EXPLAINING GENDER DISPARITY IN RISKY SEXUAL BEHAVIOR AMONG UNDERGRADUATE UNIVERSITY STUDENTS IN ETHIOPIA: A DECOMPOSITION ANALYSIS

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ABSTRACT

BACKGROUND: Young people commonly engage in risky sexual behavior and suffer from the undesirable consequences. Nowadays, gender based inequalities on sexual behaviors and its determinants are serious obstacles to HIV prevention and necessitate emphasis.

OBJECTIVE: The aim of this research is to explain gender disparity in risky sexual behaviors among undergraduate students in Ethiopia.

METHOD: Institution based comparative cross-sectional study design was used. The sample size was calculated using a formula to estimate the difference between two population proportion and a total of 579 subjects participated in this study. Respondents enrolled under other programs than regular program were excluded. Simple random sampling method was used to select the respondents. SPSS 21 was used for data analysis. A decomposition analysis was used to determine the magnitude and drivers of gender disparity in risky sexual behavior.

RESULT: There is a 33.2% extra risk in sexual behavior among males with a 95% CI (26.4, 39.9). Of this disparity, 32.6% with 95% CI (6.5 to 15.1) is attributable to differences in characteristics between boys and girls. The remaining 67.4% with a 95% CI (14.1 to 30.6) of the raw difference is, however, explained by the differences in response behavior to changes in characteristics between the sexes. Being Muslim, communication with parents, communication with friends, substance use and knowledge about HIV/AIDS explained the observed male-female gap in risky sexual behavior.

CONCLUSIONS: Significant gender difference was observed with a higher risk in male respondents compared to female. Being Muslim, communication with parents, communication with friends, substance use and knowledge about HIV/AIDS explained the gap in risky sexual behavior across gender. Therefore, gender sensitive strategies should be developed to reduce the observed gender disparity in risky sexual behavior.

KEY WORDS: Gender; Risky Sexual Behavior; Youth, Sexual and Reproductive Health

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INTRODUCTION

Sexual behaviors can have a negative consequence on one's sexual and reproductive outcomes. The extent to which young people engage in risky behaviors may determine the chance of acquiring HIV and other sexually transmitted infections (STI) and/or can result in unintended pregnancy and early childbearing[1]. These behaviors may include having multiple sexual partners, either concurrent or consequent, lack of consistent and proper condom use, paid/commercial sex, sex under the influence of substances, early sexual initiation, unprotected anal and oral sexes, and unprotected sex with someone whose HIV status is unknown. Having experienced at least one of the above sexual activities, one is considered to have risky sexual behavior[1-2]. Young people commonly engage in risky sexual behavior and suffer from the undesirable consequences. A significant number of adolescents around the globe are sexually active and began sexual activity at an early age[3]. Consequent to their sexual behaviors STDs were high among young people age between 15 and 24 years [4]. Evidence also indicates the risk of HIV infection is high, particularly among adolescents[5]. In Sub-Saharan Africa, the chance of young adolescents' exposure to HIV and other STIs is high especially among women [6-7]. The prevalence of risky sexual practices is high in Ethiopia[8-11]. Young Ethiopians usually engaged in risky sexual practice. Studies conducted upon Ethiopian youth revealed various risky sexual behaviors which include early initiation of sexual intercourse, premarital sex, multiple sexual partners, and inconsistent condom use[12-13]. In other study anal and oral sex and transactional sex were also reported [13].

Variation in risky sexual activity among young people is marked across gender. In countries like Sub-Saharan Africa, Asia, and central Asia, more girls are sexually active compared with boys, however, is vice versa in Latin America and Caribbean countries[14-15]. In Ethiopia, a systematic review of sexual behavior studies showed a significant variation across gender in risky sexual behaviors. boys and girls with higher risk among male[8]. A study conducted at Haromaya University also showed that more proportion of male students ever had risky sexual behaviors compared to females[16]. Nowadays, gender based inequalities on sexual behaviors and its determinants are serious obstacles to HIV prevention necessitating due emphasis on gender difference as central issue[17-18]. Many studies conducted concentrated on the prevalence of risky sexual behaviors and its associated factors, and some tried to compare the prevalence across gender. Socio-demographic factors like sex, age, religious affiliation, marital status and family income were found to have significant associations with risky sexual behaviors[8,19-21]. Substance use is another factor consistently linked with young people's risky sexual practices in different studies[22-25]. Alcohol drinking, cigarette smoking, and khat chewing are substances commonly associated with risky sexual behaviors in Ethiopian university students [8-9, 12, 19-20, 26]. Parents and also peers play major role in shaping the behavior of youths. In many cases, youths who had high family connectedness were less likely to commit risky sexual activity[8, 21, 27-30]. Evidence also indicates pressure from peer significantly increases the risk of unsafe sexual practices among young people [8, 27, 30-31].

However, none of these studies have explained the disparities across gender and indeed none of them identified how different factors contributed to disparities in sexual behavior using desirable design and/or analysis in Ethiopia. Therefore, the aim of this research is to assess the magnitude of gender disparity in risky sexual behaviors and factors explaining the disparity among undergraduate students in Ethiopia.

METHOD AND MATERIALS

Study area and period: the study was conducted March to April 2019 at Dambi Dollo University, Oromia Region, Ethiopia. Dambi Dollo University is among Public University in western Oromia, Kellem Wollega zone, Dambi Dollo town at about 652 km from Addis Ababa. In 2019 academic year, the university enrolled 2321 students in a regular undergraduate program from which 1312 (56.53%) were male and 1009 (43.47%) were female.

Study Design

Institution based comparative cross-sectional study design was used. The source population was all undergraduate students of the Dambi Dollo University. Respondents enrolled under other programs than regular program were excluded.

Sample size and sampling technique:

The sample size was calculated using a formula to estimate the difference between two population with different proportions by taking 22% (P1=0.22) and 15% (P2=0.15) of ever had premarital sex among male and female youths respectively [31]; a 95% confidence interval (Z=1.96), and 80% power of study. Considering 10% non-response rate, 358 male and 275 female were included in this study. Computer generated independent simple random sampling methods using SPSS version 21 was used to draw the samples from sampling frames from each group.

Data collection tool and techniques: The data were collected using structured questionnaire. The questionnaire was developed in English after reviewing related literatures. The data were collected by administering structured questionnaires at the students' dorm and. For subjects who were absent from the dorm at the allocation and collection of the questionnaire, revisits were conducted within two days.

Variables and Measurement

Independent variables:

Demographic and socio-economic variables: These variables were used to assess individual background information. These include sex, age, previous place of residence, region, marital status, religion, ethnicity, father's educational status and mother's educational status.

Substance use: this refers to use of three commonly used substances by youth in Ethiopia, alcohol, Khat and cigarette. Finally, the item was analyzed to produce a single dichotomous variable as 'ever substance use" with 'yes or no' responses and used in the decomposition analysis model.

Communication about Sexual and Reproductive Health: this refers to the respondents' status regarding their discussion about sexuality and reproductive health with their parents and friends.

Knowledge about HIV/AIDS: refers to the individual's understanding about HIV/AIDS. We measured four domains by 10 true/false questions. The first domain is about the causative agent and characteristics/natural history of HIV/AIDS measured on three items. The second and third domains are knowledge about modes of transmission and methods of prevention; measured by using three and two items respectively. The fourth domain is about care and treatment of HIV which is assessed by two items. LCA was carried out and produced three latent classes, represented as "subgroups" in the current study. Finally, we hypothesized classes with average marginal probability of 0-0.5, average marginal probability of 0.5-0.74 and average marginal probability of 0.75-1.00 as a group with "poor knowledge", a group with "moderate knowledge" and a group with "very good knowledge" respectively for our consumption in discussion.

Dependent variable

Lifetime risky sexual behavior: refers to lifetime any sexual act that can enhance the transmission of STIs including HIV and unplanned pregnancy.

Data quality assurance

Two different experts evaluated the questionnaire for wordings and content validity. The data collectors and supervisors were trained to ensure the quality of data collection. Pre-test was conducted on 5% of the study sample and necessary modification was made depending on its result.

Data processing and statistical analysis

Decomposition of gender disparity in risky sexual behavior between youths of two groups, boys (comparison) and girls (reference) was used in the analysis. Decomposition yields in components attributable to differences in characteristics, endowment, and a component attributable to differences in the effects of characteristics or behavioral responses, that is the coefficients. The endowment reflects the expected change in risky sexual behavior if respondents in the comparison group were given the distribution of

covariates prevailing in the reference group. The characteristic component reflects the expected change in risky sexual behavior if respondents in the reference group experienced behavioral responses of the comparison group for each covariates [32].

Ethical consideration

Ethical approval and clearance sought from Institutional Review Board in Dambi Dollo University. A consent sheet prepared and attached to the questionnaire in a separate page and contains information about the purpose of this study. All measures to ensure confidentiality and right of the participants were explained on the consent sheet.

RESULT

Descriptive Result

Descriptive statistics for all variables used in this study is provided in Table 1. A total of 579 (91.5%) subjects completed and returned the questionnaire with male to female ratio of 1.3. The mean and median age of the study subjects were 20.7 (SD=1.3) and 21.0 years, respectively. About 6 in 10 of the students were from rural origin; 557 (96.2%) of them were single, and 254 (43.9%) were Protestant. While only 68 (11.7%) of the respondents ever discussed about sexuality and reproductive health with their mother, more female respondents found to discuss the information with their mothers than male respondents, 29(42.6%) male and 39(57.4%) female **(Table 1)**.

Table 1: Distribution of socio-demographic characteristics by sex for a study on explaining Gender Disparity in Risky Sexual Behavior among Undergraduate University Students in Ethiopia: A Decomposition Analysis, 2020.

Variables			Response by Sex		Total
			Male: 330	Female:249	N (%)
Socio-demographic characteristic	Year of study	First	164(49.7%)	118(47.4%)	282 (48.7)
		Second	166(50.3%)	131(52.6%)	297 (51.3)
	Previous Place of Residence	Urban	131(39.7%)	130(52.2%)	261 (45.1)
		Rural	199(60.3%)	119(47.8%)	318 (54.9)
	Marital status	Single	313(94.8%)	244(98.0%)	557 (96.2)
		Ever married	17(5.2%)	5(2.0%)	22(3.8)
	Religion	Orthodox	133(40.3%)	111(44.6%)	244 (42.1)
		Protestant	137(41.5%)	117(47.0%)	254(43.9)
		Muslim	36(10.9%)	16(6.4%)	52(9.0)
		Others	24(7.3%)	5(2.0%)	29(5.0)
	Ethnic group	Oromo	172(52.1)	143(57.4%)	315(54.4)
		Amhara	103(31.2%)	82(32.9%)	185(32.0)
		Others	55(16.7%)	24(9.6%)	79(13.6)
	Father's Education	Illiterate	126(38.2%)	62(24.9%)	188(32.5)
		Can read and Write	104(31.5%)	82(32.9%)	186(32.1)
		Literate	100(30.3%)	105(42.2%)	205(35.4)
	Mother's Education	Illiterate	152(46.1%)	80(32.1%)	232(40.1)
		Can read and Write	89(27.0%)	76(30.5%)	165(28.5)
		Literate	89(27.0%)	93(37.3%)	182(31.4)
	Father's Occupation	Farmer	207(62.7%)	171(68.7%)	378(65.3)
		Gov employee	66(20.0%)	38(15.3%)	104(18.0)
		Merchant	37(11.2%)	28(11.2%)	65(11.2)
		Others	20(6.0%)	12(4.8%)	32(5.6)
	Mother's Occupation	Housewife	160(48.5%)	145(58.2%)	305(52.7)
		Farmer	86(26.1%)	50(20.1%)	136(23.5)
		Merchant	44(13.3%)	27(10.8%)	71(12.3)
		Govt employee	35(10.6%)	19(7.6%)	54(9.3)
		Others	5(1.5%)	8(3.2%)	13(2.2)
Ever Substance use	Alcohol	Yes	139(42.1%)	60(24.1%)	199(34.4)
		No	191(57.9%)	189(75.9%)	380(65.6)
	Kchat	Yes	69(20.9%)	(10.0%)	94(16.2)
		No	261(79.1%)	224(90.0%)	485(83.8)
	Cigarette	Yes	19(5.8%)	2(0.8%)	21(3.6)
		No	311(94.2%)	247(99.2%)	558(96.4)
Ever discussion about Sexual and reproductive health	With fathers	Yes	80(24.2%)	59(23.7%)	139(24.0)
		No	250(75.8%)	190(76.0%)	440(76.0)
	With mothers	Yes	29(8.8%)	39(15.7%)	68(11.7)
		No	301(91.2%)	210(84.3%)	511(88.3)
	With friends	Yes	184(55.8%)	80(32.1%)	264(45.6)
		No	184(55.8%)	80(32.1%)	264(45.6)

LCA of HIV/AIDS related knowledge

Four domains of HIV/AIDS related knowledge were assessed. The LCA model produced three latent classes, represented as "subgroups" in the current study. The first subgroups are likely to know about causative agent and disease characteristics. This class possibly is the hypothesized "poor knowledge" subgroup. The second subgroup is characterized by a moderate probability to over all knowledge questions with mixed probability in the mode of transmission and a low probability of knowledge about characteristics of the disease and hypothesized "moderate knowledge" subgroup. In the third subgroup, the marginal probabilities for correct response are high for all items except for the natural history and care/support items. This class mightily is the hypothesized "very good knowledge" subgroup **(Table 2)**.

Table 2: Latent Class Analysis of HIV/AIDS knowledge among undergraduate students in Dambi Dollo University, 2019

Knowledge Domains	HIV/AIDS related knowledge items	Margin (Delta Method		
		Subgroup 1	Subgroup 2	Subgroup 3
Causative agent and Natural history	HIV is an immune compromising virus	0.66	0.77	0.68
	HIV infected person can have negative HIV test	0.69	0.14	0.50
	HIV infected person may not have AIDS	0.60	0.13	0.35
Mode of transmission	Lip kissing is a major mode of HIV transmission	0.16	0.84	0.94
	Eating food prepared by an HIV-infected person transmits HIV	0.27	0.92	0.92
	Hand shaking with a person with AIDS transmits HIV infection	0.31	0.91	0.99
Prevention methods	You can't get HIV the first time you have sex	0.14	0.80	0.99
	There is a "morning after" pill that prevents HIV infection	0.53	0.66	0.96
Care/support	HIV can be cured if treated early	0.42	0.67	0.83
	HIV infected person can live normal life as usual with care and support	0.85	0.51	0.12

Description of Sexual Behavior across Gender

Of the total study subjects, 218(37.7%) of them had sexual intercourse at least once, from which 169(77.5%) of them were male while 49(22.5%) were female respondents. Of the total respondents, 235(40.6%) of them have history of risky sexual behavior in their life from which 218 ever had sexual intercourse **(Table 3)**. However, 17(7.23%) of students, not provided in the table, reported either anal oral sex without sexual intercourse.

Table 3: Distribution of Lifetime Sexual behavior among undergraduate students in Dambi Dollo University, 2019

Lifetime sexual behavior		Response by Sex		Total
		Male	Female	Freq (%)
Age at first sexual intercourse (n=218)	<18 years	95(56.2%)	28(57.1%)	123(56.4)
	>=18 years	74(43.8%)	21(42.9%)	95(53.6)
Sexual intercourse with a stranger (n=218)	Yes	47(27.8%)	9(18.4%)	56(25.7)
	No	122(72.2%)	40(81.6%)	162(74.3)
Ever had transactional sex (n=218)	Yes	28(16.6%)	8(16.3%)	36(16.5)
	No	141(83.4%)	41(83.7%)	182(83.5)
Sex with HIV status unknown person (n=218)	Yes	27(16.0%)	6(12.2%)	33(15.1)
	No	142(84.0%)	43(87.8%)	185(84.9)
Ever used condom (n=218)	Yes	59(34.9%)	17(34.7%)	76(34.9)
	No	110(65.1%)	32(65.3%)	142(65.1)
Frequency of Condom Use N=76	Always	17(28.8%)	9(52.9%	26(34.2)
	Sometimes	22(37.3%)	2(11.8%)	24(31.6)
	Rarely	20(33.9%)	6(35.3%)	26(34.2)
Condom use at first sex (n=218)	Yes	66(39.1%)	10(20.4%)	76(73.7)%
	No	103(60.9%)	39(79.6%)	20(26.3)
Ever had sexual intercourse (n=579)	Yes	169(51.2%)	49(19.7%)	218(37.7)
	No	161(48.8%)	200(80.3%)	361(62.3)
Ever committed sex with a person of the same sex; (n=579)	Yes	17(5.2%)	7(2.8%)	24(4.1)
	No	313(94.8%)	242(97.1)	194(95.9)
Committed anal sex (n=579)	Yes	33(10.0%)	12(4.8%)	45(7.8)
	No	297(90.0%)	237(95.2%)	534(92.2)
Committed oral sex (n=579)	Yes	41(12.4%)	9(3.6%)	50(8.6)
	No	289(87.6%)	240(96.4%)	529(91.4)
Had risky sexual behavior	Yes	181 (54.8%)	54(21.7%)	235(40.6)
	No	149(45.2%)	195(78.3%)	344(59.4)

Decomposition of gender on risky sexual behavior

Due to Difference in Characteristics (E)

In this study, there was a 33.2% extra risk in sexual behavior among male respondents with a 95% CI (26.4, 39.9) as compared to female respondents. The result shows 32.6% of the observed disparity in risky sexual behavior is attributable to differences in characteristics between boys and girls. The remaining 67.4% of the raw difference in risky sexual behavior is, however, explained by the differences in response behavior to changes in characteristics between the sexes **(Table 4)**.

Due to Difference in Coefficients (C)

Had boys responded in a same way as girls did to communication with mothers on sexual and reproductive health issues, they would have benefited by large (a risk difference of 7.8%) than girls.

Table 4: Decomposition result of risky sexual behavior across gender among undergraduate students

Lifetime sexual behavior	Endowment				Coefficient				
	Coef.	P-value	[95% CI.]	%	Coef.	P-value	[95% CI.]		%
Previous rural residence	0.906	0.253	-0.648	2.460	2.732	-1.971	0.703	-12.090	8.148 -5.944
2nd year	-0.190	0.120	-0.431	0.050	-0.574	4.413	0.742	-21.905	30.731 13.308
Orthodox	-0.098	0.644	-0.512	0.317	-0.295	1.736	0.668	-6.204	9.676 5.235
Protestant	0.031	0.906	-0.481	0.543	0.093	0.223	0.957	-7.878	8.323 0.671
Muslim	-0.789	0.011	-1.399	-0.179	-2.380	-0.560	0.533	-2.320	1.201 -1.687
Other religion	0.836	0.061	-0.040	1.712	2.521	0.087	0.811	-0.628	0.802 0.263
Literate fathers	-0.410	0.706	-2.537	1.717	-1.236	1.474	0.793	-9.548	12.496 4.444
Literate mothers	0.198	0.846	-1.807	2.203	0.598	3.997	0.452	-6.418	14.411 12.052
Farmer fathers	-0.177	0.548	-0.756	0.402	-0.535	2.977	0.606	-8.337	14.290 8.977
Gov employee fathers	0.187	0.511	-0.371	0.746	0.565	2.227	0.167	-0.934	5.389 6.717
Merchant fathers	0.001	0.699	-0.004	0.005	0.003	-1.879	0.129	-4.307	0.549 -5.667
Other fathers	-0.053	0.642	-0.274	0.169	-0.158	-0.107	0.890	-1.620	1.406 -0.322
Communicate to fathers	-0.095	0.009	-0.167	-0.023	-0.287	-7.811	0.003	-12.917	-2.704 -23.554
Communicate to mothers	-1.546	0.027	-2.919	-0.172	-4.660	5.086	0.030	0.486	9.686 15.337
Communicate to friends	4.899	0.000	2.401	7.397	14.773	4.926	0.108	-1.089	10.941 14.855
Ever substance use	4.571	0.000	2.795	6.347	13.784	5.413	0.065	-0.345	11.171 16.323
Class 1 knowledge	-0.381	0.022	-0.707	-0.056	-1.150	-2.205	0.017	-4.024	-0.387 -6.650
Class 2 knowledge	-0.208	0.850	-2.371	1.955	-0.629	2.553	0.512	-5.071	10.177 7.700
Class 3 knowledge	3.121	0.0027	1.173	5.069	9.412	5.268	0.011	1.184	9.352 15.885
Constant	NA	NA	NA	NA	NA	-3.488	0.851	-39.984	33.008 -10.519
Component	10.803	0.000	6.523	15.083	32.577	22.359	0.000	14.083	30.634 67.423
Raw Difference	33.162	0.000	26.445	39.878	100				
Number of observation = 579									

DISCUSSION

This study is, indeed, the first yet to conduct a decomposition of gender disparity in sexual behavior in Ethiopia. From the decomposition analysis, we found a 33.2% extra risk in sexual behavior among males with a 95% CI (26.4, 39.9). The risk gap is explained by the difference in distribution of covariates across gender and the differential effects of those risk factors. From the observed risk gap 32.6% is attributable to differences in characteristics. The remaining 67.4% of the raw difference is, however, explained by the differences in response behavior to changes in characteristics between the sexes. This finding is alarming for policy makers to fill the gap across gender and the pattern of this gap is a good implication to develop effective and gender sensitive interventions.

Evidence from other study revealed Muslim women were more likely to report risky sexual behavior than men[33]. In the current study, being Muslim is associated with gender inequalities in risky sexual behavior. In this case, a 2.4% extra-risk was found among Muslim female students than Muslim male students. That means if

Muslim boys assume the characteristics of Muslim girls, the negative coefficient shows that boys would benefit better than girls. This indicates that religion based interventions would best reduce the observed disparity between Muslim boys and girls in risky sexual behaviors. It is evident that parent-child communication has been proven in such a way that it increased the age at first sexual debut [34-35], heightened sexual abstinence [34-35], promote partner discussion[36], and increase condom use [35-36]. Based on the evidence from other literatures also revealed that in close relationship with parents, adolescents are less likely to have risky sexual behavior [8, 21, 27-30]. However, discussion with parents on reproductive and sexual matter is unfamiliar in Ethiopia [28, 37-38] and it is hindered by culture, embarrassment and other problems like poor communication[37]. In the current study, decomposition of parent-youth communication on sexual and reproductive topics explained the gender inequalities in risky sexual behavior in such a way that it benefits boys by reducing risky sexual behavior than it would in girls. In addition, the way boys and girls responded to communication about sexual and reproductive health matters with their mother results in a significant disparity in sexual behaviors between males and females as evidenced by a risk difference of 7.8%. On the other hand, 15.3% of the risk difference between boys and girls is attributed to paternal communication on sexual and reproductive behavior. This point leads us to seek for strategies that target parents to improve their communication about sexual and reproductive health with their off-springs.

Majority of youth who had pressure from their peer groups opt to engage in risky sexual activities [27, 39]. Peer communication may influence ones behavior in different means; disseminate the information, transfer perceived peer behaviors or norms, or it provide a context in which adolescents could adapt to dominant norms [40]. On the other hand, peers would also respect and support the decision to remain safe from sexual activity[39]. In this study, a significant risk difference was explained by the difference in the distribution of communication with friends between the sexes. About 14.8% of the prevailing risk difference in risky sexual behavior was attributable to difference in the distribution of communication with friends. This implies, shifting the boys' distribution on communication with friends to girls' level, it would provide the largest decrease in the male–female gap in risky sexual behavior. This is another indication for interventions to solve the observed disparities. Peer education on youth sexual and reproductive health may be effective intervention in this case.

Substance use has been characterized by inhibiting effect on one's decision quality and increases the likelihood of engaging in sexual behavior[23]. Drinking alcohol, chewing khat and cigarette smoking are substances frequently reported in Ethiopia and consistently linked with risky sexual practices [8-9, 12, 19-20, 26]. However, how substance use explains sexual behavior across gender is not discussed in these studies. The result from the current study revealed that ever use of at least a single substance attributes to inequality of risky sexual behavior across gender. In this matter, shifting the male distribution on substance use to the same level as girls would be expected to reduce gender disparity in risky sexual behavior by 13.8%. Thus, interventions like awareness raising programs, establishing anti-substance use clubs in the school as well as within the community, including substance use in the curriculum, and policy on substance ban including illicit drugs may be effective strategies to reduce the observed disparities.

Knowledge is an important part in the formation of behavior[41]. Lack of comprehensive knowledge about HIV/AIDS increases the risk of HIV among youth, particularly young women[42]. According to evidence from different studies, lower risk behavior is linked to better respondents' knowledge about HIV/AIDS [43-44]. Another studies, however, revealed despite a good knowledge about HIV/AIDS, young people practice risky sexual behaviors[41,45]. In the current study, we used to assess how knowledge about HIV/AIDS contributed to gender disparity in risky sexual behaviors. In this study, knowledge about HIV/AIDS was found to have significant effect on gender disparity in risky sexual behavior. That is 2.7% of the boy- girl gap in risky sexual behavior was attributed for

difference in distribution of knowledge about HIV/AIDS. The boy-girl disparity in risky sexual behavior can also be explained by the difference in response to knowledge about HIV/AIDS. More specifically, while response to knowledge benefited the girls among the subgroup with poor knowledge (first class from LCA), response to knowledge explained 15.9% of the difference in the prevalence of risky sexual behavior between boys and girls among the subgroup with very good knowledge (third class from LCA). This will necessitates equalizing boys and girls on knowledge about HIV/AIDS to reduce the disparity in risky sexual behavior. Effective and gender sensitive strategies to raise awareness like comprehensive sexuality education and HIV/AIDS may solve these problems.

CONCLUSIONS AND RECOMMENDATIONS

Significant gender disparity in risky sexual behavior was observed. Males were at higher risk than females. Being Muslim, communication with parents, communication with friends, substance use and knowledge about HIV/AIDS explained the gap in risky sexual behavior across gender. Bearing in mind the limitation of the study, these findings have potentially important implications for intervention. Therefore, gender sensitive strategies should be developed to reduce the observed gender disparity in risky sexual behavior.

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