Health Education and Health Promotion (HEHP) (2015) Vol. 3 (1)

Family Communication Pattern and Mothers' Behavioral Intention regarding Preventing Early-Onset Substance Use in Children: My Family-Study

Mehdi Mirzaei-Alavijeh[1], Alireza Hidarnia[2]*, Gerjo Kok[3], Shamsaddin Niknami[4], Mohammad Ismail Motlagh[5], Mahnaz Pishdar[6]

Abstract

Aim: Considering the fundamental role of parents' function and family dynamics including the importance role of family communication pattern on preventing early-onset substance use in children, the present study aimed to determine the correlation between family communication pattern and mothers' preventive behavioral intention regarding preventing early-onset substance use in children.

Methods: This cross-sectional study was carried out among 234 Iranian mothers in Tehran who were randomly selected to participate voluntarily in the study. The participants filled out a self-administered questionnaire including I- demographic information; II- family-based behavioral intention regarding preventing early-onset substance use in children; and III- family communication pattern. Data were analyzed by the SPSS software (ver. 21.0) using Pearson's correlations, independent t-test, and ANOVA at 95% significant level.

Findings: The results reported a correlation between conversation ($r=0.509^{**}$ & $P\geq0.001$), conformity orientation ($r= -0.150^{*}$ & $P=0.022$) and behavioral intention; as well as between conversation conformity orientation ($r= -0.382^{*}$ & $P\geq0.001$), and conversation ($r=0.218^{**}$ & $P=0.001$), conformity orientation ($r= -0.105$ & $P=0.108$) and age.

Conclusion: The findings suggest that to develop a preventive program, it will be useful to increase family communication pattern, specially conversation orientation to prevent the onset of substance use in children.

Keywords: Family, Cognitive factors, Conformity orientation, Conversation orientation, Behavioral intention

1. Ph.D. Candidate, Department of Health Education, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. Email: m.mehdimirzaeialavijeh@modares.ac.ir
2. Professor, Department of Health Education, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. Email: hidarnia@modares.ac.ir
3. Professor, Department of Work and Social Psychology School of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands. Email: g.kok@maastrichtuniversity.nl
4. Associate Professor, Department of Health Education, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. Email: niknamis@modares.ac.ir
5. Professor, Department of Pediatrics, Faculty Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. Email: mohammad.motlagh1394@gmail.com
6. Psychologist, Institute of Mehrvarzan- Pishgiri Email: m_pishdar@yahoo.com

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Introduction

Considering that substance use is one of the problems in Iranian society; and in addition to the increasing prevalence ratio of substance abuse [1], age of the onset of substance use is decreasing to young adulthood [2, 3]. Therefore, addressing the supply and demand domains of substance use problem, especially primary prevention, which is the most important demand domain and especially since the early childhood, is very important. In preventing substance use various factors are involved at different ecological levels; family is the one of the main levels, and many researches have emphasized the role of parent's function and family dynamics as the most important ones [6-4]. Effective factors to onset of substance use at family level are in two groups: protective and risky [7]. Some of the protective factors include: secure and healthy parent/child attachment; parental supervision, monitoring and effective discipline; communication of pro-social family values; parental involvement in child's life; supportive parenting [8, 9]; effective parent-child relationship [10]; living with friendly parents [11]; and communication [12, 13]. There are also some risk factors that include; Lack of bonding and insecure relationship with parents; lack of a significant relationship with a caring adult; ineffective parenting; chaotic home environment; parents or siblings who abuse substances, suffering from mental illness or being involved in criminal behavior; and social isolation [14]. Also family behavioral interactions affect the quality of children's behaviors [15]. It is believed that before a person initiates to substance use, during the developing, formation of ideas, attitudes, personality and life style, their vulnerability to substance use is formed [16], and as already mentioned, family communication pattern is one of these factors, which family communication patterns and expression of thoughts and feelings are be divided into two categories by Ritchie; conversation-orientated or attention to open discussion and interlocution and receptive opinions between parents and children, and conformity-orientation or follow children from parents [17]. Mirzaei-Alavijeh et al. showed that there was a positive significant correlation between closeness and a negative significant correlation between conflict and parents' preventive behaviors affecting the onset of substance use in children [18]. No similar studies were found in this area in Iran; therefore, the present study was done aiming to determine the correlation between family communication patterns and mothers' preventive behavioral intention regarding preventing early-onset substance use in children.

Methods

Participants

This cross-sectional study was carried out among 234 randomly selected mothers in Tehran, Iran. Considering the results from the

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pilot study phase and dependent variables SD=5.35 related to mothers' behavior about preventing the onset of substance use among children, at 95% significant level and d=0.5, the number of samples was defined to be 229, and with regard to 10% attrition rate, a sample of 252 was estimated. The mothers were selected only because in formative evaluation, we found that fathers did not have interest to participate in "My Family" project; therefore, the mothers were selected randomly among the mothers of district 15 of Tehran City. After eliminating incomplete questionnaires, a total of 234 questionnaires were analyzed.

Measures

Three valid self-report questionnaires were used to collect the required data.

Part one: Demographic characteristics

The demographic data gathered included: age (year), education level (under diploma (12 grades<), diploma (12 grades), and academic), family and friends history on substance abuse (yes, and no), occupation (housewife, and working), and family economic status (very good, good, average, poor, and very poor).

Part two: Family-based behavioral intention to preventing the onset of substance use in children

The second questionnaire was family-based behavioral intention to preventing the onset of substance use in children, was which developed by planning group in the My Family study program [19] using relative evidence from previous theory-based studies [20-24] and intervention mapping steps [25]. To develop the questionnaires, the first and second steps of the intervention mapping protocol were used to create the items. The questionnaire was used to investigate parents-oriented behavioral intention related to preventing the onset of substance use among children. Behavioral intention questionnaire includes 10 items (α= 0.74) scores ranging from 10 to 50 (e.g. “I intend to prevent the onset of substance use in my children, and clarify substance use (smoking, drugs, alcohol) regulations in my family”). The participants were asked to choose their answers from a 5 point-Likert scale ranging from completely agree to completely disagree. To confirm the content validity index (CVI) and content validity ratio (CVR) of the questionnaires, we used consulting experts in health educating, addiction, family and psychology. Face validity was approved based on the qualitatively collected view points of a target group, similar to the under study population, about difficulty, appropriateness and ambiguity of the items. In addition, a confirmatory study was conducted among 30 samples from representative groups to confirm the reliability

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of the questionnaire.

Part three: Revised family communication pattern instrument (RFCP) (Parent Version)

The third questionnaire was RFCP parent version by Ritchie & Fitzpatrick [26]. The questionnaire investigated two factors using 26 items, conversation orientation with 15 items (e.g. "I encourage my child to express his/her feelings") scores ranging from 15 to 75, and conformity orientation with 11 items (e.g. "When anything really important is involved, I expect my child to obey me without question.") scores ranging from 11 to 55. The participants were asked to choose their answers from a 5 point-Likert scale (disagree strongly, disagree, neutral agree, and agree strongly). In various studies, validity and reliability of the main [27] and Persian [28] version instruments have been approved. The present study also checked the internal reliability of the questionnaire through applying the questionnaire to a representative group of 30, and it was approved.

Procedure

The inclusion criteria for this study required that participants: possess a healthy family framework, be a Tehran resident, range in age from 30 to 50 years, have a child at the pre-school level, and have no family history of substance use. Self-reports provided the means to confirm a lack of substance use. Moreover, all participants were briefed on the study procedures and ensured of the confidentiality of results. They were given explanations regarding the research aims, and were directed to conduct self-study in order to comply with the research ethics. Also the Ethics Committee of Tarbiat Modares University confirmed this study.

Statistical Analysis

The collected data were analyzed using SPSS version 21 making use of descriptive and analytical statistics (Pearson's correlation, independent t-test, and ANOVA at 95% significant level).

Results

The mean age of the respondents was 35.92 years (SD: 4.03), ranged from 30 to 45 years. Regarding the educational status; 1.7% (4/234) and 2.1% (5/234) of the participants reported having a positive history of substance abuse among the family and friends, respectively (Tables 1 and 2).

The results showed a positive and significant correlation between age and conversation orientation ($r = 0.218^{**}$ & $P = 0.001$), and between age and conformity orientation ($r = -0.105$ & $P = 0.108$).

ANOVA test results showed that there were associations between education level and conformity ($p = 0.001$), and conversation orientation ($p = 0.048$) (Tables 1 and 2).

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Also bivariate correlation analysis showed a positive and significant correlation between conversation and conformity orientation ($r = 0.704^{**}$ & $P \geq 0.001$) (Table 3).

Table 1: Association between background variables and conformity orientation

Variable				Conformity Orientation		
		n	%	Mean	SD	P
Education level	Under Diploma (12 grades<)	19	8.1	39.26	9.33	0.001
	Diploma (12 grades)	179	76.5	33.71	7.73	
	Academic	36	15.4	31.38	7.08	
Economic status	Very Good	13	5.6	37.69	8.90	0.183
	Weak	23	9.8	34.17	9.81	
	Average	141	60.3	32.64	7.49	
	Good	45	19.2	32.97	7.92	
	Very Poor	12	5.1	30.75	8.15	
Positive family history of substance abuse	Yes	4	1.7	39.75	8.53	0.090
	No	230	98.3	32.92	7.93	
Positive friends history of substance abuse	Yes	5	2.1	36.60	7.30	0.315
	No	229	97.9	32.96	7.99	
Occupation	Housewife	212	90.6	33.25	8.14	0.198
	Working	22	9.4	30.95	5.89	

Table 2: Association between background variables and conversation orientation

Variable				Conversation Orientation		
		n	%	Mean	SD	P
Education level	Under Diploma (12 grades<)	19	8.1	50.84	9.08	0.048
	Diploma (12 grades)	179	76.5	52.89	7.23	
	Academic	36	15.4	55.75	8.49	
Economic status	Very Good	13	5.6	48.23	9.67	0.127
	Weak	23	9.8	52.13	7.66	
	Average	141	60.3	53.88	7.32	
	Good	45	19.2	52.88	7.69	
	Very Poor	12	5.1	53.41	8.18	
Positive family history of substance abuse	Yes	4	1.7	48.50	8.34	0.220
	No	230	98.3	53.25	7.64	
Positive friends history of substance abuse	Yes	5	2.1	51.40	8.44	0.603
	No	229	97.9	53.20	7.67	
Occupation	Housewife	212	90.6	53.07	7.66	0.555
	Working	22	9.4	54.09	7.82	

Table 3: Bivariate correlation analysis between family communication pattern and behavioral intention about preventing the early-onset of substance use in children

	Mean (SD)	Conversation orientation	Conformity orientation	Behavioral intention	Maximum obtained scores%
Conversation orientation	53.17 (7.66)	1			70.89%
Conformity orientation	33.04 (7.97)	-0.382**	1		60.07%
Behavioral intention	32.72(5.32)	0.509**	-0.150*	1	65.44%

** Correlation is significant at the 0.01 level (2-tailed).

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Discussion & Conclusion

In the present study, the dominant pattern of communication between mother and child was conversation-orientation; therefore, the mothers had a suitable pattern relationship with their children. In this regard, the results of various studies have shown that the relationship between parents and their children is associated to the onset of substance use in children at the coming years [29, 30]. In other words, mothers who have a conversation-orientation pattern communication with their children encourage them to discussing and thinking about their behavior.

Also Zhang [31] found that the Chinese family communication patterns are more conversation-oriented than conformity-oriented, which is similar to our study.

In the present study, there was a significant and positive correlation between conversation-orientation pattern communication and the intention of preventing the onset of substance use behavior in children by mothers; this shows that the mothers had a suitable pattern relationship with their children. In Talley and Baiocchi-Wagner's study [32], conversation-orientation pattern communication had higher correlation with healthy behaviors about physical activity and dietary.

In our study, there was a significant and negative correlation between conversation-orientation and conformity-orientation; in other words, by increasing the rate of conversation-orientation, the rate of conformity-orientation was lower; this result is similar with those of other studies [32, 33].

In this study, the mothers who had a conformity-orientation pattern relationship had an intention behavior to preventing the onset of substance use behavior in their children. This result reveals that the mothers' awareness about the importance of preventing the onset of substance use behavior in their children but they did not have enough suitable knowledge about the use of the best preventing method of the onset of substance use behavior in their children. According to these results, the importance of planning about suitable pattern relationship to preventing risky behaviors (for instance, the onset of substance use behavior in children) is revealed. On the other hand, due to the parents' role model for their children, their suitable pattern relationship to their children will be important in shaping children's behaviors. According to Bandura' Social Cognitive Theory [34], if the parents use conversation-orientation pattern relationship, their children will also use this pattern to do their other behaviors, and will not do anything without reasons as they do in conformity-orientation pattern relationship. Therefore, they will not accept and do risky behaviors. Jantzer et al. [35] found that the adolescents grown up in families with conformity-

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orientation pattern relationship, could not explain their beliefs and had problems to say no; this reveals the importance of attention to conformity-orientation pattern relationship and its effect on the behavioral intention of preventing the onset of substance use behavior in children and also preventing engagement in others' risky behaviors [36].

Zhang [31] suggested that the Chinese family communication patterns are more conversation-oriented than conformity-oriented, and the collaborating and accommodating styles are the children's most preferred and the competing style is the least preferred. Children from conversation-oriented families are most likely to use the collaborating style but unlikely to use the avoiding style, whereas children from conformity-oriented families are most likely to use the competing style but unlikely to use the collaborating style. Zhang's study results further [31] revealed that the children are more satisfied with the conversation-orientation than with the conformity orientation; this again highlights the importance of family pattern relationship in shaping children's behaviors model.

In addition, Fitzpatrick et al. [36] reported that family pattern relationship during middle childhood affected on children's social behavior revealing the importance of addressing conformity-oriented pattern relationship to create preventing behavioral intention and the onset of substance use behavior in children.

Koesten and Anderson's [37] study about the influence of family communication patterns, cognitive complexity, and interpersonal competence on adolescents, risk behaviors revealed a significant relation between family communication patterns and perceived interpersonal competence in interpersonal relationships both for same-sex friends and romantic partners on adolescents. Additionally, concept-orientated family communication patterns significantly predicted whether a young person develops the interpersonal competence necessary for managing interpersonal relationships. Risk behaviors related to drinking, smoking, and sexual intercourse were significantly tied to specific dimensions of interpersonal competency. The findings of Koesten and Anderson [37] also reveal the importance of attention to family communication patterns in preventing risky behaviors. Furthermore, according to the results of Schrodt et al. [33] meta-analysis study, both conversation and conformity orientations are considered collectively, and the cumulative evidence indicates a small but meaningful relationship between family communication patterns and overall outcomes, therefore, we can suggest addressing on planning and implementation of family communication patterns, as well as conversation orientations programs in families

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and parents to preventing risky behaviors, especially the onset of substance use behavior in children.

Conclusion

The findings suggest that to developing a preventive program, it will be useful to increase family communication patterns, especially conversation-orientation to preventing the onset of substance use in children.

Limitations

This study was subject to several limitations. First, the participants from only Tehran City may not be representative of all Iranian mothers. Second, our findings should be considered preliminary. Third, the instruments designed for the septic purpose were not developed or made available at the time the research. Fourth, it is needed to identify, and strengthen psychometric scales to develop questions. Fifth, a potential limitation is that the behavioral and psychological questionnaires used in the study rely on the self-report format, which may lead to recall bias and inaccurate assessment of prior experiences. Therefore, the results may be subject to self-report bias. Another limitation was lack of relative data on fathers.

Acknowledgement

This article is part of Ph.D. dissertation in Health Education and Promotion supported by Tarbiat Modares University. We would like to thank deputy of Tarbiat Modares University for their financial supports and all of the participants in this study.

Conflict of interest statement

The authors declare that they have no conflict of interest.

Funding

This study was funded by the Deputy of Research of Tarbiat Modares University .

References

1. Moghanibashi-Mansourieh, Amir, and Abbas Deilamizade. The state of data collection on addiction in Iran. Addiction 2014; 109(5): 854.
2. United Nations Office on Drugs and Crime (UNODC). World Drug Report. New York: UNODC; 2013.
3. Ferguson CJ, Meehan DC. With friends like these: Peer delinquency influences across age cohorts on smoking, alcohol and illegal substance use. Eur Psychiatry 2011; 26(1): 6-12.
4. Piko BF, Kovács E. Do parents and school matter? Protective factors for adolescent substance use. Addict Behav 2010; 35(1): 53-6.
5. Van Der Vorst H, Engels RC, Deković M,

[Downloaded from hehp.daneshafarand.org on 2026-11-14]

Meeus W, Vermulst AA. Alcohol-specific rules, personality and adolescents' alcohol use: A longitudinal person–environment study. Addiction 2007; 102(7): 1064-75.

6. Kumpfer KL, Alvarado R., Whiteside HO. Family-based interventions for substance use and misuse prevention. Subst Use Misuse 2003; 38(11-13): 1759-87.
7. BlumRW, IrelandM. Reducing risk, increasing protective factors: findings from the Caribbean Youth Health Survey. J Adolesc Health 2004; 35(6): 493-500.
8. Stephenson MT, Helme DW. Authoritative parenting and sensation seeking as predictors of adolescent cigarette and marijuana use. J Drug Educ 2006; 36(3): 247-70.
9. Stephenson MT, Quick BL, Atkinson J, Tschida DA. Authoritative parenting and drug-prevention practices: Implications for antidrug ads for parents. Health Commun 2005; 17(3): 301-21.
10. Dembo R, Wothke W, Shemwell M, Pacheco K, Seeberger W, Rollie M, Schmeidler J, Livingston S. A structural model of the influence of family problems and child abuse factors on serious delinquency among youths processed at a juvenile assessment center. Journal of Child & Adolescent Substance Abuse 2000; 10(1): 17-31.
11. Mirzaei Alavijeh M, Nasirzadeh M, Eslami AA, Sharifirad GH, Hasanzadeh A. Influence of Family Function about Youth Dependence Synthetic Drugs. Journal of Health Education and Health Promotion. 2013; 2(1): 19-30. [In Persian]
12. Walsh F. Family resilience: A framework for clinical practice. Fam Process 2003; 42(1): 1-18.
13. Gruber KJ, Taylor MF. A family perspective for substance abuse: Implications from the literature. Journal of Social Work Practice in the Addictions 2006; 6(1-2): 1-29.
14. Porter LS, Porter BO. A blended infant massage-parenting enhancement program for recovering substance-abusing mothers. Pediatr Nurs 2004; 30(5): 363-401.
15. Yahav R. External and internal symptoms in children and characteristics of the family system: A comparison of the linear and Circumplex Models. The American Journal of Family Therapy, 2002; 30(1): 39-56.
16. Agatsuma S, Hiroi N. Genetic basis of drug dependence and comorbid behavioral traits. Nihon Shinkei Seishin Yakurigaku Zasshi 2004; 24(3): 137-45.
17. Fitzpatrick MA, Ritchie LD. Communication schemata within the family. Human Communication Research 1994; 20(3): 275-301.
18. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami S, Motlagh MI, Pishdar M. Child-Parent Relationships and Parents'

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Preventive Behaviors Affecting the Onset of Substance Use in Children: My Family Study. Avicenna J Neuro Psych Physio 2015; 2(4): e37730

19. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami Sh, Motlagh MI. The 'My Family-Study' Onset Substance Use Prevention Programme in Early Childhood: An Introduction. Arvand J Health Med Sci 2016; 1(3). [In Press] [In Persian]
20. Mirzaei-Alavijeh M, Jalilian F, Zinat Motlagh F, Mazloomy Mahmodabad S, Zolghadr R, Hatamzadeh N. Effectiveness of Drug Abuse Preventative Intervention among Iranian Medical College Students Based on the Theory of Planned Behavior. HEHP 2015; 2(1): 41-52.
21. Jalilian F, Karami-Matin B, Mirzaei-Alavijeh M, Ataee M, Mahboubi M, Motlagh F, Agha A. Prevalence and Factor Related to Ritalin Abuse among Iranian Medical College Student: An Application of Theory of Planned Behavior. Res 2013; 85(4s): 31-6.
22. Karimy M, Niknami S, Hidarnia A, Hajizadeh E, Shamsi M. Personal Attitudes, risk perception and perceived vulnerability toward water pipe smoking among male students in Zarandieh. HEHP 2013; 1(2): 47-59.
23. Bashirian S, Hidarnia A, Allahverdipour H, Hajizadeh E. The theory-based substance abuse prevention program for adolescents. HEHP 2013; 1(1): 3-12.
24. Mirzaei-Alavijeh M, Jalilian F, Movahed E, Mazloomy S, Zinat Motlagh F, Hatamzadeh N. Predictors of Drug Abuse among Students with Application of Prototype/Willingness Model. Journal of Police Medicine 2013; 2(2): 111-118. [In Persian]
25. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami Sh, Motlagh ME. Family-based cognitive factors effective on preventing the onset of substance use in Iranian society's children: Applying the intervention mapping protocol. Acta Medica Mediterranea 2016; 32: 1015-20.
26. Ritchie LD, Fitzpatrick MA. Family communication patterns measuring intrapersonal perceptions of interpersonal relationships. Communication Research 1990; 17(4): 523-44.
27. Koerner AF, Fitzpatrick MA. Understanding family communication patterns and family functioning: The role of conversation orientation and conformity orientation. Communication Yearbook 2002; 26: 36-68.
28. Koroshnia M, Latifian M. An investigation on validity and reliability of revised family communication patterns instrument. Journal of Family Research 2008; 3(12): 855-875 . [In Persian]

[Downloaded from hehp.daneshafarand.org on 2026-11-14]

29. Harakeh Z, Scholte RH, De Vries H, Engels RC. Parental rules and communication: Their association with adolescent smoking. Addiction 2005; 100(6): 862-70.
30. Harakeh Z, Scholte RH, Vermulst AA, De Vries H, Engels RC. The relations between parents' smoking, general parenting, parental smoking communication, and adolescents' smoking. Journal of Research on Adolescence 2010; 20(1): 140-65.
31. Zhang Q. Family communication patterns and conflict styles in Chinese parent-child relationships. Communication Quarterly 2007; 55(1): 113-28.
32. Baiocchi-Wagner EA, Talley AE. The role of family communication in individual health attitudes and behaviors concerning diet and physical activity. Health Commun 2013; 28(2), 193-205.
33. Schrodt P, Witt P, Messersmith A. A meta-analytical reviewof family communication patterns and their association with informationprocessing, behavioral, and psychosocial outcomes. Communication Monographs 2008; 75(3): 248-69.
34. Bandura A. Human agency in social cognitive theory. Am Psychol 1989; 44(9): 1175-84.
35. Jantzer AM, Hoover JH, Narloch R. The relationship between school-aged bullying and trust, shyness and quality of friendships in young adulthood a preliminary research note. School Psychology International 2006; 27(2): 146-156.
36. Fitzpatrick MA, Marshall LJ, Leutwiler TJ, Krcmar M. The effect of family communication environments on children's social behavior during middle childhood. Communication Research 1996; 23(4): 379-406.
37. Koesten J, Anderson K. Exploring the influence of family communication patterns, cognitive complexity, and interpersonal competence on adolescent risk behaviors. Journal of Family Communication 2004; 4(2): 99-121.

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