

JOURNAL OF YOUTH DEVELOPMENT Bridging Research and Practice

Volume 11, Number 3, Winter 2016

Article 161103FA003

The Prevalence of Rape Myths among Middle School Students across Gender and Socioeconomic Background

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Abstract: A study designed to investigate the level and type of rape myths that are endorsed among middle school youth in terms of gender and socioeconomic background is reported in this paper. Participants were 582 seventh and eighth grade students who took part in Project Equality, a rape and sexual assault prevention curriculum that took place during eight, one and a half-hour sessions. The modified Illinois Rape Myth Acceptance Scale was administered to students before and after Project Equality. Results indicate that males endorse higher levels of rape myth acceptance, both before and after the intervention, although the number of endorsed myths decreased. Rape myth endorsement decreased following the intervention among participants of differing socioeconomic backgrounds. Males and females showed lower levels of rape myth acceptance following the intervention. Implications include finding more effective ways to target male youth and that Project Equality works to lower rape myths among middle school youth.

Introduction

In 2001-2003 the average annual rate of rape and sexual assault per 1,000 persons was 5.5 for individuals ages 12 to 24, as compared to 0.6 for ages 25 and older (Baum, 2005). Furthermore, 86% of sexual assaults against adolescents are not reported (National Institute of Justice, 2003). However, actual numbers may be higher because only 39% of all rape and sexual assaults were reported to law enforcement agencies according to the 2003 National

Crime Victimization Survey (Catalano, 2004). Youths are not only victims, however; they may also be perpetrators of sexual violence. For example, youth ages 7 to 17 committed 23% of all reported sexual assaults (Snyder, 2000). Adolescents who hold more traditional gender role stereotypes and condone violence show higher levels of rape myth acceptance (Marciniak, 1998).

Lonsway and Fitzgerald (1994) define rape myths as "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (p. 134). It has been shown that men endorse higher levels of rape myths than do women (Aosved & Long, 2006; Burt & Albin, 1981; Edmonds, Cahoon, & Shipman, 1991; Krahe, 1988; Sawyer, 2002). Race was also shown to be a significant predictor of the acceptance of rape myths in several studies (Dull & Giacopassi, 1987; Fischer, 1987; Giacopassi & Dull, 1986; Williams & Holmes, 1981) although one study found that race did not affect rape myths (Gilmartin-Zena, 1987). Other demographic factors that have been studied are socioeconomic status (SES) and age.

One study found that individuals with lower SES are more likely to be victims as well as perpetrators of sexual violence (Vinogradov, Dishotsky, Doty, & Tinkenberg, 1988). Other studies that examined father's occupation and income as an indicator of SES have shown no effects on rape myth acceptance (Feltey, Ainslie, & Geib, 1991; Gray, Palileo, & Johnson, 1993). With regards to the impact of age on rape myths, results have been mixed.

Anderson, Simpson-Taylor, and Herrmann (2004) compared gender and age (middle school, high school, university) on the level of rape beliefs endorsed. For middle school students, there were significant differences between males and females, with males agreeing to more of the rape supportive myths. Middle school students also endorsed more rape supportive myths than high school or university students. However, Lonsway and Fitzgerald (1994) caution that there is no conceptual rationale for age and race to affect rape myths and that other variables are most likely involved and require further study; for example, the level of educational attainment or social pressure could be factors related to age. Additionally, Marciniak (1998) posits that SES may affect rape attitudes indirectly through the level of traditional gender role stereotyping a person holds. Regardless, holding higher levels of rape myths endorsement has negative impacts on individuals and society.

Males who endorse higher levels of rape myths are more likely to hold negative attitudes towards women and to report a greater likelihood of rape (Lonsway & Fitzgerald, 1994). In addition, women who endorse higher levels of rape myths are more likely to have more negative attitudes toward feminism as well as greater hostility toward men (Senn & Radtke, 1990). Another study found a positive relationship between endorsement of rape myths and attitudes that support domestic violence (Saunders, Lynch, Grayson, & Linz, 1987). Finally, rape myth acceptance has been positively correlated with acceptance of interpersonal violence (Burt, 1980).

Project Equality

One intervention that may have an impact on reducing rape myths is Project Equality. Project Equality is a rape and sexual assault prevention curriculum, which was developed by the Communities Against Rape Initiative (CARe, 1998) through funding by the Indiana State

Department of Health, Centers for Disease Control, Rape Prevention and Education Grant. The rationale for implementing Project Equality to youth is the violence prevention approach called for by the Center for Disease Control (CDC). The CDC's approach to violence prevention addresses sexual violence using a preventative approach that consists of defining the problem, identifying risk and protective factors, developing and testing prevention strategies, and assuring widespread adoption of prevention principles and strategies. Based on this model, curricula and programs for youth have been developed, including Project Equality.

The Project Equality curriculum is based on the 4-H youth development model of experiential learning, which is designed to engage youth to foster learning (Russell, 2001). The steps that students follow in the experiential learning model are to experience the activity, share the results, process the information by discussion and reflection, generalize to connect the experience to real-world examples, and apply what was learned to a similar or different situation. Project Equality aims to teach youth about rape and sexual assault in a developmentally appropriate way by using the experiential learning model.

Project Equality for grades 7 to 9 promotes activity-based learning and consists of interactive activities, quizzes, facts, and resources. The curriculum is implemented by a trained facilitator using the CARe Facilitator's Guide. The guide includes pre-post tests, educational plans for 7 sessions, materials and additional resources. Plans for each session include an overview, space for facilitator notes, and an activity matrix listing the activity, preparation time, materials, agenda, and potential field trips. In addition, each lesson specifies objectives, life skills, step-by-step activity directions, debriefing questions for each of the experiential learning model steps, and handouts. Geared for a standard 50-minute session, each of the 7 topical areas (Definitions, Myths, Choices, Positive Relationships, Costs, Community Involvement, and Accessing Resources) includes a variety of activities that allow the facilitator to adjust the session based on time considerations.

The goals for Project Equality are that youth will:

- 1. Learn facts about rape and sexual assault;
- 2. Become aware of harmful myths and attitudes that contribute to rape and sexual assault;
- 3. Learn ways to develop positive relationships and break those that are negative;
- 4. Learn risk-reduction strategies;
- 5. Identify resources that support victims and rehabilitate perpetrators;
- 6. Discover how community and youth involvement can prevent rape and sexual assault; and
- 7. Ultimately decrease the likelihood of becoming victims or perpetrators of sexual assault or rape.

Research Questions

Although there has been extensive literature that focuses on adults and college-aged populations with regards to rape myths acceptance, the literature on youths' rape myths acceptance is scarce. This study fills a gap in the existing literature to focus on middle school students' rape myth acceptance.

The research questions this study addresses are:

- What rape myths do middle school youth endorse?
- What rape myths are endorsed the most by youth?
- How does youths' endorsement of rape myths differ by site?
- Do males and females differ in regards to rape myths?
- Does the Project Equality curriculum have an effect on the number and level of rape myths endorsed?

Methodology

Instrument

The Youth Pre-Test and the Youth Post-Test for grades 7-9 was taken from the Illinois Rape Myth Acceptance Scale – Short Form (IRMA-SF; Payne, Lonsway, & Fitzgerald, 1999). The IRMA-SF was developed to assess general rape myth acceptance while possessing the same psychometric properties as the longer version of the instrument. The IRMA-SF consists of 20 items with a high Cronbach's alpha ($\alpha = 0.87$) and is highly correlated with the longer version of the scale.

The questions used for this study were adapted for suitability for middle school youth. For some items, wording was changed for comprehensibility (e.g., the item, *If a woman doesn't physically resist sex – even when protesting verbally – it really can't be considered rape, was modified to read, If a woman doesn't fight back, you can't really call it rape),* or the item was deleted. In addition, some items were added to match the content in the Project Equality chapters, such as questions focusing on the importance of communication.

Participants

Participants were 582 youth in grades 7 and 8 who participated in the Project Equality curriculum. There were a total of 275 participants at Site 1 and a total of 277 participants at Site 2. A total of 268 females and 233 males reported their gender. The majority of students were Caucasian (n=430). See Table 1 for a breakdown of participants' gender and ethnicity.

Ethnicity	Female	Male	Total			
	No. (%)					
African American	1	0	1 (0.2%)			
Asian American	2	1	3 (0.6%)			
Caucasian	230	200	430 (85.8%)			
Hispanic	17	14	31 (6.2%)			
Multiracial	12	9	21 (4.2%)			
Native American	6	9	15 (3.0%)			
Total	268 (53.5%)	233 (46.5%)	501 (100%)			

Table 1

Note. Missing and non-reported demographic data are not included in the calculation of gender and ethnicity percentages.

Procedures

The Project Equality curriculum was implemented at two different sites in different counties in the state of Indiana. At Site 1, an in-school program serving 7th graders was conducted at two middle schools, including an alternative school. Socioeconomic data for Site 1 as of the year 2007 includes 27.4% of children living in poverty (ages 0-17) and 39.2% of free lunches (The Annie E. Casey Foundation, 2009). Although topics covered included sexual choices and outcomes, including the dangers of date rape and pertinent topics, Project Equality was the main curriculum used. The activities were conducted by Youth Service Bureau staff, CARe coordinators, and guest speakers. Data were collected from Site 1 youth in Spring of 2005, 2006, 2007, and 2008 before and after Project Equality.

Site 2 implemented Project Equality in county middle schools. Socioeconomic data for Site 2 show that 16.9% of children ages 0 to 17 were living in poverty in the year 2007 and that in the same year, 24.4% of children were eligible for free lunches (The Annie E. Casey Foundation, 2009). Data were collected from Site 2 in Spring of 2005 and Fall of 2005.

Results

Descriptive Statistics

Multiple imputation (MI) with an expectation maximization (EM) algorithm using LISREL version 8.54 was used to replace missing values for 43% of cases on the pre-survey and 33% of cases on the post-survey. Multiple imputation (Rubin, 1987) is a technique to replace missing values by replacing each missing value with a set of plausible values that represent the uncertainty about the right value to impute. The missing values are predicted from each participant's observed values with random noise added to preserve a correct amount of variability, which results in valid statistical inferences (Schafer & Graham, 2002). MI has been shown to perform favorably in producing unbiased parameter estimates reflecting the uncertainty of estimating missing data, robustness to departures from normality assumptions, and providing adequate results with low sample sizes and high rates of missing data (Graham, Hofer, Donaldson, MacKinnon, & Schafer, 1997; Graham & Schafer, 1999; Schafer & Graham, 2002).

Because the original IRMA-SF was adapted for youth and some items were deleted or revised, items were analyzed at the item-level rather than at the scale-level. Some items were reverse scored to ensure that a higher score on any item meant a higher level of rape myths acceptance.

Site Differences

A one-way ANOVA was performed for each of the pre and post items to determine if there were any differences between sites. See Table 2 for pre and post means by site and p-values testing significant differences between the two sites. Eleven items out of 17 showed significant differences on the pre-test, with Site 1 showing higher levels of rape myths acceptance on all but one of the 11 significant items. It appears that these two sites vary significantly with regards to beliefs about sexual assault myths. However, following the intervention, only five significant differences were found between sites as measured on the number of post-test items showing significant differences. These items were:

• item 7, a woman dressed in sexy clothes should not be surprised if a man tries to force her to have sex,

- item 10, *if a woman is raped when she is drunk, she is at least somewhat responsible for letting things get out of control,*
- item 13, violence never solves an issue,
- item 14, if you're not prepared to fight for what's yours, then be prepared to lose it, and
- item 16, *it's good to be open about your feelings.*

This indicates that the program is helping to lower most of these sexual assault beliefs among sites of different socioeconomic levels.

Means and Significance Levels by Site on Pre and Post Items Item Means and Std. Deviations							
Ite	m	Means and Std. Deviations					
		Site 1		Site 2		<i>p</i> -value	
		pre	post	pre	post	pre	post
1.	Women tend to make too big of a deal	2.41	1.80	2.15	1.96	0.022*	0.179
_	about rape	(1.34)	(1.20)	(1.39)	(1.27)		
2.	If a woman doesn't fight back, you	2.46	1.49	2.00	1.61	<0.001***	0.196
	can't really call it rape	(1.32)	(0.92)	(1.24)	(1.05)		
3.	It is usually only women who dress	2.20	1.65	1.80	1.73	<0.001***	0.411
	sexy who are raped	(1.22)	(0.97)	(1.14)	(1.07)		
4.	If the rapist doesn't have a weapon,	1.52	1.36	1.35	1.38	0.025*	0.750
	you can't call it rape	(0.91)	(0.77)	(0.83)	(0.91)		
5.	Rape is unlikely to happen in a	1.98	1.80	1.67	1.69	0.001**	0.336
	woman's own neighborhood	(1.09)	(1.18)	(0.99)	(1.08)		
6.	Men don't usually mean to force sex on	2.65	2.11	2.35	2.32	0.004**	0.127
	a woman, but sometimes they get	(1.23)	(1.56)	(1.19)	(1.25)		
	carried away						
7.	A woman dressed in sexy clothes	2.89	1.78	2.83	2.12	0.565	0.002**
	should not be surprised if a man tries	(1.27)	(1.12)	(1.32)	(1.25)		
	to force her to have sex						
8.	Rape happens when a man's sex drive	3.35	2.34	3.05	2.43	0.005**	0.465
	is out of control	(1.14)	(1.34)	(1.34)	(1.31)		
9.	A lot of women lead men on and then	2.99	2.17	3.01	2.39	0.808	0.053
	they blame rape on the man	(1.11)	(1.20)	(1.09)	(1.19)		
10.	If a woman is raped when she is drunk,	3.35	2.14	3.14	2.42	0.038*	0.020*
	she is at least somewhat responsible	(1.14)	(1.25)	(1.18)	(1.29)		
	for letting things get out of control	. ,	. ,	. ,	. ,		
11.	Partners don't have to talk about their	2.50	1.94	2.09	1.91	< 0.001***	0.800
	relationship in order for it to be a good	(1.16)	(1.09)	(1.21)	(1.18)		
	one	· · /	· · /	· · /	· · ·		
12.	People in a relationship seem to	2.89	2.41	2.75	2.53	0.139	0.282
	develop understandings about things	(1.05)	(1.16)	(1.21)	(1.31)		
	without ever talking about them	· · /	· · /	· · /	· · ·		
13.	Violence never solves an issue	2.13	2.64	2.01	2.01	0.269	<0.001***
		(1.36)	(1.56)	(1.27)	(1.27)		
14.	If you're not prepared to fight for	3.40	2.77	3.39	3.08	0.927	0.023*
	what's yours, then be prepared to lose	(1.16)	(1.39)	(1.30)	(1.43)		
	it	()	()	()	()		
15	People should be careful to avoid	3.86	3.84	4.09	4.06	0.010*	0.052
	hurting other's feelings, even when	(1.06)	(1.20)	(0.98)	(1.09)	01010	0.002
	they have been hurt	(======)	(=====)	(=====)	(=====)		
16	It's good to be open about your	2.20	2.60	1.89	1.89	0.001**	<0.001***
-01	feelings	(1.14)	(1.41)	(1.08)	(1.09)	0.001	
17	I often have a hard time saying no to	2.70	2.42	2.55	2.36	0.178	0.614
1/.	others	(1.30)	(1.33)	(1.29)	(1.27)	0.170	0.011
l	Vete a EQ2: 1 Charache dise avec 2 Dis	(1.50)	(1.55)	()	(/)	l	

Table 2 Means and Significance Levels by Site on Pre and Post Items

Note. n = 582; 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree. *p < .05, **p < .01, ***p < .001

Gender Differences

A one-way ANOVA was performed for each of the pre and post items to determine if there were any differences between gender on the pre and post items. See Table 3 for pre and post means by gender and p-values testing significant differences between the two groups. There were six items on the pre-survey with significant differences between males and females, with males having higher levels of rape myth acceptance on all significant items except item 17, *I often have a hard time saying no to others.*

There were also six items for which no significant differences were found. There were no significant pre-survey differences on the following:

- item 2, if a woman doesn't fight back, you can't really call it rape,
- item 4, if the rapist doesn't have a weapon, you can't call it rape,
- item 7, a woman dressed in sexy clothes should not be surprised if a man tires to force her to have sex,
- item 12, *people in a relationship seem to develop understandings about things without ever talking about them,*
- item 15, *people should be careful to avoid hurting other's feelings, even when they have been hurt,* and
- item 17, I often have a hard time saying no to others.

On the post-test, males and females' similar beliefs remained on items 4, 15, and 17. There were additional items that showed no significant differences between males and females on the post-test, which was for items 8, *rape happens when a man's sex drive is out of control,* and item 16, *it's good to be open about your feelings.*

Means and Significance Levels by Gender on Pre and Post Items							
Ite	m	Means and Std. Deviations					
		Female Male		<i>p</i> -value			
		pre	post	pre	post	pre	post
1.	Women tend to make too big of a	2.16	1.55	2.43	2.04	0.020*	<0.001***
	deal about rape	(1.38)	(1.01)	(1.34)	(1.29)		
2.	If a woman doesn't fight back, you	2.28	1.35	2.32	1.63	0.734	0.001**
	can't really call it rape	(1.31)	(0.73)	(1.29)	(1.06)		
3.	It is usually only women who dress	1.85	1.50	2.25	1.83	< 0.001	<0.001***
	sexy who are raped	(1.15)	(0.85)	(1.22)	(1.05)	***	
4.	If the rapist doesn't have a weapon,	1.40	1.27	1.51	1.39	0.145	0.083
	you can't call it rape	(0.82)	(0.73)	(0.93)	(0.77)		
5.	Rape is unlikely to happen in a	1.78	1.64	1.97	1.88	0.036*	0.023*
	woman's own neighborhood	(1.02)	(1.02)	(1.10)	(1.27)		
6.	Men don't usually mean to force sex	2.30	1.98	2.78	2.33	< 0.001	0.015*
	on a woman, but sometimes they	(1.22)	(1.73)	(1.20)	(1.24)	***	
	get carried away						
7.	A woman dressed in sexy clothes	2.77	1.68	2.94	2.01	0.113	0.002**
	should not be surprised if a man	(1.25)	(1.10)	(1.28)	(1.22)		
	tries to force her to have sex						
8.	Rape happens when a man's sex	3.09	2.30	3.38	2.40	0.007**	0.439
	drive is out of control	(1.21)	(1.28)	(1.23)	(1.38)		
9.	A lot of women lead men on and	2.84	1.87	3.19	2.54	< 0.001	<0.001***
	then they blame rape on the man	(1.05)	(0.98)	(1.11)	(1.28	***	
10.	If a woman is raped when she is	3.16	1.98	3.39	2.42	0.017*	<0.001***
	drunk, she is at least somewhat	(1.17)	(1.14)	(1.11)	(1.37)		
	responsible for letting things get out						
	of control						
11.	Partners don't have to talk about	2.22	1.71	2.50	2.06	0.007**	0.001**
	their relationship in order for it to be	(1.15)	(1.03)	(1.24)	(1.13)		
	a good one						
12.	People in a relationship seem to	2.80	2.30	2.90	2.61	0.329	0.007**
	develop understandings about things	(1.14)	(1.21)	(1.06)	(1.20)		
	without ever talking about them						
13.	Violence never solves an issue	1.88	2.27	2.30	2.66	< 0.001	0.005**
		(1.30)	(1.52)	(1.31)	(1.46)	***	
14.	If you're not prepared to fight for	3.29	2.58	3.50	3.12	0.045*	<0.001***
	what's yours, then be prepared to	(1.20)	(1.39)	(1.22)	(1.38)		
	lose it						
15.	People should be careful to avoid	3.97	3.97	3.91	3.88	0.461	0.443
	hurting other's feelings, even when	(1.07)	(1.14)	(1.00)	(1.17)		
	they have been hurt						
16.	It's good to be open about your	1.93	2.34	2.26	2.47	< 0.001	0.311
	feelings	(1.04)	(1.49)	(1.18)	(1.22)	***	
17.	I often have a hard time saying no	2.74	2.49	2.53	2.36	0.052	0.297
	to others	(1.30)	(1.37)	(1.29)	(1.27)		

 Table 3

 Means and Significance Levels by Gender on Pre and Post Items

Note. n = 552; 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree. *p < .05, **p < .01, ***p < .001 It was hypothesized that gender differences should decrease on the post survey due to the effects of the intervention bringing participants' beliefs more in line with one another. Although this was the case for five items, the other 12 items still showed significant differences between males and females, with the males having a higher average score on these items.

Effects of an Intervention to Lower Sexual Assault Myths

Paired samples t-tests were conducted for each of the items for males and females to determine if there were any significant differences from pre to post-test. Because Site 2 did not include codes identifying participants from pre to post-test, only Site 1 participants were included in this analysis. See Table 3 for means, standard deviations, and p-values for each item. For females, there were a total of 10 items that showed significant decreases in the level of sexual assault myths from pre to post. For males, there were a total of seven items that showed significant differences in the level of sexual assault myths from pre to post, including item 16, *it's good to be open about your feelings,* which was reverse scored.

Largest Sexual Assault Myths

Pre and post item means were examined to determine the largest sexual assault myths and if those myths decreased on the post-test (see Table 4). The cutoff point for a mid to high score was set at 3.00 or greater, which is the midpoint on a 5-point scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). For the pre-test, there were more items that males and females scored at 3.00 or above. On the pre-test, both males and females scored at 3.00 or above. On the pre-test, both males and females scored at 3.00 or above. On the pre-test, both males and females scored at *a man's sex drive is out of control*, item 10, *if a woman is raped when she is drunk, she is at least somewhat responsible for letting things get out of control*, item 14, *if you're not prepared to fight for what's yours, then be prepared to lose it*, and item 15, *people should be careful to avoid hurting other's feelings, even when they have been hurt.* Additionally, males scored above 3.00 on item 9, *a lot of women lead men on and then they blame rape on the man.*

On the post-test items, there was only one item for which both males and females scored above the 3.00 cutoff. This item was 15, *people should be careful to avoid hurting other's feelings, even when they have been hurt.* There was only one other item on which males scored above the cutoff: item 14, *if you're not prepared to fight for what's yours, then be prepared to lose it.* These results show that both males and females lowered the level of rape myth acceptance beliefs following the Project Equality curriculum.

	Item Means Greater than 3.00 by Gender						
Item		Fen	nales	Males			
		Pre mean	Post mean	Pre mean	Post mean		
8.	Rape happens when a man's sex drive is out of control	3.09		3.38			
9.	A lot of women lead men on and then they blame rape on the man			3.19			
10.	If a woman is raped when she is drunk, she is at least somewhat responsible for letting things get out of control	3.16		3.39			
14.	If you're not prepared to fight for what's yours, then be prepared to lose it	3.29		3.50	3.12		
15.	People should be careful to avoid hurting other's feelings, even when they have been hurt	3.97	3.97	3.91	3.88		

Table 4Item Means Greater than 3.00 by Gender

Largest Rape Myths (Means>3.00) on the Pre and Post Items by Gender

Discussion

The purpose of this study was to investigate the number and type of rape myths that are endorsed among middle school youth in terms of gender and socioeconomic background. Several gender differences remain on the post items, even following the intervention. Overall, females still hold less sexual violence myths than males on the post-test, which is consistent with prior research (Aosved & Long, 2006; Burt & Albin, 1981; Edmonds, Cahoon, & Shipman, 1991; Krahe, 1988; Sawyer, 2002). One implication of this finding is that there must be more focus on programming for males in order to promote further decreases in sexual assault myths and bring them further in line with females on some of the myths.

Another research question asked whether there were differences by site on any of the test items. The majority of items showed significant differences between sites for the pre-test items, with Site 1 (lower SES) showing higher acceptance of rape myths on the majority of the items. However, few differences remained on the post items. Two of the items where differences still remained are related to violence. In addition, two of the items relate to the concept of blaming the victim. It appears that, especially in lower socioeconomic counties, that violence awareness and prevention should be integrated into any intervention. There are usually higher incidences of sexual assault victims and perpetrators in lower SES communities (U.S. Department of Justice, 1992) so it is especially necessary to educate youth from disadvantaged backgrounds.

To determine which rape myths were most highly endorsed, a middle score of 3.00 was set for the cutoff between lower and higher acceptance of the myth. Results showed that there were several items for which both males and females scored above the midpoint of 3.00. The first item for which both males and females obtained a mean score above 3.00 is item 8, *rape happens when a man's sex drive is out of control.* It appears that both males and females hold the misconception that rape is about sex rather than power. Another myth that is indicated by scores above 3.00 for both males and females is the "blaming the victim" myth, for example items such as, *if a woman is raped when she is drunk, she is at least somewhat responsible for letting things get out of control.* Another myth for which males scored highly concerns using

violence to obtain things. These myths seem to be largest for both males and females who have not undergone any intervention about sexual assault as evidenced by all but two item scores lower than the midpoint cutoff on the post-test.

On the post-test, there were only two items that continued to remain above 3.00. One of these items concerns the use of violence to achieve desired outcomes. This indicates that programming needs to focus more on violence issues, especially in the case of males, who even following the intervention still agreed that violence was necessary. The other item that both males and females scored above 3.00 following the intervention was item 15, which concerned avoiding hurting other peoples' feelings even at the cost of one's own. The importance of assertiveness and paying attention to one's own feelings should be emphasized more in programs, especially for females, where situation-specific assertiveness with the opposite gender is negatively corrected with sexual victimization (Greene & Navarro, 1998).

Following the Project Equality curriculum, as seen in post-test scores, the differences between both gender and site diminished. That is, while the site with lower SES showed higher endorsement of rape myths on the pre test, these differences diminished on the post test, with both sites showing lower levels of rape myths acceptance. Similarly, although males showed significantly higher levels of rape myths acceptance on the pre test than females, the post item means converged to lower levels of rape myths endorsement for both males and females so that mean differences were no longer present. Because of these preliminary results indicating that the Project Equality curriculum has an effect on lowering rape myths among youths, more programs focusing on violence prevention and understanding of rape myths should be implemented.

One limitation for this study is the issue of matched pairs for the paired samples t-tests that were conducted to determine pre-post differences on the survey. Because of this, only Site 1 pre to post comparisons could be examined for significant differences.

In addition, there is a need for future studies to validate a rape myth acceptance scale for youths in order that the effects of interventions such as Project Equality can be more widely studied.

Conclusions

Rape myth acceptance is associated with a host of negative outcomes, in addition to outcomes that are not measurable but have detrimental effects on society and victims, such as date rape acceptance, jurors' perceptions of victims and perpetrators, or the victim's healing process. Individuals with higher rape myths acceptance are at greater risk for endorsing traditional sex role attitudes, harboring more negative attitudes towards women, and having a higher self-reported likelihood of rape (Lonsway & Fitzgerald, 1994). Females who endorse higher levels of rape myth acceptance are more likely to have more negative attitudes toward feminism as well as greater hostility toward men (Senn & Radtke, 1990). Because many youth in this study already show endorsement of many rape myths, it highlights the importance of implementing programming to alter rape myth acceptance from a young age. The Project Equality curriculum, which is based on the 4-H youth developmental model of experiential learning, offers a means to educate youth about rape and sexual assault with the goal of eliminating rape myths through

educational interventions. This study provides evidence that Project Equality can effectively reduce rape myths among youths of different genders and socioeconomic status.

References

Anderson, V.N., Simpson-Taylor, D., & Herrmann, D.J. (2004). Gender, age, and rapesupportive rules. *Sex Roles, 50*, 77-90.

Aosved, A.C., & Long, P.J. (2006). Co-occurrence of rape myth acceptance, sexism, racism, homophobia, ageism, classism, and religious intolerance. *Sex Roles, 55*, 481-492.

Baum, K. (2005). *Juvenile victimization and offending, 1993-2003* (Bureau of Justice Statistics Special Report: National Crime Victimization Survey NCJ 209468). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

Burt, M.R. (1980). Cultural myths and supports for rape. *Journal of Personal and Social Psychology*, *38*, 217-230.

Burt, M.R., & Albin, R.S. (1981). Rape myths, rape definitions and probability of conviction. *Journal of Applied Social Psychology*, *11*, 212-230.

Catalano, S. (2004). *Criminal Victimization, 2003*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Communities Against Rape Initiative (CARe). (1998). *Project Equality – Facilitator's manual*. Purdue University.

Dull, R.T., & Giacopassi, D.J. (1987). Demographic correlates of sexual and dating attitudes: A study of date rape. *Criminal Justice and Behavior, 14*, 191-212.

Edmonds, E.M., Cahoon, D.D., & Shipman, M. (1991). Predictions of opposite-sex attitudes concerning gender-related social issues. *Bulletin of the Psychonomic Society*, *29*, 295-296.

Feltey, K.M., Ainslie, J.J., & Geib, A. (1991). Sexual coercion attitudes among high school students: The influence of gender and rape education. *Youth and Society, 23*, 229-250.

Fischer, G.J. (1987). Hispanic and majority student attitudes toward forcible date rape as a function of differences in attitudes toward women. *Sex Roles, 17*, 93-101.

Giacopassi, D.J., & Dull, R.T. (1986). Gender and racial differences in the acceptance of rape myths within a college population. *Sex Roles, 15*, 63-75.

Gilmartin-Zena, P. (1987). Attitudes toward rape: Student characteristics as predictors. *Free Inquiry in Creative Sociology*, *15*, 175-182.

Graham, J.W., Hofer, S.M., Donaldson, S.I., MacKinnon, D.P., & Schafer, J.L. (1997). Analysis with missing data in prevention research. In K. Bryant, M. Windle, & S. West, (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research.* Washington, D. C.: American Psychological Association.

Graham, J.W., & Schafer, J.L. (1999). On the performance of multiple imputation for multivariate data with small sample size. In R. Hoyle (Ed.). *Statistical Strategies for Small Sample Research.* Thousand Oaks, CA: Sage.

Gray, N.B., Palileo, G.J., & Johnson, D. (1993). Explaining rape victim blame: A test of attribution theory. *Sociological Spectrum*, *13*, 377-392.

Greene, D.M., & Navarro, R.L. (1998). Situation-specific assertiveness in the epidemiology of sexual victimization among university women. *Psychology of Women Quarterly, 22*, 589-604.

Krahe, B. (1988). Victim and observer characteristics as determinants of responsibility attributions to victims of rape. *Journal of Applied Social Psychology*, *18*, 50-58.

Lonsway, K.A., & Fitzgerald, L.F. (1994). Rape myths: In review. *Psychology of Women Quarterly*, *18*, 133-164.

Marciniak, L.M. (1998). Adolescent attitudes toward victim precipitation of rape. *Violence and Victims*, *13*(3), 287-300.

National Institute of Justice. (2003). *Youth Victimization: Prevalence and Implications*. Washington, DC: National Institute of Justice, U.S. Department of Justice.

Payne, D.L., Lonsway, K.A., & Fitzgerald, L.F. (1999). Rape myth acceptance: Exploration of its structure and its measurement using the Illinois Rape Myth Acceptance Scale. *Journal of Research in Personality*, *33*, 27-68.

Rubin, D.B. (1987). *Multiple imputation for nonresponse in surveys*. New York: Wiley.

Russell, S.T. (2001). The developmental benefits of nonformal education and youth development. *Focus.* 4-H Center for Youth Development, University of California, Davis.

Saunders, D.G., Lynch, A.B., Grayson, M., & Linz, D. (1987). The inventory of beliefs about wife beating: the construction and initial validation of a measure of beliefs and attitudes. *Violence and Victims, 2,* 39-55.

Sawyer, R. (2002). Rape myth acceptance among intercollegiate student athletes: A preliminary examination. *American Journal of Health Studies*, Winter, 1-8.

Schafer, J.L., & Graham, J.W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, *7*, 147-177.

Senn, C.Y., & Radtke, H.L. (1990). Women's evaluations of and affective reactions to mainstream violent pornography, nonviolent pornography, and erotica. *Violence and Victims, 5*, 143-155.

Snyder, H.N. (2000). *Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics* (Bureau of Justice Statistics Report, National Center for Juvenile Justice NCJ 182990). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

The Annie E. Casey Foundation. (2009). Kids Count Data Center. Retrieved August 17, 2009, from <u>www.kidscount.org</u>

Vinogradov, S., Dishotsky, N.I., Doty, A.K., & Tinkenberg, J.R. (1988). Patterns of behavior in adolescent rape. *American Journal of Orthopsychiatry, 58*, 179-187.

Williams, J.E., & Holmes, K.A. (1981). *The second assault: Rape and public attitudes.* Westport, CT: Greenwood Press.

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