

The prediction of psychological distress of prisoners based on personality traits and dimensions of spirituality

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ABSTRACT

The aim of this study was to prediction of psychological distress prisoners based on personality traits and dimensions of spirituality. For this purpose, 288 prisoners were selected from Chenaran imprisonment with Simple Random Sampling .The tools used in this study consisted of NEO Five-Factor Inventory, for anxiety, depression, stress (DASS) and McDonald's dimensions of spirituality. Data were analyzed using spss software and regression method. The results showed that two factors for neuroticism and Experimental- Phenomenology dimension of spirituality caused to increasing of anxiety, depression and stress. While, the dimension of paranormal beliefs led to decreasing of depression and stress and increasing the anxiety.

KEY WORDS: PERSONALITY, DIMENSIONS OF SPIRITUALITY, PSYCHOLOGICAL DISTRESS, PRISONERS

INTRODUCTION

The investigating of mental health status of prisoners and providing services in the field of mental health to them has been concerned of experts in psychiatry and health of several countries and yet addressed problems relating to criminals and prisoners specially in its relation to psychiatric problems is one of the most challenging of research areas (Arasteh *et al.*, 2008). In recent years, there is increasing in the prison population in the world-

wide that it is alarm for society (Fazel. . Baillargeon, 2011; Watson *et al.*, 2004); Now the world's prison population is more than 10 million people (Fazel and Siyald, 2012) and based on the reports that have been published in the last two decades, it show that people imprisoned dramatically experienced higher rates of mental health problems compared to the general population, because the imprisonment could be an important psychological impact on them (Birmingham, 2004) so that it is raised as a risk factor for a variety of bad emotional stress.

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Also, the prison population improperly faced with trauma, mental deficiencies and a little ability to deal with difficulties and statistics have shown that psychological stress and bottlenecks especially being very high for people who had been unintentional crime (Durcan, 2008). So that the studies conducted in the prison show that the onset of mental disorders among prisoners is higher than in the general population (Albokordi *et al.*, 2010).

In one of the studies, Ashkani *et al* (2010) in study on 200 prisoners reported that 21.21% of them had a depressive disorder. On the other hand, one can be said that the harsh prison conditions can be one of the risk factors for developing of anxiety and threatened mental health; the prison have unique conditions and features that is one of the most stressful and anxious conditions for every human. Studies show that %18-19 of prisoners is exposed to basic mental disorders during sentencing. Also, a study on Iranian prisons indicates that about 5.87% of prisoners are suspected to having a mental disorder, stress and anxiety (Almasi *et al.*, 2012).

The presence of these mental distresses that defined as a set of symptoms of psycho-physiology and behavioral such as anxiety, depressive reactions, stress, restlessness and etc. are result of the interaction between several different factors. One of the variables that have been investigated in this study in relation to psychological distress prisoners is characteristics of personality. Parvin and John (2001) suggest the following definition as personality: "Personality represents those of the person or people features including its fixed patterns of thought, emotion and behavioral" (Parvin and John, 2007). In fact, we can say that the personality is certain patterns of behavior and ways of thinking that determines how compatibility of person's with the environment (Atkinson *et al.*, 2009). Joyce and Meredith demonstrated that there is very strong relationship among health and general health and his personality and if a person does not have the normal growth and development of personality, it can be said he/she is deprived of mental health (Bono *et al.*, 2007).

In fact, researchers have confirmed that each characteristic of personality has an impact on health care outcomes (Baghiani moghadam *et al.*, 2011). Momeni *et al* (2012) in a study found that the dimensions of personality were predicted 44% of the variance in mental health.

There was a significant negative correlation between neuroticism and mental health and there were significant positive correlation between openness and conscientiousness with mental health and there were not observed significant relationship between extraversion and agreeableness with mental health. Beyrami and Gholizadeh (2011) in their study concluded that the experience of depressive symptoms were significantly

positively associated with neuroticism. Studies show that people with high neuroticism evaluate little negative stimuli just like strong negative pressure. The results of Baghiani moghadam *et al* (2011) showed that significant relationship was observed between public health and neuroticism.

The analysis of regression also showed that 39% of public health changes were predicted by neuroticism. Khanjai *et al* (2014) also found that three variables of neuroticism, body image and mental stress are able to predict the physical and mental health in students. Steele *et al* (2008) found in a study in the context of the relationship between personality traits and well-being that personality traits were explained 39 to 63 percent of variance of well-being. In fact, people that in the main dimensions of personality, extraversion and conscientiousness are high and in the neuroticism are low, have greater mental health. Ahadi (2007) in a research also founds that conscientiousness, extraversion and neuroticism have significant role in predicting of mental health. Increasing of conscientiousness and extraversion and decreasing of neuroticism has most significantly relationship with mental health. Irani (2010) also concluded that there is a significant positive relationship between neurosis and anxiety.

Another variable in the study is spirituality. Spirituality is a term that most commonly used and has different meanings for different people in different cultures and era. Asonigten knows spirituality as outer protests and function of the human spirit and his definition of spirituality is an aspect of human existence which gives humanity (Aukst-Margetic *et al.*, 2005). Clinical trials have confirmed on the relationship between spirituality and health so that there is a significant relationship among spirituality and depression and anxiety disorders and recently will be more attention in mental health by certified of religious beliefs, because it is known that the religious beliefs will be inhibiting of negative attitudes and thus prevented of thought disorder and mental illness (Ganji *et al.*, 2010). Studies have shown that people who have high spiritual level, have higher well-being and happiness, more life satisfaction, and significantly higher purpose, higher self-esteem, more rapid implementation of mourning, receive more social support and less alone, less depression and faster recovery rates of depression, lower levels of suicide, less anxiety, lower psychosis and more marital stability (Hatami, 2011).

The results of Kazemi *et al* (2011) showed that there is a significant relationship between depression and religious beliefs. Nelson (2002) states that undoubtedly, faith is most effectiveness treatment for anxiety. Also Pournamdarian (2012) in their study concluded that meta-cognitive beliefs, especially negative beliefs associated with non-controllability have most contribu-

tion in predicting depression. Also Bahrami *et al* (2012) showed that there is significant relationship between spirituality and religiosity and mental health. Spirituality can be predicted the mental health of people by increasing ability for dealing with stress, deep understanding of the meaning and objectives or reduce the sense of hopelessness.

Lotfi, Kashani *et al* (2012) also found that spiritual intervention is effective in reducing distress in mothers of children with cancer. Also, Reyhani *et al* (2014) in a study found that the pastoral care training can reduce psychological stress and increasing distress tolerance mothers with premature infants in the neonatal intensive care unit. On the other hand many studies have shown that the presence of spiritual beliefs and participation in religious ceremonies resulted in decreased depression and anxiety among the people (Mohr *et al.*, 2006; Van Olphen *et al.*, 2003).

Given the mentioned contents, it is important that does imprisonment healthy exits from jail psychologically or he/she will be face with disorder rather to prevent from disease severity. The aim of this study is to provide a context in prison to the paying attention to predicting personality traits and religious and spiritual thoughts of people exposed at risk of psychological distress and to prevent to the disease by improvement of the spiritual atmosphere of the prison and psychotherapy.

MATERIAL AND METHODS

The studied populations were all prisoners of Khorasan Razavi that were 1400 imprisonments based on statistical reports. According to Morgan table (Kiamanesh, 1195) 300 subjects were randomly selected. Out of the questionnaires distributed, only 288 completed questionnaires can be verified. The tools used in this study were:

1. Depression Anxiety Stress Scales (DASS-21) questionnaire

This questionnaire was developed in 1995 by Lovibond, S. H. & Lovibond. The short form version was used in this study which has 21 items that to be evaluated each of the depressive mental structures, anxiety and stress by 7 different items; this questionnaire has been validated by Sahebi *et al* (2005) for the addicted Iranian population. Graford and Henri in England by 1771 samples compared this tool with two other tools in term of depression and anxiety and the reliability of the tool was reported with Cronbach's alpha for 0.95 depression, 0.90 anxiety and 0.93 stress 0.97 for total scores, In Iran, Moradipannah, Sahebi and Aghebati has been confirmed

the validity of the scale. It is scored from zero to three and the range of responses are from never to always so that Cronbach's alpha have been reported in the area of depression for 0.94, anxiety 0.92 and stress 0.82.

2. Five Factor- Personality Inventory (Neo-FFI):

The questionnaire was designed in 1985 by Mckerry and Costa. The questionnaire contains 60 questions that measured the five main factor of personality and 6 characteristics in each factor, ie 30 characteristics. The questionnaire was conducted by Mckerry and Costa over 208 American college students within three months that its validity was obtained 0.83 to 0.75. The questionnaire was conducted by an Iranian group (2001) over a sample size of 200 students that the correlation coefficient of main five factors was reported 0.65 to 0.87. Cronbach's alpha was found to vary from 0.85, which indicates that this questionnaire has good reliability. It is scored from zero to four and the range of responses is from strongly disagreeing to strongly agree.

3. MacDonald spirituality Questionnaire-scale revised version

This questionnaire has been prepared by McDonald's in 1997. This scale has 32 items, which to be measured generally five dimensions of spirituality: Cognitive orientation toward spirituality, the empirical / phenomenological spirituality, existential well-being, paranormal beliefs, and religiosity. From 32 items, there are additional 2 items which considered as indicators of validity and reliability of response. Its Scoring on five levels from strongly agree to strongly disagree that gave it a score of 0 to 4 awarded, Cronbach's alpha of the scale is in the range of 0.80 to 0.89. Data analysis using the software Spss-19 and using Pearson correlation coefficient and stepwise regression analysis was performed.

RESULTS AND DISCUSSION

NEO personality test scores, psychological distress and spirituality is presented in Table 1.

Some of the variables in the regression test results are presented in Table 2.

In Table 3, standardized coefficients Beta and zero-order correlation coefficients, separation and quasi-plot for predicting anxiety is presented. As you can see the p is less than 5 ($p < .05$). Thus, desired components have an impact on anxiety. Beta coefficient is also positive for all predictor variables and it means that with increasing experience, Neurosis and the paranormal, the anxiety increases.

	mean	standard deviation	number
Anxiety	72639	476849	288
Neurosis	342708	690222	288
Extroversion	317813	427015	288
Experience	373194	372514	288
Agreeableness	402743	544063	288
Conscientiousness	439167	828878	288
Religious orientation	117813	309952	288
Empirical phenomenological	123750	490022	288
Spiritual well-being	139757	348857	288
Paranormal believes	138889	209400	288
Religiosity	114306	332167	288

model	variables	resources	sum of squares	Degrees of Freedom	Mean Square	F	P	R	Squared R
1	Experimental phenomenology	regression	1802525	1	1802525	109142	0.005	0.526	0.276
		Error	4723420	286	16515				
		Total	6525944	287					
2	experimental neurosis phenomenology	regression	2163713	2	1081856	70681	0.0005	0.756	0.322
		Error	4362232	285	15306				
		Total	6525944	287					
3	experimental phenomenology Neuroticism Paranormal beliefs	regression	2320186	3	773395	52225	0.0005	0.576	0.356
		error	4205758	284	14809				
		total	6525944	287					

Depression descriptive statistics are presented in Table 4.

Regression test results are presented in Table 5.

As you can see in table 6, the p is less than 5 ($p < .05$). Thus, studied variables have an impact on depression. Beta coefficient is also positive for all experimental and neurosis variables and negative for paranormal variable,

it means that with increasing experience, Neurosis the depression increases and the depression decreases with increasing of paranormal variable.

Descriptive statistics for stress variable is reported in Table 7.

The results of the regression analysis are presented in Table 8.

variables	B	B error	Beta	t	p	Zero-order correlations	semi-partial correlation	Separation correlations
Fixed	0.987	0.1890		0.522	602			
Experimental	0.382	0.052	0.393	0.7374	0.000	0.526	0.526	0.526
neurosis	0.189	0.037	0.273	0.5147	0.000	0.526	0.412	0.370
paranormal	-0.355	0.109	-0.156	-0.3251	0.001	0.442	0.277	0.235

	mean	standard deviation	number
Depression	67326	465852	288
Neurosis	342708	690222	288
Extroversion	317813	427015	288
Experience	373194	372514	288
Agreeableness	402743	544063	288
Conscientiousness	439167	828887	288
Religious orientation	117813	309952	288
Empirical phenomenological	123750	490022	288
Spiritual well-being	139757	348857	288
Paranormal believes	138889	209400	288
Religiosity	114306	332167	288

model	variables	resources	sum of squares	Degrees of Freedom	Mean Square	F	P	R	Squared R
1	Experimental phenomenology	regression	1744065	1	1744065	111232	0.005	0.529	0.280
		Error	44844384	286	15680				
		Total	62288413	287					
2	experimental neurosis phenomenology	regression	2023683	2	1011841	68583	0.0005	0.570	0.325
		Error	42047	285	1475330				
		Total	6228413	287					
3	experimental phenomenology Neuroticism Paranormal beliefs	regression	2267554	3	755851	54196	0.0005	0.603	0.364
		error	3960859	284	13947				
		total	6228413	287					

As you can see in table 9, the p is less than 5 ($p < .05$). Thus, studied variables have an impact on stress. Beta coefficient is also positive for experimental and neurosis variables and negative for paranormal variable, it means that with increasing experience and neurosis the stress increases and the stress decreases with increasing of paranormal variable

One of the findings from this study is that the depression increases by increasing the experimental phenomenology of spirituality and neuroticism in term of personality and decreases with the increasing of paranormal variables. The present research findings on the positive and significant relationship between neurosis and depression are consistent with study the Momeni

variables	B	B error	Beta	t	p	Zero-order correlations	semi-partial correlation	Separation correlations
Fixed	2347	1735		1279	202			
Experimental	383	50	403	7612	000	529	412	360
neurosis	169	36	251	4750	000	422	271	225
paranormal	443	106	199	4182	000	227	241	198

Table 7. Descriptive statistics for stress

	mean	standard deviation	number
Stress	74007	471010	287
Neurosis	342439	689910	287
Extroversion	318014	426388	287
Experience	373136	373032	287
Agreeableness	402997	543307	287
Conscientiousness	438920	829265	287
Religious orientation	117735	310215	287
Empirical phenomenological	123884	488796	287
Spiritual well-being	139826	349271	287
Paranormal believes	138920	209699	287
Religiosity	114286	332730	287

Table 8. Summary statistics of regression and analysis of variance

model	variables	resources	sum of squares	Degrees of Freedom	Mean Square	F	P	R	Squared R
1	Experimental phenomenology	regression	1756983	1	1756983	109143	0.005	0.526	0.277
		Error	4587937	285	16098				
		Total	6344920	286					
2	experimental neurosis phenomenology	regression	2302762	2	1151381	80895	0.0005	0.602	0362
		Error	4042158	284	14233				
		Total	6344920	286					
3	experimental phenomenology Neuroticism Paranormal beliefs	regression	2444345	3	814782	59115	0.0005	0.621	0.385
		error	3900575	283	13783				
		total	6644920	286					

Table 9. standard and non-standard coefficients of regression analysis to predict stress through predicting variables

variables	B	B error	Beta	t	p	Zero-order correlations	semi-partial correlation	Separation correlations
Fixed	-0.163	1824		-0.89	0.929			
Experimental	0.354	0.050	0.368	7065	0.000	0.526	0.387	0.329
neurosis	0.230	0.35	0.337	6497	0.000	0.493	0.360	0.303
paranormal	-0.337	0.105	-0.15	-0.3205	0.002	-0.172	-0.187	-0.149

et al (2012) that indicates the personality dimension predicts 44% of the variance in mental health. There was a significant negative correlation between neuroticism and mental health and a positive correlation between openness and conscientiousness mental health was a significant and between extraversion and agreeableness was no significant relationship with mental health.

Bayrami and Gholizadeh (2011) in their study concluded that experience in depressive symptoms were significantly positively associated with neuroticism. Studies show that people with high neuroticism evaluate little negative stimuli just like strong negative pressure. The results are consistent with the study of the paranormal spirituality and depression by Ganji (2010) so that shown that people who have high spiritual level, have higher well-being and happiness, more life satisfaction, and significantly higher purpose, higher self-esteem, more rapid implementation of mourning, receive more social support and less alone, less depression and faster recovery rates of depression, lower levels of suicide, less anxiety, lower psychosis and more marital stability. Kazemi, (2011) found a significant relationship between depression and religious beliefs. Bahrami (2012) also found that Meta-cognitive beliefs, especially negative beliefs associated with non-controlability has the largest contribution in the prediction of depression.

Another finding of this study is that the anxiety increases by increasing the experimental phenomenology, neuroticism and paranormal beliefs. These results are consistent with the Irani (2010), which found a positive and significant relationship between neuroticism and anxiety. Steele *et al* (2008) found in a study in the context of the relationship between personality traits and well-being that personality traits were explained 39 to 63 percent of variance of well-being. In fact, people that in the main dimensions of personality, extraversion and conscientiousness are high and in the neuroticism are low, have greater mental health. These results are consistent with Ellison (2009). The results of the study of the influence of spirituality on anxiety are consistent with Nelson (2002) that undoubtedly, faith is most effectiveness treatment for anxiety. The results are consistent with Mohr *et al* (2006) which in their study stated that the presence of spiritual beliefs and participation in religious ceremonies resulted in decreased depression and anxiety among the people

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