs/HIV infection, and they are categorized under the 'most at risk groups'. Hence, to tackle the problem of HIV/AIDS in university, designing HIV/AIDS prevention messages is mandatory. This study was made to assess Jimma's University students HIV/AIDS prevention message framing preferences. To do that, out of total of 1290 third year students, 305 students were selected using Sloven's sample size determination formula. Questionnaire and interview were used to get quantitative and qualitative data respectively. The results indicated that in terms of detection-related behaviors, both the survey and interview showed that students generally preferred loss-framed messages so that they would be influenced to get HIV testing. Similarly, regarding messages that have prevention-related themes, majorities of the students preferred negatively framed HIV/AIDS prevention messages. In conclusion, in relation to prevention behavior, the finding failed to meet what health message framing theory advocates i.e. prevention-related behaviors would be most effective when they are framed in gain-manner. On the other hand, in relation to detection behavior the finding concurred with the theory that advocates that detection related behaviors would be most effective when they are designed in loss frame. To recommend, other factors that influence students' preferences of HIV/AIDS prevention message framing should be well studied.

Introduction

Studies conducted in several Ethiopian universities show that majority of the students are actively engaging in risky sexual activities. To mention some, study made in Gondar University, show that students are engaging in risky sexual activities. More specifically, from those who participated in the study, 23% of students had reported that they had sexual contact with prostitutes. Of these students, only 37.1% of them used condom (Fitaw and Worku, 2003). Similarly, a study made in Jimma University revealed that 56.3% of students involved in unprotected sex with casual partners (Tura, Alemseged and Dejene, 2012). A study conducted in Bahir Dar University indicated that 27.8% of students have had multiple sexual partners and 34.4% had practiced unprotected sex. About eight percent (7.8%) of students had sex with commercial sex workers (Astale, 2010). Addis Ababa university students had confirmed that 37% of sexually debuted respondents had more than one sexual partner (Nigatu and Seman, 2011). In Haromaya University, 41.2% of students were sexually active, and 27.8% of students had multiple sexual partners. It was also found out that while 23.51% of the students reported to have sex with casual friend, (39.9%) of the students had reported sexual contact with commercial sex workers (Andualem, Assefa and Chalachew, 2014).

All these findings call for a need to seriously address the issue of protective sex to university students. To address that, mass media play pivotal roles. Specifically, HIV/AIDS prevention message that can persuade students' risky sexual behaviors should be designed and disseminated in universities. Before designing and dissemination, however, students' preferences of message framing should be identified. This research serves to meet this purpose. Hence, the main objective of this study was to assess Jimma University students' HIV/AIDS prevention message framing preferences.

Review of related literature

Question like how persuasive messages should be designed to accomplish the greatest effects has lain at the very center of persuasion research (Dillard & Pfau, 2002). This question is based on the assumption that information alone cannot influence behavior-oriented actions and it is also based on the assumption that persuasive messages which can effectively influence attitude and behaviors have roles in bringing the intended results. Agreeing with the second assumption, vast numbers of literatures advocate that the way in which information is provided may have a profound impact on its effectiveness. To do so, however, identifying moderating factors that can influence message persuasiveness should be the first step. It has been mentioned in different sections of this

paper that one of the moderating factors is the type of behaviors promoted: prevention or detection. Once identification of the types of behaviors promoted has been made, the issue of how to present or frame the information will be assessed. The reason for the identification of the kinds of behavior promoted is based on the study that prevention or detection behaviors should not be framed in the same way to persuade audiences. Specifically, message framing either in gain or loss manner should be designed based on the nature of the behavior promoted (Lehmann, 2008). This finding was based on various studies made on message framing (Lee and Cameron, 2006; Keller, Lipkus, and Rimer, 2003 and Rothman et al., 2006). Based on the finding, gain-framed messages would work better for promoting prevention behaviors, and loss-framed messages for promoting detection behaviors. Another moderating factor for the application of gain or loss framing is in relation to individual factors. Keller and Lehmann (2008) note that the effectiveness of message frames often depends on individual differences. Sherman, Luystera, and Mann (2007) also found that health messages framed to be matching with individuals' motivations to be more effective in promoting health behaviors. As perception of the same prevention or detection behavior can vary depending on people's prior experiences, current circumstances, and other relevant psychosocial factors (Rothman and Salovey, 1997), assessing audiences' messages framing or presentation preferences has paramount use. One of the aspects in Rothman and Salovey's (1997) message framing theory is that framing should be matched with audience's beliefs. In order to match audience's beliefs with message framing, audience's preferences of message framing has to be identified.

Materials and Methods

Research setting: The study was conducted in Jimma University main campus. The reason for selecting Jimma University is that it has well-organized HIV/AIDS prevention center. In the center, HIV/AIDS prevention messages are designed and distributed in a regular base. The main campus was taken because health related fields or departments are found in the main campus.

Research participants: The participants of the study are fourth year students from Laboratory, Nursing, Public health and Anesthesia departments. The rationale for the selecting those departments is due to their familiarity to health-related issues compared to other departments like Geography, Physics and other Social and Natural Sciences fields. Fourth year, graduating class, students were solely taken for the study as they relatively stayed more years in the campus so that they would be more familiar with HIV/AIDS prevention messages communicated in their campus.

Sampling techniques: In the four departments mentioned above, a total of 1285 fourth year students were found. Out of these, taking Sloven's sample size determination formula, 305 students were considered for the study. Ratio was used to distribute the 305 students into the four departments.

Data gathering tools: Questionnaire and interview were used to gather data from the respondents. Specifically, 305 questionnaires were distributed for the students. The questionnaires were prepared having both prevention and detection themes. Likewise, interviews were conducted to get students' preferences on prevention and detection-related

themes. Both the questionnaire and interview items were prepared based on the review of related literature and the objective of the study.

Data analysis and procedures: According to the theory of message framing, framing effects refer to "the findings that decision-makers respond differently to different but objectively equivalent descriptions of the same problem" (Kuhberger, 1998:150). More specifically, framing research focuses on the differential effects on persuasion of presenting information in terms of the benefits gained (gain frame) or the consequences suffered (loss frame) in some decision-making contexts (Loroz, 2007). Thus, students were presented with factually equivalent statements, but with different wording. The following examples are taken from the questionnaire.

Example 1:

- A. If you practice safe sex, you have nothing to worry.
- B. If you do not practice safe sex, you will start worrying about being in the risk of HIV/AIDS.
- C. No difference

As can be seen above, the statements, "A" and "B", encourage students to practice safer sex. However, the wording to encourage safer sex in statement "A" is different from statement "B". Explicitly, statement "A" focused on the positive outcome i.e. nothing to worry if one practices safer sex that is framed in gain manner. On the other hand, statement "B" focused on the negative outcome i.e. worrying about being at risk of HIV/AIDS if one avoids safer sex that is framed in loss manner. Option "C" was given if students observed no difference between the two options. The above statements, "A" and "B", advocate prevention behaviors as both help to prevent disease. Below, the same explanation goes for detection behavior.

Example 2:

- A. Get tested for HIV now, so avoid worry.
- B. Say no for HIV test, so increase your worry.
- C. No difference

Again, as can be seen from the above statements, both "A" and "B" options are factually equal though the wordings are different. Both options advocate HIV testing. However, the option "A" was worded in gain-framing as it highlighted the positive outcome of testing for HIV which is avoiding worry. In contrast, option "B" was worded in loss-framing as it highlighted the negative consequence of failing to have HIV testing which is increasing worry. Still, one can note that both are advocating detective behaviors as they help to discover illness. Moreover, in order to get audiences' preferences of message framing, statements showing students' level of agreement or disagreement to the types of framing were included in the survey. Similarly, interviews were conducted to assess students' preference of message framing. Like the case in the survey, students were asked to identify their framing preferences during interviews. Hence, both qualitative and quantitative data analyses were used.

Findings, Interpretations and Discussion

Students' Message Framing Preferences on Detection-Related Behaviors: As described, in the survey, students were

asked to choose statements that they prefer to read and to choose statements, which can appeal to them. In other words, these statements that students choose could influence their attitudes directly or indirectly. According to Prospect Theory, decision-making is influenced by the way in which information is delivered or framed (Tversky and Kahneman, 1981). Below in table 1, students gave response to what extent they agree or disagree with the statement "HIV/AIDS prevention messages should focus on advantages of testing for HIV". This statement contains detection behavior-related message framed in gain manner. It is noticed that what makes statements gain or loss framed statements was mentioned in previous sections.

HIV/AIDS Prevention messages should focus on advantages of testing for HIV

Table 1. Students' preference on positively framed detection-related message

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	14	4.6	4.6	4.6
Disagree	116	38.0	38.0	42.6
Neutral	46	15.1	15.1	57.7
Agree	83	27.2	27.2	84.9
Strongly agree	46	15.1	15.1	100.0
Total	305	100.0	100.0	

As can be seen from Table 1, no significant difference was seen in the students' responses to detection behavior-related messages. In other words, 130 (strongly disagree and disagree) students disagreed with the message focus on advantages of testing for HIV, whereas 129 (strongly agree and agree) students agreed with the statement. Specifically, from the survey's result, insignificant difference was seen when HIV/AIDS prevention messages framed in a gain manner for HIV testing which is a detection behavior.

Below Table 2 shows another detection behavior-related message. Unlike Table 1, Table 2 presents statement that contains detection behavior-related message framed in loss manner.

HIV/AIDS Prevention messages should focus on disadvantages of not testing for HIV

Table 2. Students' preference on negatively framed detection-related message

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	58	19.0	19.0	19.0
Disagree	32	10.5	10.5	29.5
Neutral	15	4.9	4.9	34.4
Agree	43	14.1	14.1	48.5
Strongly agree	157	51.5	51.5	100.0
Total	305	100.0	100.0	

In Table 2, majority (65.6%) of the students agreed with the statement that HIV/AIDS prevention message should focus on the negative outcome of not testing for HIV. It is to say that HIV/AIDS prevention message focusing on detection behavior like testing for HIV should contain information, which shows the negative consequence of failing to test for HIV. In contrast to gain-framed message that showed no significant difference, loss-framed showed differences in students' preference of message framing based on the survey's result.

To crosscheck students' responses on message framing preferences, the researcher included statements that contained gain and loss framed statements for the students to choose the one they prefer to read and they think they can be motivated to take action. Option "c" was also included if the students perceived no difference among the given options. Both options "A" and "B" consisted of statements that showed detection behaviors. However, while option "A" which says, "If you do not know your HIV status, you put your boy's/girl's friend life at risk" was framed in loss-frame, option "B" which says, "If you know your HIV status, you will not put your boy/girlfriend's life at risk" was framed a gain-frame. Option "C" says, "No difference".

The table below shows the students' responses in frequency and percentile

Table 3. Students' preference on negatively or positively framed detection-related message

Option	Statements	Frequency	Percent	Valid Percent
A	If you do not know your HIV status, you put your boy's/girl's friend life at risk.	235	77.0	77.0
B	If you know your HIV status, you will not put your boy's/girl's friend life at risk.	51	16.7	16.7
C	No difference	19	6.2	6.2
	Total	305	100.0	100.0

According to Table 3, statement which was framed in loss manner was chosen by 235(77%) students. In other words, the majority (77%) of the students preferred to read negatively framed messages for their decisions to be influenced. To be more specific considering the above options, students are likely to take action, which is tested for HIV, because they are afraid of the negative consequence that is putting their girl/boyfriend's life at risk.

On the other hand, 51 (16.7%) students chose the positively framed message. It means, those who chose option "B" preferred to read messages that are framed positively focusing on the benefit they get, which is according to the above option avoiding the risk of their boy/girlfriend's life, by testing HIV. 19 (6.2%) students saw no difference between the two options. In brief, those who chose option "C" could not observe any difference between the two options that could be interpreted as their decision to test HIV may not be affected in either way.

Again, from detection behavior-related themes, other statements, which contained loss and gain framing, were given for the students to choose. In brief, the statements were:

- A. Get tested for HIV now, so avoid worry.
- B. Say no for HIV test, so increase your worry.
- C. No difference

Option "A" is framed in gain framing means that it highlights the positive outcome, which is avoiding worry, of testing for HIV. In contrast, option "B" was framed in loss as it focuses on the negative consequence, which is increasing worry, of not testing HIV. Those who see no difference in the two options were given "C" option that is "no difference". The following table summarizes the responses of the students.

Table 4. Students' preference on negatively or positively framed detection-related message

option	Statements	Frequency	Percent	Valid Percent
A	Get tested for HIV now, so avoid worry	83	27.2	27.2
B	Say no for HIV test, so increase your worry	217	71.1	71.1
C	No difference	5	1.6	1.6
	Total	305	100.0	100.0

Like Table 3, the result from Table 4 reveals that majority (71.1%) of the students preferred to read negatively framed message for their decisions of HIV testing to be influenced. Briefly, 217 students said that they would be influenced to take HIV testing so that they will not increase their worry. As to option "B", "Increasing worry" is the negative outcome of avoiding HIV testing which is framed in loss manner and was chosen by the majority of the students. 5(1.6%) students did not see any difference between the two options. It is to say that their decision to take HIV testing would not be affected because of the two options presented. Concluding survey's results on detection's behavior-related themes, the researcher found out that majority of the students preferred loss-framed messages to influence their decision of HIV testing. Based on the results from table 4.14a and 4.14b above, students preferred negatively framed HIV testing messages. Moreover majority of the students agreed that HIV/AIDS Prevention messages should focus on disadvantages or the consequences of not testing HIV, according to table 4.14b. In contrast, no significant difference was seen for the statement which says, "HIV/AIDS prevention messages should focus on advantages of testing for HIV".

In order to get students' detailed view on detection -related behavior messages preferences, the researcher used interviews. Their views substantiating by direct quotes will be presented below. The general question which was posed for the students was, "In your opinion, would you decide to test for HIV if you were told the advantages of testing or adverse effect of not testing?" The options given were framed in gain-framing and loss-framing respectively. It is discussed that messages focusing on advantages of testing HIV could be termed as gain-framing whereas messages focusing on the possible problems of failing to test HIV could be termed as loss-framing. The following extracts are taken from the students' interviews.

Key: "Q" refers question and "R" refers response.

Extract 1

Q: {Have you ever tested HIV?}

R: {No, I haven't.}

Q: {How about your girlfriend?}

R: {To my knowledge, she has not tested.}

Q: {Why not?}

R: {She hasn't asked me and I have not asked her for testing.}

Q: {Would you test if she asked you?}

R: {I am not sure. It will be difficult to decide now.}

Q: {Why is that difficult to decide? I mean do you think that it is unimportant?}

R: {well, we will do it when we get married. Why now? I do not see the use now.}

Q: {Would you test if you were told the problem of not testing?}

R: {Means?}

Q: {What I mean is if, for instance, your girlfriend says that unless you test, our relation will stop. Will you do it?}

R: {I think so.}

From the above extract, the student did not have any interest of testing HIV. He could not decide to test HIV at the moment. However, when he was asked in what situation he would decide to test HIV, he said that he might do it if his girlfriend insisted mentioning that she would lose him otherwise. For the student, in order to test for HIV, first he had to perceive that he was at risk.

Extract 2

R: {When I am told the possible problem that I might face, then I will try to prevent it.}

Extract 3

R: {If it is a problem, then you have to always prevent it. I think everyone does like this.}

Extract 4

R: {For me, it is very difficult to live with stress. I fear them very much. Plus, not to test HIV is to play on the verge of cliff. Therefore, I will test. }

Extracts 2,3, and 4 show that students are willing to test HIV when they read the negative consequences of not testing HIV. According to the student in the extract 4, saying no for HIV test is like playing on the edge of pit. All the students in the above extracts do not want to live in fear so they would prefer to test HIV not to face the possible negative outcomes of failing to do so.

Extract 5

R: {When I am told that you will start worrying, I feel that it will happen now, so I will start taking a care. It is obvious that HIV/AIDS is dangerous so when you are told the problem, you will start terrifying. When you terrify, you will take precaution For instance, when you are told that someone has HIV, you will panic though not as the case before. }

Extract 6

R: {I think nobody wants to scale up his/her stress. People, including me, fear when we hear what will happen to us and decide to take the right way. Here in our compound students usually come late from the city. Once, they were robbed and as result, many students stopped staying late night. It was not because they did not know before that they were robbers. They knew but when something bad happened, we get a lesson. }

According to the above extracts, when one hears the problems he/she might face as a result of not to get HIV test, he/she gets

worried. When one worries, he/she surely takes caution. Hence, messages focusing on the obtaining undesirable outcome should help us take HIV testing. Specifically, student in extract 6 tried to associate the case with what happened in his university. He said that though students knew that they could face troubles when they spend late night outside of their campus. However, they kept doing it until they heard that some students got robbed one night. Since then, many students were afraid of staying night outside their campus. According to this student, the students started taking precaution as a result of the attack or we took lesson as a result of some bad things happened. Thus, hearing the problem or facing the problem makes us take preventive actions. Here, from the student's interview it is possible to infer that students would take preventive actions when they feel the possible problems of their negative actions. To this context thus, it is possible to deduce that stressing the negative outcomes of "say no to HIV test" could motivate students to get HIV test. Although students in the above extracts believed that they would prefer to read negatively framed messages in order to decide to get HIV test, in the next extracts, it is possible to observe that the students would take HIV test no matter how the messages were framed.

Extract 7

R :{ I will test HIV whether I am told the advantages of testing or the disadvantages of not testing. Specially, my friend and I decide to get married, we will test HIV. It is mandatory. }

Extract 8

T: {I will test in both cases. I want to avoid stress and at the same time, I do not want to increase stress.}

As can be seen from extract 7, as long as he decided to get married, he would test HIV regardless of how the messages were framed. To this student, how HIV testing messages were framed had no impact on his decision to test HIV instead he depended on the decision to get married with his girlfriend. The same goes for the student in extract 8 that irrespective of the message framing types, he would test HIV. Thus, the two students, message-framing types could not decide their decision to test HIV. As described, the aim of conducting the interviews was to know students' preferences on messages' presentation or framing types that could influence students' intention to get HIV test. In concluding the interviews' findings, though two students claimed that their decisions to get HIV testing did not depend on the types of framing, the majority of the students preferred negatively framed messages to positively framed messages to get HIV testing. This finding goes in line with that of the survey's result.

Students' Message Framing Preferences on Prevention-Related Behaviors: Like the case in students' preferences of message framing on prevention behaviors, statements having prevention behaviors were presented for the students' to choose. In brief, they were asked to choose statements that they prefer to read and to choose statements that can appeal to them in relation to prevention behaviors. The next section covers survey's results in relation to prevention behavior-related HIV/AIDS prevention messages. The following two tables reveal students' extent of agreement or disagreement on prevention-related HIV/AIDS prevention messages which were framed in loss and gain manner respectively.

Messages on HIV/AIDS should focus on the problem I face when I engage in risky behavior

Table 5. Students' preference on prevention-related behaviors loss-framed messages

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	29	9.5	9.5	9.5
Disagree	3	1.0	1.0	10.5
Neutral	17	5.6	5.6	16.1
Agree	104	34.1	34.1	50.2
Strongly agree	152	49.8	49.8	100.0
Total	305	100.0	100.0	

Health messages which focus on problems one could face by engaging in risky behavior is termed as loss-framed. In line with this, students were asked to express the extent of their agreements or disagreements. According to the above table, majority (256, 83.9%) of the students should believe that HIV/AIDS prevention message should focus on problems students likely to face when they engaged in risky behaviors whereas 32(10.5%) did not agree with the idea that message on HIV/AIDS prevention should focus on the negative consequences of engaging in risky behaviors. The next table shows students' extent of agreement or disagreement on statement which is framed positively.

Messages on HIV/AIDS should focus on the benefits I get by having healthy behavior

Table 6. Students' preference on prevention-related behaviors gain-framed messages

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	145	47.5	47.5	47.5
Disagree	57	18.7	18.7	66.2
Neutral	24	7.9	7.9	74.1
Agree	62	20.3	20.3	94.4
Strongly agree	17	5.6	5.6	100.0
Total	305	100.0	100.0	

In HIV/AIDS prevention messages, focusing on benefits one can get by engaging in healthy behaviors is characterized by gain-framing. The above table shows the students' response in relation to this. Based on the table, 79(25.9%) of the students agreed that HIV/AIDS prevention messages should focus on the benefits students get by having healthy behaviors whereas the majority (66.2%) of the students still did not agree with the statement that HIV/AIDS prevention message should focus on the positive outcome of having health behaviors. In order to get students' preferences on whether HIV/AIDS prevention messages should be framed in gain or loss manner, the researcher added more statements to the students to express their extent of agreement or disagreement. The next two tables contain students' extent of agreement or disagreement on statements that are framed in loss manner and gain manner respectively.

HIV/AIDS Prevention messages should focus on disadvantages of being HIV positive

Table 7. students' preference on prevention-related behaviors loss-framed messages

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	2	.7	.7	.7
Disagree	7	2.3	2.3	3.0
Neutral	25	8.2	8.2	11.1
Agree	63	20.7	20.7	31.8
Strongly agree	208	68.2	68.2	100.0
Total	305	100.0	100.0	

Here also, according to the theory of message framing, HIV/AIDS prevention messages focusing on the advantages on being a health behavior is labeled as gain-framing. Thus, the above statement is presented in gain-framing. Regarding the above statement, only 6.9% of the students agreed to the statement whereas the majority (84.9%) of the students did not agree to the statement. It implies that the majority of the students did not prefer that HIV/AIDS prevention messages should be presented focusing the advantages being in health behavior that is according to message framing theory, in gain-framing. Here, considering Table 5, 6, and 7, it is possible to conclude based on the survey's result that students' preference to HIV/AIDS prevention messages in loss-framed as from the four tables above, majority of the students prefer to read HIV/AIDS prevention messages focusing on the negative outcome of engaging in risky behaviors. Students were also asked to express their extent of agreement or disagreement to the statements which say, "I will take preventive action when I read disadvantages of being HIV positive" and "I will take preventive action when I read advantages of being HIV negative". In other words, they were asked to know their message presentation preferences, focusing on the negative outcome of engaging risky behaviors or focusing on the positive outcome of engaging in healthy behaviors, for them to take preventive action. To this end, the following results were found.

I will take preventive action when I read disadvantages of being HIV positive

Table 8. Students' preference on loss- framed message to take preventive action

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	7	2.3	2.3	2.3
Neutral	14	4.6	4.6	6.9
Agree	89	29.2	29.2	36.1
Strongly disagree	195	63.9	63.9	100.0
Total	305	100.0	100.0	

Based on the above table, almost all (92.1%) students agreed that they would prefer to take preventive action when they read HIV/AIDS prevention messages focusing on the disadvantages of being HIV positive. Only 2.7% of the students disagreed with the statement. This implies that majority of the students prefer negatively or loss framed messages for them to take preventive action against HIV/AIDS. The table shows students' response on positively framed message.

I will take preventive action when I read advantages of being HIV negative

Table 9. Students' preference on gain- framed message to take preventive action

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	3	1.0	1.0	1.0
Disagree	229	75.1	75.1	76.1
Neutral	23	7.5	7.5	83.6
Agree	46	15.1	15.1	98.7
Strongly agree	4	1.3	1.3	100.0
Total	305	100.0	100.0	

According to Table 9, those who agreed to the statement which says, "I will take preventive action when I read advantages of being HIV negative" counted only 16.4 %. On the other hand, 76.1% of the students either did not agree to the statement. This could imply that positively framed message on HIV/AIDS prevention may not help them take preventive action against HIV/AIDS.

Similarly, considering the above two tables, it is possible to conclude that students would be more motivated to take preventive action against HIV/AIDS when they read HIV/AIDS prevention messages which are negatively or loss framed. Like the case in detection-related behaviors, statements consisting of prevention –related behaviors were presented for the students to choose. These statements were framed in gain and loss respectively.

The table below shows the students' responses in frequency and percentile

Table 10. Students' preference on negatively or positively framed prevention-related message

Option	Statements	Frequency	Percent	Valid Percent
A	If you practice safe sex, you have nothing to worry.	13	4.3	4.3
B	If you do not practice safe sex, you will start worrying about being in the risk of HIV/AIDS.	259	84.9	84.9
C	No difference	33	10.8	10.8
	total	305	100.0	100.0

As can be seen from the above table, option "A" was presented in gain manner as it focuses on not obtaining an undesirable outcome. It has been described that gain-framed health messages can have two forms: Obtain a desirable outcome and not obtain an undesirable outcome. Hence, option "A" was chosen by 4.3% of students whereas option "B" which was framed in loss was chosen by the majority, 84.9%. Those who could see no difference between the two counted 10.8% of students.

To strength the conclusion on students' preferences on loss or gain framed messages, the researcher added more statements that were framed in gain and loss manner. The statements read,

- Wait to have sex or you will die.
- Wait to have sex so you will have a better life
- No difference

Option "A" was framed in loss manner as it focuses on obtaining undesirable outcome. As discussed, loss-framed health messages has two forms: Obtain undesirable outcome and not obtain a desirable outcome. Based on the survey, the following result has been found.

Table 11. Students' preference on negatively or positively framed prevention-related message

Option	Statements	Frequency	Percent	Valid Percent
A	Wait to have sex or you will die.	228	74.8	74.8
B	Wait to have sex so you will have a better life	62	20.3	20.3
C	No difference	15	4.9	4.9
	Total	305	100.0	100.0

Based on the above table, option "A" which was framed in loss manner as it focuses on obtaining undesirable outcome was chosen by the majority (74.8%) of the students. On the contrary, those who chose option "B" which focused on obtaining a desirable outcome were counted 20.3%. 4.9 % of students did not see the difference between the two options. Concluding survey's result on prevention behavior-related themes that were preferred by the students, majority of the students preferred negatively framed HIV/AIDS prevention messages. Their preferences included reading loss- framed HIV/AIDS prevention messages. In addition, they also

preferred negatively framed messages to take preventive action against HIV/AIDS. Finally, with respect of choosing either gain or loss HIV/AIDS framed messages, the majority of the students chose loss-framed HIV/AIDS prevention messages.

Correspondingly, interviews were held to get students' view on their preferences on framed HIV/AIDS prevention messages that had prevention themes. During the interview, students were asked to give their views on kinds of messaging they were likely to take preventive action against HIV/AIDS. The forwarded questions were framed in either obtaining a desirable outcome or obtaining undesirable outcome. Specifically, the question posed for all the interviewed students was, *{In your point of view, when do you decide to prevent HIV/AIDS: when you are told the negative consequences of HIV/AIDS or when you are told the positive advantages of being free from HIV/AIDS?}*

The following extracts are taken from the students' interviews.

Extract 8

R :{ I will take care when I am told the problem I might face. I do not need that problem to happen to me so I will refrain. Everyone fears when he/she is told a problem. We want to avoid it. }

Q :{ What if you are told the advantages?}

R: {That is also good but it will be normal for me to hear the positive thing. However, when I think of the negative consequences, I will give care to run away from the problem. }

Extract 9

R :{ I take prevention action, when I hear the problem because the problem makes me panic. to run away from the problem, I will take care.}

Extract 10

R :{When I told the problem I might face, I will start to protect it.}

Q:{ What if you are told the positive advantage?}

R:{For instance, when you hear that something bad happens to the students because of their going out of the compound, you will stop going out too. When you see students expelled from university, you will work hard afraid of being expelled.}

Extract 11

R: {Well, when you are told something negative will happen to you, you fear. When a person is told that he/she will die, that is it. Over! HIV is just like that. }

Looking at the four extracts above, one can infer that students preferred to take protective action against HIV/AIDS to avoid the problems they likely face by engaging in risky behaviors. For instance in extract 8, the student considered hearing the positive outcome of engaging in health behaviors as normal or expected. However, he said that fearing of the possible problems he might face by engaging in risky behaviors, he would prefer to take preventive actions. The same explanation could be seen in the extract 9: hearing the problems he might face by engaging in risky behaviors could help him decide to

take preventive actions. In extract 65, the student tried to associate the problem of being in risky behaviors with the problem of being expelled from university. He inferred that students tend to study hard when they see other students got expelled from university as they do not want to have the same fate. According to this student, the same scenario could be applied for HIV/AIDS too. In extract 4, the student tried to associate being at the risk of HIV/AIDS with death. When a person is told that he/she would be dead, he will panic. Thus, not to panic, one has to take preventive mechanisms, according to the student in extract 10.

Extract 12

R: {there must be something they are frightened of not to lose. They have to understand the consequence of their action.}

Q: {Please tell me in detail.}

R: {For instance, I do not like alcohol but my boyfriend drinks occasionally. If he, for example, drinks too much and spends the whole night out, our relation will end. He does not need to lose me, so he will not do it. I have also friends who ask me to go out. }

Q: {What does 'let's go out' mean?}

R: {For instance, they say that there is a birthday program so let us go out overnight. They know that I do not drink but they insist. I also would be happy if I joined them but doing this does not make my boyfriend happy. Therefore, even though I need, I will not do it not to lose my boyfriend. }

According to extract 12, in order to engage in health behaviors, students had to know the negative consequences of engaging in risky behaviors. When she was asked what it meant by negative consequences, she mentioned her case as an example. She said that her boyfriend and she did not need to engage in risky behaviors like drinking the whole night out, afraid of losing each other. In brief, even if her boyfriend had friends who spent the night drinking outside of the campus, her boyfriend did not join his friends because he knew that doing this could cost him his girlfriend. According to her, she did not join her friends during the nights in night clubs, not to lose her boyfriend too. From extract 12, it is possible to understand that fear of losing friendship made the students refrain from engaging in risky behaviors. Other students were asked to give their reflections on how HIV/AIDS prevention messages should be presented. They said that real stories related to students' life had to be presented. Extracts 13 and 14 below show the students' reflections.

Extract 13

R: {It should not be simply transmitting messages. It has to include real experiences of students. For instance, it has to include when a student terminates his university because of HIV/AIDS. Or it has to include the disheartened feeling of HIV positive student's parents. If all these told, students might fear.}

Extract 14

R :{ It was not like the old times that picturing HIV/AIDS as evil. Nevertheless, we will tell them what they possible face like

terminating class, unwanted pregnancy and creating problems to their families}.

As can be seen from the above extracts, the students believed that message should include real problems students that students face because of HIV/AIDS. According to the students, these problems could include problems students face when they terminated education as a result of HIV/AIDS, when the parents felt ashamed of their HIV positive children and problems related to unintended pregnancy. Thus, stating these kinds of problems in the prevention messages could lead students to refrain from risky behaviors. It is possible to infer from the two extracts that HIV/AIDS prevention messages should be designed focusing on the problems that students might face when engaging in risky behaviors. In terms of prevention-related behaviors, taking all the above extracted interviews into consideration, it is possible to conclude that students preferred HIV/AIDS prevention messages which are designed highlighting the negative consequences of engaging in risky behaviors. According to the students, those problems should be problems related to students' real life. According to some students, these problems could go to the extent that reflecting what the parents' of HIV positive students feel, usually ashamed, towards their children. Hence, based on the interviews, students preferred HIV/AIDS prevention messages that focus on the negative outcomes of engaging in risky behaviors that is termed as loss-framed, according to message framing theory.

Conclusion

One of the aspects in Rothman and Saloveys (1997) message framing theory is that framing should be matched with audience's beliefs. In order to match audience's beliefs with message framing, audience's preferences of message framing has to be identified. Thus, the following part tries to assess the students' message framing preferences. To do so, statements having detection behaviors (behaviors that could lead to the discovery of a disease or illness such as undergoing HIV screening) and prevention behaviors (behaviors that prevent disease or illness such as condom use), were prepared. Each behavior had both gain and loss framed statements for the students to choose. For instance, statements that were focusing on condom use, which is one of prevention behaviors, and statements, that were focusing on HIV testing, which is one of detection behaviors, were used. Both behaviors were presented in terms of gain-framed and loss-framed. In particular, statements showing prevention behaviors were presented in gain and loss-framed. Likewise, statements showing detection behaviors were presented in gain and loss-framed. The statements were prepared in line with message framing theory. So far, efforts were made to get students' message framing preferences by classifying the behaviors as detection versus prevention function of a health behaviors. Briefly, attempts were made to assess students' message framing preferences that could influence their intentions to engage in risky behaviors. This was made with the assumption that message framing, if it is designed in accordance with students' preferences, could influence students' intention to engage in healthy behaviors or to take HIV testing as research in the area of message framing has shown that frames influence behavioral intentions (Gallagher and Updegraff, 2011). Specifically, message framing either in gain or loss manner should be designed based on the nature of the behavior promoted (Lehmann, 2008). This finding was based on various

studies made on message framing (Lee and Cameron, 2006; Keller, Lipkus, and Rimer, 2003 and Rothman et al., 2006). Based on the finding, gain-framed messages would work better for promoting prevention behaviors, and loss-framed messages for promoting detection behaviors. Another moderating factor for the application of gain or loss framing is in relation to individual factors. Keller and Lehmann (2008) note that the effectiveness of message frames often depends on individual differences. Sherman, Luystera, and Mann (2007) also found that health messages framed to be matching with individuals' motivations to be more effective in promoting health behaviors. As perception of the same prevention or detection behavior can vary depending on people's prior experiences, current circumstances, and other relevant psychosocial factors (Rothman and Salovey, 1997), assessing audiences' messages framing or presentation preferences has paramount use.

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