





Original Article

Family characteristics of individuals with risky sexual behaviors

Majid Rezazadeh¹; Khodabakhsh Ahmadi^{2*}; Mohammad Nafarieh¹; Zahra Akhavi³; Mohammad Ali Zanganeh¹; Habib Maoudi Farid¹; Homa Sedghi Jalal^{2,4}

¹AIDS Prevention and Control Committee of Welfare Organization State, Tehran, I.R. Iran

²Behavioral Sciences Research Center, Baqiyatallah University of Medical Sciences, Tehran, I.R. Iran

³Department of counseling, Faculty of Psychology, Kharazmi University, Tehran, I.R. Iran

⁴Department of social Communications, Faculty of Communication Sciences and News, Islamic Azad University, Tehran Branch, Behavioral Sciences Research Center, Bagiyatallah University of Medical Sciences, Tehran, I.R. Iran

Abstract

Introduction: Given the important role of family in shaping human behavior, the current research has been conducted with the aim of identifying the family characteristics of individuals with risky sexual behaviors.

Materials and Methods: In this correlative study the statistical population included women with risky and extramarital sexual behaviors. 104 women were selected through available sampling method in 2010-11 in Tehran. Data collection tools included: AIDS Risk Assessment Questionnaire to assess risky behavior and related factors and the Risky Sexual Behavior Questionnaire and Family demographic questionnaire. SPSS software, t-test, analysis of variance, and correlation coefficient were used for data analysis.

Results: Results from studying the family factors and variables related to the degree of risky sexual behaviors in the study group shows that residential situations, occupational conditions, living conditions, parents' living status, and the degree of intimacy in the family has a significant negative relationship with risky sexual behaviors (P<0.05). There is a positive correlation (P<0.05) between history of abuse by family members and the number of risky sexual behaviors. There is no significant correlation between marital status, educational status, and parents' living status with risky sexual behaviors (P>0.05).

Conclusion: Based on the results about the important role of family in the risky sexual behaviors, and also the increasing rate of these behaviors in our society, attention to the role of family is necessary for its prevention.

Keywords: AIDS, Family, High risk behavior, Sexual relationship

Please cite this paper as:

Rezazadeh M, Ahmadi Kh, Nafarieh M, Akhavi Z, Zanganeh MA, Maoudi Farid H, Sedghi Jalal H. Family characteristics of individuals with risky sexual behaviors. Journal of Fundamentals of Mental Health 2015 May-Jun; 17(3): 148-54.

Introduction

Since the first case of immunodeficiency virus in 1989, its prevalence is increasing regularly (1) and it is one of the causes of deaths at ages 20-45 (2). Not only AIDS is one of the most devastating and frightening diseases in the current era, but also it is a new and unique social phenomenon which affects almost all aspects of social and economic life of people (3) and changes the course of one's life (4). AIDS is a global crisis (5) so that crossed the borders of the countries regardless of their nationality, age and gender (6). According to the estimates by the Joint United Nations Program on AIDS (UNAIDS), 6000 youth between the ages of 15 and 24 are being

*Corresponding Author: Behavioral Sciences Research Center, Baqiyatallah University of Medical Sciences, Tehran, I.R. Iran kh_ahmady@yahoo.com Received: Apr. 07, 2014 Accepted: Dec. 15, 2014 affected by AIDS every day (7). Today, it is estimated that about 36.1 million people living with HIV which about 70% of them are in Africa (8). In America nearly one million people are infected with HIV and each year 40,000 people add up to this number (5). In Iran, the number of people living with HIV is increasing, as it has been reported in 2006 by Joint United Nations Program on AIDS, the number of patients with AIDS in Iran is somewhere between 36 to 160 thousand with an average estimation of 66,000 people and the prevalence of the disease among ages of 15 to 49 has been estimated about 2.0 percent (7).

Adolescence is a period of growth in which different behaviors may endanger the person's health (9). This period marks a turning point in the course of normal sexual behaviors (10) and risky behaviors often begins in the same period (11) and they are a serious threat to the health and well-being (12). According to research, the characteristics of the biological cycle of growth, socio-economic status, family characteristics, the influence of peers and the media are important factors that influence high risk sexual activities of young people (13) Moreover, personality factors (values, expectations, and beliefs), behavioral factors (disorders and delinquency), social conventions and norms and environmental factors also influence the tendency of teenagers to have risky sexual behaviors (14).

The attention to the role of the family is important and crucial. The family is the first institution in which an individual start having experiences; and his/her enriched learned contents are association with the family environment (15). Studies have shown that parents influence the sexual behaviors of their children in 5 ways(16): the close relationship of parent-child (11,17, 18,19), parental controls (11,17,19,20,21), sexual behaviors of parents, parental complains about the sexual behaviors of children and parent-child conversations about risky sexual behaviors (16). Quality of the relationship between family members and the quality of the parent-child relationship, especially mothers, have a significant impact on the first sexual experience and sexual behaviors of adolescents (22). Parents could be a source of information and support by providing appropriate messages about the behaviors of children, educational opportunities and providing moral terms, (16).Parental Control is determined by parental decision, rules, restrictions and parental supervision (11). Thus, unavailability of parents and the lack of parental support and supervision on the children's activities are risk factors for risky sexual behaviors of individuals (21, 23). Some studies that parental communication indicate and understanding influences their children's sexual behaviors (24). Unsuccessful marriage of parents and their distressed relationship can put their children at risky behaviors from childhood and early adolescence (25). Studies have shown that adolescents who have a single parent are more likely to turn to risky behaviors (22, 26). So living with both parents can be an important protective factor (22). Poverty (18, 9), malfunction and instability, parental substance abuse (9), low parental education, parental mental illness and alcoholism (25), history of sexual abuse (20), violence (18) relationship with peers who have risky sexual behaviors (26), and lack of spirituality (12) might be the underlying trend of adolescent risky sexual behaviors. Given the rise of immunodeficiency virus transmission through risky sexual behaviors and the importance of family in this type of behaviors, the

present study sought to examine the relationship between family variables and risky sexual behaviors to determine which family variables and to what degree is correlated with risky sexual behaviors in children.

Materials and Methods

This study is a correlational study and it is part of a national project for HIV prevention for those at high risk with the support of the United Nations Developmental Program (UNDP) which Iran is among the countries that have been selected as a target population. The project aims to help national AIDS prevention through education of high-risk sexual behaviors. The studied population includes individuals with high-risk sexual behaviors and extramarital relationships. For sampling, 104 women with high risk sexual behaviors in Tehran during 1389-90 have been identified and studied with the use of available sampling method. Identification and selection of individuals have been assisted with matched peers. Matched individuals had several characteristics: they had required education level; they had high risk behaviors (injection or unsafe sexual behaviors) and had access to other individuals with high-risk behaviors; also they were quitting or had quitted the high-risk behaviors. They had social relations and the ability to impact others and also they wanted to help their fellow men in preventing HIV infection. Because the sampling process of this group had been very difficult and since this project was carried out by trained matching groups, the research was also carried out in the same way.

Research instruments

A) AIDS Risk Assessment Questionnaire: This tool measures high-risk behaviors and related factors with 45 items that has been developed and Simpson standardized by in 1997. This questionnaire, assess the frequency, severity and other factors related to risky behaviors for HIV. This questionnaire is a tool for measuring the extent and severity of HIV risky behaviors that has been used in many programs for reducing related risky behaviors. AIDS Risk Assessment Questionnaire includes items such as the degree of sexual behavior, the degree of risky sexual behaviors, types of risky sexual behaviors, attitudes and views regarding risky sexual behaviors, duration of risky sexual behaviors, and the cause and factors in risky sexual behaviors (27).

This questionnaire has been conducted on a population of over 2004 people with risky behaviors and also on a normal group and its validity based on

Cranach's alpha has been obtained about 0.82 with the use of internal correlation (28).

B) Demographic and Familial Characteristics Questionnaire: A questionnaire of familial status, relationships among family members, the family structure, lifestyles and a history of behaviors and previous sexual experiences has been used. For the preparation of this questionnaire, measures of adaptability assessments and family cohesion, parent-child relationship, and intimacy have also been used (29). After careful evaluation and editing by trained professionals and also trained peers, the questionnaire has been implemented. In designing and conducting of the questionnaires the following ethical matters have been regarded: personal information such as name, family name, address and any other indicators that may have helped the identification of subjects haven't been received and the data were analyzed as a group and other collected information was completely kept confidential. All the ethical issues that needed to be adhered had been taught to the interviewers. It has been explained to all subjects that this study is for research purposes only, and to assist in the prevention of AIDS in the community. For the analysis of the data, SPSS software and the statistical methods such as t-test and analysis of variance and correlation coefficient have been used.

Results

The analysis of demographic data showed that from the total of 104 individuals with risky behaviors who have been studied in this research, 55.8% were single, and 43.3% were married; 92.13% had diploma or lower levels of education. 44.5% had rental housing, 29.8% have been unemployed and 28.8% were employed in private companies; 21.2% lived with their parents and 20.2% lived with their spouses. The average age of participants was 29.66 ± 7.34 , and the minimum age was 16 and maximum age was 48 years. In the examination of the frequency of high-risk sexual behaviors (outside of marriage) among the samples, it has been observed that there has been a variety of 1 to 170 times with an average of 25 in the duration of a month (Table 1).

Examination of factors and family variables related to the level of risky sexual behaviors in the studying group showed that: there isn't any significant difference ($P \le 0.05$) between the variables of marital status, educational level and living status of parents and the frequency of risky sexual relations,; while there is a significant difference (P < 0.05) between the residency situation, employment status, living situation, living status of the parents, the experience of abuse from family members and the intimacy in the family with the frequency of risky sexual relations. Based on this, it was observed that people who were living in rental houses or with their father had more risky sexual behaviors than others. Also, housewives and individuals who worked in private companies had more risky sexual behaviors compared to students and house workers. On the other hand, individuals who were living with their children showed more risky sexual behaviors than the others.

 Table 1. Demographic characteristics in individuals

 with sexual high risk behaviors

Variable type	Level	Frequency	Percentage
Marital status	Single	58	55.8
	Married	5	43.3
	Unknown	7	1
Educational	Illiterate	17	16.3
level	Elementary	15	14.4
	Middle School	23	23.1
	High school	19	18.13
	Diploma	21	20.2
	University education	9	8.7
Housing	Personal	14	13.5
situation	Rental 49		44.5
	Parents' house	30	28.8
	Friends' house	10	9.6
	Relatives' house	3	2.9
	Unknown	1	1
Occupational	Student	9	8.7
status	Self-Employed	16	15.4
	Employed	3	2.9
	Unemployed	31	29.8
	House wife	9	8.7
	House worker	2	1.9
	Private Employed	30	28.8
	Unknown	4	3.8
Living situation	Alone	16	15.4
	With father	4	3.9
	With mother	3	2.9
	With parents	22	21.2
	With spouse	21	20.2
	With children	8	7.7
	With Friends	21	20.2
	With relatives	5	4.8
	Unknown	1	1

Also, individuals who lost their mothers showed more risky sexual behaviors compared to individuals who had lost their fathers. Those who had been abused by a family member showed more risky sexual behaviors in comparison to individuals who didn't experience such abuse or experienced it at lower levels. Also, individuals who have been abused by stepmother, father, sister or brother showed more risky sexual behaviors than the ones who have been abused by stepfather and/or mother. Additionally, individuals who have grown up in families with low levels of intimacy had showed

FAMILY CHARACTERISTICS AND RISKY SEXUAL BEHAVIORS

more risky sexual behaviors than the ones who lived in a family with higher levels of intimacy (Table 2). In studying the correlation between the degree of

risky sexual relationships with other variables, it has been observed that there is a positive and significant correlation between the number of extramarital sex

and the degree if sexual relations without the use of a condom (P < 0.01 and r = 0.69). On the other hand, there wasn't any significant correlation ($P \le 0.05$) between the amount of extramarital sex with other variables such as age, birth order, number of siblings, number of children and education (Table 3).

Variable	Group	Mean	Standard Deviation	F/T	Significant Level	Condition
Marital status	1-Single	22.91	7.80	0.65	0.51	-
	2- Married	27.76	8.89			
Educational level	1-Illiterate	32	10.96	1.02	0.41	-
	2- Elementary	15.29	7.48			
	3- Middle school	34	7.09			
	4- High school	21.50	8.99			
	5- Diploma	1.70	7.23			
	6- AA or higher	33.56	7.83			
Housing situation	1- Owned	18.81	10.51	3.89	0.05	2,3>4,5
	2- Rental	34.59	7.96			
	3- Parental house	25.76	9.63			
	4- Friends' house	10.33	5.38			
	5- Relative's house	14	2.28			
Occupational status	1- Student	5.20	6.14	4.18	0.042	7,5>6,1
	2- Self-employed	13.89	12.51			, ,
	3- Employed	22.67	7.53			
	4- Unemployed	26.79	7.45			
	5- House wife	33.50	7.15			
	6- House worker	4.67	4.55			
	7- Private employment	38.14	9.54			
Living situation	1- Alone	24.37	10.72	3.96	0.05	4,6>7
	2- With father	25.50	6.21			<u>,</u>
	3- With mother	5.50	4.76			
	4- With parents	37.33	10.75			
	5- With spouse	27.96	8.07			
	6- With children	47.6	8.53			
	7- With friends	11.7	4.72			
	8- With relatives	14	2.07			
Living status of	1-Yes	24.52	8.23	0.32	0.75	_
parents	2- No	26.95	8.50	0.52	0.75	
Death of parents	1- Father	11.20	5.38	3.15	0.046	2>1
Death of parents	2- Mother	34.92	8.04	5.15	0.010	2, 1
	3- Both	22.93	8.91			
Degree of abuse by a	1- None	15.25	8.80	4.22	0.05	5>1,2,3
family member	2- Low	16.8	6.75	7.22	0.05	5- 1,2,5
lanny member	3- Somewhat	17.6	7.89			
	4- High	24.31	6.50			
	5- Very high	31.86	11.12			
Abuse by a family	1- Father	14.13	7.12	6.01	0.001	1,4,5>2,3
member	2- Step father	7.50	7.64	0.01	0.001	1,4,5- 2,5
member	3- Mother	4.67	3.38			
	4- Step mother	34.57	8.11			
	5- Brother or sister	50.96	8.87			
Degree of intimacy in	1- Very high	22.44	8.44	2.64	0.038	4,5>1,2,3
	2- High	22.44 18.94	8.44 8.05	2.04	0.030	4,3~1,2,3
the family	3- Somewhat	20.65	8.03			
	3- Somewhat 4- Low	40.13	9.23			
			9.23 9.93			
	5- None	61.71	7.73			

Discussion

Given the importance of the family in risky sexual the correlation between family behaviors. characteristics and high-risk behaviors has been studied in this research. According to the obtained results, it has been observed that most of the family Fundamentals of Mental Health, 2015 May-Jun

variables have a significant relationship with the high-risk behaviors. The results showed that family circumstances such as the relationship of parents, the absence of mother, child abuse and low levels of intimacy among family members make people more prone to risky sexual behaviors. The family is the

most fundamental institution (30). Family functioning, particularly during the adolescence has a special role in the growth of abnormal and normal individuals (3). Adolescence and youth includes the transition to puberty, becoming involved in parentchild relationships, school, peers and the cognitive and emotional abilities. In addition, this period is characterized by the increase of risky behaviors. In this period, individuals face changes of their roles and refinement of their place in society, which may lead to conflict and dealing with parents. Appropriate parenting which includes close and regular relationship, monitoring and teaching coping skills to control anger and deal with frustrations helps children (31).

 Table 3. The correlation between the frequency of risky

 sexual behavior and family variables

	Number of	Frequency of high-		
Variables	extramarital	risk sex (without the		
	sex	use of a condom)		
Number of sexual	069**	-		
relationship without	0.0001			
the use of a condom				
Age	0.10	-0.05		
	0.25	0.60		
Birth order	-0.08	-0.02		
	0.44	0.84		
Number of sisters	-0.08	0.15		
	0.38	0.20		
Number of brothers	-0.011	0.02		
	0.37	0.81		
Number of daughters	0.47	-0.08		
C C	0.0001	0.53		
Number of sons	0.34	-0.15		
	0.01	0.24		
Educational level	-0.07	-0.10		
	0.57	0.28		

Families with required abilities to successfully and properly perform the duties of parents, generates a sense of safety, independence, friendship, sense of purpose and self-worth in each member of the family (32).Poor parent-child relationship becomes apparent when parents speak domineering to their rather than providing teenagers necessary information and also by punishment for taking the control over their teenagers. Research has shown that in families with weak parent-child relationship, both parental control and the lack of it increases high-risk sexual behaviors (32-34). Hence. monitoring and parental control reaches its maximum effect when the family relationships have a high quantity and quality (35). Accordingly, it can be said that low levels of connection and intimacy between family members, especially mothers and conflicts between parents and children is involved in risky sexual behaviors (16,36,37). On the other

hand, the results from research showed that highrisk sexual relationships (extramarital) is correlated with the number of extramarital sex without the use of a condom. According to studies, only one-third of people with high-risk sexual behaviors use condom in their sexual relations (37). Despite high levels of awareness of HIV and benefits of protected and safe sex, factors such as individuals perception of health and vulnerability, peers, the pleasure felt by the sex partner, and gender roles of men and women in society and gender power relations reduces the use of safety materials (38,39). Adolescents use less condoms in sexual relations with partners whom they feel close and intimate comparing to other relations (40,32). Therefore, they try harder to keep their relationship. Also in an unequal relationship, the partner who has less desire for intimacy has the greater ability to influence the attitudes and behaviors of his/her partner's use of condoms. Women invest more emotionally in the relationship with the opposite sex (40). Also, the physical and psychological characteristics of women cause them to put their partner's requirements in priority in having a safe sexual relation for the fear of violence or rejection by their partners (32). Considering the results of the study, it indicates that mothers' role in high risk sexual behaviors of daughters is an important and fundamental role. It also has been seen that high-risk behaviors are higher among those whose mothers had died earlier. It means that it is in this group that children might be at risk of abuse by brothers and sisters, stepmother and father which is consistent with other results from the study that indicates the high risk sexual behaviors are higher among these groups; And also the degree of intimacy between them may be reduced or they might search for job opportunities in inappropriate environments. According to the results of conducted researches, the role model of a parent, especially the same sex parent and his/her control is a major factor in the strength of character, mental health and healthy behaviors (21). In general, it was observed that the lack of love in the family, abuse by the mother, father, brothers and sisters, living with children, and living in the home of a friend are involved in high-risk sexual behaviors.

Conclusion

Based on the results about important role of family in risky sexual behaviors and also the increasing rate of these behaviors in our society, attention to the role of family is of utmost importance for its prevention. However, the majority of available prevention programs are not family-based.

Acknowledgment

This project is part of a national project that has been conducted with the collaboration of the United Nations Development Program, Ministry of Health, Welfare and Researchers liability of Behavioral Sciences Research Center with the aim of preventing the spread of AIDS in Iran; and it is essential to thank all the organizations and centers. The authors had no conflict of interests with the results.

References

1. Wang Deng X, Wang J, Wang X, Xu L. Substance use, sexual behaviors, and suicidal ideation and attempts among adolescents: Findings from the 2004 Guangzhou Youth Risk behavior Survey. Public Health 2009; 123(2): 116-21.

2. Ghorbani GH, Ranjbar R, Izadi M, Esfahani AA. [Evaluation of education effect of face to face and pamphlet on knowledge and attitude about AIDS in adult]. Journal of military medicine 2007; 9(1): 57-65. (Persian)

3. Rahmati Najarkolaei F, Niknami S, Shokravi F, Ahmadi F, Tavafian S, Hajizadeh E. [Individual factors predisposing HIV/AIDS high risk behaviors: A qualitative study]. Payesh 2011; 10(2): 205-15. (Persian)

4. Heydari A, Jaafari FA. [Comparison of the quality of life, social support and general health in persons with HIV/ALDS- infected and health persons in Ahvaz]. New findings in psychology 2008; 2(7): 47-60. (Persian)

5. Mead CS, Sikkema KJ. HIV risk behavior among adults with severe mental illness: A systematic review. Clin Psychol Rev 2005; 7(3): 166-72.

6. Jafari F, Kholdi N, Falah N, Mahmoodpour ATA. [Factors related to knowledge and attitude about AIDS]. Daneshvar medicine 2007; 14: 1-8. (Persian)

7. Rahmati Najar Kolahei F, Niknami Sh, Amin Shokravi F, Farmanbar R, Ahmadi F, Jafari M. [Family system and its effects on HIV/AIDS high risk behavior: A qualitative study]. Journal of Guilan University of Medical Sciences 2011; 20: 69-80. (Persian)

8. Essien AB, Mgbere A, Osaro C, Monjok AE, Ekong EM, Holstad M, et al. Effectiveness of a video-based motivational skills-building HIV risk-reduction intervention for female military personnel. Soc Sci Med 2011; 72(1): 63-71.

9. Peres SA, Rutherford G, Borges G, Galano E, Hudes ES, Hearst N. Family structure and adolescent sexual behavior in a poor area of São Paulo, Brazil. J Adolesc Health 2008; 42(2): 177-83.

10. Akers AY, Gold MA, Bost JE, Adimora AA, Orr DP, Fortenberry JD. Variation in sexual behaviors in a cohort of adolescent females: The role of personal, perceived peer, and perceived family attitudes. J Adolesc Health 2011; 48(1): 87-93.

11. Roche KM, Ahmed S, Blum RW. Enduring consequences of parenting for risk behaviors from adolescence into early adulthood. Soc Sci Med 2008; 66(9): 2023-34.

12. Chamratrithirong A, Miller BA, Byrnes HF, Rhucharoenpornpanich O, Cupp PK, Rosati MJ, et al. Spirituality within the family and the prevention of health risk behavior among adolescents in Bangkok, Thailand. Soc Sci Med 2010; 71(10): 1855-63.

13. Hassan EA, Creatsas GC, Adolescent sexuality: A developmental milestone or risk-taking behavior? The role of health care in the prevention of sexually transmitted diseases. J Pediatr Adolesc Gynecol 2000; 13(3): 119-24.

14. Fisher HH, Eke AN, Cance JD, Hawkins SR, Lam WK. Correlates of HIV-related risk behaviors in African American adolescents from substance-using families: Patterns of adolescent-level factors associated with sexual experience and substance use. J Adolesc Health 2008; 42(2): 161-9.

15. Rajabi Gh, Chahardoie H, Attari Y. [The relationship of family functions and psycho-social atmosphere of the classroom with maladjustment among the high-school female and male students]. Malayer journal of education and psychology 2007; 14(1-2): 113-28. (Persian)

16. Hutchinson MK, Jemmott JB, Jemmott LS, Braverman P, Fong GT. The role of mother-daughter sexual risk communication in reducing sexual risk behaviors among urban adolescent females: A prospective study. J Adolesc Health 2003; 33(2): 98-107.

17. Elkington KS, Bauermeister JA, Brackis-Cott E, Dolezal C, Mellins CA. Substance use and sexual risk behaviors in perinatally human immunodeficiency virus-exposed youth: Roles of caregivers, peers and HIV status. J Adolesc Health 2009; 45(2): 133-41.

18. James S, Montgomery SB, Leslie LK, Zhang J. Sexual risk behavior among youth in child welfare system. Child Youth Serv Rev 2009; 31(91): 990-1000.

19. Wight D, Williamson L, Henderson M. Parental influences on young people's sexual behavior: A longitudinal analysis. J Adolesc 2006; 29: 473-94.

20. Le TN, Kato T. The role of peer, parent, and culture in risky sexual behavior for Cambodian and Lao/Mien adolescents. J Adolesc Health 2006; 38(3): 288-96.

FAMILY CHARACTERISTICS AND RISKY SEXUAL BEHAVIORS

21. Ahmadi K, Bigdeli Z. [The investigation of child control and supervising on military families]. Journal of behavioral sciences 2007; 1(1): 87-96. (Persian)

22. Parera N, Suri's JC. Having a good relationship with their mother: A protective factor against sexual risk behavior among adolescent females?. J Pediatr Adolesc Gynecol 2004; 17(4): 267-71.

23. Smith MD. HIV risk in adolescents with severe mental illness: Literature review. J Adolesc Health 2001; 29(5): 320-9.

24. Aspy CB, Vesely SK, Oman RF, Rodine S, Marshall L, McLeroy K. Parental communication and youth sexual behavior. J Adolesc 2007; 30(3): 449-66.

25. Rew L, Horner SD. Youth resilience framework for reducing health-risk behaviors in adolescents. J Pediatr Nurs 2003; 18(6): 379-88.

26. DiIorio C, Dudley WN, Soet JE, McCarty F. Sexual possibility situations and sexual behaviors among young adolescents: The moderating role of protective factors. J Adolesc Health 2004; 35: 528.

27. Monique E, Wilson RP, Schwartz KE. O'Grady and Jerome H. Impact of interim methadone maintenance on HIV risk behaviors. J Urban Health 2010; 87(4): 586-91.

28. Ahmadi K, Rezazade M, Nafarie M, Moazen B, Yarmohmmadi Vasel M, Assari S. Unprotected sex with injecting drug users among Iranian female sex workers: Unhide HIV risk study. AIDS Res Treat 2012; 651070.

29. Sanai Zaker B, Alaghband S, Hooman A. [Family marriage scales]. Tehran: Besat; 2000: 29, 108, 150. (Persian)

30. Zarei E. [Relationship between parent child-rearing practices and high risk behavior on basis of Cloninger Scale]. Journal of Shahid Sadoughi University of Medical Sciences 2010; 18(Suppl 3): 220-4. (Persian)

31. Michael K, Ben-Zur H. Risk-taking among adolescents: Associations with social and affective factors. J Adolesc 2007; 30: 17-31.

32. Eaton L, Flisher AJ, Aar LE. Unsafe sexual behavior in South African youth. Soc Sci Med 2003; 56: 149-65.

33. Aalsma MC, Fortenberry JD, Sayegh A, Orr DP. Family and friend closeness to adolescent sexual partners in relationship to condom use. J Adolesc Health 2006; 38:173-8.

34. Ahmadi K. [Cultural, social and educational vulnerability in adolescents and youths]. J Behavioral Sci 2010; 4(3): 241-8. (Persian)

35. Ahmadi Kh, Bigdeli Z, Moradi A, Seyed Esmaeili F. [Relation between belief in Hijab and individual, familial and social vulnerability]. Journal of behavioral sciences 2010; 4(2): 97-102. (Persian)

36. Bailey JA, Hill KJ, Meacham MC, Young SE, Hawkins JD. Strategies for characterizing complex phenotypes and environments: General and specific family environmental predictors of young adult tobacco dependence, alcohol use disorder, and co-occurring problems. Drug Alcohol Depend 2011; 118: 444-51.

37. Vukovic DS, Bjegovic VM. Brief report: Risky sexual behavior of adolescents in Belgrade: Association with socioeconomic status and family structure. J Adolesc 2007; 30: 869-77.

38. Aguirre VT, Santilla'n EA, Allen B, Llerenas AA, Valde'z AC, Ponce EL. Associations among condom use, sexual behavior, and knowledge about HIV/AIDS. A study of 13,293 public school students. Arch Med Res 2004; 35: 334-43.

39. McPhail C, Campbell C. I think condoms are good but, I hate those things: Condom use among adolescents and young people in a Southern African township. Soc Sci Med 2001; 52: 1613-27.

40. Tschann JM, Adler NE, Millstein SG, Gurvey JE, Ellen JM. Relative power between sexual partners and condom use among adolescents. J Adolesc Health 2002; 31: 17-25.