

# Family Process and Content: Comparing Families of Suicide Attempters, Human Immunodeficiency Virus Positive Patients and General Population in Southern Iran, 2012

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## Abstract

**Background:** Family is considered as the smallest social unit, which is the basis of forming a society and one of the effective factors for individual behaviors. When family pattern is useful, the family will be productive and otherwise it becomes nonproductive. **Aim:** This study aimed to investigate family process and content among families of suicide attempters, human immunodeficiency virus (HIV) positive patients, and general population in Shiraz, Southern Iran. **Subjects and Methods:** This was a causal-comparative study. Our study population included three groups of single men, including suicide attempters, HIV positive patients and general population in Southern Iran. Our sample size was 180 male individuals including 60 suicide attempters referring to one of hospitals in Shiraz, 60 HIV positive patients referring to Behavioral Health Consultation Center, and 60 individuals from the general population who were selected using simple sampling method and were being investigated by Samani's family process and family content questionnaires. Data were being analyzed by ANCOVA and MANCOVA. **Results:** The two clinical groups had a poorer situation than the general population ( $P < 0.001$ ) in some dimensions of family process including decision-making and coping ( $P < 0.001$ ), mutual respect, and communication ( $P = 0.02$ ) when compared with the general population. HIV positive patients had significantly lower scores than suicide attempters in some dimensions of family content including financial resources, social position ( $P < 0.001$ ), and place of residence ( $P = 0.04$ ). The two clinical groups had a poor situation in most of the dimensions when compared with the general population ( $P < 0.001$ ). **Conclusions:** The results of this study indicate the importance of education in the field of communication, decision-making and coping skills.

**Keywords:** Family content, Family process, Human immunodeficiency virus, Iran, Positive patients, Shiraz, Suicide attempters

## Introduction

Family is one of the major pillars and structures of each society and the most-natural group in which physical, emotional, and spiritual needs of individuals can be met. According to this fact, different ongoing studies have been carried out in order to

promote families as much as possible. Studies have shown that family function is related to mental health of family members.<sup>[1-3]</sup>

Although forming a family is a healthy and satisfying relationship, there are several pathologies, which damage this safe relationship. These damages will result in deep conflicts, separation, divorce and other mental and social pathologies.<sup>[4]</sup>

Acquired immunodeficiency syndrome (AIDS) and suicide are among the social pathologies, which mutually affect and are affected by family function and not only they result in physical health problems, but also affect patient's mental and social situation due to multiple Social problems and social stigma, and challenge patient's useful activities and interests.<sup>[5]</sup>

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A review of the epidemiological data on human immunodeficiency virus (HIV) infected patients confirms the fact that a remarkable number of the youth has a high-risk behavior that expose them to infection.<sup>[6]</sup> By high-risk behavior, we mean a lifestyle activity that places a person at high risk of suffering a particular condition such as unsafe sexual intercourse. In Iran, studies by the Ministry of Health reveal the increasing trend of high-risk behaviors that may cause AIDS. These facts make us think more about the factors that cause high-risk behaviors since different social, cultural, economic, and individual factors contribute to increasing the risk and vulnerability of the youth to AIDS.<sup>[7]</sup> In some studies, following variables were related to high-risk behaviors: Old age, low family income, early age at first intercourse, poor knowledge about AIDS, poor relationships, social, economic, and environmental factors.<sup>[8-10]</sup>

On the other hand, studies suggest that several factors such as psychiatric disorders, poverty, social, economic, individual and environmental factors are related with high suicide rate.<sup>[11]</sup> Other studies indicate a direct relationship between poor parent-child relationships and childhood adversities such as abuse, violence, wrong upbringing, and suicide attempt.<sup>[12]</sup> These facts necessitate taking actions in order to find social pathologies and trying to reduce their destructive effects. Investigating the nature of the family system can help us understand the changes, which have occurred in this system and can damage it.

This study aims to compare family process and family content of single men in the three groups of HIV positive patients, suicide attempters and general population in Shiraz in order to take steps toward HIV/AIDS and suicide prevention.

Research hypothesis included the fact that there is a significant difference between family content and family process in HIV positive patients, suicide attempters and general population.

## Subjects and Methods

This study used a causal-comparative method. The study population included three groups. (1) Suicide attempters: This group included single men who had committed suicide by drug overdose or taking toxic substances and had referred to one of the hospitals of Shiraz. Sampling was carried out with those hospitalized clients meeting the inclusion criteria (individuals without parental separation or divorce who had signed a written informed consent). The exclusion criteria were as follows: Psychotic disorders, addiction and refusing to participate in the study. According to the inclusion criteria, 72 people were interviewed out of which, 12 were excluded from the study. (2) HIV positive patients: This group included single men diagnosed with HIV, who had referred to Shiraz Behavioral Health Consultation Center. After a semi-structured interview, the inclusion criteria (individuals without parental separation or divorce who had signed a written informed consent) and

the exclusion criteria (psychotic disorders, suicidal ideation, addiction, refusing to participate in the study) were examined, and questionnaires were completed. Eighty-nine people were interviewed out of which 29 were excluded from the study. (3) General population: This group included single men from Shiraz, Southern Iran, who were selected by simple sampling method from different districts with the inclusion and exclusion criteria similar to that of the previous group. The exclusion criteria were determined through a clinical interview by a clinical psychologist who examined the individuals in terms of mental health, suicidal ideations and high-risk behaviors for HIV infection. In order to avoid bias in this study, addiction was considered as exclusion criteria for two reasons: (1) Common risk factors among addiction, suicide attempt and HIV positive. (2) The impact of addiction on subscales of family process and content. According to the inclusion criteria, 68 people were interviewed out of which eight people were excluded from the study. In order to avoid bias resulted from socioeconomic differences within the process of sampling general population, we tried to match individuals in this group with the two groups of suicide attempters and HIV positive patients with respect to their place of residence. The sample size in this study was 180 people (60 people in each group). After obtaining approval from the Ethics Committee of Shiraz University of Medical Sciences, data collection was done using simple sampling method. After signing a written informed consent, participants were being compared and evaluated using Samani's family process and family content questionnaires. The subjects were matched by two methods. (1) Experimental control: In which subjects were matched with respect to psychotic disorders, individuals without parental separation or divorce, addiction and place of residence. (2) Statistical control: In which the age of each subject was controlled. Data were entered in SPSS 11.5 software (Chicago, USA). A  $P \leq 0.05$  was considered to be significant. Data analysis was performed using descriptive analysis, inferential statistical tests including ANOVA, MANCOVA, and Tukey test.

### Self-report family process scale a (special form for children)

This scale was made by Samani<sup>[13]</sup> based on the theoretical pattern of family process and content. This questionnaire includes 43 questions and encompasses five fields: (1) Decision-making and problem-solving skills (2) coping skill (3) coherence and mutual respect (4) communication skill (5) religious beliefs. In this form, a 1-5 point scoring system, from (completely disagree) to (completely agree), is used for each question. The total score for the questionnaire is obtained by summing up the scores of each question which ranges from 43 to 215. The scores of each subscale are added up with each other and are then divided by the number of questions of that subscale. The cut-off point for this scale is 3. Samani used factor analysis (2008) in order to determine the validity which indicates a high validity of this scale. The reliability of this scale is 0.80.<sup>[14]</sup>

### Self-report family content scale a (special form for children)

This question was made by Samani (2005) based on theoretical pattern of family process and content. This questionnaire includes 38 questions which encompasses seven fields: (1) Job and education (2) time for being together (3) financial resources (4) physical and mental health (5) place of residence (6) physical appearance and social position (7) educational facilities.

In this form, a 1-5 point scoring system, from (completely disagree) to (completely agree), is used for each question. The total score for the questionnaire is obtained by adding up the scores of each question which ranged from 38 to 190. The scores of each subscale are added up and then divided by the number of questions of that subscale. The cut-off point for this scale is 3. Results of Samani's factor analysis (2008) indicate a high validity of this scale. The reliability of this scale is 0.78.<sup>[14,15]</sup>

## Results

The mean age of HIV positive patients, suicide attempters and general population was 34.5 (5.6), 22.4 (5.5) and 26.9 (8.9), respectively. 71.7% (43), 48.3% (29), and 30% (18) of individuals in the above groups reported low family income. 95% (57), 41.7% (25), and 10% (6) of individuals in the three groups had not finished high school, respectively. 40% (24), 25% (15), and 23.3% (14) of individuals were unemployed, respectively.

### Family process

Tukey test was used in order to determine intergroup differences in different dimensions of family process due to significant value of F. The results of this comparison are as follows:

According to Table 1, suicide attempters and HIV positive patients had significantly poorer performance compared with the general population in the total score of family process ( $P < 0.001$ ). This difference was not significant in suicide attempters and HIV positive patients. By performing *post-hoc* test, it was revealed that suicide attempters and HIV positive patients had significantly poorer performance than normal individuals in all of the family process dimensions except religious beliefs ( $P = 0.02$ ).

Family content: In order to determine intergroup differences in different dimensions of family content, Tukey's *post-hoc* test was used due to the significant value of F. The results of these comparisons are as follow:

According to Table 2, suicide attempters and HIV positive patients had significantly poorer performance than the general population ( $P < 0.001$ ). Furthermore, suicide attempters

**Table 1: Different dimensions of family process by age**

| Group dimension  | Mean (SD)          |                       |                    | P value |
|------------------|--------------------|-----------------------|--------------------|---------|
|                  | Suicide attempters | HIV positive patients | General population |         |
| Decision making  | 31.8 (8.1)         | 29.5 (7.8)            | 36.3 (8.4)         | <0.001  |
| Coping           | 36.7 (6.4)         | 34.5 (6.4)            | 41.2 (8.5)         | <0.001  |
| Mutual respect   | 13.3 (3.5)         | 13.2 (3.3)            | 15.1 (2.5)         | 0.01    |
| Communication    | 18.1 (5.7)         | 18.6 (3.4)            | 20.2 (3.8)         | 0.02    |
| Religious belief | 21.5 (5.3)         | 22.2 (5.2)            | 22.5 (1.4)         | 0.58    |
| Total score      | 104.8 (17.8)       | 90.3 (15.9)           | 112.5 (19.6)       | <0.001  |

SD: Standard deviation, HIV: Human immunodeficiency virus

**Table 2: Different dimensions of family content by age**

| Group dimension            | Mean (SD)          |                       |                    | P value |
|----------------------------|--------------------|-----------------------|--------------------|---------|
|                            | Suicide attempters | HIV positive patients | General population |         |
| Job and education          | 18.3 (4.2)         | 17.25 (3.8)           | 20.5 (6)           | <0.01   |
| Time for being together    | 16.2 (6.2)         | 15.2 (1.4)            | 18.6 (4.7)         | 0.02    |
| Financial resources        | 14.2 (4.7)         | 10.3 (3.8)            | 14.5 (4.4)         | <0.001  |
| Social position            | 20.3 (3.9)         | 17.7 (4)              | 22 (3.4)           | <0.001  |
| Physical and mental health | 16.3 (4.6)         | 14.3 (4)              | 18.8 (3.4)         | <0.001  |
| Place of residence         | 9.6 (3.4)          | 7.5 (3.3)             | 8.4 (3.4)          | 0.04    |
| Educational facilities     | 8 (1.8)            | 8 (2.2)               | 9.3 (2.7)          | 0.03    |
| Total score                | 122.6 (19.6)       | 119.2 (20)            | 135.5 (19.7)       | <0.001  |

SD: Standard deviation, HIV: Human immunodeficiency virus

significantly gained higher scores than HIV positive patients ( $P < 0.01$ ). The results of *post-hoc* test indicated that HIV positive patients were poorer than suicide attempters in the dimensions of financial resources, social position ( $P < 0.001$ ), and place of residence ( $P = 0.04$  but the difference was not significant in other dimensions. HIV positive patients and suicide attempters were poorer than the general population in all dimensions except place of residence ( $P = 0.04$ ) and financial resources ( $P < 0.001$ ), respectively.

## Discussion

### Family process

Suicide attempters and HIV positive patients had lower total scores in family process. Other studies support the deficiency of family function in HIV positive patients and suicide attempters.<sup>[16,17]</sup> Moreover, the existence and prevalence of high-risk behaviors in the family was seen in most HIV positive patients, which indicates important role of the family in providing children with behavioral patterns.<sup>[5]</sup>

The *post-hoc* test showed that HIV positive patients and suicide attempters had a significantly poorer performance in all dimensions of family process except religious beliefs as compared with the general population. In other words, patients' families do not have the necessary function in decision-making and problem-solving skills and their families are challenged

when facing and coping with crises. Furthermore, patients' families are not able to adapt themselves with different events and problems by losing their coping skill. On the other hand, patients suffered malfunctioning communication and mutual respect. This finding was in consistence with previous studies in other dimensions.<sup>[18,19]</sup> Current models of family competence suppose that family performance can bring about negative changes among children.<sup>[20,21]</sup> Nevertheless, previous findings regarding religious beliefs were not in agreement with the present study. Studies identified the deficiency of religious beliefs as a risk factor for social pathologies and suicide.<sup>[10,17,22]</sup> This finding can be explained by four points: (1) The score of religious beliefs refers to the overall perception of an individual of how much his/her family is religious. (2) Due to the importance of religion in Iran, it is possible that study participants exaggerated about this fact. (3) It is also probable that religious beliefs - as compared with other effective factors on social pathologies among the youth-do not have a determining role.

### Family content

Human immunodeficiency virus positive patients and suicide attempters had a significantly lower total score for family content compared with the general population. This finding was expected according to results from previous studies.<sup>[9,11,23]</sup>

Suicide attempters gained significantly higher family content scores than HIV positive patients; this can be a distinctive pattern for these two groups while both groups had poor family processes. On the other hand, HIV positive patients might have a more pessimistic perception of their families due to their own disease and negative view.

Human immunodeficiency virus positive patients had significantly lower scores than suicide attempters in the subscales of financial resources, social position and place of residence, but no significant difference was seen in other subscales including job, education, time for being together, physical and mental health and living facilities. Although the difference in such subscales was not significant, the mean score in suicide attempters was higher. Results of the present study was not in agreement with McLaughlin's study results which stated that family income has not a significant role in preventing high-risk behaviors.<sup>[24]</sup> Meanwhile, previous studies indicated that frequent change of place of residence, psychiatric disorders, unemployment and level of education can increase the risk of suicide.<sup>[18,19,25]</sup> Based on Samani's family process and content model (2008), unlike healthy families, problematic families are not satisfied with the quality of their family content and indicators such as social position. According to Niang and Ufford's study, families with an HIV member possess lower social position due to family's isolation since HIV has a remarkable effect on both family and the individual's identity.<sup>[26]</sup>

According to the results of this study, HIV positive patients had significantly lower scores than the general population in subscales of educational facilities, job, financial resources, time for being

together, social position and physical and mental health. This difference was not significant in the subscale of place of residence. Although the difference in this subscale was not significant, the mean scores in the general population were higher. These results were seen in other studies.<sup>[8,27]</sup> In two other studies, factors-related to high-risk behaviors included: Accepting the culture, excessive religiosity, HIV knowledge, sexual experience, sexuality role and parental supervision which were consistent with our results.<sup>[10,28]</sup> The results of this study were not in agreement with previous studies in the dimension of place of residence, since researchers believe that the place of residence is one of the stressful environmental factors that can affect families' tendency toward participating in HIV prevention programs.<sup>[29]</sup>

Suicide attempters had significantly lower scores in comparison with the general population in all dimensions except financial resources. This finding was in agreement with Evan's study,<sup>[30]</sup> while it was in contrast with other studies, which maintained that economic factors were effective on increasing the risk of suicide.<sup>[31,32]</sup> Several studies support the role of economic factors in increasing the risk of suicide.<sup>[24]</sup> There are four explanations for this insignificant difference: (1) It seems that an individuals' perception toward income and socioeconomic status is not merely affected by his/her income. (2) A part of this difference may be because individual expectations from life differ in different families. (3) People consider their own and their family's income as a private thing and refuse to reveal it. That is why most participants evaluated themselves as low-income families. (4) Another probability is that the contrary to the public imagination, family's low income may have a diminishing role than other factors affecting the risk of suicide attempt in Iran.

According to results of this study, it can be concluded that researchers should focus both on diseases with social dimensions and the role of families as the providing and preventive factors for such diseases, which necessitates the importance of education in the field of communication, decision-making and coping skills.

### Limitations

(1) The three groups in this study were not matched according to some demographic variables. (2) Suicide attempters were only selected from self-poisoning individuals. (3) Study participants were only male and single. (4) The only source for data collection was self-reports. (5) A certain age group was investigated. (6) The absence of research tools like rating scales in order to measure family burden, depression, quality of life, levels of suicidality, hopelessness, coping skills, etc., which could have improved the weightage of the study. (7) Our statistical sample was not a representative of all the patients since they were from Shiraz only and had referred to one of the centers in this city.

### Suggestions

(1) Controlling psychological disorders in the two clinical groups can yield more precise results. (2) Assessing the data



from families along with self-reports. (3) Assessing personal characteristics of participants.

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