



A study of the relationship between psychological needs satisfaction and mental health among the students of Vali-e-Asr University of Rafsanjan

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ABSTRACT: The aim of this research was to examine the relationship between Psychological Needs Satisfaction and Mental Health criteria among the students of Vali-e-Asr University in Rafsanjan- Iran. The sample chosen through cluster sampling consisted of 311 students (133 males and 178 females). The participants filled out Goldberg and Hilleir's General Health Questionnaire (GHO) and Deci and Ryan's Psychological Needs Scale (PNS). The results showed negative and significant relationship between Psychological Needs Satisfaction and the subscales of General Health inventory including Anxiety, Depression, Social Dysfunction and Somatic Symptoms at $p < 0.01$. Yet, no significant difference was found between the male and female participants in the subscales of Psychological Needs Satisfaction except the in subscale of Somatic Symptoms.

Keywords: Psychological needs satisfaction, mental health, needs for competence, need for relatedness, need for autonomy

INTRODUCTION

Different views and opinions have been expressed throughout history concerning human's nature. Some regard human being as an inherently active, constructive, well-intended, independence- and freedom- loving soul. They attribute any malevolence to ignorance and harmful effects of the environment and society. However, others are not optimistic about the nature of human being. They view humans as inherently malevolent and egotistic. As such, they deem it necessary to put a social control system in place to regulate humans' way of conduct.

According to self-determination theory (SDT) put forward by (Deci & Ryan, 1985 & Ryan & Deci, 2000), for humans to be passive or active, constructive or destructive is more a function of social conditions than of biological ones. In other words, it is a reaction to social environments in the sense that social contexts affectionate personal as well as intrapersonal differences concerning motivation, personal growth, and psychological integrity. As a result, individuals are more self-motivated, active, and better integrated in some social and cultural contexts than they are in others, where a number of social restrictions will prevent them from realizing their potential. Thus, it is both theoretically and practically important to study which socio-cultural contexts are more likely to help individuals achieve their positive potentials because it helps not only to understand why individuals behave in

certain ways but also to recognize which social contexts are conducive to their mental health.

According to self-determination theory (SDT) put forward by (Deci & Ryan, 1985 & Ryan & Deci, 2000), an individual can become active, energetic, constructive, and self-motivated only if his/her psychological needs are satisfied in the society in which he/she lives. According to Ryan and Deci (2000), if physiological or psychological needs are thwarted, it will lead to greater fragmentation and mental as well as physical ill-being. They postulate three types of psychological needs, namely, (a) need for competence, (b) needs for relatedness, and (c) needs for autonomy to be contingent on social contexts to be satisfied or thwarted. When such needs are satisfied, they contribute to the global health of individuals. According to the theory, the satisfaction of competence needs requires success in challenging tasks and achieving desired outcomes. The satisfaction of autonomy needs require experiencing freedom in making choices, initiatives, organizing and controlling self (De Charms, 1968; Deci, 1975). The satisfaction of relatedness needs requires mutual respect, trust, sense of security, belongingness, and intimacy (Baumeister & Leary, 1985). According to self-determination theory (SDT), satisfying the aforementioned needs is as essential as the need for food in order for individuals to survive, grow, and achieve integrity.

Ryan and Deci (2000) hold that competence, relatedness, and autonomy needs should be satisfied for people at all ages in order for them to experience perfection, growth, and well-being. Glasser (1989) considers human thoughts and feelings as an endeavor to satisfy such basic needs as independence, power, relatedness, belonging, and survival. He maintains that though such needs are universal, there are differences in the ways individuals satisfy them. Gray (1992) believes that the need for autonomy is greater in men, while the need for relatedness is stronger in women. Yet, psychological theories differ with respect to gender-related differences in needs. For example, Harvey (1995) believes that the need for autonomy and relatedness become more paramount at certain developmental stages. On the other hand, psychologists within the psychoanalytic school such as Yannoy (1991) and Jung (1993) believe that in order to maintain mental health, every individual is obliged to acquire an independent identity apart from those imposed on the individual as a result of his/her social roles. Bem (1983), Heath (1980), Kegan (1982), and Rubin (1983) believe that maturity in both genders is associated with both feminine and masculine abilities including autonomy, relatedness, care, and work. In other words, women and men are alike in their needs for autonomy and relatedness. On the contrary, Chodarow (1978) believes that maturity in girls is associated with an increase in interpersonal relations, while in boys it is associated with an increase in autonomy. According to Erikson's socio-psychological theory (1959), autonomy and identity are acquired earlier than the ability to maintain intimate relationships with others irrespective of gender. Theories and research on moral development, however, contradict this view. Kohlberg (1976) views the tendency to acquire autonomy as the highest degree of moral development in both genders. Cochran and Peplau (1985) believe that there is no gender-related difference in terms of relatedness and belongingness, though acquiring autonomy is more important for women than it is for men. Bar-Yam (1991) has not found any difference between men and women in terms of autonomy and affective relatedness, as both men and women need autonomy and relatedness. Others, however, have reported that women give higher scores to interpersonal relationship and lower scores to autonomy (Giltigan, 1982; Miller, 1984; Ku, 2005, as cited in Wei *et.al.*, 2005). Recently more researchers have investigated the relationship between the satisfaction of psychological needs and measures of mental health. Ryan *et.al.* (2002) found that the need for autonomy and integrity as well as relatedness were strong predictors of mental health among nursing students. Baard, Deci and Ryan (2004) found that the satisfaction of the need for autonomy, competence, and relatedness in work places lead to improved functioning and greater mental health.

Deci and Ryan's (2000) findings showed that when the psychological needs for autonomy, competence, and relatedness are satisfied, self-motivation and global health will also increase. Accordingly, when such needs are not satisfied, the reverse happens. In later studies, Reis, Sheldon, Gables, Resque, and Ryan (2000) found a positive relationship between the need for autonomy, competence, and relatedness with psychological vitality (a positive feeling of aliveness and energy) as well as positive mood, whereas the need for competence is negatively related to low mood. Deci *et al.* (Wei *et al.*, 2005) conducted a study on American and Bulgarian workers. They reported a positive relationship between the satisfaction of basic psychological needs and mental health as well as positive mood, and psychological vitality. Conversely, when they are not satisfied, they are related with low mood and anxiety. Though past studies have indicated a relationship between the satisfaction of psychological needs and mental health, the results cannot be generalized to other cultures including the Iranian culture without any experimental evidence to make such generalization justified. Thus, the aim of this study is to investigate the relationship between psychological needs satisfaction and mental health among the college students at Vali-e-Asr University in Rafsanjan.

RESEARCH METHOD

A: Participants

The participants in this study were 311 college students from Rafsanjan University majoring in such diverse majors as sciences, agriculture, literature, humanities, and engineering in their respective colleges. 178 participants were female and 133 were male. A probability sampling method known as cluster sampling was used to select one intact class from every college randomly.

B: Research tools

The participants filled out two questionnaires as follows:

Psychological Needs Scale (PNS) developed by Ryan and Deci (2000) was used to assess the psychological needs of the respondents. The questionnaire was first translated into Persian by the researchers. It was then translated back to English by two MA and one PhD holders of English language major in order to help eliminate any obscurities. This test consists of 21 statements in three subscales, namely, the need for competence (statements 3-5-10-13-15-19), the need for relatedness (statements 2-6-7-9-12-16-18-21), and the need for autonomy (statements 1-4-11-14-17-20). In this scale, statements 4-11-20-3-15-19-16-18 are scored reversely. In order to reverse the scoring process every score is subtracted from eight. For example, the score two becomes eight.

A number of studies confirm the reliability and validity of the instrument. Deci *et. al.* (2001) reported a reliability of 0.84, 0.73, and 0.79 for the need for relatedness, the need for competence, and the need for autonomy subscales respectively. Baard *et.al.* (2000) investigated the construct validity of the construct through correlating it with Desirable Psychological Adaptability Scale. They reported a desired level of construct validity for PNS. In the present research, internal consistency method was used by correlating scores obtained on subscales with the total score. The correlation between the need for autonomy, the need for competence, and the need for relatedness with the total score were .85, .80, and .85 respectively. The high correlation between the subscales and the total scale indicate that they all measure a single construct, namely, basic psychological needs. The results also showed that the subscales did not have a high correlation with one another, which is a further indication of construct validity of this scale. In order to investigate reliability of the instrument, the researcher used Chronbach'salfa coefficient, which yielded 0.69 for the need for competence, 0.47 for the need for relatedness, and 0.67 for the need for autonomy subscale. Chronbach'salfa for the whole scale was 0.78.

2. Global Health Questionnaire developed by Goldberg and Hilleir (1979) was used to measure the mental health of the participants. This research used a version of Global Health Questionnaire containing 28 items. This version was developed Goldberg and Hilleir (1979) out of the longer version though factor analysis technique. The questionnaire aims at measuring the psychological status of the respondent in last month or so. It consists of four subscales:somatic signs, anxiety, social dysfunction, and depression.In the somatic sings subscale the general health condition as well as the physical sings that the respondent have experienced in the past month are addressed. In the anxiety subscale, clinical sings of severe anxiety, feelings of pressure, anger and worries, sleeplessness, and fear are assessed. In the social dysfunction subscale, the respondent's ability to carry out daily chores, ability to make decisions, task accomplishment satisfaction, usefulness feelings, and enjoying daily activities are surveyed. In

the depression subscale, depression symptoms such as feeling of hopelessness, feeling of worthlessness, suicidal inclinations, and feelings of incompetency are assessed.

A number of studies have addressed the validity and reliability of this scale. Goldberg and Williams (1998), reported a split-half reliability coefficient of 0.95 for this scale. Carrying a meta-analysis of studies that had used this instrument, they also reported the average reliability of 0.80. In an investigation whose participants were college students in Shiraz University, Taghavi (1380/2001) obtained a reliability coefficient of 0.70, 0.93, and 0.90 through test-retest, split-half, and Chronbach's Alfa methods of estimating reliability respectively. The concurrent validity obtained in the same study through correlations ran between the subscales and the total score was .055. In the same study, a validity range between 0.72 and .087 was obtained through conducting a factor analysis and multiplying the results by those obtained through the former method. Factor analysis through Varimaxrotation indicated that depression factors, anxiety, social dysfunction, and somatic signs accounted for .050 of the total variance.

C: Statistical Analysis

Both descriptive and referential statistics were used to analyze the data. The descriptive statistics used were Pearson correlation coefficient, mean, standard deviation, and frequency distribution charts. The inferential statistics used was independent groups t-test.

D: Procedure

The participants took and completed the questionnaires during the regular teaching session at Rafsanjan University. Counter balance design was used to neutralize the possible effects of the two questionnaires on each other.

RESULTS AND DISCUSSION

In the first step, a correlation matrix was run among the four subscales of the basic psychological needs scale and the four subscales of general health scale, the results of which are shown in table 1.

Table 1: Correlation coefficients between aspects of psychological needs and those of general health.

Variables	Relatedness needs	Autonomy needs	Competence needs	Psychological needs satisfaction
Somatic signs	-0.20*	-0.32**	-0.27**	-0.32**
Anxiety	-0.37**	-0.43**	-0.31**	-0.36**
Social dysfunction	-0.28**	-0.39**	-0.36**	-0.42**
Depression	-0.40**	-0.45**	-0.43**	-0.53**
Mental Health	0.28**	-0.43**	-0.49**	-0.50**

*= P<0.05, **=P<0.01

The results of table 1 show that in general there are significant negative correlations between aspects of psychological needs, namely, the need relatedness, the need for autonomy, the need for competence and those of the mental health, namely, somatic signs, anxiety, social dysfunction, and depression. Furthermore, all the scored obtained by the participants on the general psychological needs scale are negatively correlated with

aspects of metal health, namely, somatic signs, anxiety, depression, and social dysfunction at $p < 0.01$. In other words, the participants whose needs for autonomy, relatedness, and competence were not satisfied experienced higher levels of somatic signs, anxiety, social dysfunction, and depression. Table 2 compares the results obtained by male and female participants.

Table 2: t- test between aspects of psychological needs between male and female participants.

Scale/subscales	Group	N	Mean	Std. Deviation	Df.	T value	P
Relatedness needs	Male	179	41.53	7.37	307	1.81	NS
	Female	130	39.97	7.54			
Autonomy needs	Male	180	34.58	7.50	308	0.23	NS
	Female	130	34.78	7.73			
Competence needs	Male	178	28.02	5.36	306	0.89	NS
	Female	130	28.68	7.45			
Psychological needs satisfaction	Male	180	4.94	0.80	310	0.38	NS
	Female	132	4.90	0.92			

Table 3: t- test between aspects of mental health between male and female participants.

Scale/ subscales	Group	number	Mean	Std. Deviation	Df.	T value	P
Somatic signs	Male	179	7.20	4.21	308	2.73	0.001
	Female	131	5.38	4.33			
Anxiety	Male	177	18.35	4.37	304	1.06	NS
	Female	129	17.82	4.23			
Social dysfunction	Male	175	7.46	3.60	302	0.791	NS
	Female	129	7.10	5.13			
Depression	Male	176	4.50	4.72	304	0.386	NS
	Female	130	4.50	4.21			
Total score	Male	171	26.43	13.86	295	1.93	0.02
	Female	126	23.22	14.54			

As it can be observed, no significant difference was found between male and female participants in the subscales of psychological needs satisfaction. Table 3 compares gender-related differences in the subscales of mental health. As it can be observed, a significant difference was found between boys and girls in subscale of somatic signs indicating that the female participants in the study reported more somatic signs than the male participants. Although in the other subscales no significant difference were found between the male and female participants, in the general scale, a significant difference was found between them at the Alfa level of 0.02, indicating that girls were more susceptible to not only somatic signs but also anxiety, social dysfunction, and depression.

RESULTS AND DISCUSSION

The aim of the present study was to investigate the relationship between psychological needs satisfaction and indices of mental health among Iranian college

students. The results indicate that there is a negative correlation between aspects of negative traits of mental health such as somatic signs, social dysfunction, anxiety, and depression and psychological needs satisfaction. In other words, the students whose needs for autonomy, competence, and relatedness are not satisfied are more susceptible to experience somatic signs, social dysfunction, anxiety, and depression. The results of the present study are in line with Ryan and Deci (2000) who found that both physiological and psychological needs have energizing qualities, which, if satisfied, will lead to both physiological and psychological health. The results of the study showed no significant difference between male and female participants with respect to the subscales of psychological needs satisfaction. Therefore, they are in line with those studies which suggest no gender-related differences in this domain.

Concerning gender-related differences concerning mental health, the results of this study also showed a significant difference between male and female participants in subscale of somatic signs in that girls were more susceptible no experience such signs than boys. The results indicate that biological factors are likely to contribute to some of gender-related differences in mental health.

The results of the present study have some implications for societies, families, and educational systems as they support a relationship between psychological needs satisfaction and mental health. Societies, families, and educational systems play an important role in the satisfaction of such needs. Humans are intrinsically are capable of satisfying such needs provided that they are provided with an appropriate environment in which to use their own talents and capacities, relying on their own judgment, to satisfy their psychological needs. The satisfaction of autonomy needs require independence of thought and opinion as well as independence in decision making. Individuals may have difficulty satisfying the need for autonomy in environments in which they are not likely to be able to assert themselves and make their own decisions. In modern societies, decisions are made within certain frameworks laws and regulations. As a result, individuals are deprived from the chance to act independently. Therefore, it is imperative that societies and organizations should consider individuals' need for autonomy as important.

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