



Relationship between social health components and incidence of depressive disorder among Iranian students

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Journal of Research & Health
Social Development & Health Promotion
Research Center
Vol. 8, No. 3, May & Jun 2018
Pages: 286- 295
DOI: 10.29252/jrh.8.3.286
Original Article

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Received: 24 Dec 2014
Accepted: 6 Jan 2016

How to cite this article: Masoudnia E, Toriki S. Relationship between social health components and incidence of depressive disorder among Iranian students. *J Research Health* 2018; 8(3): 286- 295.

Abstract

Depression is one of the most common psychiatric diagnoses which its growing trend has created major problems for mental health. The present study aimed to investigate the relationship between social health components and incidence of depressive disorder among students of Yazd university. Data were collected by using stratified sampling method among 250 undergraduate students (107 males and 143 females). The research instrument included beck depression inventory, perceived social support scale, social cohesion scale, social trust scale and social tie scale. According to the results of this study, there was significant negative correlation between perceived social support and depression, there was significant negative correlation between two social cohesion components namely belief and commitment with depression. There was significant negative correlation between the component of public trust in social trust structure and depression. There was relatively strong positive correlation between social health and incidence of depression in undergraduate students. Therefore the social and behavioral interferences to strengthen public health is essential to prevent the incidence and prevalence of depression.

Keywords: Depressive Disorder, Social Capital, Trust

Introduction

Depression is a very common disorder and main cause of disability around worldwide and according to the World Health Organization [1] by 2020 depression will become the second common condition in the world. The World Health Organization has estimated that depression and anxiety are on the top of the mental illnesses list and about 25 percent of patients referred to health centers in the world suffer from these problems [2]. Today, depression is the second most common psychological disorder and nearly 121 million people around worldwide suffer from depression [3]. The previous studies indicated that the prevalence

and severity of mental problems has increased among undergraduate students in comparison to non-student population. According to the national institute of mental health the results of recent researches in Wolfsan institute of health sciences in London showed that 46 percent of male students and 64 percent of female students suffer from anxiety while 12% of male students and 15% of female students suffer from depression [4]. Every year millions of students who are enrolled at the university drop out or they get depressed and cannot finish their education [5]. Other studies have also shown high prevalence of

depression in Iran [6]. However depression doesn't belong to particular group, but some people due to their specific situations are more vulnerable to this disorder. Several studies have indicated high prevalence of depression in Iran [6,7]. Based on conducted studies on students high range of depression can be seen among this group, so that 78 percent of students are suffering from some depressive symptoms and 46% have severe depression [8].

Depression is mental-biological response to life pressures and stressors. This response or mood disorder is not limited to specific time or place and it can occur at anywhere and anytime for any person. Over the past thirty years, steps have been taken to identify risk factors of depression and several theories have attempted to bring evidence to determine the role of certain factors in the incidence of this disorder. These factors can be genetic factors (e.g. history of depression in family), chemical factors (e.g. disorders in body chemical or hormonal balance, or impairment in neurotransmitters), psychological factors (e.g. lack of intimate and assuring relationship with people, lack of self-worth for long term, deprivation of parental love) and environmental factors (e.g. family's experiences, negative events in recent years and many other cases) and in the most cases these factors are interconnected [9]. Social health variables are those effective factors on incidence and prevalence of depression along with biological and psychological factors which has been paid little attention to them in mental disorders studies. Social health was defined for the first time officially by World Health Organization in 1947 [10]. According to World Health Organization (WHO), health can be defined state of complete physical, mental and social well-being and not merely the absence of disease or disability [10]. Social health refers to well-being of each person and how person makes relationship or adapts with other people in society and how those people make relationship with person or gives responses and also how is individual's interaction with social institutions and collective practices and ethics [11]. Evidence suggested that people who are

better attracted by own society make stronger cohesion with it and they have longer life and when they get sick and also they recover sooner due to social support. Poor social health and skills also increase vulnerability to mental health problems such as depression, loneliness, and social anxiety [11]. In terms of social health, person can properly overcome the diseases that threatened due to social support a person receives. Youth health is one of the main priorities in all countries. Health needs of youth in the context of social transformation in the global and national level reflect a number of shortcomings. This means that in relation to health, more attentions have been paid to physical health but mental and social health received less attention. Traditional ways of living among humans have significant impact on human health and welfare. A healthy life is the result of social interaction between individual and socioeconomic environment surrounding them.

As components of social health, social support and social integration have significant effect on depression. Social support is defined as receiving information, financial assistance, health plan or recommendation, emotional support from others who are interested or deemed worthy by person and are part of the social network such as; spouses, relatives, friends and also social contacts with church [12]. Studies have shown that social support have beneficial effects on the cardiovascular, endocrine (endocrine) and immune system [13], decreased cardiovascular reactivity in response to stress, decreased levels of norepinephrine, epinephrine and cortisol in the urine, especially in men, and low systolic blood pressure [14]. In depression, studies have shown that lower perceived adequacy of social support is associated with symptoms of depression [15].

Social cohesion is defined as emotional tie that society's members have to each other [16]. While social support enables people to negotiate life's crisis, social cohesion helps to stabilize health threatening situations by

including and accepting people, by enabling them to participate freely within the families, the committees and the society. Research showed that social cohesion directly create positive psychological states such sense of purpose as well as security and self-worth [17] and these positive states may have beneficial effect on decrease of depressive symptoms.

Social ties as another component of social health plays beneficial role in protecting and promoting mental health. Attachment in early life is critical to psychological development [17]. Social isolation and loss of social ties are the most potent predictors of depressive symptoms among adults. Lin and others [18] by identifying three layers of social tie which are “belongingness-bonding-binding” showed that all three layers of social tie can have independent effects on depressive symptoms.

Social trust is another index of social health. Trust is mental status and refers to the degree which individual trusts the other and it is evaluated by factors such as honesty, generosity, and competency. Fujiwara and Kawachi [19] during 2–3-year follow-up study design suggested that perception of higher levels of cognitive social trust is associated with a reduced risk of major depression, even after controlling for variables such as socioeconomic status, diagnosis of major depression and other social variables. In another study, Fone et al [20] reported inverse relationship between social trust at the individual level and at the social level and depressive disorder. Lofors and Sundquist [21] in a study in Sweden showed that social trust is inversely related to risk of hospitalization as a result of depression.

However, the absence or low quality of social health is appeared in form of various mental disorders (such as depression) and wide range of psychosomatic disorders. In addition, poor social health leads to social harms such as suicide, cigarette smoking, running away from home, academic failure in school and other social harms which should be considered more. Social skills and membership in social networks are behaviors that enable individuals to deal effectively and avoid undesirable

responses and show individuals' social and behavioral health. These skills are rooted in social and cultural contexts and include behaviors such as pioneering in establishing new relationships and asking for help and offering help to others [35].

Several studies in Iran have been done about etiology of behavioral disorders according to clinical and psychosocial approaches; but in the meantime, the investigation about effect of social health components of depression has been neglected. Considering conducted studies in Iran about the prevalence of depression, it can be concluded that no studies have been done about the etiology of depressive disorder according to social health. Regarding this research gap, the present study aimed to determine the relationship between the components of social health and incidence of depressive disorder in Iran.

Method

This study conducted by using correlational design. Data were collected from March to April 2014 at Yazd university. The study population of this study consisted all of students who were studying at Yazd university. The numbers of students in 7 faculties (humanities, literature, science, mathematics, statistics, engineering, natural resources, art and architecture) were 7153 persons.

Stratified sampling method was used to select the appropriate sample and for the subgroups (students of different colleges) with the same proportion that exist in society, as a representative of society could be present in the sample. 250 students were selected by using the modified Cochran formula and stratified sampling method also after pre-test on 30 participants

In this research tools included:

Perceived Social Support Scale: Multidimensional perceived social support scale [22] was used to measure perceived social support. This questionnaire consisted of 12 items that evaluate three components: perceived support by family (4 items), perceived support by significant others (4

items) and perceived support by friends (4 items). The perceived social support was translated into Persian by Masoudnia [23] in scale Iran for the first time. In his study, three factors were identified by using principal components analysis on the 12 items of the scale which including: support by friends, support by family and support by significant others. Internal consistency coefficients of perceived social support scale in Masoudnia study [23], have been calculated 0.78, 0.81 and 0.87 respectively by using Cronbach's alpha which were ordered within proper range. In the present study, the internal reliability of perceived social support scale by friends based on Cronbach's alpha was 0.85 and the subscales of perceived social support by friends, family and other significant ones were respectively; 0.68, 0.62 and 0.65. Thus, these values were significant at level of 0.05.

Social Trust: Modified questionnaire of adults' interpersonal trust was used to measure social trust [24]. This scale consists of 28 items that were measured based on a range of five degrees (strongly agree, agree, neutral, disagree, and strongly disagree). This scale was translated for the first time into Persian by Masoudnia [25]. Principal component analysis on 28 items of the scale was used to measure the validity of this scale. He also used Varimax rotation while selection criteria of Eigen values was higher than 1. The results of his study showed that the three components of public trust, distrust and the relative trust were extracted to make 28 items. In Masoudnia's study [25] the reliability of the test was measured by using Cronbach's alpha which equaled to 0.88 and for subscale of public trust, distrust and relative trust was measured 0.806, 0.78 and 0.73 respectively. The reliability of the questionnaire was 0.75 by using Cronbach's alpha. Finally, the reliability of the questionnaire by using Cronbach's alpha for the subscales of public trust, distrust and the relative trust were measured 0.78, 0.62, and 0.68, respectively.

Social Tie Sclae: Social Network Index (BSSNI) [26] was used to measure social ties. The primary index of social tie scale consisted

of questions related to intimate relationships and close social ties (with family and friends) to wider relations (with the community). This scale included questions about marital status (married vs. unmarried), sociability (frequency and number of contacts with family and close friends) which ranging from zero (lowest relationship) to five (highest relationship), membership in religious groups (yes vs. no), and membership in other voluntary organizations (yes vs. no). In this study, the above index was modified, 5 items that measured communication with friends, family, relatives, religious activities and volunteer groups were created. The reliability of the questionnaire by using Cronbach's alpha equaled to 0.7.

Social Cohesion Scale: Short form of Social Cohesion Scale (SIS) [27] was used to measure social cohesion. Social cohesion scale consisted of 26 items that included five components: 1) belief (belief in law and social control), 2) commitment (emotional investment in conventional manner), 3) involvement (behavioral investment in conventional manner), 4) network availability (interaction with people and organizations), 5) criminal peers (communication with persons engaged in criminal behavior). Reliability for the subscales of belief, commitment, involvement, network availability, criminal peers was calculated 0.77, 0.61, 0.69, 0.70 and 0.81 respectively by its designer. The social cohesion scale for the first time was translated by Masoudnia and Toriki [28] into Persian in Iran. In their study, five factors (domains) were identified by using principal components analysis on 26 items of this scale which including; 1) belief (belief in law and social control), 2) commitment (emotional investment in a conventional manner), 3) involvement (behavioral investment in the conventional manner), 4) network availability (interaction with people and organizations), 5) criminal peers (communication with persons engaged in criminal behavior). The first factor (belief) determined 20.271%, the second factor (commitment); 11.123%,

the third factor (involvement); 6.259%, the fourth factor (network availability); 5.659%, the fifth factor (the criminal); 938%4 of the social integration variance. In this study KMO value was reported 0.77 for social cohesion which indicates appropriate sample size for the analysis of main component When Bartlett test value is; $\chi^{(266)}=1857.69$, $p<0.001$, it indicates the true separation of components. The internal reliability of social integration scale was measured using Cronbach's alpha. The results showed that the internal reliability of Social cohesion scale is 0.89 and subscales of belief, commitment, conflict, network access, and criminal equaled to 0.80, 0.81, 0.70, 0.72, and 0.71 respectively. These values are significant at level of 0.05.

Beck Depression Inventory: Beck Depression inventory was used to measure depression on undergraduate students. This inventory is one the most common inventories of depression measuring which was published by Aeron Beck and et al in 1961 [29] and it has two short and long forms while the present study used short form of depression questionnaire. It is a 13-items self-report inventory which was used to assess depression (nothing-severe). In this questionnaire, depression degrees are none, mild, moderate and severe. The reliability and validity of the Beck Depression inventory has been reported in several studies. Beck, Steer and Garbin [30] found the internal consistency of the scale between 0.73 to 0.62. In Iran alpha coefficient to measure the internal consistency of this scale were obtained 0.78 and 0.86 by using test-retest reliability coefficient test [31]. In another study [49] reliability and validity of the Beck Depression Inventory has been reported 0.93 and 0.73 respectively. The reliability of the Beck Depression Inventory [43] in the present study was 0.80 by using Cronbach's alpha.

Descriptive statistics were used to describe the demographic and social characteristics such as mean, variances, standards deviation, minimum and maximum, frequency and percentage. Pearson correlation zero order (moment correlation coefficient) was used

to test correlations between variables with SPSS-18 In addition, hierachial multiple regression was used to determine the contribution of each components of social health in predicting variance of student depression.

Results

The mean age of students was 21.43 years with standard deviation of 2.22 years and 57.2% were female and 42.8% were male. In terms of marital status, 86.0% of respondents were single and 14% were married. In terms of depression, 10% of respondents had history of depression and 90% had no history of depression. In terms of family history of depression, 10% of respondents had family history of depression and 90% of respondents had no family history of depression.

H¹: There is relationship between perceived social support along with its components and incidence of depressive disorder among college students.

A significant negative correlation was found between general perceived social support and depression ($r= -0.216$; $p<0.01$). Also, there is significant inverse relationship between perceived support by friends and depression ($r= -0.205$; $p<0.01$), perceived support by family and depression ($r= -0.196$; $p<0.01$) and perceived support by significant others with depression ($r = -0.183$; $p <0.01$).

H²: There is relationship between social trust and the incidence of depression among undergraduate students.

There is no significant correlation between general social trust and depression ($r= -0.089$; $p<0.05$). In terms of social trust components and depression, there is significant negative correlation between general trust and depression ($r= -0.183$; $p<0.01$).

H³: There is relationship between social cohesion and incidence of depression among undergraduate students.

There is no significant relationship between total social cohesion and depression ($r= -0.017$; $p>0.05$) but there is significant negative relationship between the components

of belief ($r = -0.167$; $p < 0.01$) and commitment ($r = -0.197$; $p < 0.01$) and depression.

Table 1 Description of socio-demographic characteristics of the sample

Socio-demographic variables	M±SD	Frequency	Percent
Age	21.43±2.22		
Sex			
Male		107	42.8
Female		143	57.2
Marital status			
Unmarried		216	86
Married		35	14
Educational degree			
BA		211	84.4
MA		39	15.6
History of depression			
Yes		25	10
No		225	90
Depression background in family			
Yes		25	10
No		225	90

Table 2 Correlation matrix of perceived social support and its components with depression

	1	2	3	4	5
Depression	1.000				
General Perceived Social Support	-0.216**	1.000			
Perceived support by friends	-0.205**	0.887**	1.000		
Perceived support by family	-0.196**	0.916**	0.692**	1.000	
Perceived support by significant others	-0.183**	0.907**	0.681**	0.803**	1.000

** $p < 0.01$

Table 3 Correlation matrix of social trust and its components with the depression

	1	2	3	4	5
Depression	1.000				
Social trust (total)	-0.089	1.000			
General trust	-0.183*	0.755**	1.000		
Distrust	-0.034	0.836**	0.428**	1.000	
Relative trust	-0.094	0.660**	0.209**	0.439**	1.000

* $p < 0.05$; ** $p < 0.01$

Table 4 Correlation matrix of social cohesion and its components with the depression

	1	2	3	4	5	6	7
Depression	1.000						
Social integration	-0.017	1.000					
Belief	-0.167**	0.696**	1.000				
Commitment	-0.197**	0.326**	-0.263**	1.000			
Involvement	0.107	0.262**	-0.090	0.270**	1.000		
Network availability	0.101	0.260**	0.065	0.188**	0.099	1.000	
Criminal peers	-0.115	0.668**	0.527**	-0.204**	0.001	0.076	1.000

**p< 0.01

Table 5 Pearson correlation test between social ties and depression

	1	2
Social tie	1.000	
Depression	0.134	1.000

2.3.4. H⁴: There is relationship between social tie and incidence of depression among undergraduate students. There is no significant relationship between depression and social ties (p>0.05, r= -0.095).

Discussion

This study aimed to determine the relationship between social health and the incidence of depression among students. Our results regarding to the relationship between perceived social support and incidence of depressive disorder showed that significant negative correlation was found between general perceived social support and depression. There is inverse relationship between perceived social support by people and incidence of depression. If student have high social support from family, friends and significant others they would receive the same level of experience fewer symptoms of depression. These results were consistent with findings of Pistulka et al. [32], and Ghodsi [33]. There are several explanations about the effect of perceived social support on the incidence of depression. One explanation is that social support modifies and weakens the adverse effects of mental tension in five ways. 1) Emotional attention: includes listening to people's problems and express empathy, caring, understanding and reassurance 2) Helping: means providing

support and assistance that leads to adaptive behavior. 3) Information: Providing guidance and advice to enhance the ability of coping. 4) Evaluation: providing feedback on the other hand leads to the correct function of quality performance 5) Socialization: social support is usually caused by socialization that leads to beneficial effects [33].

The second explanation is that people with high social support and less interpersonal conflict can stand strongly in stressful events of life and they deal effectively with fewer symptoms of depression and psychological disorders. A third explanation is that social support makes mutual commitment and creates kind of feeling in which person feels to be loved, as well as other feelings such as caring, self-esteem and sense of worth which are directly correlated with improving mental health and reducing depression [34].

The fourth explanation focused on guarding and protective role of social support in facing with stressful circumstances. For example, Pistulka et al. [32] believed that social support may act as protective buffer between stress and depression. Social support was correlated with depression and other psychological problems. Generally, based on the research findings on relationship between social support and depression, it can be noted that focus on social support may be beneficial

in the prevention of depressive disorder. Therefore, enabling the support system (family, friends and neighbors) and relating people with social groups and groups with similar problems can enhance social supporting behaviors. This important issue can be done by offering programs and educational workshops in psychological counseling centers for students and their families.

In respect of relationship between social trust and incidence of depression, our results did not show significant relationship between social trust and depression. These results are not consistent with results of Kawachi et al. [35], Holtgrave and Crosby [36] and Pollack and von dem Knesebeck [37]. These studies are consistent with studies of Kawachi et al. [35] in the United States that have shown social trust and group membership (social capital indicators) correlated with mental health. Also, the findings of this study contradict the results of Brown, Harris, and Copeland [38]. In their classic study on women who lived in the slums of London, they reported that women without close and reliable relationships become depressed more than the women who had at least one reliable intimate relationship when they experience a strongly stressful event. These results are not consistent with the findings of international descriptive comparative and study by Pollack and von dem Knesebeck [37] who concluded that indicators of social investment including; norms, reciprocity and social trust, behaviors, partnership are correlated with various health indicators including; general health, depression and functional limitations.

Our results also showed that there is no significant relationship between depression and social cohesion. These results are not consistent with results' Kawachi et al. [35] which showed that higher social investment with more cohesion help to improve the health in society. Besides, the results showed that there is no correlation between social tie with incidence of depressive disorder. The results of this study do not agree with Coyne's findings [39]. Coyne [37] about relationship between social ties with depression believed

that depressed people live in a closed system that don't have ability to communicate and interact with others. In addition, these results do not agree with results of Berkman and Syme [26] who in their research investigated the social ties in some men and women by using indicators such as keep in touch with friends, family, marital status, membership in church or voluntary groups and they found that people who were less in touch with others have less mental health. Moreover, these results were not coordinated with Hofmann and colleagues' results [40] who concluded that social networks and cohesive social ties increase mental health. There is no relationship between level of social tie and depression due to several reasons including; the difference in sample of this study with samples of other similar studies, the difference in statistical instrument of this study with similar studies, the difference in significant cultural factors of this study with similar studies.

This study has limitations which include limitation in statistical population. Since this study was conducted only among undergraduate students, therefore, for accurate generalizations about social health with depression need extensive research should be done at the community level. The second limitation was related to the instrument for measuring variables. Since social health and depression is measured by self-report scales, it's necessary that in order to generalize the findings, future studies have to be done with direct and experimental methods which have been studied in other researches.

Conclusion

The results of this study showed that there was inverse correlation between some elements of social health and depression. Perceived social support as major component of social health was stronger predictor than other components of social health namely social trust, social ties and social cohesion, although there was negative correlation between some aspects of social trust construct such as public trust as well as some aspects of social cohesion

construct such as belief and commitment. The current study showed that the deficiency of the social health's component is one of the main risk factors for depression.

Acknowledgments

The researchers would like to express their gratitude to all students of Yazd University who had sincere cooperation with researchers in collecting data of current research.

Contribution

Study design: EM

Data collection and analysis: EM, ST

Manuscript preparation: EM, ST

Conflict of Interest

The authors declare that they have no competing interests.

Funding

The author (s) received no financial support for the research, authorship and/or publication of this article.

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