

Factors Contributing to Mother–Daughter Talk about Sexual Health Education in an Iranian Urban Adolescent Population

Abstract

Background: Parent–adolescent dialog on sexual issues reduces high-risk sexual behavior in adolescents. However, many adolescents are deprived of such training. Several factors may affect the sexual dialog between parents and adolescents. This study aimed to investigate the factors associated with mother–adolescent daughter dialog on sexual health matters in Iran. **Materials and Methods:** This cross-sectional study was carried out on 363 female adolescents aged 14–18 years in Ahvaz-Iran, between June 2015 and January 2016. Data collection was conducted utilizing multi-stage cluster sampling in high schools using the Parent–adolescent sexual dialog questionnaire and the parent–adolescent general dialogue questionnaire. The validity of the questionnaires was confirmed using content and face validity and their reliability was confirmed through internal consistency. The data were analyzed using descriptive statistics, Pearson’s correlation coefficient, independent one-sample and two-sample *t*-tests, one-way ANOVA, and Post-HOC (Duncan) test. **Results:** The mean score of mother–daughter sexual dialog had a significant relationship with mother’s education ($F = 4.03, p > 0.003$), adolescent’s major ($F = 4.48, p < 0.004$), mother–daughter general communication ($p < 0.001$), and emotional relationship with parents ($F = 6.47, p < 0.002$). The more is the mother–daughter general communication, the more will be their sexual communication ($p < 0.001$). There was no relationship between the score of mother–daughter sexual communication and the age of mother or adolescent, parents’ job, parents’ marital status, and having sisters ($p = 0.86$). **Conclusions:** Some demographic characteristics of parents and adolescents, and the parent–adolescent emotional relationship can affect the communication between them about sexual issues. So efforts to enhance this communication should consider these factors as mediator variables.

Keywords: Adolescent, communication, Iran, parent–child relations, sexual health

Introduction

Most of adolescents in the developing countries have no access to sexual education. Sexual education is a process through which people acquire the necessary knowledge and information about sexual issues and form their beliefs, attitudes and values.^[1] A major part of the burden of diseases and premature death among adults is related to the behaviors that have begun during adolescents including high-risk sexual behaviors.^[2] In Iran, like other countries, a number of teenagers begin sexual activity in adolescents.^[3] It has been reported that about 20% of Iranian adolescents are sexually active.^[4] However, most teens acquire sexual information from peers or the media, which may be inaccurate and cause unprotected early

sexual activity.^[5,6] Parents can act as primary sexuality educators of their children if they are trained.^[7,8] Many parents and children would prefer that their sexuality educators be parents. Nevertheless, most studies show that sexual talking between parents and children is low. Despite the desire of mothers to impart sexual education to their children, they consider it shameful and taboo culturally, and refrain from referring to sexual relations in their talk with their children. Children also refuse to talk with their mothers about private matters.^[9] In a study in Singapore, more than 80% of parents said they talk with their adolescent children about abstinence or use of condoms and the consequences of premarital sex, but less than 60% of them were comfortable in communicating with their children about sex.^[10]

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How to cite this article: Torke Harchegani M, Dastoorpoor M, Javadnoori M, Shiralinia K. Factors contributing to mother–daughter talk about sexual health education in an Iranian Urban adolescent population. *Iran J Nurs Midwifery Res* 2021;26:223-9.

Submitted: 28-May-2019. **Revised:** 18-Sep-2019.

Accepted: 07-Dec-2020. **Published:** 17-May-2021.

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Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.IJNMR_86_19

Quick Response Code:



Whereas parent–adolescent communication about sexuality is low to medium level,^[11] it has a significant impact on the adolescents' sexual behaviors.^[12] The quality of parent–adolescent conversation on both general and sexual issues has a significant correlation with the adolescents' high-risk behaviors and sexual health.^[13] Parent–adolescent talk about sexuality reduces not only high-risk sexual behavior in adolescents,^[14,15] but also the probability of their sexual conduct. It has been revealed mother–adolescent communication about beliefs and values would delay sexual relationship in adolescents.^[16] Factors influencing parent–adolescent talking about sexuality have been investigated in several studies, e.g., on adolescents and parents' gender, positive beliefs about sexual communication, and adolescents' perception of maternal sexual knowledge. The quality of talking on general issues between parents and adolescents is also an important factor in starting a talking about sexual matters between parents and adolescents.^[17] The same-gender parent usually develops communication with children on sexual issues in the family.^[18] However, some studies show that both girls and boys communicate with their mother more than with their father on sexual issues and girls talk to their parents more than boys do. Meanwhile, the communication between mothers and adolescents on sexuality is particularly important. Mothers themselves are more likely to talk with their daughters than with their sons.^[15] Research findings suggest that the demographic characteristics of parents and children such as parents' education, having an older sister and the adolescents' age influence their communication on sexual issues.^[15,19-21]

The most important reasons for the lack of parent–adolescent sexual communication are the adolescents' distrust of their parents due to the fear of being reprimanded, inadequate sexual knowledge of parents, and cultural taboos.^[18] Cultural taboos are important inhibiting factors in this regard.^[11] In Iran, one of the main reasons for the lack of sexual talking between parents and adolescents is the concern about the negative effects of talking on sexuality, intergeneration gap, shame and embarrassment.^[22] From the view point of some Iranian parents, the appropriate time to educate children about most of sexual matters is marriage.^[23] The first source in Iranian adolescents for getting sexual information is friends, whereas parents are just in the sixth rank.^[4] There is no enough information about Iranian Mother–Daughter Communication about Sexuality (MDCS) and related factors. Since MDCS is associated to social context, it is necessary to investigate this issue in this context. This study assesses the factors associated with communication between mothers and daughters on sexual issues in a sample of Iranian adolescents

Materials and Methods

The present cross-sectional study was conducted on 363 high school female students aged 14-18 years in

Ahvaz-Iran between June 2015 and January 2016. The students were selected through multi-stage sampling. Among the eight geographical districts, three were selected to be representative for various socio-economic statuses. Two schools in each district, two-six classes in each school (various in terms of major and grade, as well as the principals' agreement), and 10 to 20 students in each class were selected through convenience method. The students' majors were general (first year), followed by experimental, mathematics, or human sciences (grades two and three). The inclusion criteria consisted of female adolescents studying at high school, aged 14-18 years, and living with family. The exclusion criteria were maternal death or divorce, and living with step-mother.

Data for MDCS were collected utilizing a questionnaire based on a part of the Parent–Adolescent Sexual Communication Questionnaire (PASCQ), developed by Jaccard.^[24] The validity of the questionnaire was evaluated by 10 faculty members (PhD in reproductive health or psychology). This questionnaire consists of 16 items, which are assessed by the 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). The interpretation of its score is reversed. Thus, the higher is the questionnaire's score is, the less the MDCS. Content validity of the questionnaire was evaluated by calculating the Content Validity Ratio (CVR) and Content Validity Index (CVI) for each item. According to Lawshe table,^[25] the lowest accepted value of CVR is 0.62. Items with CVI equal to 0.8 or more were considered as valid. Items with CVI = 0.70-0.79 were considered as cases for decision according to the authors, judgment after negotiation with appraisers. Items with CVI less than 0.70 were omitted. All the other items remained as necessary and valid. Cronbach's alpha coefficient was calculated to be 0.82. For general talking, mother–daughter general communication scale was developed based on part of the parent–adolescent communication questionnaire.^[26] Its validity and reliability were evaluated by 10 faculty members of Ahwaz University of Medical Sciences (reproductive health specialists) and approved by the Cronbach's alpha coefficient of 72. The final questionnaire consisted of 16 questions that were encoded as 5-point Likert scale. A higher score indicates higher parent–adolescent communication.

Sampling size was determined according to the correlation rule. Ten samples were considered for each question. Considering 32 questions (each questionnaire consisted of 16 questions), and estimating 15% drop in the samples, totally, 368 (320 + 48) students were recruited. Five questionnaires were excluded because of incomplete filling, and analysis was done on 363 questionnaires. Emotional relationship between adolescents and mother/father was assessed by asking them “Which one of your parents has better emotional connection with you? After providing explanations on how to fill in the questionnaire, the self-administered questionnaires were distributed

among the students and collected after 20 minutes. Data analysis was performed using the SPSS software, version, 14 (SPSS Inc). The statistical tests included Pearson's correlation coefficient, independent one-sample T-test) for comparison of the students' mean score and the theoretical mean score of sexual and general communication), and two-sample T-test (to compare the mean score of mother-daughter sexual communication with two qualitative variables, including mother's job, and having older sister), one-way ANOVA (to compare the mean score of mother-daughter sexual communication with multivariate qualitative variables, including mother's education and father's education), post-hoc pairwise comparisons (Duncan test), and multiple linear regression (Backward method). Significant level was considered as $p < 0.05$.

Ethical considerations

The study objectives were described for the parents through home-school WhatsApp groups. All the students were recruited after getting their written informed consent. There was no restriction for leaving the study. The questionnaires were anonymous and all the adolescents were assured that their information would be kept confidential. The study protocol was confirmed at the Ethics Committee of Ahvaz Jundishapur University of Medical Sciences (Ethics code: AJUMS. REC.1393.307).

Results

Demographic information of the participating adolescents and their parents is shown in Table 1. The mean (SD) age of the adolescents, mothers and fathers was 16.10(1.10), 40.50(5.20), 46.4(5.50) years, respectively. One-sample t-test results showed that the mean (SD) score of sexual communication was 2.32(0.61), which was significantly lower than the theoretical mean score 3 ($p < 0.001$). Considering the diverse interpretation of the questionnaire scores, the mean of MDCS was better than average. However, the mean (SD) score of general communication was 3.54(0.42), which was significantly more than the theoretical mean score of 3 ($p < 0.001$). So the participants were in a good situation for this dimension.

As shown in Table 2, among the demographic characteristics, there was a significant relationship between MDCS and mother education ($F = 4.03$, $p < 0.003$), adolescent major ($F = 4.47$, $p < 0.004$) and emotional relationship with parents ($F = 6.470$, $p < 0.002$). Post-hoc pairwise comparisons showed that the mothers with academic education had more sexual communication with their daughters than the mothers with elementary education ($p < 0.001$). Moreover, the girls with humanities major had less MDCS than those who had studied experimental sciences ($p < 0.011$) and math ($p < 0.002$).

Pearson's correlation coefficient showed that there was no relationship between the MDCS and mother's

Table 1: Demographic characteristics of participants

Variable		n (%)
Father's education level	Illiterate	16 (4.40)
	Elementary school	20 (5.50)
	Guidance school	49 (13.50)
	High school	130 (35.80)
	Academic	148 (40.80)
	Sum	363
Mother's education level	Illiterate	11 (3.00)
	Elementary school	60 (16.50)
	Guidance school	69 (19.00)
	High School	130 (35.90)
	Academic	93 (25.60)
	Sum	363
Adolescent's field of study	General	100 (27.50)
	Experimental sciences	88 (24.20)
	Math	88 (24.20)
	Human sciences	87 (24.00)
	Sum	363
	Adolescent's grade	First
Second		131 (36.00)
Third		132 (36.00)
Sum		363
Mother's job		Housewife
	Employed	205 (56.86)
	Sum	363
Having older sister	Yes	250 (68.90)
	No	113 (31.10)
	Sum	363
Marital status of parent	Mother and father living together	334 (92.00)
	Divorced	19 (5.20)
	Death of father	10 (2.80)
	Sum	363
	Good emotional relationship with parent	Mother
Father		26 (7.20)
Both		118 (32.50)
Sum		363

age ($r = 0.03$, $p = 0.55$), father's age ($r = 0.09$, $p = 0.87$), and adolescent's age ($r = 0.03$, $P = 0.950$). Girls who had a good relationship with both of their parents had a better sexual communication with their mothers than those who had emotional relationship with just their mothers ($p < 0.013$) or fathers ($p < 0.004$).

Multiple linear regression model (backward method) showed that father's age, mother's education level (primary vs. high school), major of adolescents (human sciences vs. general), and attachment (both parents vs. only mother) had significant correlations with MDCS. Since these variables increase the mean of sexual communication score, they decrease the sexual communication considering adverse interpretation [Table 3].

There was a significant negative correlation between the scores of mother-daughter general communication and sexual communication ($r = 0.57$, $p < 0.001$). According

Table 2: Evaluation of the relationship between demographic variables and mother–daughter sexual communication

Variable		Mean (SD)* of sexual talk score	Min score	Max score	t/F	p
Father’s education level	Illiterate	38.90 (10.00)	19	56	1.01**	0.41*
	Elementary School	40.00 (10.50)	23	60		
	Guidance School	38.10 (8.40)	18	58		
	High school	36.30 (9.30)	16	67		
	Academic	36.80 (10.30)	16	71		
Mother’s education level	Illiterate	32.70 (11.00)	16	55	4.03**	0.003****
	Elementary School	40.70 (8.70)	23	60		
	Guidance School	38.00 (8.50)	22	55		
	High school	36.80 (10.60)	18	71		
	Academic	35.00 (9.20)	16	63		
Major of adolescents	General	37.00 (9.80)	18	71	4.48**	0.004****
	Experimental sciences	35.90 (9.10)	19	67		
	Math	35.20 (9.10)	16	55		
	Human sciences	40.10 (10.30)	16	65		
Adolescents grade	First	37.00 (9.80)	18	71	0.28**	0.76*
	Second	37.50 (9.80)	16	58		
	Third	36.60 (9.60)	19	67		
Mother’s job	Housewife	37.60 (9.40)	16	65	0.91****	0.363**
	Employed	36.60 (10.00)	18	71		
Having older Sister	Yes	37.10 (9.90)	16	71	0.03***	0.86**
	No	36.90 (9.50)	16	65		
Marital status of parents	Mother and father living together	37.00 (9.60)	16	71	0.65**	0.522*
	Divorced	38.90 (11.90)	22	63		
	Death of father	34.70 (9.30)	24	55		
Emotional relationship with parent	Mother	37.80 (10.00)	16	71	6.47**	0.002****
	Father	41.30 (10.30)	19	58		
	Both	34.80 (8.50)	20	60		

*Standard Deviation, **F-distribution from one-way ANOVA, ***t-statistic from two-sample t-test, ****p value is significant

Table 3: Relationship between demographic variables and sexual talk

Variables in the final model	B	SE*	95% Confidence Interval for B		Beta	t	p**
Intercept	27.10	4.16	18.92	35.28		6.52	<0.001***
Father’s age	0.22	0.09	0.04	0.40	0.12	2.47	0.014***
Mother’s education level: High school (base group)	1.00	---	---	---	---
Elementary School	3.30	1.36	0.62	5.98	0.13	2.42	0.02***
Academic	-2.05	1.16	-4.34	0.23	-0.09	-1.77	0.078
Adolescent’s major: General (base group)	1.00	---	---	---	---
Math	-2.01	1.21	-4.39	0.37	-0.09	-1.66	0.1
Human sciences	3.37	1.21	1.00	5.75	0.15	2.79	0.01***
Emotional relationship with: Mother (base group)	1.00	---	---	---	---
Father	3.32	1.92	-0.46	7.10	0.09	1.73	0.09
Both	-2.56	1.07	-4.66	-0.46	-0.12	-2.40	0.02***

*Standard Error, **p value from multiple linert regression (Backward,method), ***p value is significant

to the reverse interpretation of the score of MDCS questionnaire, the higher is the level of mother–daughter general communication, the more will be the level of their sexual communication, and vice versa. Figure 1 illustrates this relationship.

Discussion

There are several studies that assessed factors contributing to parent–adolescent sexual communication in different

cultures; however, it was necessary to investigate this issue in Iranian families because it is largely dependent on the cultural context. This study aimed to investigate the factors associated with mother–adolescent daughter dialog on sexual health matters in Iran. The findings showed that the MDCS had a significant relationship with mother’s education, adolescent’s major, mother–daughter general communication, and adolescent’s emotional relationship with parents. The MDCS shows a nearly average level,

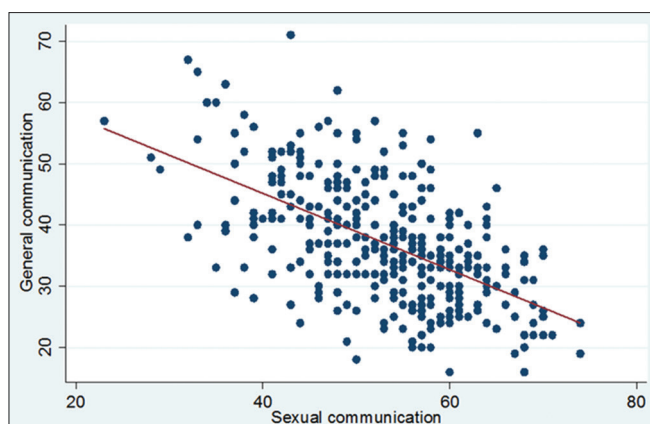


Figure 1: Correlation between the score of sexual talk and the score of general talk

though not favorable. The previous evidence from Iran indicates a low level of parents' involvement in sexual education.^[3,22] However, social changes including broad access to media,^[22] a dramatic increase of pre-marital sex among young people,^[4] and the spread of Acquired immunodeficiency syndrome (AIDS)^[27] might have probably improved the parents' awareness and have made them better understand the necessity of imparting sexual education to their children. Similarly, reports from other countries suggest that mother-daughter talking on sexuality is not favorable in those communities too (e.g., 37% in South Africa,^[20] 41% in the Maryland, USA,^[28] 22% in China^[17] and 36.9% in Ethiopia).^[29] Nevertheless, some studies mention relatively good parents adolescent communication on sexuality. In a study in the Netherlands, 75% of the parent talked with their adolescents several times about one of the sexual matters (anatomy, sexual relationship, sexual freedom, ways to prevent sexually transmitted diseases, and methods of contraception).^[30] A study in Nigeria reported that 80% of students talked with their parents about HIV and AIDS.^[31]

In the present research, there was a significant relationship between MDCS and good relationship with parents so that the girls who had a good emotional relationship with both parents, in comparison with those who had a good relationship with only mother or father, had better communication with their mothers on sexuality. This finding can reflect the effect of enforcement of family solidarity on sexual communication. In another study conducted in Iran, there was a significant positive relationship between mother-daughter attachment and selecting mother as the preferred source of information on sexual issues.^[32] In this study, the mothers and daughters who had more general communication had more communication on sexuality, too. Similarly, in a study in Pennsylvania, the adolescents who talked with their parents frequently had more communication with their parents about sexual topics.^[33] It seems that mother-daughter general communication reflects the relationship between them, which, in turn, facilitates

their communication on sexuality. In the present study, there was no significant relationship between the age of adolescents and their level of communication with parents on sexuality. Some other studies have also reported the same result.^[17] There is evidence that children's age and gender influence their interaction with their parents as well as their communication on sexuality.^[34] These different results are probably due to the age range considered for adolescents in the above study, which is younger in the present study (14-18 years). In this study, there was no significant relationship between the parents' age or occupation and the level of MDCS. The same result was reported in another study.^[32] Although it seems that younger mothers are likely to have better and more communication with their adolescent daughters, and consequently, more talking with them on sexuality, and working mothers probably have fewer opportunities to communicate with their adolescent girls, the results did not indicate such a relationship. Mothers' employment may overlap with their education because those who have higher education are more likely to be employed.

There was a significant correlation between the mothers' education and MDCS in the present study. The mothers who had academic education had more sexual talk with their daughters than the mothers with elementary education. However, fathers' education did not show such a relationship. Mothers' education seems to facilitate mother daughter-emotional relationship, leading to better general communication and better communication on sexual issues. In a previous study, parents with lower education also had less sexual communication with their children and more likely felt that their children would expose to early sexual experiences.^[19] Although having an older sister is expected to facilitate MDCS for both mothers and girls and some studies have also confirmed it,^[35] such a result was not found in our study. In an older study in Iran, there was no relationship between being the first child and getting information on sexuality from the mother.^[32] This finding may suggest that in new generation of Iranian families with a few number of children, difficulty with MDCS for the first daughter continues to others, probably due to mothers' ignorance.

In this study, no significant relationship was found between the parents' marital status and MDCS. However, a previous study reports that the adolescents whose fathers had died had more talk on sexuality with their mothers than the adolescents whose parents had remarried or got divorced.^[35] Similarly, a study showed that adolescents who live with both parents are less probably willing to have high-risk sexual behaviors.^[20] The difference in the findings may be due to the fact that Wang's study included girls and boys as well as both parents,^[35] but the current study included only girls and mothers. Meanwhile, since the existence of a genetic mother was one of the inclusion criteria, the death or divorce of the father did not play a significant role in

MDCS. This study deals with the issue of investigating the factors associated with mother-adolescent daughter dialog on sexual health matters in Iran. However, it has some limitations. First, adolescents who are outside the schools and have been deprived of education have not been included in the study. Moreover, sexual topic and the degree of openness of sexual communication are not mentioned on the questionnaire. Thus, the adolescents might have perceived the concept of “sexual” as less sensitive topic as menstruation, instead of sensitive topics such as intercourse, a finding reported also by others.^[19] More accurate results can be achieved by doing a qualitative study for in-depth explore action of this issue.

Conclusion

The present research findings showed that some demographic characteristics of parents and adolescents, as well as the parent-adolescent emotional relationship can affect the communication between them about sexual issues. It seems that good mother-daughter relationship, mother's education and daughter's major mediate sexual dialog between them. Future studies can identify sexual topics and the frequency of conversation about them between Iranian mothers and daughters. Investigating the relationship between high-risk sexual behaviors and MDCS among Iranian adolescents is suggested.

Acknowledgments

The authors sincerely thank the Research Deputy of Ahvaz Jundishapur University of Medical Sciences for financial support and all the adolescents participated in this study. This paper is extracted from the MSc thesis of M. Torki Harchegani, MSc student in Midwifery.

Financial support and sponsorship

Research Deputy of Ahvaz Jundishapur University of Medical Sciences

Conflicts of interest

Nothing to declare.

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