

Assessment of a Sexual Coercion Prevention Program for Adolescents

Antonio Fuertes Martín¹, M^a Begoña Orgaz Baz¹, Isabel Vicario-Molina¹, José Luis Martínez Álvarez¹, Andrés Fernández Fuertes², and Rodrigo J. Carcedo González¹

¹Universidad de Salamanca (Spain)

²Universidad de Cantabria (Spain)

This study's focus is to evaluate a sexual coercion prevention program in adolescents. Using a before-and-after design with both a treatment group ($n = 93$) and a control group ($n = 76$), an intervention of seven sessions was completed. Said sessions included such content as conceptualizing sexual freedom, sexual coercion and voluntary consent, analyzing different sexual coercion tactics and the contexts in which they occur, empathy toward the victim, and developing abilities to avoid risky situations. Other risk factors for coercive behavior and sexual victimization are explored as well, such as alcohol use, sexist attitudes and inadequate communication, among others. The intervention's results include a decrease in stereotypical beliefs about the opposite sex and increased empathy toward victims of sexual coercion. These changes were maintained with the passage of time. Also, in the treatment group, a more acute decline was observed in the proportion of young people engaging in sexually coercive behaviors. This article emphasizes the importance, necessity and efficacy of such interventions, and discusses and analyzes possible improvements to the program for its future implementation.

Keywords: evaluation, prevention, sexual coercion, adolescents, quasi-experimental.

Este estudio se centra en la evaluación de un programa de prevención de la coerción sexual en adolescentes. Basándonos en un diseño antes-después con grupo de tratamiento ($n = 93$) y un grupo control ($n = 76$), se llevaron a cabo siete sesiones de intervención que incluían contenidos como la conceptualización de libertad sexual, coerción sexual y consentimiento voluntario, el análisis de las diferentes estrategias de coerción sexual y sus contextos, la empatía hacia la víctima, el desarrollo de habilidades para evitar situaciones de riesgos. Se abordaron también otros factores de riesgo de los comportamientos coercitivos y la victimización sexual como el uso del alcohol, las actitudes sexistas y la comunicación inadecuada, entre otros. Los resultados de la intervención mostraron un descenso en las creencias estereotipadas hacia el otro sexo y un aumento de la empatía hacia las víctimas. Estos cambios se mantuvieron con el paso del tiempo. Asimismo, se observó un descenso más acusado en la proporción de jóvenes que habían llevado a cabo comportamientos sexualmente coercitivos en el grupo de tratamiento. Este trabajo resalta la importancia, necesidad y eficacia de estas intervenciones, y discute y analiza posibles mejoras de este programa para su futura implementación.

Palabras clave: evaluación, prevención, coerción sexual, adolescentes, cuasi-experimento.

This research was supported by The Spanish Ministerio de Ciencia y Tecnología (SEJ2006-14082).

Correspondence concerning this article should be addressed to Antonio Fuertes Martín, Departamento de Psicología Evolutiva y de la Educación, Facultad de Psicología, Universidad de Salamanca, Avda. de la Merced, 108, 37005, Salamanca (Spain). E-mail: afuertes@usal.es

Sexual aggression among young people is a serious social problem we have faced in recent decades due to its demonstrated magnitude (Spitzberg, 1999; Young & Furman, 2008; Young, Grey, & Boyd, 2009) and the clear traumatic effects it produces in its victims (Howard & Wang, 2005). In effect, numerous studies aimed at determining the incidence and prevalence of sexual coercion and assault have shown the problem to be particularly generalized among adolescents and young people (Abbey, Ross, McDuffie, & McAuslan, 1996; Gidycz, Coble, Latham, & Layman, 1993; Koss, Gidycz, & Wisniewski, 1987; Senn, Desmarais, Verberg, & Wood, 2000; Testa & Dermen, 1999). The situation is hardly different in Spain. Sipsma, Carrobes, Montorio, and Everaerd (2000) observed that 33.2% of their sample of 223 female college students reported having been implicated in some sexually coercive episode, and 24.3% of the 189 male college students in the sample reported they would employ a coercive strategy in order to have sexual relations with a girl who did not wish to do so. In other studies conducted in Spain (Fuertes, Ramos, Martínez, López, & Taberero, 2006; Ramos, 2004; Ramos & Fuertes, 2005; Ramos, Fuertes, & De la Orden, 2006), the prevalence of sexual victimization among adolescent girls and young women, perpetrated by their male peers, has been found to range from 30 to 40%. Meanwhile, when it comes to boys using sexually coercive strategies, 15.3% of the sample of 310 male adolescents and young men reported having had sexual relations with a girl who did not want to have them by using some level of coercion (Fuertes, Ramos, De la Orden, Del Campo, & Lázaro, 2005). More recently, Muñoz-Rivas, Graña, O'Leary, and González (2009) revealed a high percentage of adolescents have been involved in sexually coercive behavior with their boyfriends and girlfriends (35.7% of boys had used these behaviors and 25.1% of girls reported having been the victim of them).

Coercive behavior is not, however, the exclusive patrimony of men. Several studies have demonstrated that not only girls find themselves in situations of victimization, and that not only boys employ coercive strategies to access sexual relations with someone who does not want to do it (e.g., Krahé, Waizenhofer, & Moller, 2003; Muehlenhard & Cook, 1988; O'Sullivan, Byers, & Finkelman, 1998). For example, a study by Struckman-Johnson and Struckman-Johnson (1998) found that 43% of men reported having experienced some coercive incident; similarly, Russell and Oswald (2001) observed that 18% of a sample of 285 women reported having utilized sexual coercion to some extent. In a study by Muñoz-Rivas et al., (2009), 21.7% of boys reported having been the victim of sexual coercion and 14.9% of girls admitted to having exerted some form of sexual coercion. What is more, it seems that sexual coercion may be applied reciprocally within a couple in a relationship. Brousseau, Bergelon, Hébert, and McDuff (2010) conducted a study of 222 heterosexual couples and

found that 45% of them reported victimization of the woman, 30% reported the man had been victimized, and 20% reported reciprocal sexual coercion.

In light of these data, collected under a variety of different circumstances, it has become apparent that we need to evolve effective strategies to prevent sexual coercion in adolescents and young people. Of the various existing possibilities, educational programs in the context of school have been and continue to be, beyond the shadow of a doubt, the ones most often implemented (Anderson & Whiston, 2005; Greytak, 2003). The objectives these programs propose vary widely, from aiming to change attitudes and negative beliefs about interpersonal relationships in general and sexual coercion in particular, to teaching strategies to reduce one's risk of becoming either a victim or aggressor, to evolving strategies to empathize with, help or support possible victims most effectively, to stimulating boys and girls to reveal and discuss coercive situations in which they may have been implicated as victims. In that vein, the methods used to carry out this type of program have obviously varied widely. Some have utilized exposing issues related to sexual coercion, others have analyzed and discussed myths and false beliefs, analyzed and discussed scenarios that present different sequences of interactions, used representations and role-playing games, and showed educational videos.

One of the biggest problems we face is that scarcely any of these programs have actually been subjected to even minimally rigorous evaluation, which could determine their possible efficacy and any factors or variables that may moderate that efficacy. In cases where such an evaluation has been done, the first thing that becomes apparent is the disparity between the types of objectives these programs seek to achieve (Anderson & Whiston, 2005; Yeater & O'Donohue, 1999). For example, a large number of studies have only addressed attitudinal changes, while others have assessed possible changes in knowledge, different behaviors associated with some type of sexual coercion, especially changes in the incidence of sexually coercive behaviors according to both perpetrators and victims. Some authors (Yeater & O'Donohue, 1999) consider the latter to be the most important criterion to bear in mind in trying to determine the true efficacy of the programs that have been developed. Along those lines, numerous studies in this area of research, and others in which prevention programs are developed, call into question the notion that change in attitudes and knowledge will in and of itself provoke a meaningful reduction in the incidence of the behaviors they aim to eradicate (Greytak, 2003).

The results of a meta-analysis by Anderson and Whiston (2005), however, point to the importance of certain, specific content in changing attitudes toward coercion and other attitudes associated with it. Specifically, these authors arrive at the conclusion that programs in which aspects of socialization and gender roles are at work, and that offer general information about sexual coercion, analyze myths

and false beliefs about coercion, and work on strategies to reduce one's risk, yield better results than programs focused primarily on empathy. As for the possible usefulness of programs that work on empathy, Anderson and Whiston (2005) recognize that, though they do not appear to be especially effective at bringing about attitudinal change, they may be effective in terms of other criteria. For example, studies by Foubert and his collaborators (see Foubert, 2000; Foubert & Newberry, 2006) have demonstrated the positive effects of an intervention whose central element is empathizing with the victim. Specifically, in the last study cited, the authors observed positive changes in the ability to empathize with the victim, in rape myths, and in the intention to commit some act of sexual coercion or assault. One of the most interesting, practical considerations they make is that in empathy-based prevention programs, adopting an accusatory tone toward the men, considering them simply as potential perpetrators, is to be avoided. While this is common in such programs, it is more useful to encourage them to identify ways to play a more active, positive role in the victim's situation.

Based on our review of the existing literature on possible moderating factors, we have taken certain considerations into account, allowing us to continue to try and develop more useful, appropriate strategies in the various contexts in which we may work.

One of the most interesting facets of this issue has to do with the sex of the people participating. The discussion has focused on whether or not programs should be directed toward mixed groups or to boys and girls separately. In that vein, some authors find it necessary to work with mixed groups, reasoning that that way, one avoids blaming one sex over the other, labeling one group as the perpetrators and the other as the victims. This is because both boys and girls can have attitudes that favor sexual coercion, and being together makes it easier to learn mutual understanding and communication (Pacifci, Stoolmiller, & Nelson, 2001). Other authors, conversely, believe that boys and girls face different problems and needs related to preventing sexual coercion, and that those can be better resolved by working with groups of only boys or only girls (Gidycz, Rich, Orchowski, King, & Miller, 2006; Orchowski, Gidycz, & Raffle, 2008). Similarly, it is important to mention that some authors suggest men and women have a different motivation for enacting coercive behaviors, and that while male aggressors seek to maintain a sense of power and control, women seek to establish an intimate relationship (Schatzel-Murphy, Harris, Knight, & Milburn, 2009; Struckman-Johnson, Anderson, & Struckman-Johnson, 2000). Furthermore, Gidycz et al. (2006) suggests that during intervention, it is important that potential perpetrators not learn the strategies potential victims may use to resist, in which case it would be preferable to distinguish between prevention for men and for women. In any case, the research conducted on this subject has not provided conclusive results.

Certain reviews (see Schewe, 2002) and a meta-analysis by Brecklin and Forde (2001) have arrived at the conclusion that programs for only boys or only girls are more effective than mixed-group programs. Then again, the most recent meta-analysis by Anderson and Whiston (2005) did not yield those same results and in fact, according to certain measures, found more favorable results in mixed groups. As these last authors concluded, the subject deserves further empirical attention if we truly wish to determine to what extent one format may be more effective than the other.

Programs' duration, or number of sessions, is another moderating variable that has been taken into consideration in assessing efficacy. Programs typically run from 45 minutes to two hours, and many programs are completed in a single session, though it has become apparent that programs of longer duration tend to be more effective, at least in terms of changing attitudes (Anderson & Whiston, 2005). Similarly, in his review on the subject, Schewe (2002) recommends that while these programs have been demonstrated to have some initial, positive effects, we try to increase the quality and number of the sessions as a way to make these changes take hold in a more lasting way.

Another aspect of interest we believe to be worth considering is the possible importance of what individuals present or directly administer the program to the boys and girls. In that vein, despite its popularity within the field of prevention, the merit of using peers as agents of change was not clearly confirmed by the conclusions of our reviews. Instead, programs developed by experts on the subject and/or professionals seem to have generated the most positive change, compared to those carried out by students or peers (Anderson & Whiston, 2005; Schewe, 2002).

In view of these different aspects, the present study's objective is to assess the efficacy of a sexual coercion prevention program within the context of school. From our point of view, any proposed intervention of this kind must take into account that boys and girls alike can be victims and aggressors, and should address the most relevant factors associated with being implicated in a sexual coercion situation, as well as those most clearly identified within the literature on this topic. We aim to evaluate the efficacy of this program, both in the form of change produced in certain factors associated with sexual coercion, and a decrease in sexually coercive behavior in and of itself.

We hope the intervention will be effective, and that the changes derived from it will endure with time. In that sense, we propose the following hypotheses:

1. Both boys and girls in the treatment group will score higher on protection factors (empathy, perceived control and assertiveness) and lower on risk factors (stereotypical beliefs) after the intervention than before it. Meanwhile, the control group's before and after measurements will not exhibit significant differences. Furthermore, the changes observed in the treatment group will be maintained when we follow-up with them.

2. The proportion of young people in the treatment group that report having been implicated in coercive behaviors (as aggressor or victim) since the intervention will be lower than the proportion observed in the non-intervention group.

Method

Participants

This study encompasses a population of male and female students in their fifth year of high school. A multistage cluster sampling was performed. In order to select a representative sample of Secondary Education Schools in Castilla y León (Spain), three were taken from the province of Salamanca, one from the capital and two from the province, one of which was a municipality just outside the capital, the other far from the capital. The sample included all the students in their first year of the second half of high school at each center and we respected their classes so as to be able to carry out treatment during school hours. The total sample to which the program was applied included 169 students, of which 53.3% were male, 46.7% female. They ranged in age from 16 to 18 years-old ($M = 16.24$, $SD = .67$).

The treatment group consisted of 93 students, male and female (Men: 39.9%, Women: 60.2%), whose average age was 16.04 years-old ($SD = .61$); the control group included 76 participants (Men: 69.7%, Women: 30.7%) whose mean age was 16.47 years-old ($SD = .66$). The lack of compensation in the percentages of men and women is explained by the fact that participants were not randomly assigned to groups. Instead, group assignment respected each center's class assignments so as to more easily conduct the study.

Variables and Instruments

– *Stereotypical beliefs surrounding sexuality and sexual coercion*: To evaluate this type of beliefs, we employed an adapted, short-form version of the Sexual Beliefs Scale (Muehlenhard & Felts, 1998), thereby assessing four types of specific beliefs on the subject: the notion that women are aroused by the use of force in sexual relations, justifying the use of coercion when the woman “provoked” the man, believing women should put up some level of resistance to sexual advances so they do not seem “easy,” and believing women do not have the right to say “no” or desist sexual relations at any time once they have begun. Using our sample, we found the scale's reliability index to be Cronbach's alpha = .79.

– *Empathy for the victim*: Toward the aim of evaluating empathy for the victim, we used items from the corresponding subscale of the Deitz, Blackwell, Daley, and

Bentley (1982) Empathy for the Victim and Aggressor questionnaire. The scale's reliability index was found to be Cronbach's alpha = .52.

– *Perceived Control*: In order to assess to what extent having unwanted sexual relations was considered within one's control, participants responded to the three-item Perceived Control over Sexual Coercion Scale (Fuertes et al., 2006), each of which had a five-point Likert-type format.

Each item presents a different behavior scenario based on the use of three distinct coercion strategies: pressure or extortion, inciting one to consume alcohol or other drugs, and using or threatening to use physical force. Respondents are asked to answer thinking of to what point the occurrence of this undesirable behavior depends on him/her. The final score generated is an average of scores on the three items. The index of reliability obtained was Cronbach's alpha = .66.

– *Heterosocial Assertiveness*: In this case, this is understood as the extent to which adolescents are capable of feeling well and clearly communicating what they do and do not want in their relations. In order to evaluate assertiveness in heterosocial relations, we used a scale that was developed for a prior study (Fuertes et al., 2006) comprised of six items to assess assertive behavior in situations either of a merely social, or sexual content. The reliability obtained for this scale was Cronbach's alpha = .60.

– *Experience with sexual victimization or coercive behaviors*: To assess to what extent adolescents and young people have been implicated in sexually coercive behaviors and/or been the victim of such behaviors, the list of tactics used by Struckman-Johnson, Struckman-Johnson, and Anderson (2003) will be applied. It covers nineteen possible sexual coercion tactics. Finally, it takes into account whether the respondent has participated in one or more of the coercive behaviors as offender and/or victim.

Design and Procedure

The present study utilizes a before-and-after design with a treatment group and a control group. Before treatment, in both groups, an initial measurement was taken for each variable indicated above. Three weeks after the program, a new assessment was performed for the group that had gone through treatment as well as the control group. The same measures were taken as in the first instance, except for implication in sexually coercive behaviors. Finally, eight months after intervention (final follow-up phase), we again applied the same measures as in the initial evaluation for both groups (treatment and control). The treatment group, as opposed to the control group, participated in the prevention program.

In designing the program, we tried to follow the protocol directives of *Intervention Mapping* (a protocol widely used in programs that promote health that strives to be founded on theory and scientific evidence; see Kok, Schaalma, Ruiter, Van Empelen, & Brug, 2004). The following steps

of this protocol were followed: developing specific objectives based on scientific antecedents, selecting instructional processes based on theory to promote cognitive and behavioral change, designing and determining the program's practical components, and implementing and evaluating the program.

The program's objectives and contents combined cognitive, emotional and behavioral components that traditionally appear to be involved in this kind of sexual behavior (Pacifci et al., 2001). They dealt with knowledge and information about sexual coercion, beliefs, myths and expectations about it, possible risk factors associated with coercive behaviors, empathy toward the victims of sexual coercion, and abilities involved in communicating about and negotiating sexual relations.

More specifically, the program was carried out in seven weekly sessions of one hour's duration each during students' homeroom. All sessions were administered by two Psychologists with experience working with adolescents and young people, one man and one woman, collaborators in the Department of Developmental and Educational Psychology at the Universidad de Salamanca. Sessions were carried out with the boys and girls together, except for the fifth and sixth sessions, which were conducted separately according to gender, in keeping with some of the directives of previous studies in this area.

In the program, the first session deals with the concepts of sexual freedom, sexual coercion and voluntary consent, different strategies that may imply some form of sexual coercion, and the possible consequences of using it. The second session goes into depth on different sexual coercion strategies and analyzes different contexts, situations and interactions in which sexual coercion may manifest itself. The third session is dedicated to empathizing with the victim, and to improving the ability to help victims. The aim is to get participants to put themselves in the victim's shoes, to understand his/her emotions and feelings, and the consequences of victimization for that person. Different stories are told in which there is a coercive sexual interaction. Following the recommendations of Foubert (2000), in the first story, the victim is a man and the aggressor is a heterosexual man; this encourages boys to put themselves in the victim's place. The fourth and fifth sessions are geared toward working on the ability to avoid certain risk situations. Basically, it emphasizes the value of and need to speak clearly and sincerely about the things they want to be permitted in their sexual relations and those they do not, to ask for and suggest (without pressure, of course), or as the case may be, to establish clear limits regarding one's wishes. The fifth session is conducted separately for boys and girls because it aims to develop more specific strategies to cope with coercive situations.

The sixth session sets out some of the risk factors associated with coercive behavior and sexual victimization. In particular, alcohol consumption, machismo or sexist

attitudes, lack of assertiveness or inadequate sexual communication, the absence of empathy, distancing oneself from friends, etc.. For this session, a video is shown that was created *ad hoc*; it presents three scenarios in which some of the factors mentioned above appear, and may influence whether or not the characters end up having unwanted sexual relations. Once again, and for the same reasons as in the previous session, the psychologists worked with the boys and girls separately. The seventh session is dedicated to summing up the program, and to gathering students' impressions on this subject, and of the program itself.

Statistical Analyses

Mixed ANOVAs were performed in order to analyze the initial differences between groups, and to determine whether or not changes were produced in the dimensions the intervention later addressed. The dependent variables were considered to be each of the intervention's dimensions (beliefs, empathy, perceived control and assertiveness), while the repeated measures factor referred to the three points in time (before intervention, immediately after, and sometime after), and the between-subjects factors were: the group they belonged to (treatment group vs. control group) and gender (male-female). To analyze and interpret interactions, we performed a posteriori tests using the Bonferroni adjustment. As for the variable experience with sexual victimization or coercive behaviors, we applied the McNemar test to analyze any change in this type of behavior before versus after intervention (eight months after treatment).

Results

First of all, we analyzed whether or not there were statistically significant differences between the two groups and genders prior to intervention in terms of the different dimensions taken into account. Later, we analyzed the change produced in the various dimensions as a result of treatment, always taking group and gender into account. We will now go on to explain the most relevant results relating to each of the intervention's dimensions.

Regarding stereotypical beliefs about sexuality and sexual coercion, we found that prior to intervention, the men showed a significantly higher level of stereotypical beliefs than the women [$F(1, 164) = 27.95, p = .001$], both in the treatment and control groups. As expected, when we analyzed this change, we found that the interaction between time of measurement and group was statistically significant [$F(2, 256) = 5.59, p = .004, \eta^2 = .04$]. Similarly, after applying the a posteriori tests, we observed significant differences in the treatment group between the three measurement times ($p = .001$). Following intervention, scores on stereotypical beliefs decreased significantly. Conversely, the control group did not exhibit significant

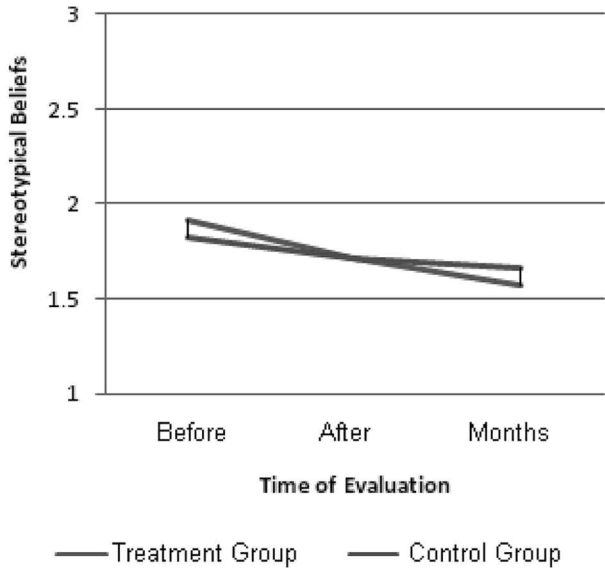


Figure 1. Means of Stereotypical Beliefs as a Function of Evaluation Time and Group

differences between the three measures (see Table 1 and Figure 1). On another note, the interaction between these variables and gender was not statistically significant, which allows us to say the results for men and women exhibited the same pattern. In men as well as women in the treatment group, there was a decrease in the level of stereotypical beliefs, and to the same extent. It follows that the differences between men and women prior to intervention were maintained after intervention.

In the case of empathy for the victim, we initially found a significant interaction by group according to gender [$F(1, 165) = 7.96, p = .001$] such that men from the intervention

group showed significantly lower levels of empathy than women from both groups and men in the control group. When we analyzed the effect of treatment, we again found that the time of measurement x group interaction was significant [$F(2, 256) = 7.72, p = .001, \eta^2 = .06$], but in this case, the second-order time of measurement x group x gender interaction was also significant [$F(2, 256) = 4.26, p = .01, \eta^2 = .03$]. After conducting the a posteriori tests to interpret this last interaction, for men in the intervention group we found significant differences ($p = .001$) in empathy between the measure taken prior to intervention and the one taken after, and we did not observe any significant differences between the two post-treatment measures (at three weeks and eight months after intervention). In women from both the control and treatment groups, and men in the control group, we did not find significant differences between the three measurement times (see Table 1 and Figure 2).

Regarding perceived control, no statistically significant differences were found initially between the two genders or groups. In all cases, we observed high levels of perceived control. When we analyzed change across the different times of assessment, this time, the interaction between time of measurement and group [$F(2, 250) = 1.70, p = .18$] was not significant. Judging from the results obtained (see Table 1), we observe that an increase in scores was produced in the treatment group at the later measurement times, although as we have suggested, these differences between the two groups do not reach statistical significance.

Last, with respect to heterosocial assertiveness, here we did not find significant differences between genders and groups at the initial measurement time either. All students exhibited high levels of assertiveness. When we assessed the change, the group x time of evaluation interaction [$F(2, 254) = 0.38, p = .69$] was not found to be significant either.

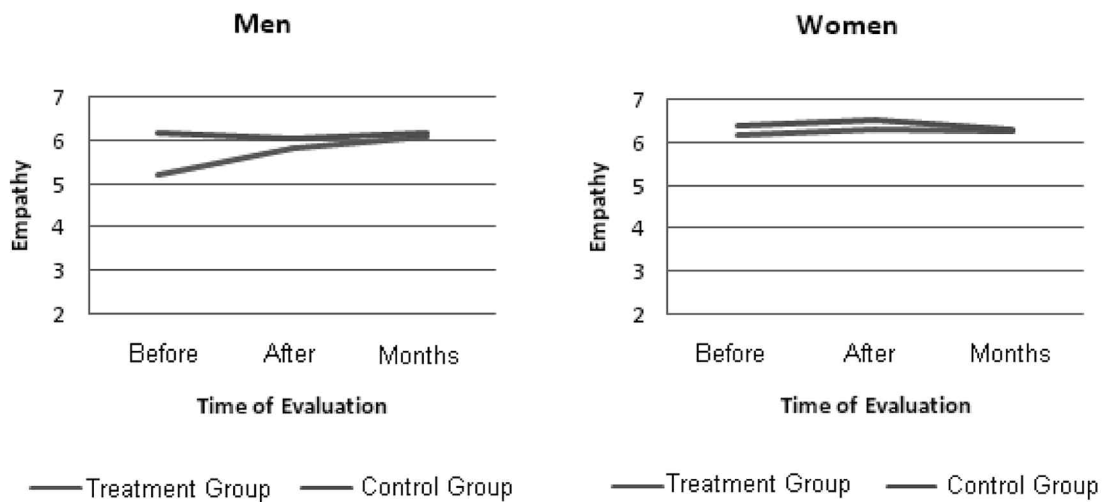


Figure 2. Means of Empathy as a Function of Evaluation Time, Group and Sex

Table 1

Means and Standard Deviations of the Variables at Different Evaluation Times for the Two Groups and Genders

	STEREOTYPICAL BELIEFS					
	Before Intervention		After Intervention		Months Later	
	Men	Women	Men	Women	Men	Women
Treatment Group	2.17 (0.46)	1.76 (0.32)	1.94 (0.39)	1.57 (0.27)	1.75 (0.42)	1.46 (0.25)
Control Group	1.91 (0.44)	1.63 (0.26)	1.78 (0.47)	1.57 (0.30)	1.73 (0.43)	1.50 (0.38)
	EMPATHY					
	Before Intervention		After Intervention		Months Later	
	Men	Women	Men	Women	Men	Women
Treatment Group	5.23 (1.06)	6.18 (0.73)	5.81 (0.86)	6.31 (0.68)	6.11 (0.50)	6.27 (0.64)
Control Group	6.20 (0.47)	6.40 (0.41)	6.03 (0.42)	6.51 (0.38)	6.20 (0.70)	6.29 (0.53)
	PERCEIVED CONTROL					
	Before Intervention		After Intervention		Months Later	
	Men	Women	Men	Women	Men	Women
Treatment Group	3.14 (0.96)	3.06 (1.14)	3.58 (1.03)	3.17 (1.18)	3.84 (0.98)	3.26 (1.24)
Control Group	3.46 (1.25)	3.61 (1.13)	3.50 (0.95)	3.24 (1.31)	3.96 (0.97)	3.30 (1.31)
	ASSERTIVENESS					
	Before Intervention		After Intervention		Months Later	
	Men	Women	Men	Women	Men	Women
Treatment Group	2.82 (0.39)	3.05 (0.37)	2.92 (0.42)	3.14 (0.44)	2.84 (0.44)	3.15 (0.42)
Control Group	2.97 (0.56)	3.15 (0.45)	3.02 (0.40)	3.15 (0.46)	3.11 (0.40)	3.06 (0.52)

In this case, the intervention group did exhibit changes in the expected direction, but they did not reach the level of statistical significance (see Table 1).

Finally, we will comment on the results obtained surrounding experiences of sexual victimization or coercive behaviors. Significant results were only found when we analyzed the behavior of having been implicated in sexual coercion as the aggressor. After applying the non-parametric McNemar test separately for the treatment and control groups, we found that in the group that received treatment ($n = 93$), the number of changes in a positive sense ($n = 12$) (in other words, before the treatment, they engaged in coercive behaviors and afterward they do not) is significantly higher ($\chi^2_1 = 5.78, p < .02$) than the number of changes in the opposite direction ($n = 2$). We also observed results in this direction in the control group ($n = 76$); the number of

positive changes ($n = 15$) exceeded the number of negative changes ($n = 6$), but in this case, the difference was not of statistical significance ($\chi^2_1 = 3.05, p > .05$).

Below, we will separately analyze boys' and girls' behavior in the two groups. As for the boys, significant differences ($\chi^2_1 = 6.75, p < .01$) were observed in the treatment group ($n = 37$) and the number of positive changes ($n = 11$) was significantly higher than the number of negative changes ($n = 1$). Meanwhile, in the control group, no significant differences were observed ($\chi^2_1 = 3.76, p > .05$) between positive ($n = 13$) and negative ($n = 4$) changes. Among the girls, we found no significant differences, neither in the treatment group ($n = 56$) nor the control group ($n = 23$). In both groups of girls, the number of positive changes was equal to the number of negative changes, 1 for the treatment group and 2 for the control group.

Table 2

Frequency of changes (positive and negative) and non-changes in the coercive behaviors of the control and treatment groups, following treatment, as a function of sex

		Positive Change		Negative Change		No Change	
						NO	YES
Control G. (<i>n</i> = 76)	Men (<i>n</i> = 53)	13	15	4	6	34	2
	Women (<i>n</i> = 23)	2		2		19	0
						53	2
Treatment G. (<i>n</i> = 93)	Men (<i>n</i> = 37)	11	12	1	2	24	1
	Women (<i>n</i> = 56)	1		1		54	0
						78	1

Discussion

In this study, we sought to assess the effectiveness of a program to prevent sexual coercion in a sample of adolescents in school. Concretely, we designed and implemented a program whose objectives and contents addressed concepts as well as attitudes, values, abilities, strategies, etc. related to sexual coercion. In doing so, we pursued the dual objective of: a) determining whether or not our intervention produced changes in adolescents in the dimensions we have mentioned and b) determining whether or not these changes are associated with less sexually coercive behavior medium-term. To do so, we met certain basic demands of any prevention program: first, pre and post-treatment evaluation and follow-up to see whether changes were maintained over time, and second, use of a control group.

In general, we are able to assert that the results fit reasonably well with our expectations, especially in terms of the more conceptual and attitudinal (myths-beliefs about sexual coercion and empathy) content discussed in our first hypothesis. The analyses we performed indicate that in the group that received treatment, there was a significant decrease in stereotypical beliefs about sexuality and sexual coercion, although the differences initially observed between boys and girls were maintained. Similarly, in the empathy dimension, the group of boys that went through the intervention program exhibited a significant increase in their levels of empathy, even achieving their female counterparts' levels at the last measurement time. For the girls, this change was not significant, probably because their original levels of this variable were already very high.

Our intervention, therefore, achieved an acceptable level of success at promoting greater sensitivity toward this topic and its possible victims (empathy), and improving the ability to understand and identify a sexually coercive situation.

The intervention did not, however, produce significant changes in the perceived control and assertiveness

dimensions, at least in terms of how we evaluated it. We can think of two possible explanations for that: a) the design and implementation of instruction on this subject were inadequate; b) to produce change in this component would require a greater investment of time and educational effort (please recall the program only deals with this subject in one session). Our perception is that time limitations impeded potential learning from being consolidated (the instructional design was based on traditionally accepted and validated intervention models, so we have no reason to suspect it to have failed). In any case, we must not forget that for both variables, we were working from an initial baseline with very high values – a ceiling effect – that could have conditioned the finding that changes in the expected direction occurred, yet did not achieve the level of statistical significance.

In summary, these results partially support our first hypothesis by confirming that in the treatment group, as far as risk factors, scores on stereotypical beliefs decreased significantly following intervention. Concerning protection factors, however, only the case of empathy in men yielded significant results.

As for the second hypothesis proposed, we found that only the group of boys that received treatment exhibited a significant change in the expected direction; in other words, the number of boys that reported engaging in sexually coercive conduct decreased. Our second hypothesis was only partially confirmed, however, given that a decrease in coercive behavior only occurred in men. Please bear in mind, though, that the number of girls that initially reported having engaged in coercive behavior was very small.

On the whole, this would all seem to indicate that better understanding of and attitudes toward this type of situation, gleaned from participation in the program, contributed to these differences. These results are in line with the findings of a meta-analysis by Anderson and Whiston (2005) that highlights the importance of beliefs about sexual coercion,

and a study by Foubert and Newberry (2006) on the relevance of empathy. If this is true, it would reinforce and defend the position that information is not enough, but it is necessary in prevention.

The components attitudes and values deserve special mention. Numerous general sexual education programs, and sexual coercion prevention programs in particular (Pacifici et al., 2001), have explicitly recognized the importance of these components in affective and sexual relationships, as well as the need to address them in educational practice. Our results attest to that importance. Furthermore, as suggested above, our results corroborate that the training we provided produced significant changes in these dimensions.

On the other hand, no differences were found between the two groups in terms of the extent of victimization. The fact that victimization was not reduced may be due to various explanations. First, we should keep in mind that the victim of sexual coercion is not responsible for the coercive behavior. That responsibility, and therefore greater control, lies with the person who may or may not exert coercion. Also, the program developed is up against an obvious time limitation (consisting of only 7 sessions), and perhaps is not insistent enough on using escape or avoidance strategies that could be more effective in this case. Remember, the program did not yield significant changes in assertive ability in young people, that is, in knowing how to effectively communicate what they do or do not want in their relations.

By way of conclusion, we can say that the program produced significant changes both in the knowledge and attitudes of the young people who participated in it, and in terms of carrying out coercive behaviors, yet it had hardly had any impact on the behavioral dimension of coping with coercion. It is possible that these conceptual and attitudinal changes explain the middle-term low participation in coercive behaviors, but we should improve the available interventions, or design others that increase the ability to cope with coercion.

We are conscious of the present study's limitations, such as selecting an all-student sample (which brings into question the possible generalizability of the results), the time limitations placed on implementing the program, and our analyses' focus on the individual. In this type of study, it is very difficult to include the experimental control of assessing participants initially on the variables and later assigning them to groups, because it was conducted in a classroom context.

Nevertheless, our intervention produced changes that slowed and decreased coercive behaviors, and brought about important conceptual and attitudinal advances in this area. This should encourage us to go into greater depth when designing, executing and disseminating the program, as well as in promoting new initiatives in this field. Perhaps when thinking of implementing future prevention programs, the Prochaska and Diclemente Model of Change (1983) could

be utilized. It has begun to be used in recent years to prevent interpersonal violence (e.g., Chang et al., 2006; Levesque, Gelles, & Velicer, 2000; Scott & Wolfe, 2003) and is beginning to be applied to sexual violence prevention programs (e.g., Banyard, Eskstein, & Moynihan, 2010), too.

Finally, we must be conscious that the most effective interventions promote changes at the individual, interpersonal and social levels. We cannot forget that true change in preventive intervention should involve the individual, but also the overlap between different proximal social contexts (friends, family, school, etc.) and other, distal ones (mass media, new technologies, social norms and values, etc., Banyard, Plante, & Moynihan, 2004; Breinbauer & Maddaleno, 2005; DiClemente, Santelli, & Crosby, 2009). This intervention only addressed the individual sphere, and with all the limitations and impediments that we have commented on previously. Future lines of research and treatment should work toward the objective of searching for new, more thorough and ecological prevention programs.

References

- Abbey, A. A., Ross, L. T., McDuffie, D., & McAuslan, P. (1996). Alcohol and dating risk factors for sexual assault among college women. *Psychology of Women Quarterly*, *20*, 147–169. <http://dx.doi.org/10.1111/j.1471-6402.1996.tb00669.x>
- Anderson, L. A., & Whiston, S. C. (2005). Sexual assault education programs: Meta-analytic examination of their effectiveness. *Psychology of Women Quarterly*, *29*, 374–388. <http://dx.doi.org/10.1111/j.1471-6402.2005.00237.x>
- Banyard, V. L., Eckstein, R. P., & Moynihan, M. M. (2010). Sexual violence prevention: The role of stages of change. *Journal of Interpersonal Violence*, *25*, 111–135. <http://dx.doi.org/10.1177/0886260508329123>
- Banyard, V. L., Plante, E. G., & Moynihan, M. M. (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, *32*, 61–79. <http://dx.doi.org/10.1002/jcop.10078>
- Brecklin, L. R., & Forde, D. R. (2001). A meta-analysis of rape education programs. *Violence and Victims*, *16*, 303–321.
- Breinbauer, C., & Maddaleno, M. (2005). *Youth: Choices and change. Promoting healthy behaviors in adolescents*. Washington, DC: PAHO.
- Brousseau, M. M., Bergelon, S., Hébert, M., & McDuff, P. (2010). Sexual coercion victimization and perpetration in heterosexual couples: A dyadic investigation. *Archives of Sexual Behavior*, *40*, 363–372. <http://dx.doi.org/10.1007/s10508-010-9617-0>
- Chang, J. C., Dado, D., Ashton, S., Hawker, L., Cluss, P. A., Buranosky, R., & Scholle, S. H. (2006). Understanding behavior change for women experiencing intimate partner violence: Mapping the ups and downs using the stage of change. *Patient Education and Counseling*, *62*, 330–339. <http://dx.doi.org/10.1016/j.pec.2006.06.009>

- Deitz, S. R., Blackwell, K., Daley, P., & Bentley, B. (1982). Measurement of empathy toward rape victims and rapists. *Journal of Personality and Social Psychology, 43*, 372–384. <http://dx.doi.org/10.1037/0022-3514.43.2.372>
- DiClemente, R. J., Santelli, J. S., & Crosby, R. A. (2009). Adolescent risk behaviors and adverse health outcomes: Future directions for research, practice, and policy. In R. J. DiClemente, J. S. Santelli and R. A. Crosby (Eds.), *Adolescent Health. Understanding and Preventing Risk Behaviors* (pp. 549–559). San Francisco, CA: Jossey-Bass.
- Foubert, J. D. (2000). The longitudinal effect of a rape-prevention program on fraternity men's attitudes, behavioral intent and behavior. *Journal of American College Health, 48*, 158–163. <http://dx.doi.org/10.1080/07448480009595691>
- Foubert, J. D., & Newberry, J. T. (2006). Effects of two versions of an empathy-based rape prevention program on fraternity men's survivor empathy, attitudes, and behavioral intent to commit rape or sexual assault. *Journal of College Student Development, 47*, 133–148. <http://dx.doi.org/10.1353/csd.2006.0016>
- Fuertes, A., Ramos, M., De la Orden, M. V., Del Campo, A., & Lázaro, S. (2005). The involvement in sexual coercive behaviors of college men: Prevalence and risk factors. *Journal of Interpersonal Violence, 20*, 872–891. <http://dx.doi.org/10.1177/0886260505276834>
- Fuertes, A., Ramos, M., Martínez, J. L., López, D., & Tabernero, C. (2006). Prevalencia y factores de vulnerabilidad y protección de la victimización sexual en las relaciones con los iguales en las mujeres universitarias españolas [Prevalence and factors of vulnerability to, and protection from, sexual victimization in peer relations for Spanish, female college students]. *Child Abuse and Neglect, 30*, 799–814. <http://dx.doi.org/10.1016/j.chiabu.2006.06.002>
- Gidycz, C., Coble, C., Latham, L., & Layman, M. (1993). Sexual assault experience in adulthood and prior victimization experiences. *Psychology of Women Quarterly, 17*, 151–168. <http://dx.doi.org/10.1111/j.1471-6402.1993.tb00441.x>
- Gidycz, C. A., Rich, C. L., Orchowski, L., King, C., & Miller, A. K. (2006). The evaluation of a sexual assault self-defense and risk-reduction program for college women: A prospective study. *Psychology of Women Quarterly, 30*, 173–186. <http://dx.doi.org/10.1111/j.1471-6402.2006.00280.x>
- Greytak, E. A. (2003). Educating for the prevention of sexual abuse: An investigation of school-based programs for high school students and their applicability to urban schools. *Penn GSE Perspectives on Urban Education, 2*, 1–15.
- Howard, D. N., & Wang, M. Q. (2005) Psychosocial correlates of U.S. adolescents who report a history of forced sexual intercourse. *Journal of Adolescent Health, 36*, 372–379. <http://dx.doi.org/10.1016/j.jadohealth.2004.07.007>
- Kok, G., Schaalma, H., Ruiter, R. A. C., Van Empelen, P., & Brug, J. (2004). Intervention mapping: A protocol for applying health psychology theory to prevention programmes. *Journal of Health Psychology, 9*, 85–98. <http://dx.doi.org/10.1177/1359105304038379>
- Koss, M. P., Gidycz, C. A., and Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology, 55*, 162–170. <http://dx.doi.org/10.1037//0022-006X.55.2.162>
- Krahé, B., Waizenhöfer, E., & Möller, I. (2003). Women's sexual aggression against men: Prevalence and predictors. *Sex Roles, 49*, 219–232. <http://dx.doi.org/10.1023/A:1024648106477>
- Levesque, D. A., Gelles, R. J., & Velicer, W. F. (2000). Development and validation of a stages of change measure for men in batterer treatment. *Cognitive Therapy and Research, 24*, 175–199. <http://dx.doi.org/10.1023/A:1005446025201>
- Muehlenhard, C. L., & Cook, S. W. (1988). Men's self-reports of unwanted sexual activity. *Journal of Sexual Research, 24*, 58–72. <http://dx.doi.org/10.1080/00224498809551398>
- Muehlenhard, C. L., & Felts, A. S. (1998). Sexual Beliefs Scale. In C. M. Davis, W. L. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 116–118). London, England: Sage.
- Muñoz-Rivas, M. J., Graña, K., O'Leary, K. D., & González, M. P. (2009). Prevalencia y predictores de la agresión sexual en las relaciones de noviazgo en adolescentes y jóvenes [Prevalence and predictors of sexual aggression in couples among adolescents and young people]. *Psicothema, 21*, 234–240.
- Orchowski, L. M., Gidycz, C. A., & Raffle, H. (2008). Evaluation of a sexual assault risk reduction and self-defense program: A prospective analysis of a revised protocol. *Psychology of Women Quarterly, 32*, 204–218. <http://dx.doi.org/10.1111/j.1471-6402.2008.00425.x>
- O'Sullivan, L. F., Byers, E. S., & Finkelstein, L. (1998). A comparison of male and female college students' experiences of sexual coercion. *Psychology of Women Quarterly, 22*, 177–195. <http://dx.doi.org/10.1111/j.1471-6402.1998.tb00149.x>
- Pacifici, C., Stoolmiller, M., & Nelson, C. (2001). Evaluating a prevention program for teenagers on sexual coercion: A differential effectiveness. *Journal of Consulting & Clinical Psychology, 69*, 552–559. <http://dx.doi.org/10.1037//0022-006X.69.3.552>
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology, 51*, 390–395. <http://dx.doi.org/10.1037//0022-006X.51.3.390>
- Ramos, M. (2004). Factores de protección y vulnerabilidad de la coerción sexual en adolescentes y jóvenes [Factors of protection from and vulnerability to sexual coercion among adolescents and young people]. *Sexpol, 60*, 16–18.
- Ramos, M., & Fuertes, A. (2005). Vulnerabilidad frente a la victimización sexual: Factores psicosociales y contextuales asociados [Vulnerability to sexual victimization: Associated psychosocial and contextual factors]. *Sexología Integral, 2*, 16–21.
- Ramos, M., Fuertes, A., & De la Orden, M. V. (2006). La victimización sexual en las relaciones con los iguales en una muestra de mujeres adolescentes y jóvenes: Prevalencia y

- creencias relacionadas con la victimización [Sexual victimization in peer relationships in a sample of adolescent and young women: Prevalence and beliefs related to victimization]. *Revista de Psicología Social*, 21, 127–140. <http://dx.doi.org/10.1174/021347406776591585>
- Russell, B., & Oswald, D. (2001). Strategies and dispositional correlates of sexual coercion perpetrated by women: An exploratory investigation. *Sex Roles*, 45, 103–115. <http://dx.doi.org/10.1023/A:1013016502745>
- Schatzel-Murphy, E. A., Harris, D. A., Knight, R. A., & Milburn, M. A. (2009). Sexual coercion in men and women: Similar behaviors, different predictors. *Archives of Sexual Behavior*, 38, 974–986. <http://dx.doi.org/10.1007/s10508-009-9481-y>
- Schewe, P. A. (2002). Guidelines for developing rape prevention and risk reduction interventions. In P. A. Schewe (Ed.), *Preventing intimate partner violence: developmentally appropriate interventions across the life span*. Washington, DC: APA
- Scott, K. L., & Wolfe, D. A. (2003). Readiness to change as a predictor of outcome in batterer treatment. *Journal of Consulting and Clinical Psychology*, 71, 879–889. <http://dx.doi.org/10.1037/0022-006X.71.5.879>
- Senn, C. Y., Desmarais, S., Verberg, N., & Wood, E. (2000). Predicting coercive sexual behavior across the lifespan in a random sample of Canadian men. *Journal of Social and Personal Relationships*, 17, 95–113. <http://dx.doi.org/10.1177/0265407500171005>
- Sipsma, E., Carrobbles, J. A., Montorio, I., & Everaerd, W. (2000). Sexual aggression against women by men acquaintances: Attitudes and experiences among Spanish university students. *The Spanish Journal of Psychology*, 3, 14–27.
- Spitzberg, B. H. (1999). An analysis of empirical estimates of rape and sexual coercion. *Violence and Victims*, 14, 241–260.
- Struckman-Johnson, C., Anderson, P. B., & Struckman-Johnson, D. (2000, August). *Tactics and motives of sexually aggressive men and women*. Paper presented at the annual meeting of the American Psychological Association, Washington, DC.
- Struckman-Johnson, C., & Struckman-Johnson, D. (1998). The dynamics and impact of sexual coercion of men by women. In P. B. Anderson & C. Struckman-Johnson (Eds.), *Sexually aggressive women: Current perspectives and controversies* (pp. 121–143). New York, NY: Guilford.
- Struckman-Johnson, C., Struckman-Johnson, D., & Anderson, P. B. (2003). Tactics of sexual coercion: When men and women won't take no for an answer. *The Journal of Sex Research*, 40, 76–86. <http://dx.doi.org/10.1080/00224490309552168>
- Testa, M., & Dermen, K. H. (1999). The differential correlates of sexual coercion and rape. *Journal of Interpersonal Violence*, 14, 548–561. <http://dx.doi.org/10.1177/088626099014005006>
- Yeater, E. A., & O'Donohue, W. (1999). Sexual assault prevention programs: Current issues, future directions, and the potential efficacy of interventions with women. *Clinical Psychology Review*, 19, 739–771. [http://dx.doi.org/10.1016/S0272-7358\(98\)00075-0](http://dx.doi.org/10.1016/S0272-7358(98)00075-0)
- Young, A., Grey, M., & Boyd, C. J. (2009). Adolescents' experiences of sexual assault by peers: Prevalence and nature of victimization occurring within and out of school. *Journal of Youth and Adolescence*, 38, 1072–1083. <http://dx.doi.org/10.1007/s10964-008-9363-y>
- Young, B. J., & Furman, W. (2008). Interpersonal factors in the risk for sexual victimization and its recurrence during adolescence. *Journal of Youth and Adolescence*, 37, 297–309. <http://dx.doi.org/10.1007/s10964-007-9240-0>

Received November 24, 2010
 Revision received March 28, 2011
 Accepted May 21, 2011