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The Effect of Loneliness and Family Communication on Addiction Potential: A Study Conducted in Sistan and Baluchestan, Iran

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Abstract

Background: The prevalence of risky behaviors, such as drug abuse, among adolescents and young adults indicates the importance of investigating and recognizing such risky behaviors.
Objectives: The present study aimed to examine the effect of loneliness and family communication on addiction potential.
Methods: This cross-sectional study was conducted from 2015 to 2016. The current study had a sample of 452 students (242 men and 210 women), who were studying at the University of Sistan and Baluchestan, in Zahedan, Iran. The participants were selected using a cluster sampling method. The Schmidt and Sermat Feeling of Loneliness Scale (1983), Fitzpatrick and Ritchie Family Communication Patterns Inventory (1994), and Weed, Butcher, McKenna, and Ben-Porath Addiction Potential Scale (1992) were used as data measurement tools. Data was analyzed in SPSS software, using Pearson's correlation coefficient and Stepwise multiple regression.
Results: Results showed that loneliness and laissez-faire communication patterns were significantly and directly related to addiction potential; however, the consensual communication pattern was significantly and diversely correlated with addiction potential. In addition, results of the regression analysis indicated that, in the first step, loneliness predicted 0.09 and, in the second step, loneliness together with the laissez-faire communication patter predicted 0.11 of the variance in addiction potential ($P \leq 0.001$).
Conclusions: Accordingly, university students and university students and educators are advised to pay attention to loneliness and family communication, as these factors play an important role in addiction potential. Thus, special programs should be introduced that focus on these specific factors.

Keywords: Addiction, Family, Loneliness, Student

1. Background

Drug abuse is an important concern in Iran, due to its regional location and the kinds of drug that are used (1). Drug abuse in adolescence and early adulthood are especially problematic during these critical periods of growth as they may impact an individual's life, including academic achievement. and. Especially as many of these problematic behaviors may continue into adulthood (2). There is evidence that engaging in risky behaviors reaches its peak during adolescence (3), and loneliness is one of the factors contributing to drug abuse. Elhageen considered loneliness as a state that leads teenagers to feel inadequate and experience uncomfortable mood states (4). The term loneliness means isolation, abandonment, and lack of social relationships, which can originate from environmental factors such as moving away, losing loved ones, and being rejected by others; loneliness can also be caused by internal factors, which can occur concurrently with other symptoms of depression (5, 6). Several studies have indicated that abusing drugs and tobacco (7), as well as alcohol (8) correlates with emotional and psychological issues that are related to the perception of loneliness amongst teenagers. Research studies have suggested that isolation and loneliness increase the following: risk of general health problems, such as depression, tendency to attent or commit suicide, levels of stress and mental pressure, cardiovascular disorders and strokes, anti-social behaviors, and drug abuse; studies have also noted decreased learning and retention, weaknesses in decision-making, and impairment in mental functions (9). Meanwhile, a family's mental atmosphere affects its members' lives. This atmosphere is defined as an overall combination of relations

among the family members that influence their performance when dealing with issues, barriers, mental stress, anxiety, fear, and other unpleasant stimuli. Home can be defined as family communication patterns associated with relationships among family members, what they say to each other, what they do, and what they perceive from their relationships (10, 11). The fact that the level of unhealthy and risky behaviors, including drug abuse, is alarmingly high among adolescents and young adults signifies the importance of studying and understanding risky behaviors among these age groups (12). Studying these behaviors helps us to plan for and invest in the social, psychological and physical health of this population; and to take a major step towards preventing adolescents and young adults from abusing drugs. As stated by Rad et al. studies should help to prevent drug abuse and aid in the construction of educational programs (13). Since loneliness and family communication may be associated with psychological and behavioral issues, this study aimed to examine the effect of loneliness and family communication on addiction potential among university students. This study sought to answer the following question:

Are loneliness and family communication predictors of addiction potential among university students?

2. Objectives

The present study aimed to examine the effect of loneliness and family communication on addiction potential among university students.

3. Methods

3.1. Study Design

This cross-sectional study was carried out from 2015 to 2016. Study participants were recruited from the current set of students attending the University of Sistan and Baluchestan in Iran. The study sample consisted of 452 university (242 men and 210 women) students that were selected using a cluster random sampling method. This sample was chosen from a list, including different faculties at the university. Among them, 3 faculties were randomly selected and 5 classrooms were randomly chosen from each faculty as clusters of the sample. After explaining the main objectives of the study, while following ethical considerations, the participants filled out the questionnaires on loneliness, family communication, and addiction potential.

3.2. Criteria for Selecting the Participants

The participants had to be undergraduate students at the University of Sistan and Baluchestan. Moreover, they had to be eager to participate in the study. If a questionnaire was not filled out completely, it was omitted from the study.

3.3. Tools

3.3.1. The Feeling of Loneliness Scale (14)

This scale includes 15 true or false items and measures three dimensions of loneliness, like relationships with family, relationships with larger groups, and friendships. The internal consistency coefficient of the German version of this scale was 91% (14). According to McWhirter, the reliability of this scale was 82% (15). In a study conducted by Khoynezhad et al., the internal consistency coefficient of this scale was examined on a sample group and this coefficient was 86%. The coefficients of relationships with family, relationships with larger groups, and friendships were 83%, 77%, and 78%, respectively (16).

3.3.2. The Family Communication Patterns Inventory (10)

This self-report inventory was designed by Ritchie and Fitzpatrick in 1994. Using a 5-point Likert-type scale (ranging from 5 = totally agree to 1 = totally disagree), respondents indicate their degree of agreement or disagreement with the 26 family communication items. This inventory measures two dimensions of dialogue and conformity, such that the first 11 items relate to conformity and the other 15 items evaluate dialogue. By combining the scores of the final groups, four family communication patterns including pluralistic, consensual, protective, and laissez-faire are formed (10). Fitzpatrick and Koerner examined the reliability of this inventory and indicated that the mean Cronbach's alpha coefficient of the dimensions of dialogue and conformity were 0.89 and 0.79, respectively. Furthermore, the test-retest reliability coefficient of dialogue was 0.99 and this coefficient ranged from 0.73 to 0.93 for conformity (11). In 2017, Tajalli and Zarnaghash determined the reliability of this inventory in Iran using the Cronbach's alpha method and showed that the coefficients of dialogue, conformity, and the whole scale overall were 0.93, 0.89, and 0.68, respectively (17). Moreover, in a study conducted by Khosravi et al., the Cronbach's alpha coefficients of dialogue and conformity for men were 0.92 and 0.82, respectively; and the Cronbach's alpha coefficients of dialogue and conformity for women were 0.86 and 0.85, respectively (18).

3.3.3. The Addiction Potential Scale (APS) (19)

Developed by Weed et al., this scale was utilized to evaluate addiction potential. The original version of the Addiction Potential Scale (APS) includes 39 yes or no items. Weed et al. investigated the reliability of the APS in a normal sample, within a span of a week. The reliability of this scale was 0.69 for men and 0.77 for women. They believed that this reliability was highly acceptable (19). In Iran, Minooee assessed the reliability of the Addiction Potential Scale (APS) using the Cronbach's alpha coefficient and the split-half method. The results were 0.53 and 0.53, respectively (20).

3.4. Data Analyses

Statistical analyses were conducted using the Pearson correlation method and a stepwise regression.

3.5. Ethical Considerations

The main objectives of the study were completely explained to the participants. Participants were also assured that information obtained from the questionnaires would remain both anonymous and confidential. Additionally, they were informed of their right to stop participating at any point in the study.

4. Results

The descriptive statistics indicated that of the study participants, 53.5% (242 people) were male and 46.5% (210 people) were female. Additionally, 37.4% of the participant studied in the Faculty of Humanities, 33.6% in the Faculty of Engineering, and 29% in the Faculty of Sciences.

The results indicated that loneliness ($\mu = 31.74$) had the highest mean score compared to the other variables, as noted in Table 1.

Table 1. The Means and Standard Deviations of Loneliness, Family Communication, and Addiction Potential (N = 452)

Variable	Mean	Mean of the Questionnaire	SD
Loneliness	31.74	15	9.22
Consensual communication pattern	19.98	30	22.97
Pluralistic communication pattern	8.19	22	12.28
Protective communication pattern	5.82	22	14.02
Laissez-faire communication pattern	8.14	22	15.93
Addiction potential	15.02	21	4.77

As presented in Table 2, the results showed that the consensual communication pattern was significantly and diversely correlated with addiction potential; and the laissez-faire communication pattern and loneliness were significantly and positively related to addiction potential.

As presented in Table 3, the results of the stepwise regression analysis that was conducted to predict addiction potential demonstrated that in the first step, loneliness was able to predict 0.09 of the variance in addiction potential; and loneliness was significantly and positively correlated with addiction potential ($P < 0.05$, Beta = 0.30). In the second step, loneliness together with the laissez-faire communication pattern predicted 0.11 of the variance in addiction potential. Therefore, loneliness ($P < 0.01$, Beta = 0.30) and the laissez-faire communication pattern ($P < 0.01$, Beta = 0.15) were significantly and positively related to addiction potential.

Standard beta coefficients demonstrated that a one-unit increase in the standard deviations of loneliness and the laissez-faire communication pattern increased addiction potential by 0.30 and 0.15, respectively.

5. Discussion

The present study aimed to examine the effect of loneliness and family communication on addiction potential among university students. The results of this study indicated that the consensual communication pattern was significantly and diversely related to addiction potential; and the laissez-faire communication pattern and loneliness were significantly and positively related to addiction potential. The results of the regression analysis showed that, in the first step, loneliness was able to predict 0.09 of the variance in addiction potential and, in the second step, loneliness together with the laissez-faire communication pattern predicted 0.11 of the variance in addiction potential. These findings are consistent with the results of similar studies (9, 21-26).

Previously conducted studies have suggested that isolation and loneliness increased the risk of general health problems, such as depression, tendency to commit or attempt to commit suicide, increased levels of stress and mental pressure, cardiovascular disorders and strokes, decreased learning and retention, anti-social behaviors, weaknesses in decision making, drug abuse, and impairment in mental functions (27). Several studies indicated that loneliness is a predictor of drug abuse among drug-dependent people (21-23). In addition, the results of a study carried out by Holmes et al. revealed that high levels of loneliness and chronic social loneliness were predictors of high levels of drug abuse among university students (24).

Table 2. The Results of the Correlation Matrix of Loneliness and Family Communications with Addiction Potential

Variable	Addiction Potential	Loneliness	Consensual Communication Pattern	Pluralistic Communication Pattern	Protective Communication Pattern	Laissez-faire Communication Pattern
Loneliness	0.16[a]	0.02	-0.44	-0.25	-0.21	1
Consensual communication pattern	0.01	0.01	-0.36	-0.21	1	
Pluralistic communication pattern	0.01	0.07	-0.43	1		
Protective communication pattern	-0.15[a]	-0.08	1			
Laissez-faire communication pattern	0.30[a]	1				
Addiction potential	1					

[a] $P \leq 0.001$

Table 3. The Results of the Stepwise Regression Analysis Conducted to Predict Addiction Potential

Criterion Variable	Predictor Variable	R	R^2	Adjusted R Square	Beta	T	F (df)
Addiction potential	Loneliness	0.30	0.09	0.09	0.30	6.78	46.02 (449, 1)[a]
	Loneliness	0.34	0.11	0.11	0.30	6.76	26.64 (448, 2)[a]
	Laissez-faire communication pattern				0.15	3.48	

[a] $P < 0.001$

Several studies have demonstrated that the prevalence of drug abuse among adolescents and young adults who were guided and supervised by a lesser degree by their parents was very high. Additionally, friends, like family, played a key role in preventing adolescents and young adults from abusing drugs (25, 26).

5.1. Conclusion

In adolescence and young adulthood, drug abuse is associated with social and psychological difficulties. During adolescence and young adulthood, drug abuse results in negative long-term effects on neurocognitive and behavioral functions. Specifically, adolescents who abuse drugs experience behavioral, emotional and cognitive changes that are in part caused by a lack of development in regulating emotions, aggression and impulsivity. Accordingly, it can be concluded that loneliness and poor family communication in this population can lead to for stress, anxiety and depression. When an individual is unable to control and manage their emotions in order to deal with stressful events, they may experience distress. Therefore, in order to control and decrease experiencing such negative emotions, that individual may abuse drugs. However, strong family communication leads to a reduction in psychological distress during stressful life events, as an individual is able to adopt an effective coping strategy in order to problem-solve. In order to effectively decrease and control drug abuse, we suggest that educators working at universities attempt to identify factors underlying loneliness and, thus, prevent its occurrence. Furthermore, by providing brochures and holding workshops university students can receive the information and training needed to manage feelings of loneliness and learn effective communication techniques.

The main limitation of the present study is that the student population was all studying at the same university, in the same region of Iran. Due to this, we would caution that the study results might not be generalizable to university students at large.

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Footnotes

Authors' Contribution: Zahra Nikmanesh and Yahya Kazemi were responsible for the study concept and design. Zahra Hasanzaheh and Masome Khosravi were responsible for analysis and interpretation of the study data.

Conflict of Interests: The authors declare that they have no conflicts of interest.

Ethical Approval: The study was approved by the University of Sistan and Baluchestan, with the following registration code 913/6/990.

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Informed Consent: The main objectives of conducting this study were fully explained to the participants and they were assured that information obtained from the questionnaires would remain anonymous and confidential. Additionally, they could stop participating in the study at any stage in the study.

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