

The 'My Family-Study' onset substance use prevention programme in early childhood: an introduction

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Received: 23 May 2016 Accepted: 19 June 2016

To The Editor

Prevalence rate of substance abuse is increasing in Iran (1) and there is a decrease in the age the onset of substance use (2). Therefore, it seems necessary to preventing substance abuse since early childhood. Since family play an essential role in development and growth of children among genetics, temperament and environment factors (3, 4), and studies have shown family can protect children against substance abuse behaviors (5-7), and family has been known as one of the most important preventive factors (8, 9), hence it seems, there would be important to make use of comprehensive, systematic and ecological models or frameworks with a wide participation of community members and stakeholders, to identify the most effective factors to substance abuse preventing based on parents' roles and family environments in Iranian society (10), which provide to health promotion program planners with a framework for effective decision making at each

step in intervention planning, implementation, and evaluation based on the evidence and theories to developing effective interventions programs planned by focusing on a combination of factors as well as behavioral and environmental determinants defined is essential (11). Although the mentioned set, existing literature, appropriate theories and research data have been known as basic tools for health educators and promoters, but often it is unclear how, where and when to use them in planning programs. Thus, it is helpful and essential to use effective frameworks to overcome the weaknesses. A leading model in the field is Intervention Mapping (IM) protocol (12), which is a planning approach considering the importance of developing programs based on theories and evidence, which addressed with an ecological approach to assessment and intervention about problems related to health and social participation (13). Now there are several family-based programs

on prevention the onset of substance use in early childhood running around the world (14-15), considering the epidemiologic conditions of substance abuse and demographic pyramid in Iran (1) and on the other hand the lack of evidence based programs in Iranian society, it may be beneficial to make use of frameworks such as intervention mapping protocol to developing new effective programs or adaption effective programs running in other parts of the world to Iranian society.

My family study was run 2011 to 2014 in Iran to preventing the onset of substance use among pre-school children as a theory and evidence based program using intervention mapping protocol as its systematic and ecologic framework including six steps. The program was conducted under the supervision of health education department of Tarbiat Modares University and social psychology and work department of Maastricht University to intervention on families in Tehran, Iran. Steps taken based on IM in the study could be summarized as following:

Step 1: Needs Assessment; in this step, planning group conducted the need assessment by using PRECEDE model (16), in the following assessment of community capacity and setting goals of health program and quality of life to link the program and evaluation planning. Also environmental agents and behavioral family-based factors, which were effective, important and changeable to preventing the onset of substance use among children, were distinguished.

Step 2: Creating the Matrices of Change Objectives; the second steps provide the foundation for the intervention by define who (parents) and what (parents' behavior) will changes as a result of intervention. The product of step 2 was a matrix of family level that combines performance objectives with selected

determinants to product change objectives as a most immediate target an intervention (17-19).

Step 3: Theory Based Methods and Practical Applications; in this step, ideas of the intervention program resulted from converting theoretical methods and practical applications to change behavioral determinants. For example, theoretical persuasion methods and modeling were used to change self-efficacy determinant considering the parameters (conditions which implemented theoretical methods correctly), and changed to practical applications (e.g. a video) or possible applications throughout the context intervention.

Step 4: Program Production; in this step by planning group participation, scope and sequence of intervention components, materials and protocols were prepared. Also, pre-test and pilot test of programs applications and materials were accomplished in presence of potential implementers and receivers of program. Also, was prepared the guidelines for transfer program concept to program producer (e.g. authors and producers of videos).

Step 5: Adoption and Implementation; This step was done aimed to planning program related to adopter (program owners who were department of health education of Tarbiat Modares University) and implementers (performers of the program who were research and planning group) through focusing on program maintenance in families.

Step 6: Evaluation Planning; in last step develop the evaluation plan to the program which actually started from needs assessment step. It included two parts, program evaluation plan and intervention evaluation plan, which were developed based on logic models during planning. Finally, all tools, indicators and assessment methods to effect and process evaluation developed.

Acknowledgments

This letter to the editor is a part of the Ph.D. dissertation of health education and health promotion supported by Tarbiat Modares University. We would like to thank deputy of research of Tarbiat Modares University for financial support.

Funding/Support

This study was funded by the deputy of research of Tarbiat Modares University, Tehran, Iran.

References

1. Moghanibashi-Mansourieh, Amir, and Abbas Deilamizade. The state of data collection on addiction in Iran. *Addiction* 2014; 109: 854-854.
2. United Nations Office on Drugs and Crime (UNODC). *World Drug Report*. New York: UNODC; 2013.
3. Glantz MD, Leshner AI. Drug abuse and developmental psychopathology. *Develop Psychopathol* 2000; 12: 795-814.
4. Cummings EM, Davies PT, Campbell SB. *Developmental Psychopathology and Family Process: Theory, Research, and Clinical Implications*. New York, Guilford Press, 2002.
5. Van Der Vorst H, Engels RC, Meeus W, Deković M. The impact of alcohol-specific rules, parental norms about early drinking and parental alcohol use on adolescents' drinking behavior. *J Child Psychol Psych* 2006; 47: 1299-1306.
6. van der Vorst H, Engels RC, Meeus W, Deković M. Parental attachment, parental control, and early development of alcohol use: a longitudinal study. *Psychol Add Beh* 2006; 20: 1064-75.
7. Van Der Vorst H, Engels RC, Deković M, Meeus W, Vermulst AA. Alcohol-specific rules, personality and adolescents' alcohol use: a longitudinal person-environment study. *Addiction* 2007; 102: 1064-75.
8. Kumpfer KL, Alvarado R., Whiteside HO. Family-based interventions for substance use and misuse prevention. *Sub Use Mis* 2003; 38: 1759-87.
9. Gardner F., Burton J, Klimes I. Randomised controlled trial of a parenting intervention in the voluntary sector for reducing child conduct problems: outcomes and mechanisms of change. *J Child Psychol Psych* 2006; 47: 1123-32.
10. Kreuter MW, De Rosa C, Howze EH, Baldwin GT. Understanding wicked problems: a key to advancing environmental health promotion. *Health Educ Behav* 2004; 31: 441-54.
11. Kok G, Schaalma H, Ruiter RA, Van Empelen P, Brug J. Intervention mapping: protocol for applying health psychology theory to prevention programmes. *J Health Psychol* 2004; 9: 85-98.
12. Eldredge LKB, Markham CM, Ruiter RA, Fernandez M, Kok G, Parcel GS. *Planning health promotion programs: an intervention mapping approach*. John Wiley & Sons, 2016
13. Kok G. A practical guide to effective behavior Change: How to apply theory- and evidence-based behavior change methods in an intervention. *Eur Health Psychol* 2014; 16: 156-70.
14. Markie-Dadds C, Sanders MR. A controlled evaluation of an enhanced self-directed behavioural family intervention for parents of children with conduct problems in rural and remote areas. *Behav Chang* 2006; 23: 55-72.
15. Kumpfer KL. Why are there no effective child abuse prevention parenting interventions?. *Sub Use Mis* 2008; 43: 1262-65.
16. Green LW, Kreuter MW. *Health program planning: An educational and ecological approach*. 4th edition: McGraw Hill professional, 2005.
17. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami Sh, Motlagh MI, Pishdar M. Family Communication Pattern and Parents' Behavioral Intention regarding Preventing Early-Onset Substance Use in Children: My Family-Study. *Health Education and Health Promotion*. 2016; 3(1):33-43.
18. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami Sh, Motlagh MI, Pishdar M. Child-Parent Relationship and Parents' Preventive Behaviors the Onset of Substance Use in Children: My Family-Study. *Avicenna J Neuro Psych* 2(4): e37730.
19. Mirzaei-Alavijeh M, Hidarnia A, Kok G, Niknami Sh, Motlagh MI. 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; 1015-20.