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Parental knowledge and adolescents' risk behaviors

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ABSTRACT

In this paper we study whether parental knowledge of adolescents' activities varies according to socio-demographic variables, and we analyze the possible association between parental knowledge patterns and certain risk behaviors among adolescents. A cross-sectional study was performed with representative samples of high-school students in Peru and El Salvador. A questionnaire assessed risk behaviors, as well as possible determinants, including parental knowledge. The questionnaire was answered by 6208 adolescents. We observed that the greater the degree of knowledge, the lower the frequency of risk behaviors among youth. The degree of knowledge was inversely associated with children's age, and we observed that being female was associated with a greater degree of parental knowledge. The study shows that parents' supervision criteria might be influenced by gender stereotypes, which would have a harmful effect on young males, as the lower degree of knowledge puts them at higher odds of risk behaviors.

1. Introduction

Adolescence is a stage where young people shape their behavior in accordance with their lifestyle. For years the lifestyle of adolescents and the risk behaviors they engage in at this stage (such as substance use or risky sexual behaviors) have been studied because of their potentially harmful health effects (Andrés Villas, Remesal Cobreros, Torrico Linares, & Salazar Torres, 2013; Costa Cabanillas & Lopez Mendez, 2008; Osorio, Lopez-del Burgo, Carlos, Ruiz-Canela, & de Irala, 2012).

Among the approaches to the study of family education, one of the relevant variables is parental knowledge: how much parents know about what their children do in their free time. Several studies have found that parental knowledge is a protective factor for children. Specifically, it has been found that children who are supervised by their parents engage less in

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crime (Kerr, Stattin, & Burk, 2010) and are not as likely to use alcohol (Arria et al., 2008), tobacco (Guo, Reeder, McGee, & Darling, 2011) and drugs (Jiménez-Iglesias, Moreno, Rivera, & García-Moya, 2013).

Parental knowledge and its association with other variables (both predictors and outcomes) have been abundantly analyzed (Barber, Stolz, Olsen, Collins, & Burchinal, 2005) in North America (Arria et al., 2008; Barton & Schwebel, 2007; Magoon & Ingersoll, 2006; O'Donnell et al., 2008) and Europe (Escribano, Aniorte, & Orgilés, 2013; Kerr et al., 2010; Martínez Álvarez, Fuertes Martín, Ramos Vergeles, & Hernández Martín, 2003), and to some extent in Asia (Goh et al., 2016; Hasumi, Ahsan, Couper, Aguayo, & Jacobsen, 2012; Wang, Kim, Anderson, Chen, & Yan, 2012) and Africa (Bean, Barber, & Crane, 2006). In Latin America, though there are some studies (Cumsille, Darling, & Martínez, 2010; Gutiérrez, Contreras, Trujillo, Haro, & Ramos-Castillo, 2009; Malta, Mascarenhas, Porto, Barreto, & Neto, 2014), more research is necessary. Our aim is to study this issue in two developing countries in Central America (El Salvador) and South America (Peru).

In particular, the specific objectives of this study are:

1. To examine whether parental knowledge differs depending on the sex of the children, their age and other socio-demographic variables.
2. To confirm whether parental knowledge is associated with adolescents' risk behaviors such as the use of tobacco, alcohol or drugs and early sexual relations.

2. Method

This work is part of an international study (Project YourLife) about what teens think and feel about love and sexuality (Carlos et al., 2016; de Irala, Osorio, Carlos, Ruiz-Canela, & López-del Burgo, 2011; de Irala et al., 2009; Osorio et al., 2012). Methods are detailed in the Supplementary material.

2.1. Sample

This study was carried out with representative samples of young students from El Salvador and Peru. A questionnaire was administered to 13-to-18-year-old students from 30 (El Salvador) and 62 (Peru) randomly selected public and private schools.

2.2. Instrument

The questionnaire included questions about lifestyle, opinions and attitudes about sexuality and affectivity and the socio-demographic characteristics of the adolescents. The questionnaire was administered on paper and read with optical reading devices.

The main question for this article (parental knowledge) was formulated as follows: “Do your parents, or the persons responsible for you, know where you go or what you do in your free time (alone or with a group)?” The question had 5 possible answers (from 1 = never to 5 = always).

Regarding risk behaviors the substance use question was: “Indicate how often the following situations apply to your life.” Then adolescents responded to each of the following behaviors: “I smoke cigarettes”, “I consume alcoholic beverages” and “I use drugs (marijuana, hashish, etc.)”. The responses ranged from 1 = never to 5 = always. The sexual relations question was: “Have you ever had sex?” A note clarified, “Remember that by 'sex' we mean 'complete sexual intercourse'”.

2.3. Procedure

Before administering the questionnaire to students, consent was obtained through the schools. Survey administrators traveled to each school to administer the questionnaire during school hours. Students were informed that the questionnaire was voluntary and anonymous. It was stressed that they were not obliged to participate, and that they did not have to respond to any question they did not want to answer.

2.4. Data analyses

Bivariate associations were evaluated using Student's t-tests and ANOVAs. Multivariate analyses were performed with multiple lineal or logistic regressions. Stata statistical software (version 12) was used in all analyses.

3. Results

The study sample included 6053 adolescents (2664 Salvadorans and 3389 Peruvians). Table 1 shows the summary of the main socio-demographic variables.

Table 1
Socio-demographic characteristics of the participants.

Characteristics	El Salvador (N = 2664)	Peru (N = 3389)	Total (N = 6053)
Age (years) (range: 13–18)			
Mean	15.2	15.2	15.2
Standard deviation	1.6	1.1	1.3
Sex (%)			
Women	43.4	54.6	49.7
Type of school (%)			
Public	61.5	46.1	52.9
Religion (%)			
Catholic	52.4	72.5	63.9
Protestant	29.9	11.4	19.3
Other[a]	4.5	5.8	5.3
No religion	13.2	10.3	11.6
Total	100.0	100.0	100.0
Socioeconomic level (%)			
Low	15.7	12.1	13.6
Middle	68.2	73.5	71.2
High	16.1	14.5	15.2
Total	100.0	100.0	100.0
Parental knowledge (%)[b]			
Never	5.4	3.7	4.5
Almost never	9.2	5.3	7.0
Sometimes	20.8	23.5	22.3
Almost always	24.4	25.8	25.2
Always	40.3	41.7	41.1
Total	100.0	100.0	100.0

[a] Other religions include Jehovah's Witnesses, Mormons, Jews, Muslims and other religions that vary between the two countries.
[b] "Do your parents, or the persons responsible for you, know where you go or what you do in your free time?"

The degree of parental knowledge varied with some socio-demographic variables (Table 2). In both countries, being younger, being female and having a high religiosity were associated with increased parental knowledge levels.

In terms of the risk behaviors under study, the percentage of teens who said they had used substances at least once (from "almost never" to "always") was 23% for tobacco, 29% for alcohol, and 8% for drugs. On the other hand, 20% of adolescents (23% of the Salvadorans and 17% of the Peruvians) said they had had sex.

Higher degrees of parental knowledge were associated to lower frequencies of each of these behaviors (Fig. 1). Furthermore, the association between knowledge and risk behaviors remained even after adjusting for several potential confounding variables (Table 3).

Interactions (data not shown) showed that, for all risk behaviors, parental knowledge was more protective ($p < 0.05$) among Salvadorans than among Peruvians. Besides, for all risk behaviors except for alcohol use, parental knowledge was more protective among younger adolescents. Only for sexual relations, parental knowledge was more protective among females than among males.

4. Discussion

With regard to the first objective of the study, we found that being younger, being female and having a high degree of religiosity were associated with greater parental knowledge. These data are consistent with other studies, for example, with those that show greater parental knowledge regarding daughters' activities (Dishion & McMahon, 1998; Parra Jiménez, 2008; Parra & Oliva, 2006).

In terms of the second objective, we have observed that in these countries there is an association between parental knowledge and risk behaviors (substance use and sexual relations), which had been found previously by studies in other cultural environments (Arria et al., 2008; Ashery, Robertson, & Kumpfer, 1998; Guo et al., 2011). Moreover, being male is associated with a higher prevalence of engagement in risk behaviors, regardless of parental knowledge. This suggests that being male is associated directly and indirectly with risk behaviors: males engage in more risk behaviors than females (direct association) and they are less supervised, which could increase the risk of continuing and/or worsening such behavior (indirect association).

Since male adolescents engage in risk behaviors more often, it might be expected that parents would try to know more (or at least the same) about what their sons are doing. The results of our study, however, show that male adolescents report a lower degree of parental knowledge. This could be due to different reasons, but a plausible one is that parents monitor their daughters more than their sons (Berkien, Louwerse, Verhulst, & van der Ende, 2012; Parra & Oliva, 2006). In other words, this phenomenon could be due to a gender stereotype held by parents. In any case the result is that boys could end up being more unprotected than girls from risky behaviors. It would be interesting to carry out studies that clarify why parents know less about what their sons are doing.

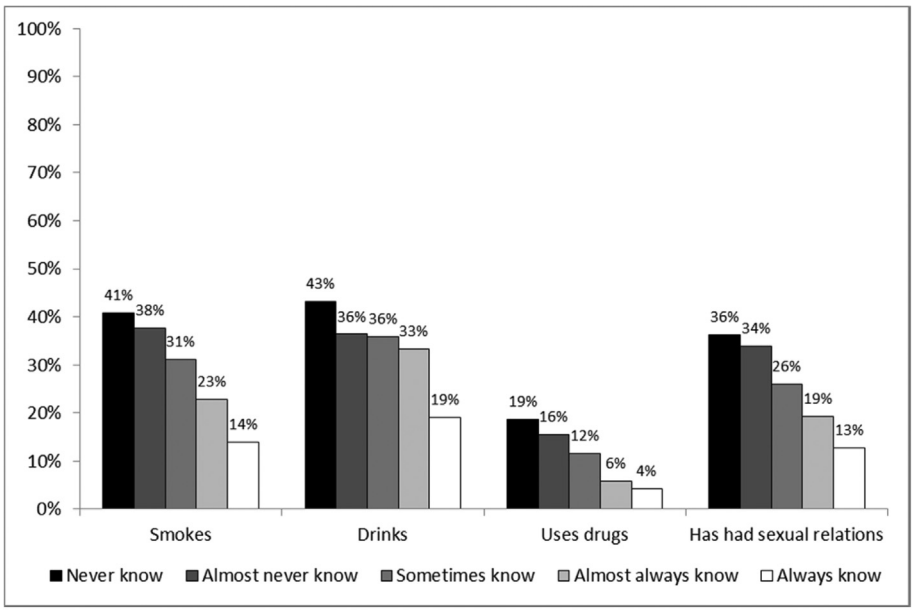
Table 2
Variables associated with parental knowledge.

	El Salvador			Peru		
	Parental knowledge (mean)[a]	p[b]	B (95% CI)[c]	Parental knowledge (mean)[a]	p[b]	B (95% CI)[c]
Age (years)						
13–15	3.89	0.036	(ref)	4.00	0.012	(ref)
16–18	3.79		−0.10 (−0.20 to −0.01)	3.91		−0.06 (−0.14 to 0.01)
Sex						
Male	3.72	<0.001	(ref)	3.80	<0.001	(ref)
Female	4.01		0.26 (0.16–0.36)	4.10		0.27 (0.20–0.35)
Type of school						
Public	3.88	0.119	(ref)	3.81	<0.001	(ref)
Private	3.80		−0.05 (−0.15 to 0.05)	4.10		0.26 (0.19–0.34)
Religiosity						
None/low	3.67	<0.001	(ref)	3.87	<0.001	(ref)
High	4.04		0.33 (0.24–0.42)	4.23		0.33 (0.25–0.41)
Socioeconomic level						
Low	3.81	0.408	(ref)	3.75	<0.001	(ref)
Middle	3.89		0.07 (−0.06 to 0.21)	4.00		0.15 (0.03–0.26)
High	3.85		0.05 (−0.12 to 0.22)	3.99		0.12 (−0.03 to 0.26)

ref = reference.
[a] Scale: 1–5.
[b] P-value of ANOVAs (socioeconomic level) and of Student's t-tests (the remaining variables in the left column).
[c] Linear regression B coefficients (and 95% confidence intervals) of parental knowledge, adjusted for all the variables in the first column.

The main limitation of this study is due to its transversal nature, which does not necessarily establish the causal direction of the associations between variables. It is possible that those behaviors bring those children to communicate less, and this would lead parents to know less (Stattin & Kerr, 2000). It takes therefore longitudinal studies, and with different measurements of supervision, to understand these phenomena more deeply.

Despite this limitation, this study suggests that the role of parental knowledge in El Salvador and Peru could be similar to that found in other countries (Arria et al., 2008; Guo et al., 2011; Jiménez-Iglesias et al., 2013; Moreno, Ramos, Rivera, Jiménez-Iglesias, & Garcia-Moya, 2012). In particular, having large and representative samples and adjusting for various confounders, it was found that parental knowledge was associated with a lower prevalence of risk behaviors. The proven benefit of knowing how adolescents are spending their free time should be taken into account.



* Parental knowledge is measured as the extent to which parents know where their children go or what they do in their free time.

Fig. 1. Percentage of young people engaging in certain risk behaviors, depending on the degree of parental knowledge *.

Table 3
Variables associated with risk behaviors.

	Tobacco OR (95% CI)[a]	Alcohol OR (95% CI)[a]	Drugs[b] OR (95% CI)[a]	Sexual relations OR (95% CI)[a]
Parental knowledge	0.69 (0.65–0.73)	0.75 (0.71–0.79)	0.69 (0.63–0.74)	0.72 (0.68–0.77)
Age (years)	1.27 (1.21–1.34)	1.38 (1.31–1.45)	1.12 (1.03–1.21)	1.58 (1.50–1.67)
Sex				
Male	(ref.)	(ref.)	(ref.)	(ref.)
Female	0.44 (0.38–0.51)	0.57 (0.50–0.65)	0.32 (0.26–0.41)	0.36 (0.31–0.41)
Type of school				
Public	(ref.)	(ref.)	(ref.)	(ref.)
Private	1.63 (1.41–1.87)	2.41 (2.11–2.75)	0.82 (0.66–1.02)	0.90 (0.77–1.04)
Religiosity				
None/low	(ref.)	(ref.)	(ref.)	(ref.)
High	0.46 (0.40–0.54)	0.53 (0.46–0.60)	0.44 (0.34–0.57)	0.70 (0.60–0.81)
Socioeconomic level				
Low	(ref.)	(ref.)	(ref.)	(ref.)
Middle	1.09 (0.88–1.35)	1.39 (1.13–1.70)	0.80 (0.60–1.07)	1.00 (0.81–1.23)
High	1.60 (1.24–2.07)	2.04 (1.59–2.61)	1.28 (0.89–1.83)	1.82 (1.41–2.35)

ref = reference.
[a] Odds ratios (and 95% confidence intervals) of each risk behavior, adjusted for all variables in the first column.
[b] Marijuana, hashish, etc.

Besides, the main contribution of this paper is the finding that, despite boys being at higher risk than girls, they are supervised less. The possible harmful effect for them should be considered by parents and educators.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.adolescence.2016.10.010.

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