Risk Factors for Running Away in Iranian Youth Girls: A Cross- Sectional Study

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Abstract

Background

This study explored the risk factors associated with running away behavior in Iranian youth girls.

Method

This cross-sectional study recruited Ninety-five runaway youth girls, and 135 control group girls. They responded several self-report measures that assess sociodemographic characteristics, family economic status, strength of family, religious identification, life time substance use, physical, emotional, and sexual abuse, self-esteem, coping styles, self-esteem, and depression.

Results

Girls who came from low income families, and moderate income families had significantly higher odds to run away than girls belonged to high income families. Girls who had a history of illicit drugs use had higher odds to run away from home. Moreover, low level of family strength, and low level of religious beliefs significantly predicted running away from home.

Conclusion

Findings suggest that family economic status, substance use, family relationship, and individual low level of religious beliefs appear to be key factors to understanding running away from home among Iranian adolescent girls.

Background

Although exact estimation of running away epidemiology is difficult, it seems that 6–7% of adolescents run away from home and slept in the street in any given year (1, 2). In United States 1.7 million adolescents run away from home and spend nights in street (3). Iran Social Emergency Coordination Center reported that almost 3000 girls and women left their home in 2017. Among them, 644 adolescent and youth girls were admitted in Residency Centers of State Welfare Organization. The prevalence of the Iranian runaway boys was lower than girls and 100 boys left their home and referred to Residency Centers of State Welfare Organization in 2017 (4).

Running away from home has huge negative impacts on healthy developmental transition from adolescence into adulthood (3). For example, previous literature demonstrated that runaway or homeless adolescents show significantly more substance use (5), delinquent behaviors (6), high risk sexual behaviors (7), and depressive symptoms (5, 8). In addition, runaway adolescents are more likely to become homeless adults (6). This perspective implied that runaway adolescents need greater attention to develop prevention and treatment programs.

A number of research on adolescents and youth has incorporated a risk factor approach to Bronfenbrenner's ecological framework (9) to determine risk factors of high risk behaviors. According to the framework, high risk behaviors are not direct consequence of individual characteristics. Rather, they emerge due to complex interactions between an individual characteristics and the contexts or systems (e.g. microsystem, mesosystem, exosystem, and macrosystem) in which he/she live. Also, in line with the Bronfenbrenner's ecological framework, some theorists linked running away from home with family economic and social resources (in terms of financial capital and social capital resources) (10, 11). Financial capital refers to economic resources available to the family, while social capital refers to the relationship between family members as well as bonds between parents and children (11). Parcel and Bixby (11) postulated that social and financial capital are inter-correlated and good economic status pave the ground for a high quality of parent-child relationship. This hypothesis was confirmed by studies that showed economic stressors would reduce the capacity of parents to provide financial and social support, in turn, increases adolescents' likelihood of engaging in high risk behaviors (12–14).

Consistent with the Bronfenbrenner's ecological framework, studies in Western as well as Iranian population highlighted the multifactorial nature of problems of runaway adolescents. A number of researches indicated that long lasting conflict between parents/caregivers and adolescents, and poor parental functioning are the primary reported reasons of adolescents who left their house (2, 8, 15). Furthermore, runaway adolescents experienced high rates of physical or sexual abuse, and neglect from family members before leaving home (16). Other studies showed that female gender (1), living in a disrupted or single parent family (1), school disengagement and earning poorer grades in school (8, 17) associated with increased risk of running away from home. In addition, adolescents who experience depressive symptoms (8, 16, 18), use substances (8, 17), engage in delinquent behaviors (2, 16), and expose to violence (2) are at increased risk of running away from house.

However, to our knowledge, there is no published study that explore the risk factors of running away from home among Iranian youth girls. Majority of the researches in this area limited to investigation of psychological problems of this population and street children in Iran (19, 20). Therefore, in light of high prevalence of running away among Iranian females, this study explored the role of conflictual relationship in the family, history of sexual and physical abuse, low socioeconomic status, low self-esteem, dysfunctional coping strategy, depressive symptoms, and low level of religious beliefs on prediction of running away behavior among Iranian youth girls.

Methods

Participants

This cross-sectional study recruited all 120 runaway youth girls (age ranged from 12 to 21) who were arrested by Police and referred to Residency Centers of State Welfare Organization (RCSWO) of the 31 provinces of Iran during February 2016 to July 2016. Girls who left home intentionally and without parents' permission, spent at least one night out of home and did not want to go back home included in

the study. The RCSWO provide shelter, food and necessary health services. In addition, the social workers of the RCSWO try to provide social support to the girls and contact with their family. Runaway girls usually stay in this center for 10 days. Twenty-five of the runaway participants did not answer more than 15% of the questionnaire items. Therefore, the data of 95 subjects were analyzed. Further demographic characteristics of runaway girls are presented in Table 1. The excluded participants did not differ with other runaway girls on fathers' education (χ^2 (2, N = 230) = 3.11, p = 0.37), Fathers' employment (χ^2 (2, N = 230) = 4.73, p = 0.18), mothers' education (χ^2 (2, N = 230) = 4.54, p = 0.20), family socioeconomic status (χ^2 (2, N = 230) = 1.29, p = 0.52).

The control group girls were female students (grade 7th to 12th) at intermediate and high schools of Tehran and Kerman that recruited via convenience sampling (n = 135) at the same timeframe. The exclusion criteria were the history of running away from house. Further demographic characteristics of control group girls are also presented in Table 1.

Instruments

Sociodemographic characteristics: This included age, religion, father and mother's educational status, Father's employment status, and family economic status.

Prevention Planning Survey (PPS) (21, 22) consists of items and short scales that measures a number of personality and social risk factors. The items of the PPS were short and use simple wording so that the individuals with weak reading skills could answer them. In the current study, we used strength of family (e.g. "Dose your family care about you? "Does your family care what you do?", "How much do you care about your family?"), religious identification (e.g. "How important is religion in your life?", "Are you religious?"), Physical, emotional, and sexual abuse (e.g. "have you ever beaten up by someone?"), and lifetime substance use (e.g. "How often have you ever used opium? If yes, how many times?") subscales. The strength of family and religious identification scales used a 4 point Likert scale (1 = a lot to 4 = not at all) that higher scores indicate lower level of family strength and lower level of religious beliefs. The Physical, emotional, and sexual abuse subscale use yes/no answers. Validity and reliability of these subscales were established in Iranian population (Taremian, Bolhari, Peyravi, & Asgari, 2014). In the current study, internal consistency of these scales were satisfactory and ranged from 0.73 to 0.84.

Beck Depression Inventory, second edition (BDI-II) assesses the severity of depression symptoms (23) using a 4 point likert scale (ranging from 0 to 3). Each item consisted of 4 sentences and participant was asked to choose a sentence that describe him/her best. The scale demonstrated good psychometric properties (24). The internal consistency, split half, and test–retest reliability of the scale in an Iranian sample were 0.91, 0.89 and 0.94, respectively (25). In the current study, internal consistency of the BDI-II was 0.93.

Rosenberg Self-esteem Scale (RSES) (26) is a 10-item self-report instrument that measures self-esteem (e.g. "I feel that I am a person of worth, at least on an equal plane with others") using a 4 point Likert scale (from 0 = strongly disagree to 3 = strongly agree). The higher scores indicate higher self-esteem.

Satisfactory internal consistency and validity of RSES has been demonstrated in Western (27, 28) as well as Persian speaking populations. In the current study, the RSES showed satisfactory internal consistency (0.81).

Coping Inventory for Stressful Situations (CISS) (29) is a 46 items inventory that assesses task oriented (e.g. "Focus on the problem and see how I can solve it"), emotion oriented (e.g. "Blame myself for having gotten into this situation"), and avoidance oriented (e.g. "Treat myself to a favorite food or snack") coping strategies using a 5 point Likert scale (from 1 = not at all to 5 = very much). Validity and reliability of CISS are well established in Italian (30), Japanese (31) and Iranian population (32). In present study the internal consistency of the scale was 0.81.

Procedure

For runaway sample, 31 psychologists from social welfare organizations in 31 provinces were recruited as assessors. In other words, each assessor collected data from one province. Third author ran a 4-hour workshop and trained the 31 assessors about purpose and procedure of the study and content of the questionnaire items. Then, assessors invited runaway youth girls who admitted to RSCWO to participate in the study. Those who agreed to participate in the study and signed informed written consent were asked to complete the questionnaire package anonymously. During completing the questionnaires, the assessor was available to the participant to answer her questions.

In order to collect data from the control group, two assessors referred to the classrooms in Tehran and Kerman. They explained the purpose and procedure of the study to the students. Girls who agreed to participate in the study, were instructed about the questionnaires and asked to complete the same battery of questionnaires, anonymously. During completing the questionnaires, the assessor was available to the participant to answer her questions.

All participants which aged ≥ 16 years old signed an informed written consent. For runaway girls which aged less than 16 years old, social worker of the RCSWO contacted with their parents/guardians. When parents/guardians of the runaway girls referred to the RCSWO, they were provided an informed written consent. For control group girls which aged less than 16 years old, parents/guardians signed an informed written consent. Research procedure was approved by Ethics Review Board of Zanjan University of Medical Sciences and State Welfare Organization (Code of Ethics: 1394.103). All methods were carried out following the institutional guidelines and conforming to the ethical standards of the declaration of Helsinki. All participants were informed about the study and written informed consent was obtained before completing the survey.

Statistical Analysis

Data analysis were performed using Statistical Package for the Social Sciences (SPSS software version 24). The demographic characteristics of participants were estimated using descriptive statistics. Missing data were replaced by the means of the item in the corresponding group. We used independent t-test and

Chi square in order to compare runaway girls with control group girls on sociodemographic characteristics and independent variables. We also used logistic model regression to examine the associations between running away from home and each independent variable. The dependent variable was running away from home. The independent variables were level of family strength, family income, history of illicit drugs use in life time, level of religious beliefs, coping style, self-esteem, depression, and history of physical, emotional, and sexual abuse. After checking for collinearity, variables that were significant in comparison analyses ($p < 0.05$) were included in the logistic analysis. We used adjusted odds ratios (aORs) and 95% CIs estimated using logistic regression.

Results

The mean age of runaway girls was 16.92 ($SD = 2.54$, ranged from 12 to 21). The mean age of control group girls was 16.57 ($SD = 1.16$, ranged from 13 to 20). Fathers, and mothers of control group were higher educated than fathers and mothers of runaway girls. Also, fathers of control group were more likely to be employed than fathers of runaway girls. The two groups were different on socioeconomic status. Majority of runaway girls (74.2%) described their family as low income. While, in control group 33.8% reported their family as low income, and 49.6% as moderate income. Runaway girls reported significantly higher rate of cigarette/hookah use, alcohol use, and illicit drugs use (e.g. cannabis, opium, amphetamine, LSD, cocaine) than control group in their life time (Table 1). Also, runaway girls scored higher than control group on BDI-II ($t = 5.29$, $df = 228$, $p = 0.0001$), low level of family strength ($t = 9.36$, $df = 228$, $p = 0.000$), history of sexual, physical, and emotional abuse ($t = 3.39$, $df = 228$, $p = 0.001$), and low level of religious beliefs ($t = 6.76$, $df = 228$, $p = 0.0001$). While, girls in control group significantly scored higher on self-esteem ($t = 5.68$, $df = 228$, $p = 0.0001$) and problem oriented coping style ($t = 4.29$, $df = 228$, $p = 0.0001$) than runaway girls (Table 2).

Table 1 Sociodemographic characteristics of runaway girls (n = 95) and control girls (n = 135)

	Runaway girls (n = 95)	Control group (n = 135)	χ^2	<i>p</i>
	N (%)	N (%)		
Father education			46.45	0.0001
Primary	82 (92.1)	98 (79)		
High school and upper	7 (7.9)	26 (21)		
Father occupation			39.69	0.0001
Employed	51 (54.8)	103 (79.2)		
Unemployed	44 (45.2)	30 (20.8)		
Mother Education			43.40	0.0001
Primary	85 (97.7)	116 (90.6)		
High school and upper	2 (2.3)	12 (9.4)		
Family Income Status			37.35	0.0001
Low income	69 (74.2)	45 (33.8)		
Moderate income	21 (22.6)	66 (49.6)		
High income	3 (3.2)	22 (16.5)		
Life time substance use				
Cigarette	32 (33.7%)	14 (10.37%)	17.54	0.0001
Alcohol	14 (14.73%)	4 (2.96%)	14.52	0.0001
Illicit Drugs use			20.70	0.0001
Cannabis	5 (5.4%)	1 (0.8%)		
Opium	6 (6.5%)	0 (0%)		
Heroin	5 (5.4%)	0 (0%)		
Amphetamine	6 (6.5%)	0 (0%)		
Ecstasy	4 (4.3%)	0 (0%)		
Pure heroin	3 (3.3%)	1 (0.8%)		

Table 2 Mean and standard deviation of predictor variables in runaway girls (n = 95) and control girls (n = 135)

	Runaway girls (n = 95)	Control group (n = 135)
BDI-II	24.47 (15.54)	14.38 (12.55)
Coping strategy		
Problem oriented coping	45.94(14.4)	53.68(12.83)
Emotion oriented coping	36.59(10.26)	34.33(9.64)
Avoidance oriented coping	36.10(8.57)	35.73(11.4)
Low level of family strength	27.24 (8.71)	17.33(5.39)
Low level of religious beliefs	5.55(1.92)	4.1(1.33)
Self esteem	5.82 (2.93)	14.61 (6.60)
History of sexual, physical, and emotional abuse	19.32 (3.54)	16.87 (7.21)

A series of Pearson correlations coefficient were conducted in order to examine correlation coefficients between the independent variables (Table 3). There were significant relationships between depression and emotion oriented coping style, depression and low level of family strength, depression and low level of religious beliefs, and depression and history of sexual, physical and emotional abuse. Also low level of family strength positively correlated with low level of religious beliefs, and history of sexual, physical and emotional abuse. Task oriented coping style negatively correlated with depression, low level of family strength, and low level of religious beliefs. However, there was positive association between task oriented coping style and self-esteem. Self-esteem negatively correlated with emotion oriented coping style, depression, low level of family strength, and low level of religious beliefs.

Table 3 Correlations between independent variables

		1	2	3	4	5	6	7
1	Task oriented coping style	1						
2	Emotion oriented coping style	0.12	1					
3	Avoidance oriented coping style	0.12	0.13	1				
4	Depression	-0.27*	0.56*	0.006	1			
5	Low level of family strength	-0.41*	0.16	-0.13	0.42*	1		
6	Low level of religious beliefs	-0.32*	0.003	0.01	0.26*	0.41*	1	
7	Self esteem	0.38*	-0.42*	-0.04	-0.67*	-0.35*	-0.24*	1
8	History of sexual, physical and emotional abuse	0.14	0.00	0.04	-0.19*	0.18*	-0.10	0.05

Multivariate logistic regression analysis with enter method showed that there was a significant association between independent variables and running away from home (Table 4). The full model containing all predictors was statistically significant ($\chi^2(10, N = 228) = 164.54, p < 0.001$). The model explained 51% of the variance in running away from home (Cox& Snell R square), and classified 64.5% (Nagel Kerke R Square) of the cases. Family income had strongest significant contribution to the model. In other words, girls who came from low income families (aOR = 31.62, 95% CI = 2.87–347.80), and moderate income families (aOR = 4.63, 95% CI = 0.47–45.18) had significantly higher odds to run away than girls belonged to high income families. In addition, girls who had a history of illicit drugs use (e.g. cannabis, opium, amphetamine, LSD, cocaine) (aOR = 1.28, 95% CI = 0.98–1.67) had higher odds to run away from home. Finally, girls who reported low level of family strength (aOR = 1.19, 95% CI = 1.10–1.29), and low level of religious beliefs (aOR = 2.15, 95% CI = 1.49–3.18) were more likely to run away from home.

Table 4 Multiple logistic regression analysis of factors associated with running away among youth girls

Variable			
	aOR	95%CI	<i>p-value</i>
Family income			
Low	31.62	(2.87–347.80)	0.005
Moderate	4.63	(0.47–45.18)	0.18
High	1	1	1
History of smoking and alcohol use	0.91	(0.44–1.82)	0.46
History of illicit drugs use	1.28	(0.98 – 1.67)	0.05
Task oriented coping style	1.00	0.95–1.04	0.98
Emotion oriented coping style	0.96	0.90–1.03	0.96
Avoidance oriented coping style	10.01	0.96–1.07	0.47
Depression	1.01	.96-1.05	0.67
Low level of family strength	1.19	1.10–1.29	0.0001
Low level of religious beliefs	2.15	(1.49–3.18)	0.0001
Self esteem	0.89	0.82–0.92)	0.03
History of sexual, physical and emotional abuse	0.89	(0.82–0.97)	0.29

Discussion

To our knowledge, the present study was the first research that investigate the contribution of psychological and social factors in prediction of running away from home among Iranian adolescent girls. In light of the number of Iranian families and adolescents that affected by running away behavior (20), it is necessary to identify the risk factors and precursors that associated with running away. It helps policy makers and practitioner to appropriately target the psychosocial needs of this at risk adolescents.

Our results indicated that low socioeconomic status emerged as significant and strongest predictor of running away from home. Girls who reared in low socioeconomic families were nearly 32 times more likely to run away from home than girls who lived in families with high socioeconomic status. In addition, girls in middle socioeconomic families approximately 5 times more likely to left home than girls in high socioeconomic families. These results are consistent with previous researches indicating that low socioeconomic status was associated with higher levels of a range of antisocial behaviors (33) and running away (2, 34). In addition, this results are in line with Bronfenbrenner's ecological framework (9), and Bixby Radu theory (10).

Girls who experience more conflictual relationship with their parents and less parental support and control were 1.19 times more likely to run away from home. These findings are in line with the previous literature that identified poor parental control and conflictual relationship between family members as primary risk factor of running away from home (3, 16, 17, 35).

In Individual level, life time history of illicit drugs use significantly anticipated running away behaviors. This finding are generally consistent with previous studies that found substance use problem as a predictor of running away from home (2, 8, 17). In addition, some researches indicated that runaway adolescents are more likely to report using substances compared to their housed counterparts (8, 36). One path analytic study on homeless adolescents showed that trauma, poor family functioning, and family conflict significantly explained greater mental health problems, delinquent behaviors, high-risk sexual behaviors, and substance use. These results raised this question that whether running away from home, substance use and the other externalizing symptoms could be conceptualized as consequences of other etiological factors (e.g. disadvantaged socioeconomic status or poor family functioning). Although, this is a very interesting question, the cross-sectional nature of our study hinders to test this hypothesis.

Finally, the results indicated that low level of religious beliefs significantly predicted running away behavior. In other word, girls who experienced lower religious beliefs, 2.15 times more likely to run away from home. These results are in line with previous studies which reported a significant association of religiosity and lower rate of high risk behaviors (8, 36, 37).

These findings must be interpreted with the limitations of the research in mind. First and most important, our study only included runaway youth that were arrested by Police and admitted in the RCSWO. Therefore, the results could not be generalized to runaway youth girls who were not arrested by Police. Second, retrospective nature of the study hinders to deduce casual relationships between predictors and dependent variables. Thus, designing longitudinal researches would be a logical next step to investigate risk and protective factors of running away among Iranian female adolescents. Third, we utilized self-report instruments. This issue might lead to recall bias and, in turn, overestimating and under-estimating due to social desirability.

Conclusion

Results of the current study indicated that girls who came from low income families, and moderate income families had significantly higher odds to run away than girls belonged to high income families. Also, Girls who had a history of illicit drugs use had higher odds to run away from home. Moreover, low level of family strength, and low level of religious beliefs significantly predicted running away from home. These findings implied that prevention programs for running away would aim to increase economical capacity of the family through training of work skills and entrepreneurship, as well as financial support of low income families. Furthermore, psychoeducational interventions about effective parenting, life skills and internalizing religious values in children and adolescents should be an incremental component of the prevention programs.

Abbreviations

Residency Centers of State Welfare Organization = RCSWO; Prevention Planning Survey = PPS; Beck Depression Inventory, second edition = BDI-II; Rosenberg Self-esteem Scale = RSES; Coping Inventory for Stressful Situations = CISS; Statistical Package for the Social Sciences = SPSS; adjusted Odds Ratios = aORs.

Declarations

Ethics approval and consent to participate

All participants were informed about the study and written informed consent was obtained before completing the survey. All participants which aged ≥ 16 years old signed an informed written consent. For runaway girls which aged less than 16 years old, social worker of the RCSWO contacted with their parents/guardians. When parents/guardians of the runaway girls referred to the RCSWO, they were provided an informed written consent. For control group girls which aged less than 16 years old, parents/guardians signed an informed written consent. The research procedure was approved by the ethics committee of Zanjan University of Medical Sciences, Zanjan, Iran and State Welfare Organization (Code of Ethics: 1394.103).

Consent for publication

Identifiable demographic information has been removed from this manuscript to ensure anonymity. Thus, the consent to publish is not applicable.

Availability of the data

Zanjan University of Medical Sciences has approved and supported that only researchers of the manuscript will have access to the dataset, so the data used in this study is not available for public view. Still, requests can be written officially to the Fahad Taremian, Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran. E-mail address: fa.taremian@uswr.ac.ir, T: +989121451697.

Competing Interest

The authors have no actual or potential conflicts of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the work submitted that could inappropriately influence their work.

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Authors' Contribution

FT and RM designed the research. SK conducted the study. HM.F supervised the study procedure. RM and MN analyzed the data and wrote the manuscript.

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