

Evaluation of the Effects of the Sexual Education Programme SOMOS on Sexual Experience and Attitudes of Adolescents Towards Sexuality

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Abstract

The effects of the SOMOS Sexual Education Programme on attitudes towards sexuality in general and towards masturbation in particular, as well as the possible impact of that programme on the sexual experiences of pupils are studied. The investigation takes a sample of 123 adolescents enrolled in the 3rd year of Compulsory Secondary Education, aged between 13 and 17 years old. A design of repeated pre-test/post-test measurements was used with three experimental groups (71 students) and two control groups (52 students). To do so, the evaluation instrument was administered before and after the educational intervention (12 sessions). The results of *T* tests for related samples confirmed that the programme favours the development of positive attitudes towards sexuality, as well as a significant reduction in negative attitudes towards masturbation. Moreover, it was noted that the sexual experience of the students increased in a progressive way regardless of the group to which they belonged.

Keywords: sexuality, attitude, adolescent, adolescent behaviour, psycho-sexual development.

Resumen

El presente trabajo estudia los efectos del programa SOMOS de Educación Sexual en las actitudes hacia la sexualidad en general, y hacia la masturbación en particular, así como la posible incidencia de dicho programa en la experiencia sexual del alumnado. La investigación cuenta con una muestra de 123 adolescentes escolarizados en 3.º de Educación Secundaria Obligatoria, con edades comprendidas entre 13 y 17 años. Se utiliza un diseño de medidas repetidas pre-test/post-test con grupos experimental (71 alumnos) y control (52 alumnos). Para ello, se administra antes y después de la intervención educativa (12 sesiones) el instrumento de evaluación. Los resultados de las pruebas *T* para muestras relacionadas confirman que el programa favorece el desarrollo de actitudes positivas hacia la sexualidad, así como la disminución significativa de las actitudes negativas hacia la masturbación. Además, se constata que la experiencia sexual del alumnado aumenta de forma progresiva independientemente del grupo de pertenencia.

Palabras clave: sexualidad, actitud, adolescente, conducta del adolescente, desarrollo psicosexual.

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Introduction

Attitudes towards sexuality are a fundamental and decisive factor of sexuality. A specific distinction is drawn between positive or erotophilic attitudes towards sexuality, and negative or erotophobic attitudes towards sexuality. Both are extreme ends of a continuum; the willingness to respond to sexual stimulus throughout a positive-negative spectrum, defining and determining sexuality (Bermúdez, Ramiro-Sánchez, & Ramiro, 2014; Diéguez, López, Sueiro, & López, 2005; Fisher, 2009; Gómez-Zapiain, Del Campo, Inza, & Ibaceta, 2004; Rye, Meaney, Yessis, & McKay, 2012).

In general, people with more erotophilic attitudes experience greater sexual satisfaction, and show themselves to be more open to sexual activity and to different sexual behaviour, such as masturbation (Geer & Robertson, 2005; Nobre et al., 2004; Ortega, Ojeda, Sutil, & Sierra, 2005; Perla, Sierra, Vallejo, & Gutiérrez-Quintanilla, 2009; Sierra, Perla, & Gutiérrez-Quintanilla, 2010; Sueiro, Diéguez, Chas, & Diz, 2004; Trudel, 2002). It has been observed that in their relations with partners they usually establish a reassured type of attachment, in which there is a clear orientation towards love, enjoyment of the erotic experience and communication and expression of positive emotions (Tracy, Shaver, Albino, & Cooper, 2003). These sorts of atti-

tudes are also associated with lower-risk sexual behaviour, such as the use of the preservative, as there is a more favourable attitude towards contraceptive methods or more effective practices for the prevention of sexually transmitted infections (STI) (García-Vega, Menéndez, Fernández, & Rico, 2010; Johnson, Rozmus, & Edmisson, 1999; Reis, Ramiro, Matos, Diniz, & Simões, 2011; Sanders et al., 2006; Sueiro et al., 2004).

Predominantly erotophobic individuals, on the contrary, show greater reluctance towards sexual activity and various sexual behaviours. In general, they are less willing to accept sexuality in all of its manifestations and experience fear, anxiety and feelings of guilt. Research in this field (Ortega et al., 2005; Sierra, Perla, & Santos-Iglesias, 2011) has noted that erotophobic people usually experience greater sexual guilt. Other studies (Johnson et al., 1999; Lameiras, Núñez, Rodríguez, Bretón, & Agudelo, 2007) have shown that these types of attitudes are related with less acceptance of contraception and with lower levels of knowledge on sexuality and risks.

Adolescence is a period of human development in which psychological transformations take place in the individual. Changes in cognition, in social and affective relations, in ethical and moral understanding of the environment, and in the need for and the expression of one's own sexuality, imbue adoles-

cence with complexity. However, it is not necessarily a critical and turbulent phase (Coleman & Hendry, 2003), rather more one in which difficulties exist such as conflicts with parents, emotional instability and risk behaviours (Casco & Oliva, 2005; Oliva et al., 2010).

Throughout this phase, adolescents undergo a learning process where sexual experience will progressively increase. With regard to the behavioural repertoire, a difference may be drawn between behaviours that take place alone and shared experiences.

The principal autoerotic behaviour is masturbation. In general, it takes place during early adolescence (Ballester & Gil, 2006; Diz, Sueiro, Chas, & Diéguez, 2003; Mesa, Barella, & Cobeña, 2004; Sueiro & Gil, 2006; Barberá & Navarro, 2000). Various studies (Ballester & Gil, 2006; Diz et al., 2003) have demonstrated that the onset of this practice can take place before puberty: around 10% of the adolescents in these investigations had already masturbated before the age of 10.

Although it is a pleasurable and healthy behaviour in adolescent development, on occasions it is experienced with great anxiety, guiltiness and anguish, there being an imbalance between attitudes towards masturbation and its practice (Diéguez, Diz, Sueiro, & Chas, 2003; Heras & Lara, 2009; Sierra et al., 2010).

Among the first sexual behaviours directed at others in which

adolescents engage, we can highlight dates, kisses, and caresses, beginning at around 14 years in age (Ramos, Fuertes, Martínez, & Hernández, 2003; Rathus, Nevid, & Fichner-Rathus, 2005). During adolescence, dating intensifies and becomes generalized. Caresses, kisses, and flirting usually satisfy them with no need to increase the level of sexual experience (Ramos et al., 2003).

Highly intimate sexual practices, but without coitus are known as *petting*. They may be defined as a set of kisses, embraces, and caresses over the body, as well as intergenital contact, and even mutual masturbation, which leads some members of the couple to a high degree of excitement that may or may not reach orgasm. A practice that begins at an average age of 16.2 years old, according to Gómez-Zapiain (2005). However, it is still not a clear sexual alternative for adolescents today. In Spain, for example, Navarro-Perfusa, Reig-Ferrer, Barberá, and Ferrer (2006) discovered that 37.4% of adolescents interviewed practiced or had practiced *petting*. Ramos et al. (2003) reported that only 9.6% had experienced intergenital contact, while coitus was substantially more popular (18.6%).

Coital relations appear in our context between 15 and 18 years old as research on the matter has pointed out (Bermúdez, Castro, Madrid, & Buena-Casal, 2010; García-Vega et al., 2010; Reis, Ramiro, Matos, & Diniz, 2013; Varela &

Paz, 2007). Subsequently, this behaviour becomes generalized in the course of advanced adolescence, until it becomes the dominant practice. Approximately one of every three adolescents uses no contraceptive methods in their first coital relationship, and around 30% use *coitus interruptus* (Bontempi, Mugno, Bulmer, Danvers, & Vancour, 2009; Bradley-Stevenson, 2007; Guerrero, Guerrero, García-Jiménez, & Moreno, 2008). In addition, both in Spain and abroad, it has been noted that many adolescents put off the use of contraception for between 6 and 18 months after their first coitus (Hidalgo, Garrido, & Hernández, 2000; Ramos et al., 2003).

Some studies have sought to determine the principal predictors of at-risk sexual behaviour. They highlight precociousness at the onset of sexual activity, immediateness, impulsiveness, lack of social habits, assertiveness and the consumption of substances such as tobacco, alcohol and other drugs (García-Vega, Menéndez, Fernández, & Cuesta, 2012). Adolescents should learn to consider the risks that coital sexual relations involve and they have to develop the capabilities and attitudes that are necessary to face any sexual experience with success.

The current debate is not centred on the pertinence of Sexual Education, but on the approach and the contents that it should entail. After analyzing the impact of 97 STI prevention and sex-education programmes, Kirby (2011) identi-

fied eight common characteristics in those programmes that showed themselves to be more effective at the reduction of at-risk practices: rigour and a scientific approach in information on STI; pregnancy and prevention; perceived risk; self-efficacy and assertiveness; attitudes towards the use of the preservative; choice of couple or sexual couples; communication; group pressure and social norms; and the personal value of sexual activity. It is worth highlighting that 30 of these programmes were conducted in developing countries and that 55 were completed in the United States. Other investigations in that same context (Schmidt, Wandersman, & Hills, 2015; Walcott, Chenneville, & Tarquini, 2011) concur with the positive effect of the educational interventions that explain scientific information, and that strengthen and promote self-efficacy and supportive attitudes towards the use of the preservative. These same works, however, underline the limited nature of many of these educational interventions, as they are not of an integral character that recognizes the sexual nature of human beings.

In Spain, López (2005) proposed a biographical-professional model, in accordance with Integral Sexual Education, in which students construct their conception of the human sexual act in a critical and active way. The development of erotophilic attitudes and the taking of free and responsible decisions are essential elements in this model. It

recognizes the role of families and of the school in the Sexual Education of children and young people, coinciding with present-day approaches (Grossman, Tracy, Charmaraman, Ceder, & Erkut, 2014; Jennings, Howard, & Perotte, 2014).

The evaluation of Sexual Education Programmes shows its positive impact in different areas. In relation to knowledge on STI, pregnancy, contraceptive methods, sexual anatomy, etc., investigations in different contexts show evidence of their increase after the educational interventions (Carrera, Lameiras, Foltz, Núñez, & Rodríguez, 2007; Givaudan & Pick, 2005; Jennings et al., 2014; Scull, Malik, & Kupersmidt, 2014). Another of the areas that was analyzed is the impact of programmes on the development and improvement of attitudes. In the case of attitude and willingness to use the preservative or towards safe sexual practices, it has been noted that when, included in the curricula, these aspects produce an important improvement in those attitudes (Clark et al., 2005; Givaudan & Pick, 2005; Jennings et al., 2014; Scull et al., 2014; Walcott et al., 2011), while works that have evaluated the general attitude towards the human sexual act find a positive increase in these types of attitudes (Carrera et al., 2007; Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008; Taylor et al., 2014). With regard to sexual behaviour, other studies have centred on

analyzing the influences of educational proposals, agreeing that they reduce at-risk sexual practices and increase the use of the preservative (Bourke, Boduszek, Kelleher, McBride, & Morgan, 2014; Kirby, 2011), and even, in some cases, delay the onset of sexual coital activity (Duberstein & Maddow-Zimet, 2012; Kirby, 2011).

Given the relevance of positive attitudes on sexual health and the relevance of the implementation and evaluation of Integral Sexual Education Programmes (Grossman et al., 2014; Jennings et al., 2014; López, 2005; Schmidt et al., 2015; Walcott et al., 2011), the objective of this investigation is to design and to evaluate a Sexual Education programme that targets teenagers in early and mid-adolescence, so as to anticipate the start of their first sexual relations. To do so, the influence of the programme on the level of sexual experience of students and on the attitudes towards sexuality and masturbation are analyzed.

Method

Participants

The sample was composed of 123 adolescents, 55 males (44.72%) and 68 females (55.28%), of between 13 and 17 years old ($M = 14.18$, $SD = .72$), enrolled on the 3rd year of *Educación Secundaria Obligatoria* (ESO) [Compulsory Secondary Education] at

an Institute of Secondary Education in Castilla y León. It is non-probabilistic incidental sample, the fundamental selection criterion of which was attendance at the educational centre. The experimental group was formed of 71 participants ($M = 14.29$ years, $SD = .73$), and the control group of 52 participants ($M = 14.02$, $SD = .67$). The distribution of the sample by gender in the experimental group was homogeneous (36 girls and 35 boys), and the presence of women was greater in the control group (32 girls and 20 boys).

The characteristics of the Institute, of its staff and surrounding, are multiple and plural, as is shown in the Educational Programme of the Centre. The students were divided into five classrooms, and to ensure that the distribution was done in accordance with the interests of the investigation, the coordinating team decided on the classes that would constitute the experimental and the control groups, in line with the requirements of the researchers: (1) the characteristics of the experimental group and the control group should be similar; (2) of the five classes, three should form the experimental group and the two others, the control group. There was therefore greater representation of adolescents in the sample that formed part of the experimental group (57.62%), with respect to their classmates from the control group (42.28%).

Instruments

The instruments used in the pre-test and in the post-test for the evaluation of the sexual education programme consisted of the following scales:

Sociodemographic and family-related questions, as well as questions on the education of participants in the field of sexuality: sex, age, academic year, and the people with whom they were living, information sources, etc.

The levels of sexual experience of Schofield (1965) that directly inquire into this question. It lists five levels of sexual experience: no experience, limited experience (kisses and caresses), sexual relations close to coitus (*petting*), sexual relations of coitus with a single partner, and sexual relations of coitus with more than one partner.

The Attitudes Towards Sexuality Scale (ATSS) of Fisher and Hall (1988) enlarged and validated by Diéguez, López, López, & Sueiro (2001). This is a 5-point Likert-type scale that has 28 items, of which half correspond to the original scale of Fisher and Hall. We would underline that the statement of item 4 was modified and reworded due to problems of homogeneity detected by Diéguez et al. (2005). The enlarged ATSS is ideal because its application is rapid and simple. Its Cronbach's alpha was $\alpha = .76$ for the age-band between 12 and 14

years old, and $\alpha = .65$ for the age-band between 15 and 17 years old (Fisher and Hall, 1988). It presented good reliability in this investigation: in the pre-test, $\alpha = .83$, Composite Reliability (CR) = .86 and the Omega coefficient of McDonald $\Omega = .86$; in the post-test $\alpha = .84$, CR = .88 and $\Omega = .88$. The correction consists in the sum of the values given to each item, so that scores may be obtained that vary between 28 and 140. The highest values indicate a higher degree of liberalism and more positive attitudes.

Negative Attitudes towards Masturbation Inventory (NA-MI) of Abramson and Mosher (1975); a 5-point Likert-type scale formed of 30 items, which evaluate the presence of negative attitudes towards masturbation. Its score is obtained by adding the values given to each item, and varies between 30 and 150 points. A high score on the scale indicates a lack of positive attitudes towards masturbation, a common and more frequent behaviour in adolescence. Abramson and Mosher (1975) obtained an $\alpha = .75$. An excellent reliability was found in this work, and a moderate internal consistency: $\alpha = .87$, CR = .89 and $\Omega = .89$ in the pre-test; and, $\alpha = .92$, CR = .93 y $\Omega = .93$ in the post-test.

Procedure

This study seeks to determine the effects produced by the pro-

posed educational intervention on participants. A quasi-experimental design was proposed with two groups of subjects. The first, the experimental group, formed of the students who had participated in the programme. The second, the control group, consisted of adolescents who had not attended the educational intervention.

Both the information prior to the session and afterwards was collected through the administration of the aforementioned instrument. Its application was done simultaneously and collectively in each of the classrooms, on the same day and at the same time, to avoid the possible influence of some groups on others, and was administered by professionals working in the scientific and educational world who explained the instructions for its completion. Express permission had previously been requested from the Provincial Board of Education.

The SOMOS Sexual Education programme was designed and developed for the 3rd year of ESO, so as to conduct the investigation. This programme, following the recommendations of Kirby (2011), has a twin theoretical-methodological approach, grounded in the paradigm of Integral Sexual Education and a socio-anthropological approach. In terms of the former, the intention was that the students should acquire and develop the skills needed to maintain a healthy lifestyle, overcoming the difficulties of life and responding in an effective and pos-

itive way to the demands of their immediate environment (Cárdenas, 2002). In terms of the second, the multidimensionality of human sexuality is recognized and its social regulation analyzed in a critical way through norms, beliefs, values, stereotypes, etc. (Infante, París, Fernández, & Padrón, 2009). The ultimate objective of SOMOS is that the students achieve an appropriate level of health and personal autonomy; in other words, so that they may be sexually healthy people. To do so, they should assume the freedom and responsibility of their sexuality, as well as having the purpose of reaching the greatest physical, psychological and social wellbeing.

The contents covered in the programme respond to the level of psychosexual development of the students in the 3rd year of ESO described in the Introduction section. Referential Educational Programmes were taken into account for the definition of both the contents and the activities (Barragán, 1999; Gómez-Zapiain et al., 2004; Infante et al., 2009; Lameiras, Rodríguez, Ojea, & Dopereiro, 2004). The eight Didactic Units that constitute the programme respond to the different dimensions of human sexuality, each developed in 12 50-minute sessions: Unit.1 We are sexual beings!; Unit.2 Our body is changing; Unit.3 We have sexual feelings; Unit.4 We have relationships; Unit.5 Our response; Unit.6 We express ourselves; Unit.7 What are the risks?; Unit.8 For our health!

Data analysis

The analysis consisted principally in the comparison of the pre-test measurements before the sessions with those of the post-test, both in the experimental group and in the control group. Depending on the test with the normal distribution, either parametric or non-parametric statistics were used. Following the data collection process, the results were inputted into, codified and analyzed with the statistical software package SPSS version 20.0. For the analysis of liberalism in attitudes towards sexuality and negative attitudes towards masturbation, the *T* test for related samples was applied, controlling effect size with the Cohen's *d* index of effect. In the case of the Level of Sexual Experience, as no normal distribution was found, the Wilcoxon signed-rank test was applied, evaluating the effect size with Hedges' *g*.

Results

At the moment just before the session (Table 1), the adolescents in both the experimental and the control groups shared a similar level for attitudes towards sexuality, finding no significant differences in the scores obtained in the two groups in the pre-test ($p = .82$). After the session (post-test), the level of liberalism in attitudes towards sexuality increased in a significant way ($p = .013$), with a low size ef-

Table 1
Comparison of the Pretest-Posttest Results in the ATSS Scales and NAMI Scales

	Pre-test				Post-test				Pre-test / Post-test				
	M	SD	t	p	d	M	SD	t	p	d	t	p	d
ATSS Attitudes towards Sexuality	104.10	12.11	-2.3	.82	-0.04	106.84	11.98	-2.54	.013*	0.23	-0.69	.492	-0.07
Experimental group (n = 71)	104.64	14.06				105.69	14.814						
Control group (n = 51)													
NAMI Negative attitudes towards Masturbation	75.93	11.39	-5.7	.57	-0.15	71.55	14.08	2.76	.007**	0.34	1.65	.106	0.17
Experimental group (n = 67)	77.33	15.11				74.66	17.90						
Control group (n = 48)													

* $p < .05$. ** $p < .01$.

Table 2
Comparison of the Pretest-Posttest Results on Levels of Sexual Experience of Schofield

	N	Negative ranges		Positive ranges		Ties	Total	z	p	δ
		1 ^a	8.00	18 ^b	10.11					
Experimental group		8.00	8.00	18 ^b	10.11	48 ^c	67	-3.72 ^d	.001**	-.34
Average Range		8.00	8.00	182.00						
Sum of Ranges										
Control group		7.00	7.01	13 ^b	7.54	33 ^c	47	-3.15 ^d	.002**	-.17
Average Range		7.00	7.01	98.00						
Sum of Ranges										

** $p < .01$.

^a Level of sexual experience in the post-test < Level of sexual experience in the pre-test.

^b Level of sexual experience in the post-test > Level of sexual experience in the pre-test.

^c Level of sexual experience in the post-test = Level of sexual experience in the pre-test.

^d Based on the positive ranges.

fect ($d = 0.23$). In the control group, although a slight increase in attitudes towards sexuality took place, it was not of a significant nature ($p = .492$), with a very low size effect ($d = -0.07$).

The impact of the programme on negative attitudes towards masturbation was coincident with the influence that it exercises on attitudes towards sexuality in general. Before the educational session (pre-test), attitudes towards masturbation were similar in both groups ($p = .57$). After participating in the programme, negative attitudes towards masturbation among adolescents from the experimental group fell in a significant way ($p = .007$) with a moderate effect size ($d = 0.34$). In the control group, no significant differences were found ($p = .106$, $d = 0.17$), although a slight fall in negative attitudes towards masturbation was noted.

Another aspect under analysis was the possible influence of the programme on levels of sexual experience of the students. In Table 2, it may be seen how the adolescents from both groups increased their sexual experience in the time that passed between the two measurements (pre-test/post-test). In the case of the experimental group, the increase in sexual experience was significant ($p = .001$) with a moderate effect size ($\delta = -.34$). In the control group, a similar pattern of sexual experience was discovered, the differences between the pre-test and the post-test were significant ($p = .007$), with a low size-effect ($\delta = -.17$).

Discussion

The study reflects the evolution of attitudes towards sexuality and towards masturbation of students participating in the SOMOS Sexual Education Programme, as well as the impact of this programme on adolescent sexual experience.

In relation to the attitudes, the results show how the programme favours their liberalization. The samples under study demonstrated an acceptable level of liberalism in their attitudes prior to the educational sessions, with scores over those obtained in previous investigations. In rural zones of Galicia, for example, Sueiro et al. (2004) found higher levels of conservatism among adolescents of older ages. The same research group (Diéguez et al., 2003) also discovered lower levels of liberalism among adolescents of 16 to 17 years old in Ourense and Pontevedra than those expressed by students who formed part of this study.

Following the application of the SOMOS programme, a significant increase in positive attitudes towards sexuality was observed among the adolescents who attended the educational session, who obtained similar, although lower scores, than those reported by Diéguez et al. (2005) among adolescents of between 17 to 19 years old. Carrera et al. (2007), in their investigation completed to evaluate the efficacy of the Agarimos programme with students of between 11 and 13

years old, obtained similar results, although after the interventions they found slightly more liberal attitudes than those obtained in this study. In any case, the work of Diéguez et al. (2005) showed a tendency moving towards more liberal attitudes as the adolescents grew older, reaching the highest level of erotophilia at around 25 years in age. They therefore considered that the levels of liberalism reached, normal in older adolescents, implied evidence of the positive contribution of the programme.

Attitudes towards masturbation are another of the aspects evaluated, given the high prevalence of this practice among adolescents (Ballesster & Gil, 2006; Diz et al., 2003; Mesa et al., 2004). Before the educational intervention, the participants showed moderately negative attitudes towards masturbation, similar results to those found by Ortega et al. (2005) with adolescents of between 14 and 17 years old among adolescents from Cordoba. Nevertheless, a significant drop in negative attitudes towards masturbation was observed among the students on the SOMOS programme, unlike the classmates who had not followed the programme. The fall is notable, given that the students on the programme expressed more positive attitudes towards this practice than adolescents in previous investigations (Ortega et al., 2005; Sierra et al., 2010). This difference should be underlined, given that the autoerotic behaviour serves to satisfy de-

sire, alleviate sexual tension, know your own body, consume different necessities in fantasy, improve self-esteem, and even overcome other types of situations characterized by stress or anxiety.

The SOMOS programme favours the increase in positive attitudes towards the human sexual act in general, and towards masturbation in particular. Although the sample under study prevents the generalization of this statement, the results obtained in this sense coincide with previous investigations in Spain and abroad (Carrera et al., 2007; Jennings et al., 2014; Taylor et al., 2014). With a sample of adolescents in South Africa, of the same age as in this study, Taylor et al. (2014) found a significant improvement in their attitudes towards sexual health and towards communication. Other recent works (Bourke et al., 2014; Clark et al., 2005; Givaudan & Pick, 2005; Kirby, 2011; Scull et al., 2014; Walcott et al., 2011) coincide in the specific improvement of attitudes linked to willingness, to prevention and to responsible sexual behaviour. In any case, the improvement of attitudes towards sexuality found in this investigation is remarkable, given the relation between the constructs liberalism-conservatism and erotophilia-erotophobia and the effects of erotophilic attitudes on healthy and satisfactory experiences of sexuality (Carrera et al., 2007; Diéguez et al., 2003; Fisher, 2009; Johnson et al., 1999;

Ramos et al., 2003; Santín, Torrico, López, & Revilla, 2003; Sueiro et al., 2004; Zubeidat, Ortega, Del Villar, & Sierra, 2003).

The present work endorses the efficacy of Sexual Education, even though it is limited to twelve sessions and at only one educational centre. In future investigations it would be advisable to begin with a larger sample that will allow the size-effect to be controlled; likewise, it would be useful to conduct the evaluation of the programme in different contexts (larger-sized cities, in rural zones, or in colleges with students in at-risk situations). It is worth asking what the consequences of Sexual Education would be, were it to continue throughout compulsory education. In addition, this and other works (Du-

berstein & Maddow-Zimet, 2012; Givaudan & Pick, 2005) showed that Sexual Education is not a cause of premature coital relations. In this study, the sexual experience of both groups increased with age in a significant way, regardless of having or not having participated in the programme. Duberstein and Maddow-Zimet (2012) even found that Integral Sexual Education, based on educational approaches specific to Health Education led to a delay in the age at which coital sexual relations began and favoured the use of preventive measures. In short, now is the time to generalize programmes and to make the inclusion of Sexual Education effective in the curriculum, basing this education on co-educational and erotophilic proposals.

References

- Abramson, P. R., & Mosher, D. L. (1975). Development of a measure of negative attitudes toward masturbation. *Journal of Consulting and Clinical Psychology, 43*(4), 485-490. doi: 10.1037/h0076830
- Ballester, R., & Gil, M. D. (2006). La sexualidad en niños de 9 a 14 años. *Psicothema, 18*(1), 25-30.
- Barberá, E., & Navarro, E. (2000). La construcción de la sexualidad en la adolescencia. *Revista de Psicología Social, 15*(1), 63-75. doi: 10.1174/021347400760259875
- Barragán, F. (1999). *Programa de educación afectivo sexual. Educación secundaria (vols. I-VI). Materiales Curriculares*. Sevilla: Consejería de Educación.
- Bermúdez, M. P., Castro, A., Madrid, J., & Buela-Casal, G. (2010). Análisis de la conducta sexual de adolescentes autóctonos e inmigrantes latinoamericanos en España. *International Journal of Clinical and Health Psychology, 10*(1), 89-103.
- Bermúdez, M. P., Ramiro-Sánchez, T., & Ramiro, M. T. (2014). Capacidad

- predictiva de la erotofilia y variables sociodemográficas sobre el debut sexual. *Revista Iberoamericana de Psicología y Salud*, 5(1), 55-70.
- Bontempi, J. B., Mugno, R., Bulmer, S. M., Danvers, K., & Vancour, M. L. (2009). Exploring gender differences in the relationship between HIV/STD testing and condom use among undergraduate college students. *American Journal of Health Education*, 40(2), 97-105. doi: 10.1080/19325037.2009.10599084
- Bourke, A., Boduszek, D., Kelleher, C., McBride, O., & Morgan, K. (2014). Sex education, first sex and sexual health outcomes in adulthood: Findings from a nationally representative sexual health survey. *Sex Education*, 14(3), 299-309. doi: 10.1080/14681811.2014.887008
- Bradley-Stevenson, C. (2007). Adolescent sexual health. *Paediatrics and Child Health*, 17(12), 474-479. doi: 10.1016/j.paed.2007.09.008
- Cárdenas, C. (2002). *Promoción y educación para la salud*. Madrid: Cruz Roja Juventud.
- Carrera, M. V., Lameiras, M., Foltz, M. L., Núñez, A. M., & Rodríguez, Y. (2007). Evaluación de un programa de educación sexual con estudiantes de Educación Secundaria Obligatoria. *International Journal of Clinical and Health Psychology*, 7(3), 739-751.
- Casco, F. J., & Oliva, A. (2005). Valores y expectativas sobre la adolescencia: discrepancias entre padres, profesores, mayores y adolescentes. *Infancia y Aprendizaje: Journal for the Study of Education and Development*, 28(2), 209-220.
- Clark, L. F., Miller, K. S., Nagy, S. S., Avery, J., Roth, D. L., Liddon, N., & Mukherjee, S. (2005). Adult identity mentoring: Reducing sexual risk for African-American seventh grade students. *Journal of Adolescent Health*, 37(4), 337.e1-337.e10. doi: 10.1016/j.jadohealth.2004.09.024
- Coleman, J. C., & Hendry, L. B. (2003). *Psicología de la adolescencia*. Madrid: Morata.
- Diéguez, J. L., Diz, M. C., Sueiro, E., & Chas, M. D. (2003). Actitudes hacia la sexualidad de adolescentes que residen en el medio rural gallego (2.ª Parte). *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 66, 56-67.
- Diéguez, J. L., López, A., López, F., & Sueiro, E. (2001). Attitudes toward sexuality. *15th World Congress of Sexology, Abstracts Book* (p. 59). Paris.
- Diéguez, J. L., López, A., Sueiro, E., & López, F. (2005). Propiedades psicométricas de la escala de actitudes hacia la sexualidad (ATSS) ampliada. *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 74, 46-56.
- Diz, M. C., Sueiro, E., Chas, M. D., & Diéguez, J. L. (2003). Comportamientos sexuales de adolescentes del medio rural gallego (3.ª Parte). *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 67/68, 46-60.
- Duberstein, L., & Maddow-Zimet, I. (2012). Consequences of sex education on teen and young adult sexual behaviors and outcomes. *Journal of Adolescent Health*, 51(4), 332-338. doi: 10.1016/j.jadohealth.2011.12.028
- Fisher, T. D. (2009). The impact of socially conveyed norms on the reporting of sexual behavior and attitudes by men and women. *Journal of Experimental Social Psychology*, 45(3), 567-572. doi: 10.1016/j.jesp.2009.02.007
- Fisher, T. D., & Hall, R. G. (1988). A scale for the comparison of the

- sexual attitudes of adolescents and their parents. *The Journal of Sex Research*, 24, 90-100. doi: 10.1080/00224498809551400
- García-Vega, E., Menéndez, E., Fernández, P., & Cuesta, M. (2012). Sexuality, contraception and unsafe sexual behavior in adolescents. *International Journal of Psychological Research*, 5(1), 79-87.
- García-Vega, E., Menéndez, E., Fernández, P., & Rico, R. (2010). Influencia del sexo y del género en el comportamiento sexual de una población adolescente. *Psicothema*, 22(4), 606-612.
- Geer, J. H., & Robertson, G. G. (2005). Implicit attitudes in sexuality: Gender differences. *Archives of Sexual Behavior*, 34(6), 671-677. doi: 10.1007/s10508-005-7923-8
- Givaudan, M., & Pick, S. (2005). Evaluación del programa escolarizado para adolescentes: "Un equipo contra el VIH/SIDA". *Interamerican Journal of Psychology*, 39(3), 339-346.
- Gómez-Zapiain, J. (2005). Aproximación a los comportamientos sexuales y de riesgo en la adolescencia. In A. S. Rathus, J. S. Nevid, & L. Fichner-Rathus (Eds.), *Sexualidad humana* (pp. 289-292). Madrid: Pearson Educación.
- Gómez-Zapiain, J., Del Campo, A., Inza, A., e Ibaceta, P. (2004). *Ente mo-cedá. Programa de educación afectivo-sexual para Asturias*. Oviedo: Consejería de Salud y Servicios Sanitarios, Gobierno del Principado de Asturias.
- Grossman, J. M., Tracy, A. J., Charmaraman, L., Ceder, I., & Erkut, S. (2014). Protective effects of middle school comprehensive sex education with family involvement. *Journal of School Health*, 84(11), 739-747. doi: 10.1111/josh.12199
- Guerrero, M. D., Guerrero, M., García-Jiménez, E., & Moreno, A. (2008). Conocimiento de los adolescentes sobre salud sexual en tres institutos de educación secundaria valencianos. *Revista Pediatría de Atención Primaria*, 10(39), 433-442.
- Heras, D., & Lara, F. (2009). La sexualidad en los primeros años de la adolescencia: Una investigación con chicos y chicas de 2.º y 3.º de ESO. *Sexología Integral*, 6(1), 20-25.
- Hidalgo, I., Garrido, G., & Hernández M. (2000). Health status and risk behavior of adolescents in the north of Madrid, Spain. *Journal of Adolescent Health*, 27(5), 351-360. doi: 10.1016/S1054-139X(00)00100-2
- Infante, A., París, A., Fernández, L., & Padrón, M. M. (2009). *¿Y tú qué sabes de "eso"? Manual de educación sexual para jóvenes*. Málaga: Área de Juventud, Deportes y Formación-Centro de Ediciones de la Diputación de Málaga.
- Jennings, J. M., Howard, S., & Perotte, C. L. (2014). Effects of a school-based sexuality education program on peer educators: The Teen PEP model. *Health Education Research*, 29(2), 319-329. doi: 10.1093/her/cyt153
- Johnson, L. S., Rozmus, C., & Edmison, K. (1999). Adolescent sexuality and sexually transmitted diseases: Attitudes, beliefs, knowledge, and values. *Journal of Pediatric Nursing*, 14(3), 177-185. doi: 10.1016/S0882-5963(99)80006-2
- Kirby, D. (2011). *The impact of sex education on the sexual behaviour of young people*. (Population Division, Expert Paper No. 2011/12). New York: United Nations. Department of Economic and Social Affairs.
- Lameiras, M., Núñez, A. M., Rodríguez, Y., Bretón, J., & Agudelo, D. (2007). Conocimiento y viabilidad de uso del

- preservativo femenino en jóvenes universitarios españoles. *International Journal of Clinical and Health Psychology*, 7(1), 207-216.
- Lameiras, M., Rodríguez, Y., Ojea, M., & Dopereiro, M. (2004). *Programa Agarimos. Programa coeducativo de desarrollo psicoafectivo y sexual*. Madrid: Ediciones Pirámide.
- López, F. (2005). *La educación sexual*. Madrid: Biblioteca Nueva.
- Mesa, M. I., Barella, J. L., & Cobeña, M. (2004). Comportamientos sexuales y uso de preservativos en adolescentes de nuestro entorno. *Atención Primaria*, 33(7), 374-380.
- Navarro-Pertusa, E., Reig-Ferrer, A., Barberá, E., & Ferrer, R. (2006). Grupo de iguales e iniciación sexual adolescente: Diferencias de género. *International Journal of Clinical and Health Psychology*, 6(1), 79-96.
- Nobre, P. J., Wiegel, M., Bach, A. K., Weisberg, R. B., Brown, T. A., Wincze, J. P., y Barlow, D. H. (2004). Determinants of sexual arousal and the accuracy of self-estimation in sexually functional males. *Journal of Sex Research*, 41(4), 363-371. doi: 10.1080/00224490409552243
- Oliva, A., Ríos, M., Antolín, L., Parrá, A., Hernando, Á., & Pertegal, M. Á. (2010). Más allá del déficit: Construyendo un modelo de desarrollo positivo adolescente. *Infancia y Aprendizaje: Journal for the Study of Education and Development*, 33(2), 223-234. doi: 10.1174/021037010791114562
- Ortega, V., Ojeda, P., Sutil, F., & Sierra, J. C. (2005). Culpabilidad sexual en adolescentes: Estudio de algunos factores relacionados. *Anales de Psicología*, 21(2), 268-275.
- Perla, F., Sierra, J. C., Vallejo, P., & Gutiérrez-Quintanilla, R. (2009). Un estudio psicométrico de la versión española reducida del Hurlbert Index of Sexual Fantasy. *Boletín de Psicología*, 96, 7-16.
- Pinkleton, B. E., Austin, E. W., Cohen, M., Chen, Y. C., & Fitzgerald, E. (2008). Effects of a peer-led media literacy curriculum on adolescents' knowledge and attitudes toward sexual behavior and media portrayals of sex. *Health Communication*, 23(5), 462-472. doi: 10.1080/10410230802342135
- Ramos, M., Fuertes, A., Martínez, J. L., & Hernández, A. (2003). Comportamientos y actitudes sexuales de los adolescentes de Castilla y León. *Análisis y Modificación de la Conducta*, 29(124), 213-238.
- Rathus, S. A., Nevid, J. S., & Fichner-Rathus, L. (2005). *Sexualidad humana*. Madrid: Pearson Educación.
- Reis, M., Ramiro, L., Matos, M. G., & Diniz, J. A. (2013). Nationwide survey of contraceptive and sexually transmitted infection knowledge, attitudes and skills of university students in Portugal. *International Journal of Clinical and Health Psychology*, 13(2), 127-137.
- Reis, M., Ramiro, L., Matos, M. G., Diniz, J. A., & Simões, C. (2011). Information and attitudes about HIV/AIDS in Portuguese adolescents: State of art and changes in a four-year period. *Psicothema*, 23, 260-266.
- Rye, B. J., Meaney, G. J., Yessis, J., & McKay, A. (2012). Uses of the "Comfort with Sexual Matters for Young Adolescents" scale: A measure of erotophobia-erotophilia for youth. *The Canadian Journal of Human Sexuality*, 21(2), 91-100.
- Santín, C., Torrico, E., López, M. J., & Revilla, C. (2003). Conocimiento y

- utilización de los métodos anticonceptivos y su relación con la prevención de enfermedades de transmisión sexual en jóvenes. *Anales de Psicología*, 19(1), 81-90.
- Sanders, S. A., Graham, C. A., Yarber, W. L., Crosby, R. A., Dodge, B., & Milhausen, R. R. (2006). Women who put condoms on male partners: Correlates of condom application. *American Journal of Health Behavior*, 30(5), 460-466. doi: 10.5993/AJHB.30.5.2
- Sierra, J. C., Perla, F., & Gutiérrez-Quintanilla, R. (2010). Actitud hacia la masturbación en adolescentes: propiedades psicométricas de la versión española del Attitudes Toward Masturbation Inventory. *Universitas Psychologica*, 9(2), 531-542.
- Sierra, J. C., Perla, F., & Santos-Iglesias, P. (2011). Culpabilidad sexual en jóvenes: Influencia de las actitudes y la experiencia sexual. *Revista Latinoamericana de Psicología*, 43(1), 73-81.
- Schmidt, S. C., Wandersman, A., & Hills, K. J. (2015). Evidence-based sexuality education programs in schools: Do they align with the national sexuality education standards? *American Journal of Sexuality Education*, 10(2), 177-195. doi: 10.1080/15546128.2015.1025937
- Schofield, M. (1965). *The sexual behaviour of young people*. London: Longman.
- Scull, T. M., Malik, C. V., & Kupersmidt, J. B. (2014). A media literacy education approach to teaching adolescents comprehensive sexual health education. *Journal of Media Literacy Education*, 6(1), 1-14.
- Sueiro, E., Diéguez, J. L., Chas, M. D., & Diz, M. C. (2004). Primeras fuentes de información, conocimientos, actitudes y prácticas sexuales. Su interrelación. *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 69/70, 95-114.
- Taylor, M., Jinabhai, C., Dlamini, S., Sathiparsad, R., Eggers, M. S., & De Vries, H. (2014). Effects of a teenage pregnancy prevention program in KwaZulu-Natal, South Africa. *Health Care for Women International*, 35(7-9), 845-858. doi: 10.1080/07399332.2014.910216
- Tracy, J. L., Shaver, P. R., Albino, A. W., & Cooper, M. L. (2003). Attachment styles and adolescent sexuality. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 137-159). Mahwah, NJ: Lawrence Erlbaum Associates.
- Trudel, G. (2002). Sexuality and marital life: Results of a survey. *Journal of Sex & Marital Therapy*, 28(3), 229-249. doi: 10.1080/009262302760328271
- Varela, M., & Paz, J. (2007). Resultados de una encuesta sobre educación sexual y hábitos sexuales de los gallegos. *Revista Internacional de Andrología*, 5(2), 161-166. doi: 10.1016/S1698-031X(07)74049-9
- Walcott, C. M., Chenneville, T., & Tarquini, S. (2011). Relationship between recall of sex education and college students' sexual attitudes and behavior. *Psychology in the Schools*, 48(8), 828-842. doi: 10.1002/pits.20592
- Zubeidat, I., Ortega, V., Del Villar, C., & Sierra, J. C. (2003). Un estudio sobre la implicación de las actitudes y fantasías sexuales en el deseo sexual de los adolescentes. *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 67/68, 71-78.

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