

Abstract

Objective: The aim of the current study was to examine the casual relationship of perceived support with psychological distress and addiction potential with the mediating role of loneliness in school students of slum area in Qom. **Method:** The participants of this study included 225 high-school male students who were chosen by multistage cluster sampling method. Perceived Support Questionnaire, Psychological Distress Questionnaire, Addiction Potential Scale, and Loneliness Scale were administered to the participants for data collection. Path analysis and Bootstrap tests were conducted to explore direct and indirect pathways of the research model, respectively. **Results:** The results showed that perceived support was the antecedent and psychological distress and addiction potential were the consequences of loneliness in school students. The results also indicated that loneliness has a significant mediating role in the relationship of perceived support with psychological distress and addiction potential. **Conclusion:** The findings of this study can help school counselors, education psychologist, and teachers reduce student's problems.

Keywords: addiction potential, loneliness, psychological distress, perceived support, slum area students

The Relationship of Perceived Support with Addiction Potential and Psychological Distress with the Mediating Role of Loneliness in School Students

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Introduction

Socio-economic status is an important factor that provides the ground for benefiting from diverse community services, as the wealthy and rich social groups are better equipped than the disadvantaged groups (Asefzadeh, Alikhani, & Javadi, 2012). Moreover, people from different socio-economic classes hold different attitudes toward risk behaviors in such a way that people from higher classes are more aware of the consequences of their actions and are, therefore, more likely to make appropriate decisions (Akbarian, Rafiei, Sajjadi, & Karimlou, 2010). In this regard, researchers believe that adolescents and young people with low socioeconomic status are more likely to be drug users than those with high socioeconomic status (Smith, & Seymour, 2004; Kwako, Bickel, & Goldman, 2018). Research evidence has also shown that substance abuse has gone beyond the limits of personal and psychological disorders and has become a social problem. In this line, according to available UN Office documents, between 172 and 250 million people aged 15-64 years were drug abusers in 2007, which constitutes 4.8 to 5.8 percent of this age group (Szabo, Griffiths, Hoglid, & Demetrovics, 2018; Sigerson, Li, Cheung, & Cheng, 2017; Zilberman, Yadid, Efrati, Neumark, & Rassovsky, 2018). Therefore, it is required to survey drug addiction potential in the low socioeconomic and disadvantaged areas in order to identify the factors increasing the level of addiction potential and, thus, addiction.

Since addiction is a psychosocial phenomenon, several factors have been raised as the reasons for its incidence. Researchers believe that family relationships, social relationships, and social and cultural conditions are among the causes of addiction tendency; along with these factors, addicted person's psychological characteristics also play a considerable role (Nemati, Mohammad-Alifar, & Khaledian, 2017) in such a way that loneliness, feelings of helplessness and humiliation, and lack of good friends can lead people into addiction (Savari, & Shanchi, 2017). Research evidence has also shown that the two factors of spiritual well-being and loneliness play an effective role in the tendency toward addiction in young people and adolescents (Sadeghi, 2014). This means that rejection, loneliness, and isolation are effective factors in the re-use of substance after the withdrawal periods and, in other words, these factors have had the greatest role in addiction relapse (Esma'eali-Nasab, Andami Khoshk, Azarmi, & Samarrakhi, 2014; Rokach, 2002; Jana'abadi, Nasti-Zayi, & Marzieh, 2017; Ghoreishizadeh, & Torabi, 2002).

Several factors have been suggested as the causes or antecedents of loneliness. In this context, Tikainen, & Heikkinen (2004) argue that the absence of friends, the loss of spouse, and weak perception of supportive networks are among the major factors that increase loneliness in individuals where perceived support is of paramount importance since human being is a social being that always needs the help and support of others (Tamanayifar, Leis, & Mansouri, 2013). Social support is defined as the provision of support, peace, and assurance

that families or other institutions and individuals of the community obtain in the face of social events (as cited in Beirami, Movahedi, & Movahedi, 2014). Kim (1993) examined the relationship between perceived loneliness and perceived social support in adults where it was revealed that perceived social support is largely associated with the lower level of loneliness. Other research findings showed that perceived support from classmates, parents, and intimate friends have a negative relationship with loneliness in autistic children (Lasgaard, Nielsen, Eriksen, & Goossens, 2010).

According to some researchers, many neuropsychiatric disorders are rooted in feelings of isolation and loneliness (Austin, Munoz, & Castellanos, 2017, Schinka, Dulmen, Mata, Bossarte, & Swahn, 2013). In this regard, loneliness leads to emotional and psychological problems, which have been introduced as consequences of loneliness (Perron, Cleverley, & Kidd, 2014; Jackson, & Cochran, 1991; Weiss, 1987). Psychological distress has been defined as a non-specific syndrome that entails such constructs as anxiety, depression, cognitive problems, irritability, and anger or obsession (as cited in Masse et al., 1998). Paul, Ayis, & Ebrahim (2006) assessed the relationship between psychological distress, loneliness, and disability, and concluded that loneliness is the most important predictor of psychological distress. In addition, Jackson, & Cochran (1991) also investigated the association of loneliness with psychological distress dimensions in university students. The results of this study showed that there was a significant relationship between loneliness and interpersonal sensitivity (i.e., low self-esteem) and depression.

The review of research literature shows that perceived support is the antecedent of loneliness, and addiction potential and psychological distress are the consequences of loneliness. Since no research has yet looked into these relationships in the form of a causal model, it seems that studying the mediating role of loneliness in the relationship between perceived support and addiction potential and psychological distress in a sample of disadvantaged adolescents can have important materials about the effective mechanisms of these variables. The results of this research can theoretically expand the approaches pertaining to the research variables and will also offer applied solutions and suggestions to school professionals and counselors. Therefore, the first aim of the present study is to examine the direct effects of parents and friends' perceived support on loneliness and also the effect of loneliness on addiction potential and psychological distress within the framework of a causal model. Then, the mediating role of loneliness will be examined in the relationship of parents and friends' perceived support with addiction potential and psychological distress.

Method

Population, sample, and sampling method

A descriptive correlational research method was used in this study. The statistical population of this study consisted of all second-degree high school

students in deprived areas of Qom city in the academic year 2016-17. According to Morgan's table, 225 students were selected through multi-stage random cluster sampling. First, out of approximately 1985 students in deprived areas of Qom, three schools were randomly selected. Then, from each school, three classes were randomly selected and all the students were selected as the statistical sample and responded to the questionnaires. Prior to conducting the research, students were informed that their participation aimed solely to conduct academic research and, thus, they were asked to refrain from writing their names. It was also explained that the aim of this research was to investigate their attitude and feelings in interpersonal relationships and drug use. Then, they were requested to carefully read all the questions and choose the most appropriate option and not to leave any question unanswered.

Instruments

1. Loneliness Scale: This scale was designed by Russell, Peplau, & Curtona in the 1980s, which is a self-report scale and is scored based on a four-point Likert scale from "never" to "often". It contains 20 items, 10 of which are negative, and the other 10 ones are positive; none of the items are scored in reverse. The re-test reliability of this scale was reported to be 0.89 (Russell et al., 1980). In Iran, Bahrayi, Delavar, & Ahadi (2011) reported the Cronbach's Alpha coefficient of 0.88 for this scale. In addition, these researchers used factor analysis to validate the scale. The results showed that this scale has four subscales. In the present study, the reliability of the scale was obtained equal to 0.91 through Cronbach's alpha.

2. Perceived Support Scale: This scale, developed by Zimet et al. (1988), aims to measure perceived support from friends, family, and significant others in the form of 12 items. This scale is a self-report one on a 5-point Likert scale from "strongly disagree" to "strongly agree". Edwards (2004), using factor analysis, showed that this questionnaire has three subscales, namely perceived support by significant other, family, and friends, and the Cronbach's alpha coefficients were obtained for the total scale and their sub-scales equal to 0.89, 0.84, 0.85, and 0.91, respectively. The items numbered 10, 5, 2, and 1 belong to the subscale of perceived support by significant other; the items numbered 3, 4, 8, and 11 belong to the subscale of perceived support by family; and the items numbered 6, 9, 7, and 12 belong to the subscale of perceived support by friends. None of the items are scored in reverse. In the present study, two subscales of perceived support from family and friends were used, and Cronbach's alpha coefficients were obtained equal to 0.77 and 0.86 for these two subscales, respectively.

3. Psychological Distress Scale: This scale was designed by Kessler in 2003. There are 10 self-reported items in this scale that are scored based on a five-point Likert scale from "always" to "never." Yaghoubi (2008) reported the reliability of this scale equal to 0.93 and 0.91 via Cronbach's alpha method and Spearman-Brown split-half method, respectively. This scale does not include any subscales,

and the total score is obtained via the sum of the points of 10 items. None of the items are scored in reverse. In this study, Cronbach's alpha coefficient for the scale was obtained equal to 0.90.

4. Addiction Potential Scale: This scale was designed by Weed, & Butcher in 1992. Zargar, Kakavand, Jalali & Salavati translated and validated it in Iran in 2011. This scale consists of 41 items, 5 of which are lie detecting items. The respondents self-report their degrees of agreement on each item via a 5-point Likert scale from "completely correct" to "completely false." The acquisition score 21 or above represents a person's high addiction potential. This scale has two subscales of passive and active addiction readiness. The passive subscale includes items numbered 1, 2, 5, 6, 9, 12, 14, 19, 20, 24, 27, 30, 32, 35, 39, and the other items pertain to the active subscale. Cronbach's alpha coefficient for the total scale in Iran has been reported to equal 90% (Doustian, Bahmani, Azami & Goodini, 2013). In this study, Cronbach's alpha was obtained equal to 0.91.

Results

The results of this study showed that the age of the sample group was in the range of 18-15 years old with the mean (standard deviation) of 16.68 (0.81) years. The descriptive statistics and correlation coefficients of the research variables are presented in Table 1.

Table 1: Descriptive Statistics and Correlation Coefficients of Research Variables

No.	Variable	Mean	SD	1	2	3	4
1	Perceived support by family	13.98	3.46	-	-	-	-
2	Perceived support by friends	11.36	4.05	0.3**	-	-	-
3	Psychological distress	24.19	9.36	-0.24**	-0.3**	-	-
4	Loneliness	42.8	13.2	-0.39**	-0.33**	0.65**	-
5	Addiction potential	81.92	26.37	-0.27**	0.21**	0.59**	0.43**

**P<0.01

To investigate the direct effects of the research variables, path analysis method was used using AMOS software version 22. It is noteworthy that, before running the analysis, the pathway assumptions were checked. Therefore, Kolmogorov-Smirnov test was used to test the normal distribution of the variables. The results are presented in Table 2.

Table 2: Results of the Kolmogorov-Smirnov Test Examining the Normal Distribution of Research variables

Statistics	Loneliness	Psychological distress	Addiction potential	Perceived support
Z	1.16	1.3	1.37	1.18
Sig.	0.132	0.066	0.068	0.121

As it has been shown in Table 2, the assumption of normal distribution has been met in all variables. Durbin-Watson test was run to test the assumption of independence of errors. Its value was obtained 1.6. Since the value lies in the range of 1.5 to 2.5, it can be argued that the assumption of the independence of the errors has been observed. Also, the assumption of multicollinearity for the endogenous research variables was investigated through VIF and Tolerance indices, the results of which are presented in Table 3.

Table 3: Results of Multicollinearity Test for the Endogenous Research Variables

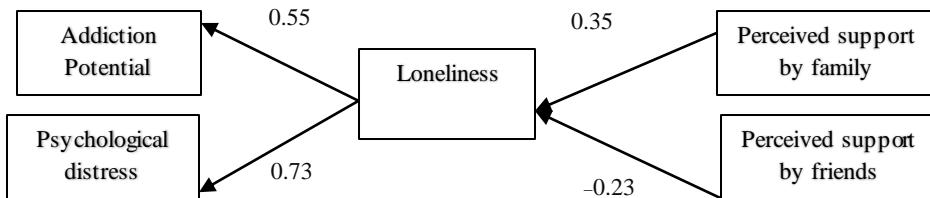
<i>Indexes</i>	<i>Loneliness</i>	<i>Endogenous variables</i>	
		<i>Psychological distress</i>	<i>Perceived support</i>
VIF	1.97	1.68	1.34
Tolerance	0.5	0.45	1.74

Given the contents of Table 3, the assumption of multicollinearity has been satisfied because the values of VIF in all variables are less than critical value of 2 and their tolerance is closer to number one. Due to the satisfaction of the assumptions required for the conduct of path analysis, this test was used in order to test the direct effects of the research variables where the standard coefficients of the direct paths are presented in Table 4.

Table 4: Standard Coefficients and Significance Level of Direct Paths in Research Model

<i>Direct paths</i>	<i>Beta coefficient</i>	<i>t</i>	<i>Standard error</i>	<i>Sig.</i>
Perceived support by family to loneliness	-0.35	-3.14	0.054	0.002
Perceived support by friends to loneliness	-0.23	-2.53	0.033	0.01
Loneliness to addiction potential	0.55	4.02	0.41	0.001
Loneliness to psychological distress	0.73	4.06	0.36	0.001

As it has been shown in Table 4, the path coefficients of perceived support by family and friends to loneliness are significant at the level of 0.05. The standard coefficients of loneliness paths to psychological distress and addiction potential are also significant at the level of 0.001 (Fig. 1).

**Fig. 1. Path Standard Coefficients of the Proposed Research Model**

In addition, in this research, the fitness of the proposed model was assessed based on fit indices. The assessment of the fit values showed that the goodness of fit and indices, including chi square with the degree of freedom of 648 equaled 872.82. The ratio of chi square to the degree of freedom was equal to 1.34. The values of GFI, AGFI, NFI, CFI, IFI, TLI, and RMSEA were respectively equal to 0.87, 0.81, 0.81, 0.93, 0.94, 0.93, and 0.041, which represented their good fitness with the data. In addition, to investigate the indirect effects or mediation relationships between the research variables, Bootstrap test was used in Preacher and Hayes's program (2008), the results of which are presented in Table 5.

Table 5: Analysis of the indirect effects between research variables

<i>Indirect paths</i>	<i>Indirect effects</i>	<i>Lower bound</i>	<i>Upper bound</i>	<i>Sig.</i>
The indirect path of perceived support by family to psychological distress with the mediation of loneliness	-0.416	-0.416	-0.117	0.001
The indirect path of perceived support by friends to psychological distress with the mediation of loneliness	-0.225	-0.225	0.025	0.009
The indirect path of perceived support by family to addiction potential with the mediation of loneliness	-11.82	-11.82	-3.11	0.002
The indirect path of perceived support by friends to addiction potential with the mediation of loneliness	-6.67	-6.67	-0.83	0.009

As it has been shown in Table 5, the mediation role of loneliness is significant in all indirect relationships between research variables because the upper and lower bounds of direct paths of research do not include zero and the obtained values of effects are significant. Therefore, loneliness has a significant mediating role in the relationship between all the indirect pathways of the research.

Discussion and Conclusion

The aim of this study was to investigate the causal relationship of perceived support with addiction potential and psychological distress through the mediation of loneliness in adolescents in deprived areas. The findings showed that perceived support by parents and peers is a significant antecedent of loneliness. This finding is in consistent with those of the studies carried out by Kim (1993) and Lasgaard et al. (2010). To explain this finding, it can be argued that human beings are a social being that need the help and support of others, and they need partners who accompany them, support them, and are with them in difficult and hard stages of life, even in periods of joy and happiness. The more the social support, the more mental health people will enjoy; therefore, the whole society will enjoy greater mental health (Tamanayifar et al., 2013). However, those who are incapable of establishing and maintaining satisfactory relationships with others and, therefore, have difficulty meeting the need for belonging are likely to experience a sense of deprivation that is represented by the sense of loneliness (Mirderikvand, Adavi, Amirian, & Khodayi, 2016). Therefore, perceived support by family and friends, as two important dimensions that satisfy the need for belonging, are accompanied by the absence of loneliness (Cohen & Wills, 1985). Another finding of the study showed that loneliness is positively correlated with addiction potential. This finding is consistent with the other research findings (Esma'ealinasab et al., 2014; Savari, & Shanchi, 2017; Rokach, 2002; Sadeghi, 2014; Ghoreishizadeh, & Torabi, 2002). In this regard, it can be argued that loneliness and isolation lead to many anxiety and depression disorders and lead the individual to inner side of the self and internal control. It

also results in the formation of a kind of social anxiety and phobia that orient the person towards deviant and alternative behaviors, including drug addiction in order to escape from this stress and anxiety and to fill this loneliness (Sadeghi, 2014). Hosseinpour, Yasini Ardakani, Bakhshani, & Bakhshani (2014) also believe that social and emotional loneliness is a risk factor for the onset of drug abuse and its persistence. These researchers argue that the assignment of attention to this important variable greatly contributes to the prevention and treatment of addiction.

In addition, the results of this study support the relationship between loneliness and psychological distress. This finding is consistent with the other research findings (Perron et al., 2014; Paul et al., 2006; Jackson, & Cochran, 1991). In this regard, researchers believe that loneliness is correlated with hurt mental health in such a way that loneliness is associated with a lack of social skills, depression, aggression, suicidal thoughts, and anxiety (Austin et al., 2017; Schinka et al., 2013). An explanation for this finding is that both loneliness and general pathology are related to interpersonal problems that result in the loss of rewarding social connections. Another explanation is that loneliness is a complex concept in which a sort of communication defect is observed and, ultimately, both psychological distress and negative emotional consequences emerge (Weiss, 1987). Finally, the results of this study showed that loneliness mediates the relationship of perceived support by family and friends with addiction potential and psychological distress. In this context, it can be said that loneliness arising from a lack of family and friends' support and the removal of the supportive environment leads to problems for humankind; when a person receives less emotional and social support, s/he will be psychologically entangled with loneliness (Paul et al., 2012). Loneliness also has unfavorable psychological consequences such as the tendency toward substance use and psychological distress (Perron et al., 2014; Paul et al., 2006; Jana'abadi et al., 2017). In addition, researchers believe that negative emotions can cause people to display a variety of passive responses, some of which have a passive backwardness, such as walking, studying, exercising, watching TV, and listening to music, but some others take the form of passive depressive reactions where the sufferer is drowned with intense loneliness and may cry or use drugs (Heinrich & Gullone, 2006). As a result, the individuals feeling lonely can turn to negative options to compensate for their emotional needs. On the other hand, these people feel distressed and are drawn to friends and non-family members; that is why, addiction tendency is one of the strategies taken by students living in deprived areas without the necessary facilities.

This research provides an in-depth insight into the interactions among perceived support, loneliness, addiction potential, and psychological distress; in other words, the mechanism through which perceived support influences student loneliness and indirectly affects student addiction potential and psychological distress is perceived. This can be extensively used by school counselors,

educational psychologists, teachers, and, in general, those who are involved with education and learning in the face of students' loneliness. The findings of this research highlight the structure of the relationship between perceived support, addiction potential and psychological distress. With a review of previous research, we find that much of the research in this area has been at higher education level. However, this study was done on school students and attempted to provide evidence for the external credibility of the relationship between perceived support, addiction potential, and psychological distress with the mediating role of loneliness. Given this structure, it provides credible patterns for interventions in order to reduce addiction potential and psychological distress.

The current research suffers some limitations. First, all research data were collected in the self-report format. One of the major problems of data collection by this method pertains to controlling the effect of social desirability. Using multiple assessment methods is recommended to overcome this problem. Second, this study was conducted on a sample of high school students in the second grade in deprived areas of Qom city, which limits the generalizability of the findings. In this study, the relationships between variables have been described and no causal relationship has been obtained between variables. Based on these findings, school and family-centered interventions can be designed and implemented to prevent addiction.

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