Parents' Attitudes towards Adolescent Boy's Reproductive Health Needs and Practice in Tehran

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Objective: Parents are believed to be among the most influential adults who have a deterministic role in the success of interventional programs on adolescents' reproductive health. The aim of this study is to describe parents' perceptions and attitudes towards adolescent reproductive needs, experiences and associated factors.
Method: A population-based study of 539 parents of adolescent boys, aged 15-18 in Tehran was conducted using a self–administered questionnaire. bivariate and multivariate analyses were performed to identify the factors associated with parents' attitudes and their reports of adolescent heterosexual relationships.
Results: Higher education, higher income, access to satellite programs and internet were associated with a liberal attitude among parents. Some demographic factors including adolescents' age, lack of adolescents' endorsement to religion, access to satellite programs, parents' drinking, and various family factors such as poor parent-adolescent relationship, conflict, parental low valuation on education, parents' low endorsement to morals, difficult parent-adolescent communication on important issues and finally easy communication about sex, were all among the factors associated with more frequent reports of having a girlfriend over the last year for the adolescent males. Parents' reports on their adolescents' sexual relationships with the opposite sex highlighted a significant gap with the figure reported for the adolescents aged 15-18 in a preceding study in 2002(3% vs. 28%).
Conclusion: Parents should be advised to build a good relationship with teens, to maintain a close parent-teen communication, and to discuss morals and values with teens .

Key words:
Adolescent, Attitude, Iran, Parents, Sexual behavior

Iran J Psychiatry 2007; 2: 13-24

Despite the fact that pre-marital sexual relationships are prohibited in the Iranian culture, some findings indicate some extent of such relationships, which are most risky behaviors, among unmarried adolescents. Access to mass media and the increase in the frequency of other risky behaviors may account for some of these changes in social behaviors among the adolescents in Iran. One fourth of the adolescents in Tehran have access to satellite television and one-third have access to the internet. Approximately, 13% of the males aged 15-18 are reported smoking and nearly 27% reported drinking alcohol (1). Comparing the results of two studies in 1996 and 2006, it was illustrated that Traditional and conservative values and norms about sexual relationships (not the gender double standards) are clearly becoming eroded among the youth in Iran (1, 2). A study conducted in 2002-3 demonstrated that nearly 28% of the adolescent males aged 15-18 in Tehran, are reported having sexual contact. More than half of sexually experienced adolescents started sexual relationships at very young age (younger than 15) and two-thirds of those with sexual experiences reported having multiple sexual partners in their lives and one-fifth never used condoms (1). Other studies, not publicly published, which have been conducted in different settings and age groups, indicate a significant minority of sexual experiences during adolescence. Due to the sensitivity of the issue, some of these experiences have not even been reported. The negative consequences of risky sexual behaviors such as unintended pregnancy, sexually transmitted diseases and HIV infection on adolescents are well documented (3).

The role of parents in the process of decision-making and lives of the youth is often underestimated. Although a shift to more independence is the hallmark of this developmental phase, parents clearly have a role and exert significant influence in the choices the young make about sexual issues (4). Several studies have examined the role of parents on adolescents' sexual behaviors (5-8). However, a recent evidence on

parent-teen communication suggests that the importance of the parents' role on the sexual behavior of adolescents has been underestimated (8). A study conducted in Nigeria among adolescents aged 12-24 indicated an association between parent- adolescents discussion about family life issues and lower sexual activity among the youth (9). This study investigated different ways of encouraging parents to discuss sexual issues with their teens, taking advantage of the role of mass media (10). A study in 1998, illustrated a congruency between parents and adolescents in reports of adolescent sexual behaviors and in communication about their sexual behaviors (11). Parents are to be studied in order to find out in what ways they can be effective in reducing the risky sexual behaviors of the young. There is a recent concern among the Iranian health policy makers on the issue of premarital sexual relationships among young people. Based on this concern, some HIV prevention strategies are being introduced to the country, including: school based programs, mass media, and community-based programs. Studying parental characteristics, knowledge, attitudes, perception of adolescents' sexual behavior and needs can help us to recognize all of the important and influential factors which affect adolescent sexual behaviors in the families.

In some studies, it had been assumed that parents universally oppose to premarital sexual relationships, however, it doesn't seem to be true (8, 12). It has been claimed that parents who are considered important stakeholders of the adolescents' health may express some criticism and opposition about the programs tailored for the adolescents concerning HIV prevention or reproductive health. Nevertheless, no study has explored parents' views on the mentioned programs. Due to the assumed obstacles, many adolescents in Iran lack appropriate skills and reliable knowledge needed to take the responsibility of their role in relationships and to take action for the prevention of risky sexual behaviors (such as, unprotected sex, violence, and unwanted pregnancy).

A project was conducted in Iran in which mothers educated their daughters about puberty and reproductive health and it led to improvement in their knowledge. This project has been followed by a component, focusing on adolescent males (13). The influence of such interventional programs on adolescents' intentions or behaviors was not demonstrated (14).

The development of effective and culturally appropriate programs for adolescents in Iran is hampered by lack of information on both the adolescent reproductive health needs, and the beliefs and conduct of all of adult stakeholders including parents. The present study proposes to fulfill a part of this task. The purpose of this study is firstly to describe the parents' perceptions of adolescent reproductive needs and attitudes towards adolescent males' relationships with the opposite sex and the parents' perceptions of their adolescents' sexual experience and needs; secondly to investigate the socio-demographic and family-related factors associated with the adolescents' attitudes and perceptions. We are hopeful that the results of this study would be employed in developing appropriate programs on parent- adolescent communication concerning sexual and reproductive health and in programs that respond to adolescents' needs. Iran's innovative experience in addressing reproductive and sexual health issues in a manner that is consistent with the religious values could be especially instructive for similar efforts in other countries (15).

Materials and Method

Sample selection

This population–based study was conducted in Tehran (capital of Iran) in 2003. A cluster sampling was used in 5 districts in center, north, west, east and south of Tehran. Each district represented a particular socioeconomic and cultural context of the city's population. A proportional probability to size was applied to recruit parents of adolescent males aged 15-18 in the study. Thus, the number of the clusters selected in each district differed based on the population size of that specific district. It reflected the actual distribution of families with at least one adolescent male aged 15-18. Thirty clusters were selected, in which 10 fathers and 10 mothers were invited to participate in the study. The number of the clusters and the entry point addresses were derived based on a list of addresses provided by Statistical Center of Iran. The interviewers (one female and one male) attended to the selected families and asked about the presence of adolescent males aged 15-18. If there was at least one male aged 15-18 in a family, the interviewers explained the study's aim for the parents, and assured the confidentiality and anonymity of the questionnaires. A female interviewer performed the interview with the mother and the male interviewer carried out the interview with the father. If both were present, depending to the situation of father or mother that they needed to interview, they selected one of them. Only one parent in a household was able to participate in the study. The adolescent males aged 15-18 who lost both parents or those who did not live with either parent were excluded from the study. The estimated sample size was 600 parents with equal number of fathers and mothers. However, only 539 questionnaires were completed, entered into SPSS-12 database and analyzed. Some questionnaires were discarded due to inconsistent responses to questions.

Instruments

A structured, self-administered questionnaire of World Health Organization (WHO) was used for the survey (16). This questionnaire was modified after conducting four in-depth interviews (IDIs) with two mothers and two fathers who had adolescent boys aged 15-18. These IDIs assisted the improvement of validity and reliability of the questionnaire. Using multiple–item

indicators, helped to improve the reliable answers to the questions; for instance, using Likert Scale (17). The questionnaire was pretested by asking six parents (three fathers and three mothers) to complete it and interpret the questions. Based on their concerns and suggestions, some revisions were made in the questionnaire. Male and female interviewers who were trained, read the questions for those illiterate parents, and marked the responses. The questionnaire comprised of 132 questions divided into four sections: social and demographic variables; parents' perception of sexual and reproductive needs of adolescents, their awareness and attitude towards their adolescents practice, preferred sources of reproductive health information for adolescents, and their reaction to adolescents seeking information on sexual issues); family characteristics and parents-adolescents communication and interaction; parent's knowledge of some aspects of reproductive health and contraceptive methods including condoms. Parent's knowledge is to be reported in a separate paper.

An approval from the National Ethical Committee for Medical Research was obtained. Several measures were taken to ensure the confidentiality rights of the respondents. A consent form was obtained from the respondents. Respondents were asked not to identify themselves in the questionnaire forms. They were asked to put the completed questionnaires into prepared sealed boxes.

Attitude towards premarital relationship of relationships of adolescent boys males with the opposite sex

Respondents were asked to what extent they are agree or disagree with the two following statements. : ("Friendship of unmarried adolescent males with the opposite sex" and "pre-marital sexual relationships of the adolescent males with the opposite sex"). In deference to cultural sensitivity, statements did not reflect any specific behavior. ("Friendship of unmarried adolescent males with the opposite sex" and "pre-marital sexual relationships of the adolescent males with the opposite sex"). The responses, which ranged from "completely agree" to "completely disagree"," were converted into five-point Likert scales (ranging from 1 for extremely liberal views to 5 for extremely conservative views). A scale or summary index (range 2-10) provides the average of the scores on the two measures.

Attitude towards providing information on sexual and reproductive health for adolescents

Respondents were asked about their degree of agreement or disagreement with three statements which indicated providing different aspects of reproductive health to adolescent males: ("educating the adolescent males about female and male genital and reproduction system"; "educating adolescent males about sexually transmitted diseases and HIV/AIDS"; "educating the adolescent males about different contraceptive methods"). Their responses to each statement ranged from "completely agree" to "completely disagree", and were converted into five-point Likert scales (ranging from 1 for extremely liberal views to 5 for extremely conservative views). A summary index (range 3-15) provides the average of the scores on the three measures.

Attitude towards providing appropriate reproductive health services.

Respondents were asked about their degree of agreement or disagreement with four statements which indicated providing sexual and reproductive health services for adolescent males: (adolescent males should have access to family planning services or contraceptive methods, adolescent males should have access to sexually transmitted disease (STIs) clinics, adolescent males should have access to services for pregnancy tests, adolescent males should have access to HIV test services). Their responses to each statement which ranged from "completely agree" to "completely disagree" were converted into five-point Likert scales (ranging from 1 for extremely liberal views to 5 for extremely conservative views). A summary index (range 4-20) provides the average of the scores on the four measures.

Parents report of adolescent relationships with the opposite sex.

The parents were asked to report whether they are aware of any "friendship of their adolescent males with the opposite sex over the past year" and "sexual relationship of their adolescent males with the opposite sex over the past year ". Their responses included "Yes", "No", and "Do not know", which were converted into two categories of "yes" and "no/do not knows".

Data analysis

Of 600 questionnaires, only 539 questionnaires were taken into account. The data was analyzed using SPSS-12. T-tests and Chi-squire tests were employed for bivariate analysis. Partial regression and logistic regression were employed for multivariate analysis.

Results

From the total sample (n=539), 258 fathers and 281 mothers participated in the study. Table 1 demonstrates the socio-demographic characteristics of participants. At the time of the study, the majority of the participants' sons were studying in high schools (88%). The majority of the participants lived with their spouses (94%).

Only 6% of the participants were less religious or not religious at all. Despite the high percentage of the religiosity expressed by the parents, they believed that only 72% of their sons were religious or highly religious and 28% of the teens were less religious or

not religious at all. Drug use was 9.1% and 1.4% among fathers and mothers respectively.

The parents' perceptions about the reproductive health needs of the adolescent males are also illustrated in Table 2. The results demonstrate that 73% of the parents agree to talk about puberty with their male teens; among them, 61.5% preferred talking to their fathers. Half of the parents preferred to talk to their teens before the age of 15. On the contrary, only 14% of the parents strongly agreed to discuss sexual issues with their adolescent males and only 36.3% agreed.

About 70% of the parents preferred to discuss sexual issues with their teens before the age of 18. The reasons for their unwillingness to discuss sexual issues with adolescents reported by the parents are embarrassment (78%), adolescents' shame (80%), fear of encouraging them to engage in sexual activities (64%), parents' insufficient knowledge (75%), thinking it is still too early to discuss sexual matters with adolescents (70%), thinking there is no urgent need for the adolescents to receive more information on the subject(42%), and finally basic disagreement to the issue (54%).

The parents recognized teachers as ideal individuals to discuss puberty with adolescents. Physicians and health care providers were reported to be the most preferred individuals to discuss sexual matters with adolescents. (17% of the parents preferred fathers for educating the young males about puberty and only 12.2 % of the parents preferred fathers for educating them about sexual issues).

Parents' attitude towards pre-marital relationship, giving reproductive health information and providing reproductive health services available for adolescent males are shown by socio-demographic factors in table 3..

Attitudes towards providing information on reproductive health were approximately similar to the pattern of attitudes towards relationships with the opposite sex. Those parents whose sons were students, had significantly lower score of attitude on providing information to their male teens compared to those whose sons were not students (6.9 vs. 7.9, p=0.009).

Table 4 illustrates the results of multiple regression analysis of independent variables which have been identified in bivariate analysis and are associated with parental attitude toward premarital relationship between the opposite sexes and providing reproductive health information and services. Standardized regression coefficient Beta has been shown to be significant. Standardized regression coefficient Beta explains the relative importance of one independent variable on a dependent variable. For instance, the most important variable determining parents' attitude toward their adolescent males' relationship with the opposite sex. The table indicates that drinking has the highest coefficient Beta with coefficient of 0.247.

This means that for each increase in the size of one standard deviation of drinking, the attitude score will increase by 0.247 in a standard deviation of attitude score.

Religiosity follows drinking as the second most important factor that has an impact on attitude. (Standardized coefficient beta=-0.202, p<0.000). Education and access to satellite programs are associated with the attitude towards relationship with the opposite sex. A partial regression coefficient indicates the effect of one independent variable on the dependent variable with the effects of the other specified confounding variables removed.

The most important factor in parental positive attitudes towards providing reproductive health information to adolescents, is parents' education (coefficient beta=-0.190, p<0.000). The more educated the parents are, the more they hold a liberal attitude towards providing reproductive health information to adolescents.

Table 1. Demographic characteristics by gender of respondents (%)

	Father N=258	Mother N=281	Whole sample N=535
Age of parents(y/o)			
<40	23.6	46.3	35.4
40-50	55.4	49.8	52.5
>50	20.9	3.9	12.1
Age of their adolescent boys			
15-16	43.8	43.4	43.6
17-18	56.2	56.6	56.4
Education			
Illiterate	3.1	5.8	4.5
Primary/secondary	24.4	33.6	29.2
Diploma	38.2	40.4	39.4
Higher	34.3	20.2	26.9
Type of employment			
Gov. employee	46.9	16.1	30.8
Private job	37.4	3.2	19.5
nemployed/retired	9.8	2.5	6.0
Others	5.9	78.1	43.7
Income†			
Low	19.8	31.3	25.7
Average	65.3	56.6	60.8
High	14.9	12.1	13.5
Religiosity of parents			
Very religious	39.7	49.5	44.8
Religious	52.1	46.6	49.3
Less/not religious	8.2	3.9	6.0
Access to satellite			
Yes	30.3	26.7	28.5
No	69.7	73.3	71.5
Access to internet			
Yes	52.9	52.0	52.4
No	47.1	48.0	47.6
Smoking			
Yes	48.4	5.7	26.0
No	51.6	94.3	74.0
Alcoholic drink			
Use	15.7	2.9	9.0
Yes	84.3	97.1	91.0
No			

†Low income applies to monthly income lower than 1800000 Rials, Moderate applies to between 1800000 Rials and 5000000 Rials and high income applies to incomes over than 5000000 Rials.

Table2. Parent's perceived needs for adolescent male's reproductive health, information and services

Perceived needs	Father N=252 %	Mother N=270 %	Whole sample N=522 %
Need for friendship with opposite sex	46.0**	28.5**	37.0
Need to have sexual relationship with opposite sex	11.9	7.9	9.8
Need to receive information on genital system and reproduction	75.9	69.5	72.6
Need to receive information on puberty , physical and psychological changes	90.9	91.1	91.0
Need to receive information on contraceptives	56.3	53.4	54.8
Need to receive information on STIs such as AIDS	88.9	84.1	86.5
Need to receive information on abortion and unwanted pregnancy	48.8**	41.1**	44.9
Need to have access to contraceptives such as condom	46.5**	33.3**	39.8
Need to have access to STIs clinics	58.1	56.3	57.2
Need to have access to pregnancy tests	68.9	64.8	66.8
Need to have access to HIV Tests	45.4*	37.6*	41.5

*p<.05, **p<.001.

Table3. Attitude of parents about relationship with opposite sex, receiving information and access to reproductive health services by socio-demographic characteristics

	Attitude score on "premarital relationship of adolescent boys with opposite sex" (range 2-10) †	Attitude score on "providing information on reproductive health to adolescent boys"(range 3-15)	Attitude score on "providing reproductive health services for adolescent boys"(range 4-20)
Age of parents			
<40	8.1**	7.4*	10.9*
40-50	7.4	6.8	10.3
>50	7.7	7.3	11.6
Education			
Illiterate	8.4**	8.9**	12.1**
Primary/secondary	8.3	8.4	11.8
Diploma	7.5	6.6	10.4
Higher	7.2	6.3	9.8
Type of employment			
Gov. employee	7.7**	6.9*	10.7*
Private job	7.1	6.8	9.7
nemployed/retired	7.3	6.4	9.7
Others	8.0	7.5	11.2
Income ‡			
Low	8.1**	8.4**	11.7**
Moderate	7.9	7.0	10.9
High	6.4	5.4	8.5
Religiosity			
Very religious	8.4**	7.2**	11.4**
Religious	7.4	7.2	10.6
Less/not religious	5.0	5.0	6.7
ccess to Satellite			
Yes	6.5**	6.2**	9.0**
No	8.20	7.5	11.5
Access to internet			
Yes	7.3**	6.4**	9.8**
No	8.1	7.9	11.7
Smoking			
Yes	6.8**	6.7*	9.4**
No	8.0	7.3	11.2
Alcoholic Drink Use			
Yes	5.2**	5.4**	6.7**
No	7.9	7.3	11.1
Drug abuse			
Yes	6.8*	6.7	9.1*
No	7.8	7.1	10.8

* p<.05, **p<.001

† Higher scores of attitude indicate more traditional or conservative attitude and lower scores indicates more agreement or liberal attitude towards the issues

‡ See footnote in Table 1..

Table 4. Regression analysis of selected variables associated with parental attitude towards relationship, providing RH information and RH services to adolescents

Independent variables	Attitude on relationship with opposite sex (range 2-10)[a]		Attitude on providing RH information (range 3-15)[b]		Attitude on providing RH services (range 4-20)[c]	
	Standardized Coefficient ß	t	Standardized Coefficient ß	t	Standardized Coefficient ß	t
Parent's age†	-0.060	-1.55	-0.027	-0.63	0.041	0.96
Education‡	-0.173	-3.64**	-0.190	-3.62**	-0.119	-2.26*
Type of employment‡	-0.048	-1.11	-0.017	-0.36	-0.046	-0.96
Monthly income‡	-0.003	-0.06	-0.177	-3.36*	-0.063	-1.21
Religiosity‡	-0.202	-4.60**	0.089	1.84	-0.008	-0.16
Access to satellite ‡	0.197	4.35**	0.133	2.64*	0.167	3.32*
Access to internet‡	0.055	1.27	0.123	2.57*	0.126	2.62*
Smoking ‡	0.068	1.45	0.041	0.80	0.079	1.54
Drinking ‡	0.247	5.67**	0.112	2.30*	0.218	4.55**
Alcohol	0.049	1.20	.074	1.65	0.050	1.11

* p<.05, ** p<.001.
Note; n=468 due to missing values of the variables used in the model, RH stands for reproductive health
† Continuous variables
‡ Categorical and dichotomous variables
a R-square=0.348; Adjusted R-square=0.334; F value=24.87
b R-square=0.206; Adjusted R-square=0.188; F value=11.93
c R-square=0.214; Adjusted R-square=0.197; F value=12.44

According to Table 2, fathers appear to hold more positive attitudes than mothers towards providing information about abortion and unwanted pregnancy, and condoms and their access to HIV test services

Furthermore fathers recognized heterosexual relationships before marriage as a need for adolescent boys considerably compared to mothers.

Access to satellite programs and internet, monthly income and drinking are also shown to have an impact on attitudes toward providing information to adolescents.

Finally, alcohol consumption has been identified to have the greatest impact on the parents' attitude towards providing reproductive health services to adolescents (regression coefficient beta=0.218, p<0.000). Similarly, education and access to satellite programs and internet have indicated to impact the attitude.

According to Table 4, the above independent variables accounted for nearly 33 percent of the variations in the parents' attitude towards their teens' premarital relationships with the opposite sex.

This figure is 18 percent for the parents' attitude on providing RH information to adolescents and is 19 percent for the attitude to make RH services available for adolescents.

Parents' report of the adolescent males' friendship with the opposite sex by socio-economic and demographic characteristics.

The middle column in Table 5, demonstrates the results of bivariate analysis of the parents' reports on their adolescent males' practice with regard to friendship with the opposite sex by socio-demographic factors. Some factors have indicated to be associated with the parents' report of the adolescents' friendship accordingly. In order to control the effect of other confounding factors, a logistic regression in Table 7 indicates the odds ratio and confidence interval of predicting variables which remain in the logistic model for the parents' report of the adolescent friendships with the opposite sex.

Parents' report of the adolescent males' sexual relationship with the opposite sex by socio-economic and demographic characteristics

Table 5 illustrates some factors associated with the parents' report of sexual experience of their teen sons. Since only a few percentages of the parents reported that their sons had sexual relations, conducting multivariate analysis was not possible.

Parents' report of the adolescent males' friendship with the opposite sex by socio-demographic and family characteristics

Table 6 illustrates the bivariate analysis of factors associated with the parents' reports of their sons having a girlfriend over the previous year. The most important predictor variables for the parents' report of their sons having girlfriends over the last year have been illustrated in the logistic regression model (Table 7). Those whose sons were older (17-18) had an odds ratio of 6.02 (p<0.001).

The adolescents' lower religious conviction was also shown to be the predictor of the parent's reports of their

Table 5. Parent's reports of adolescent boy's having friendship and sexual relationship with opposite sex by socio-demographic determinants (%)

	N	Friendship with opposite sex during past year	Sexual relationship with opposite sex during past year
Total	539	123	16
Age of their adolescent boy			
15-16	235	13.2**	0.0**
17-18	304	38.4	7.8
Current schooling of their adolescent boys			
Yes	396	23.5**	2.5**
No	55	50.9	16.7
Education			
Illiterate	15	29.4	20.0*
Primary/secondary	114	23.1	1.8
Diploma	156	28.4	5.1
Higher	106	30.4	2.8
Type of employment			
Gov. employee	144	26.2	0.0*
Private job	82	27.7	6.1
Unemployed/retired	28	12.5	8.7
Others	195	29.3	5.5
Income			
Low	83	25.0**	4.5*
Moderate	150	23.0	2.5
High	32	52.5	14.0
Religiosity of :			
Parent			
Very religious	206	9.2**	0.5**
Religious	221	39.4	5.1
Less/not religious	26	57.7	25.0
Adolescent			
Very Religious	123	4.9**	0.0**
Religious	202	14.4	0.5
Not/less religious	128	68.8	19.7
Access to Satellite			
Yes	124	55.6**	15.9**
No	320	15.9	0.7
Access to internet			
Yes	245	29.8	5.7
No	206	23.8	2.2
Smoking			
Yes	111	46.8**	11.0**
No	340	20.6	1.9
Alcoholic Drink Use			
Yes	40	75.0**	34.8**
No	411	22.4	2.2

* p<.05, ** p<.001.
† See footnote in Table 1

Table 6. The practice of adolescent boys (friendship with opposite sex and pre-marital sexual relationship) reported by their parents according to their family characteristics (No. and %)

Characteristics	N	Friendship with opposite sex	sex with opposite sex
Total	435	118	16
Family constitution			
Matriarchal	20	60.0*	23.1*
Patriarchal	94	29.8	4.1
Moderate	332	24.1	3.3
Parents conflict			
little	335	25.7	4.1
Moderate /Much	100	32.0	4.5
parent -teen relationship :			
Warm and supportive	265	16.6**	2.4
Moderate	163	36.8	5.3
Destructive	22	77.3	Na
Family values on higher education:			
Little /Moderate	110	50.9**	10.8*
Much	342	19.3	2.5
Family endorsement to morals			
Little/Moderate	59	62.7**	20.0**
Much	395	21.7	2.3
Preferred age of marriage			
<25	250	22.0*	3.7
25-30	194	22.5	3.6
>30	11	27.3	Na
Communication with adolescent boy on important issues			
Very easy /easy	357	24.6*	3.7
Moderate	77	32.5	Na
Difficult/Very difficult	18	55.6	Na
Communication with adolescent boy on puberty			
Very easy /easy	207	30.0*	5.1
Moderate	105	31.4	Na
Difficult/Very difficult	140	20.0	Na
Communication with adolescent boy on sexual issues			
Very easy /easy	101	31.7**	7.3
Moderate	84	46.4	1.1
Difficult/Very difficult	266	19.2	Na
Parental supervision on adolescent boy's social activities			
Very much	196	8.7**	Na
Moderate	225	36.9	4.2**
Not at all	27	85.2	50.0

• p<.05, **p<.001. Note : Na=not applicable

son's having a girlfriend over the past year. Furthermore, those parents who reported drinking alcohol had odds of 5.38 for reporting that their boys sons have had girlfriends over the past year. Table 8 demonstrates that those families with less endorsement to morals, indicated odds of 3.23 for reporting their sons having girlfriends over the preceding year.

In contrast, those parents who reported that they had difficulty communicating with their sons about sexual issues indicated lower odds ratio compared to those who reported a good communication with their sons about sexual issues (Odds Ratio=0.25 , p<0.001).

Table 7. Odds ratios (and 95% confidence intervals) from logistic regression analysis of factors associated with parental report of their boys aged 15-18 having girlfriend over the preceding year.

factors	OR(Odds ratio)
Adolescent age group	
15-16(ref.)	1.00
17-18	6.02 (2.59-11.38)**
Adolescent schooling	
Yes(ref.)	1.00
No	2.02(0.82-5.01)
Parents' income	
Low(ref.)	1.00
Average	0.95(0.35-2.58)
High	1.16(0.51-2.69)
Parents' Religiosity	
Very important(ref.)	1.00
Important	0.96(0.23-4.00)
Not/less important	0.38(0.11-1.32)
Adolescent Religiosity	
Very important(ref.)	1.00
Important	16.66(4.9-56.7)**
Not/less important	12.32(6.07-25.00)**
Access to satellite programs	
No(ref.)	1.00
Yes	2.29(1.13-4.64) †
Parents' smoking status	
No(ref.)	1.00
Yes	1.34(0.63-2.82)
Parents' drinking tendency	
No(ref.)	1.00
Yes	5.38(165-17.47)*
Constant	0.057

*p<.01; **p<.001; †p<.10. Note: ref=reference category.

The parents reported that nearly 17% of the adolescents practiced masturbation. AIDS by 90% of the parents, unwanted pregnancies by 77.5%, unsafe abortion by 80.3%, and sexual violence by 85.2%, were recognized as health risks for adolescents

Discussion

One of the most important findings of this study is the significant gap between the parents' perceptions of their son's relationships and sexual activities with the opposite sex and what the adolescents reported themselves in another study in Tehran in 2002 (1).

In a study in 2002, approximately 28 percent of the adolescent males in Tehran reported that they were engaged in sexual activities while only three percent of the parents reported sexual relationship of their adolescent boys. This gap indicates either many hidden cases of sexual relationships from the parents or the parents' underestimation about their sons' sexual behaviors or relationships with the opposite sex. The adolescents do not discuss these types of culturally sensitive relationships with their parents.

Filling the gap between the parents' perception of the adolescents' sexual behavior and the reality, may have important implications for the improvement of their attitudes towards the adolescents' needs for receiving appropriate information and services on the issue of reproductive health.

This result was confirmed by a similar finding in a study among 745 African American adolescents aged 14-17 and their mothers. The adolescents' perceptions

and reports were found to be more predictive of the adolescents' sexual behavior than maternal reports. Mothers tended to underestimate the sexual activity of their teens and the teens tended to underestimate their mothers' level of disapproval about their sexual activities (11).

A more liberal attitude was shown among fathers concerning the adolescents' need for friendship with the opposite sex compared with mothers. This may be due to perceived gender-based double standards for social behavior including interaction with the opposite sex. Approximately, half of the fathers reported a need for boys to have girlfriends while 28% of the mothers reported this need.

Although only 12% of the fathers recognized a need for the adolescent males to have a sexual relationship with the opposite sex compared with nearly 8% of the mothers, their difference was not statistically significant. Therefore, the majority of the parents (90%) did not perceive sexual relationships with the opposite sex as a need for the adolescent males in Tehran, the metropolitan city of Iran.

Table 8. Odds ratios (and 95% confidence intervals) from logistic regression analysis of family factors associated with parental report of their boys aged 15-18 having girlfriend over the last year.

Characteristics	OR(odds Ratio)
Family factors	
Family constitution	
Moderate(ref.)	1.00
Patriarchal	1.61(0.43-5.99)
Matriarchal	1.44(0.37-5.65)
Parents conflict	
little(ref.)	1.00
Moderate/much	2.14(1.06-4.29) †
Parent-child relationship	
Warm and supportive(ref.)	1.00
Moderate	9.01(2.73-29.78)**
Poor	2.86(0.88-9.32) †
Family values on higher education	
Much(ref.)	1.00
Little /Moderate	3.29(1.78-6.05)**
Family endorsement to morals	
Much (ref.)	
Little/Moderate	1.00 3.23(1.50-6.95) *
Preferred age of marriage	
<25(ref.)	1.00
25-30	0.29(0.05-1.73)
>30	0.16(0.03-0.6) †
Communication with boy on important issues	
Very easy /easy (ref.)	1.00
Moderate	7.77(1.77-34.14)*
Difficult/Very difficult	8.15(1.77-37.46)*
Communication with boy on puberty	
Very easy /easy(ref.)	1.00
Moderate	0.60(0.25-1.43)
Difficult/Very difficult	0.82(0.35-1.93)
Communication with boy on sexual issues	
Very easy /easy(ref.)	1.00
Moderate	0.44(0.21-0.94) †
Difficult/Very difficult	0.25(0.12-0.52) **
Constant	0.06

*p<.01; **p<.001; †p<.10. Note: ref = reference category.

Interestingly, the majority of the parents recognized a great need for the adolescent males to be informed about puberty (91%) and sexually transmitted diseases HIV/AIDS(87%), while only a significantly lower percentage of the parents (only 55% and 45%)recognized a need for the adolescents to receive information about contraceptive methods, pregnancy and abortion, respectively. This may arise from their poor awareness about the adolescents' sexual practice and the potential risks threatening them. Most parents perceive that adolescents follow social norms and abstain until marriage. In fact, even if only one quarter of the adolescents in Tehran initiate sex during adolescence, they need to receive accurate information about safe sex and how to prevent pregnancies and sexually transmitted diseases such as HIV/AIDS. In general, only one-third of the parents recognized a need for adolescents to be informed about family planning services, but only 40% recognized a need for their sons to have access to contraceptive methods such as condoms. As mentioned before, fathers recognized this need significantly more than mothers (46.5% vs. 33.3%, respectively). This reflects the fact that the awareness of parents about the adolescents' relationship with the opposite sex influences their attitude toward their needs to receive information on safe sex and contraceptive methods. Educated parents who earned a higher income and had access to satellite programs and internet and those who reported drinking alcohol indicated a significantly more agreement to provide reproductive health information to adolescents.

In this study, parents indicated a relatively poor recognition of adolescents' need to have access to STIs clinics and pregnancy testing (57% and 67%, respectively), and HIV testing (only 41.5%). Therefore, despite the fact that a substantial minority of adolescent males initiate sex, 60% of the parents do not believe that it is necessary for adolescents to have access to HIV testing. In fact, the parents' perception of HIV risk among the adolescents is not realistic. One justification for those who do not recognize a need for adolescents to receive information, services or contraceptive methods is that they think it is highly unlikely that the adolescents get involved in sexual activities; however, some evidences suggest the reverse. Another justification might be due to the fact that talking openly about contraception, STIs and HIV or pregnancy may directly or indirectly encourage pre-marital sexual relations among adolescents. More in-depth reasons can be explored in further qualitative studies.

Nearly 37% of the parents do not agree to discuss sexual issues with their adolescent males . A similar finding of difficult communication about sexual activities was reported by parents in a qualitative study in Lesotho (18). It seems that discussing sexual issues, creates a mutual discomfort in both parents and adolescents. Although adolescents are least likely to seek information from their parents, a significant

number of teenagers express a strong desire to have more information on how to talk to their parents about sexual relationships and issues (19). In 2003, a qualitative study was conducted in south of Iran (Bushehr), using Focus Group Discussions (FGDs) which demonstrated that the most preferred individuals for educating family planning issues to adolescents are the health staff, teachers and parents, respectively. The FGDs included homogenous group of adolescents, parents and teachers (20). Although studies in many countries have found that parents are influential sources of information and advice for children (21), there are some barriers which make it difficult for parents to discuss sexual issues with their adolescent children. Recognizing barriers can have implications in promoting parent- adolescent communication on sexual issues.

The fact that fathers reported significantly more frequency of friendship of their son with the opposite sex may be due to close communication of boys with their fathers than mothers about sexual issues. Those parents whose sons were not religious reported significantly more relationships with the opposite sex compared to parents with religious adolescents. Religiosity was also shown in another study to be associated with lower sexual experiences among the adolescent males (1). Higher reports of adolescent relationships with the opposite sex by parents may have two meanings: firstly, their adolescents have more friendship with the opposite sex and secondly, it can be due to more awareness of parents about such relationships because of the open communication they hold with their adolescents about sex.

Family relationship seems to have an important influence on the adolescents' behavior including sexual behavior. Interestingly, families with close and friendly relationships, who held a high quality parent-teen relationship reported a significant lower percentage of friendship of their adolescents with the opposite sex. Other researches also indicate that a high quality parent-adolescent relationship is linked to a variety of positive outcomes in adolescents, such as lower levels of problematic behaviors including substance use, delinquency, and premature sexual activities (22, 23). In another study, it was found that teens, who reported to experience a high satisfaction in relationship with their parents, were 2.7 times less likely to engage in sexual activities than teens who had little satisfaction with their parental relationships. Relationship satisfaction was associated with a lower probability of engaging in sexual activities, higher probability of using birth control methods when necessary, and lower probability of pregnancy during the ensuing 12 months (24) In one study, it was revealed that 71 percent of the teens who did not feel close to their parents, experienced sexual relations by the age of 17 to 19 compared to 58 percent who felt close to their parents (25).

Notably, families who placed a high value on higher education for their sons reported a significant lower percentage of friendship with the opposite sex. Other studies, also confirmed these results. It was revealed that families may enhance risks by devaluing teen's education (26). Moreover, the results of the current study indicated that the endorsement of the parents toward moral issues within the family and discussing family values and morals with teens, were associated with boys having less friendships with girls. A similar finding confirms these results. Teens' perception of maternal opposition toward engaging in sexual activities was shown in a study to be associated with a lower probability of engaging in sexual activities (24). Other studies have demonstrated that parents who confidently transmit their religious and moral values to their children, have the most success in prevention of risky and immoral behaviors in them (27).

Interestingly, those parents who suggested an older age for their sons' marriage (>30 years old) reported more friendship of their adolescents with the opposite sex ($p=0.026$). It seems that young people who expect a later marriage, experience more relationships with the opposite sex during adolescence.

A poor parent-teen communication on important issues of life was related to a significantly higher report of friendship with the opposite sex. Another study also confirmed a significant relationship between parent-teen communication style and sexual activity (28, 29). Supportive, attentive and friendly communication contributed to less reported sexual activities (1, 27). In this study, those parents who reported a good communication with their sons concerning puberty or sexual issues, reported more friendship of their sons with the opposite sex. This could be due to the fact that these parents are more aware of such relationships due to a better communication with their son on sexual issues. Another study also confirmed these results (1).

Parents are the most influential adults on adolescents' decision about sexual matters in a U.S-based study (30). Parent-teen communication about sex is often difficult. Parents may avoid discussing the issue due to embarrassment. As illustrated by this study, they hesitate to discuss sexual issues with their sons due to embarrassment, poor preparation and anxiety over encouraging them to engage in sexual activities. Adolescents in Zambia reported a one sided communication of their parents on sexual issues in which parents mainly warned about the dangers of sex (30). In a similar study conducted in Mexico, young people cited communication barriers with their parents such as: lack of time, disagreements with their parents, and lack of trust in their parents' advice (30). Although parent-adolescent communication about sexuality has increased during the last few decades, both the occurrence and the quality of this communication could still be greatly improved. Apparently, a clear simple relationship between a parent-adolescent communication and an adolescent risky behavior does not exist, however, both the

adults and the teens recognize its importance (31). In many cultures, the grandparents, aunts, and uncles offer guidance on sexual issues to the teens. With increasing breakdown of traditional cultures, many parents in various cultures are faced with the challenge of discussing such matters with their teens and many are poorly prepared (30).

Conclusion

One implication of these results could be their dissemination for the Iranian parents in realistic and understandable ways and informing them about the current situation of adolescent relationships with the opposite sex. Furthermore, parents should be informed of the potential health risks related to unsafe sex such as HIV/AIDS and unwanted pregnancy and their consequences among adolescents. Parent-adolescent communication should be improved through intervention programs which focus on knowledge and skills. Parents should be aware of the effects of appropriate communication with their adolescents. It should be stressed for parents to place a high value on their teen's education and to discuss family values and moral issues with them. Qualitative studies which explore the nature of opinion, attitudes of parents and adolescents on communication barriers concerning sexual behaviours are suggested to be conducted. These studies further assist us to understand some of the existing obstacles.

Acknowledgement

The authors are grateful to the World Health Organization, Geneva for the financial support of this study. The authors also acknowledge Liz Ainsworth , Doctoral candidate in London School of Hygiene & Tropical Medicine for her kind cooperation in editing the article.

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