Identifying the Causes of Social Isolation and Designing a Relevant Model for Female High School First-Year Students

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Abstract

Purpose: The aim of the present study was to identify the causes of social isolation and design a relevant model for high school students.

Methodology: This was an applied study in terms of its aim and mixed-method study in terms of its implementation method (qualitative and quantitative). The study population in the qualitative section included documents and resources and educational management experts and, in the quantitative section, 180 female high-school first-year students in Gorgan during the academic year 2019-2020. According to the data saturation principle, the research population in the qualitative part included documents and resources related to social isolation and 10 educational management experts who were selected by purposive sampling. According to Cochran's formula, the study population in the quantitative section included 180 female high-school first-year students who were selected by cluster sampling method. Data were collected by note taking, interviews and a researcher-made questionnaire (39 items), the construct and convergent validity of which were confirmed and its reliability was obtained α=0.96 by Cronbach's alpha method. Data were analyzed by open and axial coding methods, factor analysis and structural equation modeling in MAXQDA software.

Findings: The findings of the qualitative section showed that social isolation consists of six components and 40 indicators, including socio-economic anomalies (7 indicators), individual variables (9 indicators), parental role (5 indicators), strengthening social relations (6 indicators), psychological interactions (10 indicators), and family level (3 indicators). The findings of the quantitative section showed that the social isolation model had a good fit and all six components, i.e. socio-economic anomalies, individual variables, parental role, strengthening social relations, psychological interactions and family level had a significant effect on social isolation (P<0.05).

Conclusion: According to the results, sociologists can use the social isolation model designed in the present study to reduce social isolation; therefore, it is necessary to pay attention to the role of effective components.

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1. Introduction

Sociology has focused its efforts on the human relations and communications in the new era and investigates the effect of new developments and the emergence of technologies, urbanization and bureaucracy on social life. Social life refers to human relations and communications and many studies have focused on the importance of social relationships and its influential factors (Calati & et al, 2019). Social relations are of great importance for individual and public welfare, and social communications are one of the basic needs of human beings in order to survive (Chen & Zhou, 2020). Social relations are one of the most important elements of every society that have experienced important changes during the history of human life; therefore, it is difficult to maintain and establish social relations and the challenge of social isolation is increasing in the current period (Mason & et al., 2016). Today's human societies are threatened by a great danger, the scope of which is expanding every day. This danger is self-alienation or social isolation that is recognized as a problem in most countries and cultures (Primack & et al, 2017). In contrast, social normality refers to the quality of individual-society communications or the same socialization, and any kind of interruption in such communication that leads to the rejection of individuals from the social framework, will in turn lead to social deviations (DE Sousa & et al, 2018).

According to psychologists and sociologists, social isolation as a social harm may be caused by various factors such as poor health, no social support, negative self-image and characteristics, unemployment and financial dependence (Giuli & et al., 2012). This construct refers to life without companionship, absence of mutual relations, trust and moving towards of periods when crisis and rupture occur in the objective connections and social relations networks of society and negatively affects the performance, social cohesion and well-being of individuals (Mora-Gallegos & Fornaguera, 2019). Social isolation is an objective and subjective reality which means that the individual is not dependent on the social values and, in such a situation, the individual becomes alienated from his/her social contexts and separates from the conventional social values and goals (Milman & et al., 2020). In fact, social isolation is a state in which an individual or a group of people, considering their perception of their surrounding environment, and under the influence of different individual and social stimuli, disconnect from the environment and continue to live (Yu & et al, 2020).

Few studies have investigated social isolation, and there has been no research with the aim of identifying the related risk factors. In this section, the most important relevant researches are cited. Seifzadeh et al. (2019) concluded that social support, perception of aging, social trust, socioeconomic and health status had a significant effect on social isolation of the older adults. The results of a study by Hazrati Someeh (2018) showed that the most important social factor affecting the social isolation of students was social trust, but the use of cyberspace, job, and marriage, place of residence and level of education did not have a significant effect on it. In another study, Modarresi Yazdi, et al (2017) reported very high social isolation rate among single girls over 30 years of age and the risk factors included self-image, traditional social beliefs, customary beliefs of family and relatives, and the importance of marriage for single girls.

Haghighatian (2013) also concluded that social factors contributing to social isolation of young people included social trust, sex, Internet use and socioeconomic status, respectively. Also, results of a study by Bezerra, et al (2020) showed that the factors contributing to social isolation during the Covid-19 pandemic included income, education, age and sex. Cotterell, et al (2018) concluded that four factors contributing to social isolation in the older adults included individual, communicative, interactive and social factors. In another study, Gouda & Okamoto (2012) reported that the following three factors helped reduce social isolation among the older adults: promoting public health, improving social communications, and emotional support. Doman & Roux (2010) referred to personality (anxiety, no self-expression, poor self-concept and inappropriate source of control), emotions (boredom, frustration, aggression, stress, restlessness and tension), depression, difficulty in interpersonal relationships (lack of belonging, support and intimacy), marriage (married people feel less lonely), illness or physical disability, religious beliefs, academic achievement, and leisure activities as causes of loneliness. In another study, Wichman, et al (2004) reported that factors contributing to social isolation included psychological, biological, parenting practices and beliefs, and social

information processing abilities. Campagne (2019) conducted a study titled "Perceived Stress and Social Isolation (Loneliness)". Studies show that causal relationships and correlations between stress and loneliness affect satisfaction and quality of study. The data suggest that both loneliness and isolation may be related to biological factors such as psychological quality (quality of life) and medical factors (health) including circulating stress hormones, immune system components, and the glutamate system.

On the one hand, investigating the causes of social isolation and designing a relevant model can help sociologists and psychologists to provide solutions to reduce social isolation, and on the other hand, there have been few researches on causes of social isolation. Moreover, these few studies mainly focused on the social causes of social isolation and did not have a comprehensive look on its causes. Another important point is that most of the previous studies investigated social isolation among the older adults and adults and did not investigate the causes of social isolation among adolescents considering their important role in the future of any society. Considering the increasing growth of technology and Internet addiction among adolescents, it is necessary to investigate all factors that contribute to social isolation among adolescents. Therefore, the aim of the present study was to identify the causes of social isolation and design a relevant model among high school students.

2. Methodology

This study was applied in terms of purpose and combined in terms of implementation (qualitative and quantitative). The combined method is a method that is performed using a combination of a set of quantitative and qualitative methods and in the collection sequence, first qualitative data and information are collected and then quantitatively. The research population was in the qualitative part of documents and resources and experts in educational management and in the quantitative part were female high school students in Gorgan in the academic year 2009-2010. The research sample in the qualitative section according to the principle of theoretical saturation included documents and resources related to social isolation and 10 educational management experts who were selected by purposive sampling and in the quantitative section according to Cochran's formula, including 180 female high school students were selected by cluster sampling method. In this study, considerations such as participants' awareness of the purpose and importance and necessity of the research, anonymity of interviews and questionnaires, confidentiality, confidentiality of personal information and not creating any financial burden for participants were considered.

This research had two parts: qualitative and quantitative. In the qualitative section, first the causes of social isolation in the form of libraries were identified by filing method and then the model of creating social isolation was designed and its validity was evaluated from the perspective of experts. In other words, in the qualitative section, using the library method and reviewing the literature and research background, the use of Internet resources, reading articles related to social isolation and its models were reviewed. Then, the studied studies were opened to the elements with a message and setting paragraphs with concepts related to research, coding, and a number of concepts were identified, and finally a model for creating social isolation for adolescents was designed. After that, the model designed by Delphi method was reviewed, modified and approved by 10 educational management experts via e-mail and telephone interview, and the interview questions are reported in Table 1.

Table1. Interview Questions

Row	Questions
1	How is social isolation characterized?
2	What is the boundary between isolation and non-isolation?
3	Have you ever had an isolated person in your class?
4	What are the pervasive reasons for isolation?
5	What is the difference between isolated and normal learners?
6	What factors make a normal person an isolated person?
7	What will be the consequences and adverse effects of social isolation for the learner and society?

After completing the qualitative section, the quantitative section was started and the related data were collected using a researcher-made social isolation questionnaire. This questionnaire consisted of 39 items and 6 components, i.e. socioeconomic anomalies, individual variables, parental role, strengthening social relationships, psychological interactions and family level. Items are scored using a five-point Likert scale (Strongly disagree = 1, strongly agree = 5), thus, the total score range of the above instrument is 39 and 195. Also, construct and convergent validity of the above instrument were confirmed and its reliability was obtained α=0.96 and α=0.97 by Cronbach's alpha and combined methods, respectively. To carry out data analysis, open and axial coding method was used in the qualitative part, and factor analysis and structural equation modeling methods in the quantitative part.

3. Findings

Open and axial coding method was used to identify the indicators and components of social isolation in adolescents (Table 2).

Table2. Results of open and axial coding to identify indicators and components of social isolation in adolescents

Axial coding	Open coding (Indicators)
(Components)	1. Inadequate economic status, 2. Excessive use of the Internet and online networks, 3. Influence of friends and peers, 4. Education level of students, 5. Ethnic, racial and linguistic affiliations, 6. Social unacceptability and 7. Legal deprivations
Socioeconomic anomalies	1. Mistrust and suspicion, 2. Inability to do related tasks, 3. Fear and insecurity, 4. Hostility and aggression, 5. Decreased motivation towards the environment, 6. Anxiety, stress and loneliness, 7. Self-alienation, 8. Failure to raise learning issues and 9. Feeling of futility
Individual variables	1. Showing empathy and talking to the student, 2. Recognizing students' needs, 3. Increasing interaction with students, 4. Exchanging ideas with and accompanying students, and 5. Understanding the age-related needs of students
Parental role	1. Social participation in daily affairs, 2. Students' silence, 3. Reduction of conflict with relatives, 4. Feeling of social security, 5. Strengthening social trust, and 6. Discussing, talking and exchanging ideas with students
Strengthening social relationships	1. Students' responsibility, 2. A sense of efficiency and effectiveness, 3. Receiving assistance from a mental health professional, 4. Participation in academic and non-academic group activities, 5. Strengthening self-esteem, 6. Encouraging students, 7. Paying attention and care for the student, 8. Increasing security and reducing anxiety, 9. Encourage speaking in front of parents, friends and relatives, 10. Effective role of parents and teachers
Psychological interactions	1. Family income level, 2. Type of family personality and 3. Lack of a place for the individual in the family

The causes of social isolation among adolescent students include six components and 40 indicators, including socioeconomic anomalies (7 indicators), individual variables (9 indicators), parental role (5 indicators), strengthening social relationships (6 indicators), psychological interactions (10 indicators), and family level (3 indicators) (Table 2). Factor analysis was used to evaluate the construct validity and identify the factors affecting social isolation in adolescents, the results of which are reported in Table 3.

Table3. Results of factor analysis on the construct validity and factors contributing to social isolation in adolescents

Variables (components)	Items (indicators)	Factor load	t- statistics
Socioeconomic anomalies	1. Inadequate economic status	0/786	13/778
	2. Excessive use of the Internet and online networks	0/819	18/013
	3. Influence of friends and peers	0/805	18/043
	4. Educational level of students	0/766	14/393
	5. Ethnic, racial and linguistic affiliations	0/868	18/634
	6. Social unacceptability	0/860	31/058

	7. Legal deprivations	0/864	31/266
Individual variables	1. Mistrust and suspicion	0/836	25/954
	2. Inability to do related tasks	0/860	32/289
	3. Fear and insecurity	0/804	15/696
	4. Hostility and aggression	0/880	25/727
	5. Decreased motivation towards the environment	0/846	24/145
	6. Anxiety, stress and loneliness	0/831	23/568
	7. Self-alienation	0/814	23/183
	8. Failure to raise learning issues	0/803	20/224
	9. Feeling of futility	0/490	5/403
Parental role	1. Showing empathy and talking to the student	0/837	20/614
	2. Recognizing students' needs	0/489	4/411
	3. Increasing interaction with students	0/744	10/944
	4. Exchanging ideas with and accompanying students	0/869	42/771
	5. Understanding the age-related needs of students	0/665	7/647
Strengthening social relationships	1. Social participation in daily affairs	0/816	31/022
	2. Students' silence	0/548	5/914
	3. Reducing conflict with relatives	0/861	32/62
	4. Feeling of social security	0/915	65/27
	5. Strengthening social trust	0/859	29/185
	6. Discussing, talking and exchanging ideas with students	0/832	17/683
Psychological interactions	1. Students' responsibility	0/676	9/104
	2. Feeling of efficiency and effectiveness	0/727	10/264
	3. Getting help from a mental health professional	0/713	12/314
	4. Participation in academic and non-academic group activities	0/722	11/598
	5. Encouraging students	0/639	7/953
	6. Paying attention and care for the student	0/843	32/928
	7. Increasing security and reducing anxiety	0/764	14/285
	8. Encouraging speaking in the presence of parents, friends and relatives	0/837	17/57
	9. The effective role of parents and teachers	0/618	7/59
Family level	1. Economic status of the family	0/721	9/314
	2. Family personality type	0/891	60/649
	3. Considering no place for the individual in the family	0/794	11/881

The causes of social isolation among adolescent students include six components and 39 indicators, including socioeconomic anomalies (7 items), individual variables (9 items), parental role (5 items), strengthening social relationships (6 items), psychological interactions (9 items) and family level (3 items) (Table 3). The self-esteem index was removed from the component of psychological interactions due to its low factor load and the t-statistic value<1.96. Average variance extracted (AVE) was used to evaluate the convergent validity and combined methods and Cronbach's alpha were used to evaluate the reliability (Table 4).

**Table4.** Results of convergent validity and reliability of adolescent social isolation questionnaire

Variables	AVE	Cronbach's alpha	Combined method
Socioeconomic anomalies	0/680	0/921	0/937
Family level	0/648	0/727	0/846
Individual variables	0/646	0/928	0/941
Psychological interactions	0/534	0/889	0/911
Parental role	0/538	0/778	0/849

Strengthening social relationships	0/662	0/893	0/920
Social isolation	0/866	0/969	0/975

Social isolation and its components had an acceptable convergent validity and reliability (Table 4) since its convergent validity was higher than 0.50 and reliability higher than 0.70. Structural equation modeling was used to investigate the effect of components on social isolation (Table 5 and Figure 1).

Table5. Results of research hypotheses

Variables	Coefficient	t-statistics	Significance level
The effect of socioeconomic anomalies on social isolation	0/378	7/072	<0/05
The effect of family level on social isolation	0/358	5/614	<0/05
The effect of individual variables on social isolation	0/396	7/507	<0/05
The effect of psychological interactions on social isolation	0/375	5/602	<0/05
The effect of parental role on social isolation	0/373	5/607	<0/05
The effect of strengthening social relationships on social isolation	0/366	5/879	<0/05
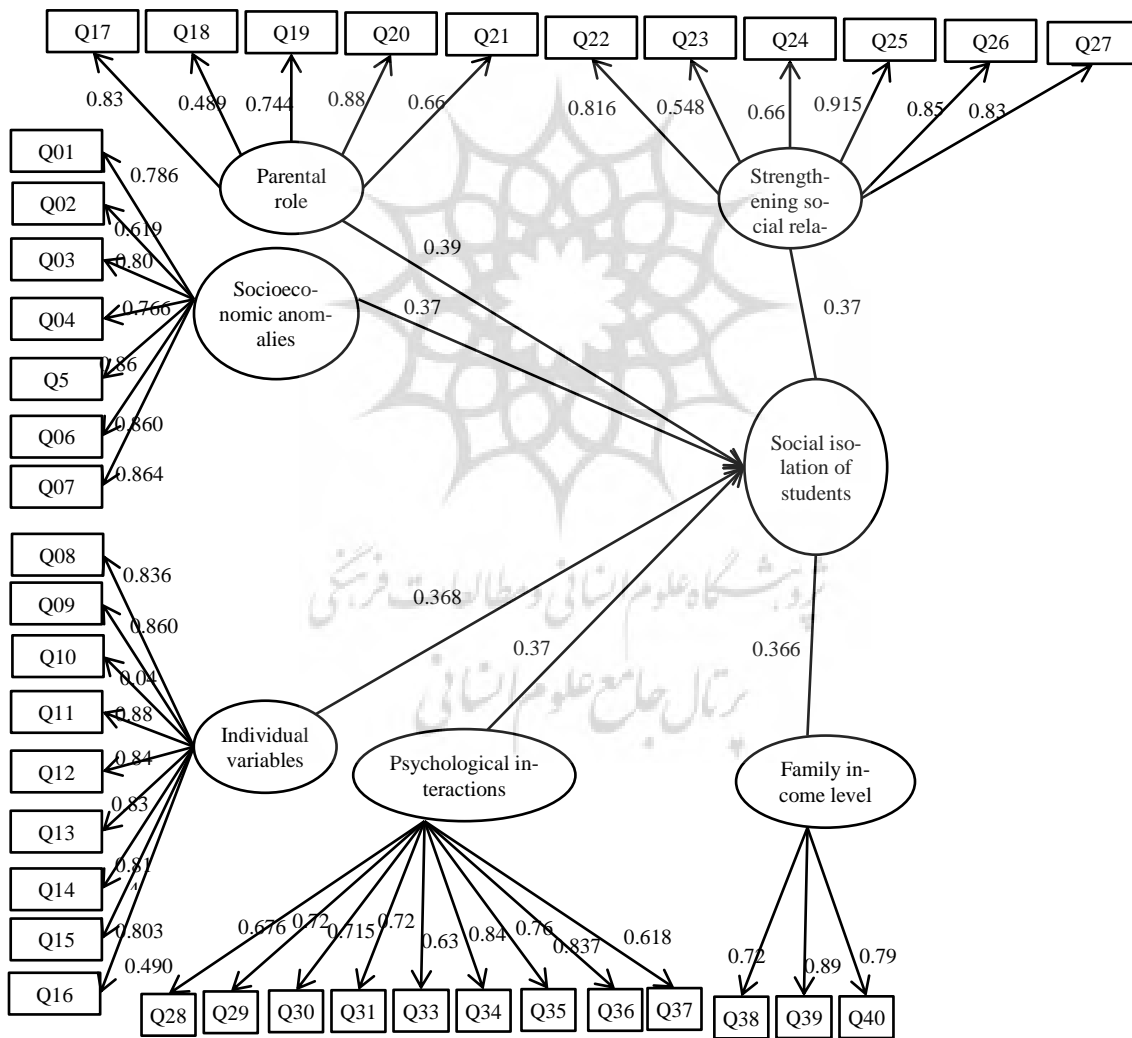
Figure1. Results of structural equation modeling on the effect of adolescent social isolation questionnaire components

Socioeconomic anomalies, family level, individual variables, psychological interactions, parental role and strengthening social relationships had a significant effect on social isolation (P <0.05) (Table 5 and Figure

1). Also, the results also showed it is a good fit model since R2=0.873 that is greater than 0.70 and GOF=0.596 that is greater than 0.36.

4. Discussion

The prevalence of social isolation is high and increasing, which leads to many deviations. On the other hand, adolescents play an important role in future prosperity of any country, and the development of any society requires the maximum use of the capabilities of this group. Therefore, the aim of the present study was to identify the causes of social isolation and design a related model for high school students. The results of the present study showed that the causes of social isolation in adolescent students consisted of six components including socioeconomic anomalies, individual variables, parental role, strengthening social relationships, psychological interactions and family level, which had good convergent validity and reliability. Results also showed that the model of causes of social isolation had a good fit and all six components of socioeconomic anomalies, individual variables, parental role, strengthening social relationships, psychological interactions and family level had a significant effect on social isolation. These results are consistent with results of studies by Seifzadeh et al. (2019), Hazrati Someeh (2018), Modarresi Yazdi et al. (2017), Haghighatian (2013), Bezerra et al. (2020), Cotterell et al. (2018), Gouda & Okamoto (2012), Doman & Roux (2010) and Wichman et al. (2004).

To explain and interpret the results of the present study, it can be stated that the component of socioeconomic anomalies is characterized by criteria such as inappropriate economic status, excessive use of online networks, ethnic, racial and linguistic affiliations, social unacceptability and legal deprivations. The individual variables are characterized by criteria such as mistrust and suspicion, inability to do related tasks, fear and insecurity, hostility and aggression, self-alienation, and feelings of futility. The parental role includes indicators of empathy, recognition and understanding of needs and increasing interaction and exchanging ideas. The component of strengthening social relationships is determined by indicators such as social participation, feeling of social security and strengthening social trust. The component of psychological interactions consists of indicators of responsibility, asking for help, participating in social activities, encouraging speaking. The family level component also refers to the economic status and personality of the family and the position of the individual in the family.

Thus, social isolation is measured by general and important indicators such as insecurity and feelings of insecurity, non-participation in community activities, aggression and lack of empathy, socioeconomic problems and individual and family make no effort to increase social interactions. Feeling lonely as a mental dimension of social isolation is due to a defect or disorder in close relationships. Adolescents can show desocialization and social isolation under certain conditions. Adolescents with anxious parents or relatives are more likely to have this problem because these parents and relatives directly and indirectly encourage adolescents to have limited relationships through. Also, some people are born with a cautious personality and are inherently prone to shyness and sensitivity when exposed to new situations. In addition, aggressive and non-empathic adolescents can increase psychological gap with other people, which in turn can lead to social isolation or desocialization. Also, living in industrialized or industrializing societies reduces social trust through competition, division of labor, routine relationships, individualism, acceptance of the objective spirit, and rejection of the mental spirit. Special characteristics and wide-ranging social and economic changes also lead to atmosphere of greater mistrust where everyone is looking for their own resources. Therefore, mistrust and suspicion have a significant impact in reducing social relationships and ties, which in turn lead to increased social isolation, because with an increase in mistrust and suspicion, which indicates a person's mistrust and reliance on others, the feeling of helplessness and loneliness is strengthened. Thus, living in large, industrialized cities leads to increased alienation and social isolation, in exchange for individual freedom. Thus, the new age has two positive and negative aspects; that is, it provides freedom on the one hand, and the feeling of social isolation grows due to the liberation of the individual from direct and indirect social control, on the other hand. Humans trust to communicate, they communicate to instill in their minds the belief that they

will not succeed without cooperation, partnership and exchanging of ideas, and sociologists have come to the conclusion that without trust, everyday life is not easy. Today, there is the greatest agreement that trust is an essential component of all ongoing social relationships, and it can be stated that trust is a social act and must be maintained. In contrast, mistrust leads to diminished social activity, isolation, and adverse precautionary measures, destroying the network of interpersonal relationships and ultimately breaking ties and increasing social isolation.

Overall, the results showed that social isolation consisted of six components of socioeconomic anomalies, individual variables, and parental role, strengthening social relationships, psychological interactions and family level. Since social isolation is the opposite of social cohesion, and in order to create and maintain social cohesion and get rid of social isolation, adolescents must be properly adapted to sustainable values and appropriate norms of society. Adolescents should be raised in such a way that they can both adequately meet their individual needs and in their spatial and temporal conditions and play an effective role in ensuring the proper functioning of society. The limitations of the present study include time constraints, the limitation of the study population to the city of Gorgan, no face-to-face access to most samples and communication via telephone, e-mail and virtual networks, and the presence of some uncooperative experts and students. These limitations should be considered while generalizing and using research results. Therefore, the following suggestions are provided. To increase self-confidence and a sense of security, it is essential to learn and practice communication skills and social interactions and apply them in real life situations. To reduce and eliminate the social isolation of adolescent students, teachers and parents can understand their needs and exchange ideas with them, and to do process more effectively, it is better to get help from mental health professional and accompanied students in group and social academic and non-academic activities. It is also possible to build and strengthen courage and boldness in them and teach them the skills of empathy through discussion, dialogue, exchanging ideas and giving students freedom and authority.

It is also recommended that teachers and parents should be aware of their role in reducing or increasing social isolation and, given the individual characteristics and variables affecting students' social isolation and individual differences, create appropriate conditions for strengthening social relationships. To this end, increasing psychological interactions and improving the family level can be effective. Finally, it is recommended to hold meetings, seminars and conferences to increase social interaction and reduce social isolation, develop a long-term strategic plan for schools in order to reduce or eliminate social isolation, and hold workshops for teachers and parents in order to improve relationships with children and strengthen social and communication skills in adolescents.

References

Bezerra ACV, DaSilva CEM, Soares FRG, DaSilva JAM. (2020). Factors associated with people's behavior in social isolation during the COVID-19 pandemic. Ciencia & Saude Coletiva. 25(1):2411-2421.

Calati R, Ferrari C, Brittner M, et al. (2019). Suicidal thoughts and behaviors and social isolation: A narrative review of the literature. Journal of Affective Disorders. 245:653-667.

Campagne D M. (2019). Stress and perceived social isolation (loneliness). Archives of Gerontology and Geriatrics. 82: 192-199.

Chen Lm Zhou R. (2020). Does self-reported hearing difficulty decrease older adults' cognitive and physical functioning? The mediating role of social isolation. Maturitas, 141:53-58.

Cotterell N, Buffel T, Phillipson C. (2018). Preventing social isolation in older people. Maturitas. 30:80-84.

DeSousa P, Sellwood W, Eldridge A, Bentall RP. (2018). the role of social isolation and social cognition in thought disorder. Psychiatry Research. 269:56-63.

Doman LCH, Roux A. (2010). The causes of loneliness and the factors that contribute towards it - A literature review. Tydskrift Vir Geesteswetenskappe. 50(2):216-228.

Giuli C, Spazzafumo L, Sirolla C, et al. (2012). Social isolation risk factors in older hospitalized individuals. Archives of Gerontology and Geriatrics. 55(3):580-585.

Gouda K, Okamoto R. (2012). Current status of and factors associated with social isolation in the elderly living in a rapidly aging housing estate community. Environmental Health and Preventive Medicine. 17(6):500-511.

Haghighatian M. (2013). Effective social factors on social isolation of the youth (Case of study: Isfahan city). Journal of Iranian Social Development Studies. 5(4):87-98.

Hazrati Someeh Z. (2018). Social Factors Affecting Students' Social Isolation (Case Study: Islamic Azad University Central Tehran Branch). Journal of Social Development. 12(2):109-142.

Mason TB, Heron KE, Braitman AL, Lewis RJ. (2016). A daily diary study of perceived social isolation, dietary restraint, and negative affect in binge eating. Appetite. 97:94-100.

Milman E, Lee SA, Neimeyer RA. (2020). Social isolation as a means of reducing dysfunctional coronavirus anxiety and increasing psychoneuroimmunity. Brain, Behavior, and Immunity. 87:138-139.

Modarresi Yazdi F, Farahmand M, Afshani S A. (2017). A study on single girls' social isolation and its effective socio-cultural factors: A study on single girls over 30 years in Yazd. Journal of Social Problems of Iran. 8(1):121-143.

Mora-Gallegos A, Fornaguera J. (2019). The effects of environmental enrichment and social isolation and their reversion on anxiety and fear conditioning. Behavioural Processes. 158:59-69.

Primack BA, Shensa A, Sidani JE, et al. (2017). Social media use and perceived social isolation among young adults in the U.S. American Journal of Preventive Medicine. 53(1):1-8.

Seifzadeh A, Haghighatian M, Mohajerani AA. (2019). Investigating the social isolation of the elderly of Tehran city and it social effecting factors. Population. 25(105-106):1-34.

Wichmann C, Coplan RJ, Daniels T. (2004). The social cognitions of socially withdrawn Children. Social Development. 13(3):377-392.

Yu B, Steptoe A, Niu K, Jia X. (2020). Social isolation and loneliness as risk factors for grip strength decline among older women and men in China. Journal of the American Medical Directors Association. 21(12):1926-1930.