

# Are We Passing on Violence to the Next Generation?: Gender Norms and Gender-based Violence Attitudes among Early Adolescents in Indonesia

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## Abstract

Intensification of gender norms during puberty affects adolescents' perceptions and behavior related to violence. This study examined the association between gender norms and gender-based violence (GBV) among early adolescents considering socio-ecological variables using cross-sectional data from 3,618 Indonesian Global Early Adolescent Study pupils. Chi-square tests with simple and multiple logistic regression analyses examined how different factors' levels predict GBV. Among boys, GBV attitudes were found high (53%). Furthermore, they also had high heteronormative expectations, threatened feelings, experiences of violence, porn access, and 5+ adverse childhood experiences (ACEs). Logistic regression results revealed that adolescent boys having one or two scores of gender norms at the above-median are 1.3 times more likely to commit GBV and even 2.2 times higher if all were above median [AOR (CI) = 1.3 (1.1-1.6); 2.2 (1.7-2.8)], respectively. Boys, having 5+ ACEs, and stronger endorsement on heteronormative relationships were also more likely to commit GBV [AOR (CI) = 1.5 (1.3-1.7); 1.5 (1.2-1.9); 1.5 (1.3-1.7)], respectively. This research concluded that unequal gender norms intensified during puberty strongly correlate to attitudes towards GBV among early adolescents. Strengthening the individual aspects by providing a more conducive environment, such as comprehensive sexual education at school, is essential to prevent GBV.

**Keywords:** adolescent health, adverse childhood experiences, gender-based violence, gender norms

## Introduction

The high prevalence and long-term health consequences of gender-based violence (GBV), especially violence against women and girls, make it an important public health problem and a violation of human rights. The World Health Organization (WHO) called violence against women and girls "A global health problem of epidemic proportions." While individual and family-level factors have been identified to affect GBV victimization and perpetration, the social contexts that endorse gender inequality, stereotypical gender norms, and rigid gender roles are recognized to perpetuate such violence strongly.<sup>1,2</sup>

Children are socialized from birth on gender-related norms, rules, and expectations by their family, peers, community members, and media. Distinct gender attitudes have formed in early adolescence and may begin to influence adolescents' behavior during social interactions or in an interpersonal relationship.<sup>3</sup> As maturing into adolescence and adulthood, young people often assume

and reinforce rigid and unequal gender norms and roles, creating a social power imbalance and justification for GBV.

Both girls and boys are negatively affected by unequal gender norms. Since childhood, many young people have been subjected to bullying, physical and emotional violence, and abuse by their parents, other family members, teachers, and peers. Boys are more often exposed to health risks and violence due to pressure to conform to negative masculinity ideals such as the social promotion of dominance and aggression.<sup>4,5</sup> On the other hand, girls are threatened by specific forms of violence such as sexual coercion, female genital mutilation, and forced marriage.<sup>6</sup>

The study on GBV in early adolescence in Indonesia is still scarce; most of the studies are small with limited geographic representation.<sup>5</sup> Regarding the prevalence of bullying, the 2015 Global School-based Student Health Survey, a nationally representative survey of 13-15 years old students, estimated that 24% of male students and

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19% of female students were bullied in one or more days during the 30 days before the survey; and 36% of male students and 13% of female students were in a physical fight in the last 12 months. The same survey estimated that 5% of boys and 3% of girls have ever been teased or harassed sexually in the last 30 days, and 5% of boys and 3.5% of girls have ever experienced forced sexual intercourse.<sup>7,8</sup>

A study by Plan International among students in grades 6-8 in Jakarta City and Serang District, Indonesia, found that 21% of boys and 17% of girls reported experiencing sexual violence (e.g., suffered sexual comments/whistled, showed sexual photo/video, touched body/kissed/fondled/asked for these acts) at school in the last six months.<sup>9</sup> The study examined the association between the perpetration of any form of violence and attitudes towards gender norms and experiences of violence, revealed no difference in the odds of perpetrating violence between those with high attitudes and those with low/moderate attitudes.<sup>9</sup> The complex and interrelated factors that drive sexual abuse and GBV are presented using a social-ecological framework, which identifies the factors at individual, family, peer, and community levels. This study examined the extent and correlates of GBV in early adolescence in Indonesia, particularly focusing on the effect of attitudes toward gender norms and roles on GBV attitudes by adjusting for other socio-ecological factors (individual, family, peer, and community).

## Method

This study was a cross-sectional study using The Global Early Adolescent Study (GEAS-Indonesia) baseline data among students in grade 7 in three cities; Semarang, Denpasar, and Bandar Lampung. This study was a longitudinal cohort follow-up and quasi-experimental study to explore gender norms and health in early adolescence. GEAS-Indonesia is adapted for impact evaluation of the discovery learning process by exploring gender norms and healthy sexuality among early adolescents 10-14 years of age. This project aimed to explore what young adolescents feel, believe, and perceive concerning their bodies and emerging sexuality. The GEAS-Indonesia survey measure comprises three cross-cultural components: a 10-module health instrument, a vignettes-based measure of gender equality, and an assessment of gender norms. Together, these instruments assess a range of socio-ecological influences at the family, peer, school, and neighborhood level in addition to behaviors and outcomes related to adolescent health and well-being, including school retention, adolescent empowerment; violence, and adverse experiences; mental health, sexuality, and sexual health. Further details about this research could be found at <https://www.geastudy.org/>.

This study used all samples collected by GEAS-

Indonesia, which was conducted in three sites: Semarang (Central Java Province, n = 1,318), Denpasar (Bali Province, n = 1,484), and Bandar Lampung (Lampung Province, n = 816). It was proposed to get a clear and diverse description of the growing up process among adolescents based on three different social contexts. There are substantial differences between the three sites in cultural-religious influence (i.e., more conservative Islamic society in Sumatra than Java and a more open Hindu culture in Bali) and the impact of globalization (modern media, online communities, access to entertainment, and tourism).

Gender norms as the independent variable were created by three groups of questions related to sexual double standards, stereotypical gender roles, and traits. They were summarized in a measure ranging from 1 to 5. Adolescents of 10-14 years old gave responses for each of the questions using a 5-point Likert scale. First, the group of sexual double standard questions was suggestive of differential values assigned to boys' versus girls' romantic involvement. Such values encourage boys to have relationships to gain social status while restraining girls who risk their social reputation by engaging in early sexual relationships (Median = 2.77). The second group concerned stereotypical gender traits, which were examined in a series of questions contrasting boys' toughness with girls' vulnerabilities (Median = 3.89). Last, the group of questions related to stereotypical gender roles contained a series of items portraying the division of gender roles and male authority in the household (Median = 4). Total scores for each group of questions were summarized and categorized into a binary scale which included upper the median and under the median. Upper median scores indicated stronger endorsement on traditional gender norms, while under median scores indicated less endorsement. The final step involved categorizing all responses into one overall score: 1 = all under median, 2 = one or two upper medians, and 3 = all upper median. Attitudes toward GBV as the main dependent variable was measured using adolescent reports concerning sanctions for challenging the normative gender roles contained in two questions which are "Is it okay to tease a girl who acts like a boy?" (Median = 2), and "Is it okay to tease a boy who acts like a girl?" (Median = 3). Afterward, those questions were converted into scores and categorized into under median and upper median.

The main predictor at the individual level, type of sex, was categorized as binary data consisting of boys and girls. At the same time, age was respondent's current age at last birthday, which is categorized into <12 years old, 12 years old, and >12 years old. Pubertal status was collected by asking whether respondents had ever got wet dreams or menstruation (categorized as Yes and No). Experience of watching pornography was categorized as

Yes and No. Adverse childhood experiences (ACEs) were collected through a series of questions related to stressful or traumatic experiences, including violence, neglect, family dysfunction, domestic violence, and family drug abuse which were categorized into “Never,” “1-2 experiences,” “3-4 experiences,” and “5 or more experiences.” There were four statements related to the perceived acceptability of heteronormative romantic relationships during adolescents. The four statements were combined into a single indicator averaging responses to the four questions and then categorized into upper and under the median.

Parent-child closeness was examined through child perceptions on how comfortable they talked with their caregiver, which was responded to by “1 = Don't care at all” and “2 = Don't really care” categorized as No, “3 = Somewhat care” and “4 = Very much care” categorized as Yes. Parental awareness was collected through adolescent perceptions of whether parents know their school achievement, the name of friends, and where they went when going out. The responses were varied with “Very true” and “Somewhat true” categorized as Yes, and “Not true” and “Absolutely not true” categorized as No. Those who responded Yes for all items were categorized as Yes for parental awareness and the rest as No. The wealth index is a composite measure of household's ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities which are then divided into five quintiles that represent very poor, poor, middle-income, rich, and very rich. Family structure is the parent's current married situation divided into complete/both parents, mother only, father only, and other. Siblings are adolescents' siblings, categorized as having no siblings, male-only, female-only, and both sexes.

Predictors at the peer and community levels consist of average time spent with friends last week, categorized as “no time,” “1-2 times a week,” “3-4 times a week,” and “almost every day.” At the same time, social control was measured through adolescent perceptions of whether people around them would intervene if they did vandalism, broke the property, bullying, and/or fought with others. Those who responded with “Very true” and “Somewhat true” for all questions were categorized as Yes, and the rest as No. Similar categories were also used for social cohesion, which was collected through a series of questions regarding pupils' perceptions of whether people know their names, take care of each other, care about them, and be trusted. Perceptions of safety in the community and at school and access to social media were collected in two responses, Yes and No. The last question was about the time spent on social media regularly for any purposes categorized into “less than or equal to 2 hours” and “more than 2 hours.”

This study involved questions with no more than a minimal risk level. In other words, this study provided minimal risk for respondents because it was observational. The respondents filled out the questionnaires independently so that the principles of confidentiality and volunteerism were guaranteed. Participants completed a self-filled questionnaire on sensitive topics, including issues related to their sexual and romantic experiences, which might make some participants uncomfortable. The trained data collectors assisted how to complete an electronic questionnaire and reminded participants that they had the right to stop anytime if they experienced discomfort. A referral system was offered and provided for all respondents who needed it.

This analysis was conducted with descriptive statistics to determine the distribution of the data by looking at the proportion of each group in each predictor. The type of predictors was classified based on the socio-ecological levels such as individual, family, peer, and community. The results are presented as frequency tables. Inferential analysis using Chi-square tests was used in bivariable analysis to examine the proportional difference of GBV according to specific predictors. In contrast, simple and multiple logistic regression tests were used to examine how different the levels of predictors predicted and influenced gender norms' correlation to GBV attitudes. At the individual level, the correlation was adjusted by sex, age, pubertal status, heteronormative perception, experience accessing porn, violence, and ACEs. Family level modeling was considered with parent-child closeness and awareness, wealth index, family structure, and the number of siblings. Child perceptions on social cohesion and control, experience feeling threatened at school and neighborhood, access to social media and time spent were included at the environment level. The Akaike information criterion (AIC), a mathematical method for evaluating how well a model fits the data, was generated from the results and was measured to determine parsimonious models. As described above, in this study, five models/levels of predictor (individual; family; peer; school, community, and social media; and total model) were developed. AIC was used to determine which model best explained the relationship of independent and dependent variables. The lowest number of AIC determined the best or parsimonious model. All tests used STATA 15 (Serial number: 401506209499) with a 95% confidence interval (CI) and significance of  $p$ -value  $< 0.05$ .

## Results

There were 4,684 students (2,207 boys and 2,477 girls) who consented to participate in the GEAS-Indonesia baseline and completed the interview. However, due to the inclusion criteria, the “don't know” and “don't want to answer” responses and any missing

data in the selected variables of this study were dropped from the dataset. The final data of 3,618 students (1,626 boys and 1,992 girls) were included in the analysis.

The analysis revealed that the proportion of boys was significantly higher in perceiving GBV than girls (Table

1). Simple logistic regression analysis indicated that boys were found 1.9 times higher in the group who had high GBV attitudes (OR = 1.9; 95% CI = 1.6-2.1) (Table 2). In addition, the adolescents aged 12 years old had the highest proportion of endorsing the GBV attitudes (Table

**Table 1. Distribution of Gender-Based Violence Attitudes and Their Association with other Domains of Early Adolescent Health**

Level	Variable	Category	Gender-Based Violence Attitude		p-value*	
			Under Median	Upper Median		
			n (%)	n (%)		
Total			1,956 (54.1)	1,662 (45.9)		
	Gender norms	All below median	444 (22.7)	253 (14.0)	<0.001	
		One or two above median	1,278 (65.3)	1,040 (62.6)		
Individual	Sex	All above median	234 (12.0)	389 (23.4)	<0.001	
		Boy	742 (37.9)	884 (53.2)		
		Girl	1,214 (62.1)	778 (46.8)	0.030	
	Age	<12 years old	122 (6.2)	76 (4.6)		
		12 years old	1,428 (73.0)	1,201 (72.3)		
		>12 years old	406 (20.8)	385 (23.2)	0.309	
	Pubertal status	No	879 (44.9)	775 (46.6)		
		Yes	1,077 (55.1)	887 (53.4)		
		Ever watched pornography	No	1,672 (85.5)	1,289 (77.6)	<0.001
			Yes	284 (14.5)	373 (22.4)	
	Adverse childhood experiences (ACEs)	Never	392 (20.0)	276 (16.6)	<0.001	
		1-2 experiences	717 (36.7)	481 (28.9)		
		3-4 experiences	521 (26.6)	430 (25.9)		
		5 or more experiences	326 (16.7)	475 (28.6)		
	Violence experiences	No	974 (49.8)	699 (42.1)	<0.001	
		Yes	982 (50.2)	963 (57.9)		
	Heteronormative expectations	Under median	1,175 (60.1)	707 (42.5)	<0.001	
		Upper median	781 (39.9)	955 (57.5)		
Family	Parent-child closeness	No	687 (35.1)	649 (39.0)	0.015	
		Yes	1,269 (64.9)	1,013 (61.0)		
	Parental awareness	No	665 (34.0)	623 (37.5)	0.029	
		Yes	1,291 (66.0)	1,039 (62.5)		
	Wealth index	Very poor	375 (19.2)	339 (20.4)	0.769	
		Poor	373 (19.1)	314 (18.9)		
		Middle	387 (19.8)	335 (20.2)		
		Rich	451 (23.1)	384 (23.1)		
		Very rich	370 (18.9)	290 (17.4)		
	Family structure	Both parent	1,763 (90.1)	1,506 (90.6)	0.799	
Mother only		121 (6.2)	93 (5.6)			
Father only		44 (2.3)	35 (2.1)			
Other		28 (1.4)	28 (1.7)			
Have siblings	No sibling	167 (8.5)	123 (7.4)	0.002		
	Male sibling only	517 (26.4)	413 (24.9)			
	Female sibling only	389 (19.9)	276 (16.6)			
	Both male and female	883 (45.1)	850 (51.1)			
Peer	Average time spent with friends	No time	163 (8.3)	125 (7.5)	0.010	
		1-2 times a week	955 (48.8)	737 (44.3)		
		3-4 times a week	191 (9.8)	188 (11.3)		
		Almost every day	647 (33.1)	612 (36.8)		
Community	Social control	Under median	772 (35.9)	744 (43.6)	<0.001	
		Upper median	1,381 (64.1)	963 (56.4)		
	Social cohesion	No	745 (38.1)	626 (37.7)	0.794	
		Yes	1,211 (61.9)	1,036 (62.3)		
	Feeling threatened in community	No	1,427 (73.0)	1,155 (69.5)	0.022	
		Yes	529 (27.0)	507 (30.5)		
	Feeling threatened at school	No	1,640 (83.8)	1,309 (78.8)	<0.001	
		Yes	316 (16.2)	353 (21.2)		
	Access to social media	No	153 (7.8)	109 (6.6)	0.144	
		Yes	1,803 (92.2)	1,533 (93.4)		
Time spent on social media	≤2 hours	1,357 (69.4)	1,179 (70.9)	0.306		
	>2 hours	599 (30.6)	483 (29.1)			

Notes: Median of Social Control, \*Chi-square analysis (α = 0.05)

1). There is a trend of the odds ratio (OR) association between age groups and GBV attitudes. The OR tended to increase with the increase in age (Table 2). However, the pubertal experiences did not develop with the GBV attitude in both the Chi-square tests and simple logistic regression analysis (Table 1 and Table 2).

Table 1 shows that adolescents who had any violent experiences also had a higher proportion in endorsing GBV. The same pattern was found among those who had

ACEs, and the proportion approximately increased when adolescents experienced more ACEs. There was a probability of finding adolescents who had the high endorsement of GBV, which was 1.4 times higher in the group who had experienced any violence; moreover, it was about two times higher in groups who had experienced five or more ACEs (Table 2). On the contrary, those who felt threatened at school and community had a lower GBV attitude (Table 1). However, the simple logistic re-

Table 2. Multivariable Analysis of Association between Gender-Based Violence Attitudes and Multiple Domains in Early Adolescent Health

Variable	Null model (Unadjusted) OR (95% CI)	Individual Model OR (95% CI)	Family Model OR (95% CI)	Peer Model OR (95% CI)	Community, School, and Social Media Model OR (95% CI)	Total Model OR (95% CI)
<b>Gender norms</b>						
All below median	Ref	Ref	Ref	Ref	Ref	Ref
One or two above median	1.6 (1.3-1.9)***	1.3 (1.1-1.6)**	1.6 (1.3-1.9)***	1.5 (1.3-1.8)***	1.5 (1.3-1.9)***	1.3 (1.1-1.6)**
All above median	3.2 (2.5-4.0)***	2.2 (1.7-2.8)***	3.2 (2.5-4.0)***	3.1 (2.5-3.9)***	3.1 (2.5-3.9)***	2.3 (1.8-2.9)***
<b>Sex</b>						
Boy	1.9 (1.6-2.1)***	1.5 (1.3-1.7)***				Ref
Girl	Ref	Ref				1.5 (1.2-1.7)***
<b>Age</b>						
<12 years old	Ref	Ref				Ref
12 years old	1.3 (1.0-1.8)*	0.8 (0.6-1.0)				0.7 (0.5-1.0)
>12 years old	1.5 (1.1-2.1)**	1.0 (0.8-1.2)				1.0 (0.8-1.2)
<b>Pubertal status</b>						
No	1.1 (0.9-1.2)	1.1 (0.9-1.2)				1.0 (0.9-1.2)
Yes	Ref	Ref				Ref
<b>Ever watched pornography</b>						
No	Ref	Ref				Ref
Yes	1.7 (1.4-2.0)***	1.1 (0.9-1.3)				1.1 (0.9-1.3)
<b>Adverse childhood experiences (ACES)</b>						
Never	Ref	Ref				Ref
1-2 experiences	0.9 (0.8-1.2)	0.9 (0.7-1.1)				0.9 (0.7-1.1)
3-4 experiences	1.2 (1.0-1.4)	1.0 (0.8-1.3)				1.0 (0.8-1.2)
5 or more experiences	2.1 (1.7-2.5)***	1.5 (1.2-1.9)**				1.4 (1.1-1.8)**
<b>Violence experiences</b>						
No	Ref	Ref				Ref
Yes	1.4 (1.2-1.6)***	1.1 (0.9-1.2)				1.0 (0.9-1.2)
<b>Heteronormative expectation</b>						
Under median	Ref	Ref				Ref
Upper median	2.0 (1.8-2.3)***	1.5 (1.3-1.7)***				1.5 (1.3-1.7)***
<b>Parent-adolescent closeness</b>						
No	1.2 (1.0-1.3)**		1.2 (1.0-1.3)*			1.1 (0.9-1.3)
Yes	Ref		Ref			Ref
<b>Parental awareness</b>						
No	1.2 (1.0-1.3)*		1.2 (1.0-1.3)*			1.1 (0.9-1.2)
Yes	Ref		Ref			Ref
<b>Wealth index</b>						
Very poor	1.1 (0.9-1.4)		1.1 (0.9-1.4)			1.1 (0.9-1.4)
Poor	1.1 (0.9-1.3)		1.0 (0.8-1.3)			1.0 (0.8-1.3)
Middle	1.1 (0.9-1.4)		1.1 (0.9-1.4)			1.1 (0.9-1.3)
Rich	1.1 (0.9-1.3)		1.1 (0.9-1.3)			1.1 (0.9-1.3)
Very rich	Ref		Ref			Ref
<b>Family structure</b>						
Both parent	1.1 (0.8-1.5)		1.1 (0.8-1.5)			1.2 (0.9-1.6)
Mother only	Ref		Ref			Ref
Father only	1.0 (0.6-1.7)		1.1 (0.6-1.8)			1.0 (0.6-1.7)
Other	1.3 (0.7-2.3)		1.3 (0.7-2.4)			1.4 (0.8-2.6)
<b>Have siblings</b>						
No sibling	1.0 (0.8-1.4)		1.0 (0.8-1.4)			1.0 (0.8-1.4)
Male sibling only	1.1 (0.9-1.4)		1.2 (0.9-1.4)			1.1 (0.9-1.3)
Female sibling only	Ref		Ref			Ref
Both male and female	1.4 (1.1-1.6)**		1.3 (1.1-1.6)**			1.2 (1.0-1.4)
<b>Average time spent with friends</b>						
No time	Ref			Ref		Ref
1-2 times a week	1.0 (0.8-1.3)			1.0 (0.8-1.3)		1.0 (0.7-1.2)
3-4 times a week	1.3 (0.9-1.7)			1.2 (0.9-1.7)		1.1 (0.8-1.6)
Almost every day	1.2 (0.9-1.6)			1.2 (0.9-1.5)		1.0 (0.7-1.2)
<b>Social control</b>						
Under median	1.4 (1.2-1.6)***				1.4 (1.2-1.6)***	1.3 (1.2-1.5)***
Upper median	Ref				Ref	Ref
<b>Social cohesion</b>						
No	Ref				Ref	Ref
Yes	1.0 (0.9-1.2)				1.0 (0.8-1.1)	1.0 (0.8-1.1)
<b>Feeling threatened in community</b>						
No	Ref				Ref	Ref
Yes	1.2 (1.0-1.4)*				1.1 (1.0-1.3)	1.0 (0.9-1.2)
<b>Feeling threatened at school</b>						
No	Ref				Ref	Ref
Yes	1.4 (1.2-1.7)***				1.4 (1.1-1.6)***	1.2 (1.0-1.4)*
<b>Access to social media</b>						
No	Ref				Ref	Ref
Yes	1.2 (0.9-1.6)				1.2 (0.9-1.6)	1.3 (0.9-1.7)
<b>Time spent on social media</b>						
≤2 hours	Ref				Ref	Ref
>2 hours	0.9 (0.8-1.1)				0.9 (0.8-1.1)	0.9 (0.8-1.1)
AIC		4759.2	4890.7	4890.2	4857.5	4763.8

Notes: \*\*\*p-value < 0.001; \*\*p-value < 0.01; \*p-value < 0.05

gression analysis revealed that for adolescents who had the high endorsement of GBV, there were 1.4 and 1.2 times higher probability found in the group of those who felt threatened at school and their community, respectively (Table 2).

Access and time spent using social media were not significantly associated with GBV attitude in the two types of analysis. However, experience in watching porn was strongly and significantly correlated (Table 1 and Table 2). Those who said they have not watched porn intentionally or not ever had a lower proportion in endorsing GBV (Table 1). It was significantly proved that there was a 1.7 times higher probability of finding adolescents who had the high endorsement of GBV in the group of those who had ever watched porn than those who had never (Table 2). The expectations of heteronormative relationships were also significantly associated with the GBV attitude among early adolescents (Table 1 and Table 2). If they had a high proportion of endorsement of the heteronormative expectations, the proportion of endorsing GBV was also increased (Table 1). The simple logistic regression analysis revealed that in the group of those who had high expectations of a heteronormative relationship, there were two times higher probability of finding adolescents who had the high endorsement of GBV (Table 2).

At the family level, the closeness and awareness of their parents, based on adolescents' recognition, were significantly associated with GBV attitude, as were the existence of siblings in the household (Table 1). There was a 1.2 times higher probability to find adolescents who had the high endorsement of GBV in the group of those who recognized no parental closeness and awareness (Table 2). Furthermore, the existence of both male and female siblings increased the probability 1.4 times higher to find adolescents who had the high endorsement of GBV, compared to those who had no sibling or had male or female siblings only in the household (Table 2).

At the peer and community level, only the variables of social control and time spent with friends were significantly correlated with GBV attitudes using Chi-square tests (Table 1). However, only social control was still substantial after using the analysis of simple logistic regression analysis. Those who felt that they had low social control in their community were 1.4 times more likely found in the group who had the high endorsement of GBV (OR = 1.4; 95% CI = 1.2-1.6) (Table 2).

Analysis of the main variables revealed that adolescents who had the high endorsement of GBV mainly were boys who had one or two scores of gender norms below its median (63%). However, the proportion of those who had scored at all above median was about 1.7 higher than those who were at all below median, and the result was significant (Table 1). This finding means that the per-

ceived GBV among early adolescents is increased if they had the highest endorsement of gender norms; moreover, it is even higher if they at least have one score of gender norms above the median. It could be said that if adolescents have a strong endorsement of at least one type of gender norms, e.g., sexual double standard, stereotyped gender traits, and stereotyped gender roles, they will have a higher probability of having a solid endorsement of GBV. This finding was also supported by the simple logistic regression analysis results that indicated a 1.6 times higher probability of finding adolescents who had the high endorsement of GBV in the group of those who had one or two scores of gender norms below the median. In comparison, the probability increased by 3.2 (two times higher than before) to find those particular adolescents in the group who had a score of all gender norms above the median (Table 2).

Five models were created based on the social-ecological variables included in this study. All models were proposed to predict the relationship of GBV attitudes and gender norms in different levels of other predictors. Those were: (1) individual model (sex, age groups, pubertal experiences, ever watched porn, ACEs, violence experiences, and heteronormative expectation); (2) family model (parental closeness, parental awareness, wealth index, family structure, and have siblings); (3) peer model (time spent with friends); (4) community, school and social media model (social control, social cohesion, feeling threatened in community, feeling threatened at school, access to social media and time spent on social media); (5) total model that combined all of the variables contained in models 1 to 4. Parsimonious or the best prediction model was chosen between those models by using the AIC through multiple or multivariable logistic regression analyses. Finally, the individual model was selected as a parsimonious model since it had the lowest score of AIC.

As shown in Table 2, after considering variables on the individual model, it could be indicated that the OR of the association of GBV attitude and gender norms decreased, but it was still significant. There was a 1.3 times higher probability of finding adolescents who had high GBV attitudes in the group of those who had one or two scores of gender norms at under median (Adjusted OR (AOR) = 1.3; 95% CI = 1.1-1.6). A higher probability (2.2 times higher) was also indicated among those particular adolescents in the group whose gender scores were all at above median (AOR = 2.2; 95% CI = 1.7-2.8). This finding means that the probability of endorsing GBV will increase if the gender norms score increases. On the other hand, a strong endorsement of sexual double standards, stereotypical gender traits, and roles led adolescents to perceive strong GBV as well.

Other variables that were still significant in the mul-

tivariable analysis were sex, ACEs, and heteronormative expectations. Those three variables had the same probability, which was 1.5 times higher to find adolescents who had high GBV attitude in the group of those who were boys (AOR = 1.5; 95% CI = 1.3-1.7), have experienced five or more ACEs (AOR = 1.5; 95% CI = 1.2-1.9) and had a stronger endorsement on the heteronormative relationship (AOR = 1.5; 95% CI = 1.3-1.7) (Table 2).

## Discussion

This study found that GBV attitudes have a strong association with gender norms. Results showed that the more adolescents have negative perceptions of gender norms, the higher the probability of endorsing GBV attitudes. Based on these findings, it is important to provide proper socialization about gender norms, such as implementing comprehensive sexuality education, which would potentially build a more conducive environment for adolescents to develop a more positive attitude related to gender.

Realization of the importance of gender norms socialization comes from social standards that reflect gender inequality, affecting several aspects of human life, including individual, family, peer, and community experiences. Study indicated that men and boys are the main perpetrators of GBV, while girls and women mostly become the victims. It is understood that gender equality does not mean that men and women are the same or that differences do not exist. However, while they are physically different, their needs and contributions should be valued equally, unconstrained by stereotypes and prejudices. For example, based on equal human rights, gender equality will allow both men and women (as well as adolescents) equal access to social goods, services, opportunities, education, and resources, regardless of gender.<sup>1,10</sup>

Over the last five decades, both women and men worldwide have been more likely to endorse egalitarian gender-role attitudes than people in the past.<sup>1</sup> This trend leads to the increase in the general human and economic development because women are becoming more empowered, such as having a higher presence in the public sphere (e.g., in paid work, higher education), with increased roles in self-decision making concerning birth control, and family size.<sup>1,10</sup> This trend demonstrates that gender-role attitudes among the community could lead to gender equality and positively impact the community itself. Unfortunately, not all people and communities fully understand gender equality because the socialization of gender norms that they receive might be full of stereotypes and prejudices, which make the position of one gender higher than the other in every single aspect of life. The disparities of perceived gender roles among community members cannot be avoided as the main causes of GBV, and again primarily, women and girls are among

the most vulnerable and disadvantaged.<sup>1,10</sup>

In the context of Indonesian culture, especially in the three data collection sites, which were Semarang, Denpasar, and Bandar Lampung City, the patrilineal system upholds that being a man or having a son is a privileged position because he is expected to be the family's successor socially, culturally, and economically. Since they were born, boys are taught that men need to be strong leaders, and women must follow their orders. This type of GBV introduces unfair subordination because the aspirations of women do not matter. At the same time, a man's needs must be fulfilled, for example, the need for education, where women will face many barriers from family and community to engage in it, compared to men, which further affects women's lack of independence. Since they are less educated, they have lower power and authority in the family and community, even deciding about their own body, such as choosing family planning methods, seeking qualified health services, as well as for deciding what source of food they may consume. This neglect may lead to the low status of the women's health.<sup>1,11</sup>

Besides subordination, perceived conservative gender norms could also bring other impacts, including GBV. Due to its persistent prevalence, GBV is still an important and global public health issue faced by many girls and women. It is projected that one in three women globally will face some form of abuse or violence in their childhood, adolescence, or adulthood, which brings acute and chronic impacts on women's health.<sup>1,12,13</sup> This study discovered that gender norms were strongly associated with GBV attitudes after considering other socio-ecological predictors. It was shown that the individual model, which contains the personal type of predictors, was the most proper model to predict the association between those variables. It could be said that individual variables are the proximal predictors that might directly affect adolescents to perceive, experience, and endorse GBV.

The link between gender inequality and gender-role attitudes is commonly found in adolescents since they are strongly formed in this stage of age. The high endorsement of GBV among young adolescents could affect how they act and react regarding certain issues related to gender traits and roles. Among their peers, some studies also indicated that the GBV attitudes followed by actions might stay with them until adulthood.<sup>1,3</sup> One of the examples is the perpetration of intimate partner violence (IPV).<sup>1</sup> The results of a study conducted by McCarthy, *et al.*,<sup>14</sup> suggested that acceptance of violence against women or beliefs about the sexual entitlement of men were most consistently associated with IPV perpetration.

As expected, men are revealed to be more accepting of traditional gender norms than women. It is also shown in this study. This study found that boys have a higher

probability of being found in the adolescent group with a high endorsement of GBV. Several studies also indicated that gender norms that lead to GBV attitudes were varied by gender. Injunctive attitudes toward gender norms could synergistically increase the risk of violence perpetration, especially among adolescents.<sup>1,15</sup> Other studies revealed that boys who endorsed gender role discrepancy and experienced the associated stress generally had a greater risk of engaging in sexually violent actions.<sup>1,16</sup> In other words, boys who had stressful experiences about being perceived as sub-masculine, as a means of demonstrating their masculinity to self or others, might be more likely to engage in sexual violence.

Swapping the gender of boys and girls is not a scientifically feasible solution to solve the problems of how the boys behave and make them more understanding. Rather than that, it is better to encourage the development of mindsets and perceptions that are more open and accepting of the concept of gender equality. Involving them in prevention actions is one of the possible answers. If they are aware of the impact of inequality in gender attitudes for both genders, they might be more capable of choosing non-violence in their actions. The results of the study conducted by Nagamatsu, *et al.*, concluded that the more knowledge a person has about equal and positive gender relationships, the greater ability they have to recognize the signs of violence.<sup>1,17</sup> It means that if gender equality wanted to be implemented appropriately, empower not only women/girls but also involve men/boys in all related programs. Numerous health organizations highlight engaging men and boys in preventing violence against women as a potentially impactful public health prevention strategy.<sup>1,18</sup>

This study also indicated that adolescents who have experienced five or more ACEs had a greater probability of being found in the group of adolescents with high GBV attitudes. Similar results were reported in a study by Yount, *et al.*,<sup>19</sup> that found men who had more childhood exposure to violence were more likely to perpetrate violence. It could be said that violence perpetration could be triggered by childhood experiences related to violence and other inappropriate circumstances. Even though in this study, the variable of violence experience was not significantly associated with GBV attitudes, and ACEs are not identical to violence, however, with the support of evidence-based methods, scientific assumptions can conclude that the provision of a conducive environment from childhood is significant in preventing GBV and sexual violence attitudes.

Contrarily, a systematic review conducted by Kågesten, *et al.*,<sup>20</sup> revealed that the interpersonal variables (family and peers) were major influences on the formation of gender attitudes of young adolescents. They found that gender attitudes appeared to be linked to par-

ents' gender-related attitudes and pressures, education level of mothers, parental work status as well as siblings' composition, including age, sex, and attitudes.<sup>20</sup> In this study, family and peer models were not chosen as the parsimonious model. However, there were variables, especially in the family model, that were significant in predicting GBV attitudes, such as parent-adolescent closeness and parental awareness, as well as the existence of both male and female siblings in the household. From those findings, the family condition, such as parenting type, can be associated with GBV perceptions among adolescents.

This study considered parental closeness and awareness as protective factors against GBV attitudes among young adolescents. Meanwhile, another study also found the same result, but with a different point of view. It indicated that parent-to-child psychological violence, including family stress and perceptions of family communication, during adolescence was a key predictor of peer violence actions and could possibly trigger the IPV throughout adulthood.<sup>21,22</sup> The authors realize that in the stage of ages 10-14 years old, young adolescents can not decide how to act and react appropriately independently. However, other persons, such as their parents, caregivers, siblings, or other family members, will influence their perceptions and behavior. While individual factors might be the most significant determinants to be addressed in GBV prevention, involving other aspects, specifically family factors, is also relevant to developing a more conducive environment for young adolescents.

According to the socio-ecological framework, an individual's development is influenced not only by the family level but also by the school and community levels, which can also predict gender norm socialization among early adolescents. In this study, only the variables of social control and feeling threatened at school remained significant. The lower score of social control and a higher level of feeling threatened increased the probability of finding adolescents who endorsed GBV attitudes. The study conducted by León-Moreno, *et al.*,<sup>23</sup> reported that victimization was directly and indirectly associated with violence at school through revenge motivation. Another study suggested that the girls as carriers of a social multiplier effect were able to reduce violence in the school environmental context, particularly among boys, who are at greater risk.<sup>24</sup> The conclusions found that involving and empowering more male students in gender equality-type interventions could possibly affect the gender-based violence cases at school.

These findings are also relevant in Indonesia, as revealed in the second wave of Youth Voices Research (YVR), a qualitative study supporting and supporting GEAS-Indonesia findings.<sup>25</sup> The results showed that junior high school students were factually experienced bul-



lying and physical violence, particularly boys, while the girls were more engaged in verbal and social violence. The motivation was mainly to show the power by creating pressure for those who they thought deserved revenge. The results also reported that this had not happened only among peers. Some teachers also often abuse the students by discriminating based on their appearance and socioeconomic background and comparing them with other students whom they think are better. It was reported that teachers did that to motivate students. However, the students felt saddened and mentally burdened as a result.

On the other hand, community exposure is also important to be recognized, especially in Indonesia, where the social interactions in the neighborhood are generally still considered good. Community violence has been linked to several internalizing and externalizing symptoms of peer violence, which could negatively impact adolescents' mental health.<sup>26</sup> As mentioned before, a more conducive environment for adolescents, including programs at the community and neighborhood levels, is supported by this study's results, which found that high social control in the neighborhood could potentially prevent GBV violence.

Considering the increasing prevalence of bullying, there is growing concern about the impacts of GBV and inequality in gender norms in general. As found in the study by Shakya, *et al.*, gender expression of adolescents was correlated with health and any risk factors that lead to health issues in adulthood. For example, due to high masculinity norms, smoking and substance abuse, fast food, and soda consumption could lead to high blood pressure, high cholesterol, migraines, depression, and physical limitations (e.g., health problems limiting their daily activities) in adulthood.<sup>27,28</sup> Those findings support the importance of socialization of positive gender norms that could be started in early adolescence.

Since this study used secondary data from the GEAS-Indonesia survey, there were some limitations, especially variables. For instance, this study only analyzed the GBV attitudes but not the actual practices among adolescents to confirm the data. However, this study was able to reveal the fact that GBV attitudes exist among adolescents. The results from this study can be used as a starting point for exploring more specific aspects regarding the influence of gender norms on GBV behavior in adolescents. From the beginning, this study was not intended to compare GBV attitudes and gender norms based on the three implementation regions of GEAS-Indonesia. This situation is due to the limited data and would require deeper information about the contextual conditions in each region.

## Conclusion

In conclusion, the socialization of gender norms is es-

sential to form the GBV attitudes among adolescents. The socialization of negative gender norms could come from their social environment, specifically from family, peers, community, and school. Strengthening the individual aspects by providing a more conducive environment is considered essential to prevent GBV among adolescents. A socialization program such as comprehensive sexual education (CSE) needs to be implemented to help early adolescents navigate unequal gender norms that emerge during their transition to adulthood and prevent any negative impacts, including health problems in the future. It will provide complete, regular, proper, appropriate sexuality education, including equal gender norms for early adolescents, to be better prepared to face their maturity process in gender-equal ways. Complementary programs that target the other social agents in each level of the socio-ecological model, such as parents and community/religious leaders, need to be promoted for better outcomes.

## Abbreviations

GBV: Gender-Based Violence; WHO: World Health Organization; GEAS-Indonesia: The Global Early Adolescent Study Indonesia, ACEs: Adverse Childhood Experiences; AIC: the Akaike Information Criterion; CI: Confidence Interval; OR: Odds Ratio; AOR: Adjusted Odds Ratio; IPV: Intimate Partner Violence; YVR: Youth Voices Research; CSE: Comprehensive Sexual Education.

## Ethics Approval and Consent to Participate

The Global Early Adolescent Study (GEAS)-Indonesia study was approved by the Institutional Review Board at the Bloomberg School of Public Health Johns Hopkins University, Maryland, the United States of America, and the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia.

## Competing Interest

The authors declare that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

## Availability of Data and Materials

The dataset supporting the conclusions of this article is available upon request at <https://www.geastudy.org/>.

## Authors' Contribution

IGAAM was a research coordinator in the Denpasar site of GEAS-Indonesia and was responsible for data cleaning and analysis, creating tables, and interpreting results in the manuscript development. AWP was accountable for providing the dataset of GEAS-Indonesia as the data collection manager in the three sites. IC was involved in questionnaire development and as a bridge of coordination between personnel of GEAS-Indonesia, and the center of GEAS study, the School of Public Health, John Hopkins University. SAW, the principal investigator of GEAS-Indonesia, gave several scientific insights, which started from

planning, data collection, analysis, and the execution of this manuscript. All authors were involved in providing their expertise and insights in the discussion and conclusion sections.

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