Prevalence of mental disorders in teachers of different educational levels in the cities of Lahijan and Siahkal

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Abstract:

The aim of this research is to assess the prevalence of mental disorders among teachers of different educational levels in Lahijan and Siahkal .This descriptive study was conducted in 54 schools (28 rural schools, 26 urban schools) which was selected from 212 schools (109 rural schools,26 urban schools) randomly in academic year of 2010-2011. The distributed questionnaire which was responded to by 249 teachers (175 female teachers, 74 male teachers)   was the result showed that 63.86 % of teachers suffering from at least one of the 24 assessed disorders in questionnaire .Also the result indicated that the highest prevalence with 67.42 % is related to women in addition the higher prevalence of mental disorders are related to teachers of rural areas more than urban areas, teachers with diploma degree more than other teachers and primary schools teachers more than others. The evidence suggest that the most common disorders among studied teachers are Histrionic Personality Disorder with 47.79 % , Compulsive Personality Disorder with 40.56 %, Anxiety Disorder with 25.2 %, Depressed Personality Disorder with 17.67 %.

Keywords: Teachers, Mental disorders, MCMI-III

1. Introduction

Mental disorder or mental illness, is psychological or behavioral pattern that occurs in a an individual Along with disturbances in the functions caused by a biological, social, psychological, physical ,chemical or genetic disorder. Mental impairment is measured in terms of deviation from range of normal. In addition to suffer and restrictions caused by mental disorder an individual is also faced with discriminations in social activities and professional experience due to the stigma of mental illness (Ahmadvand et al., 1389). Effects of Mental disorder on community due to caring and physical support of patients and decrease in their productivity is very important. Burden of patients' treatment Costs, care and physical and emotional support on patients' families and also the Economical Burdon on society should not be neglected. World Health Organization defines normality as physical, mental, and social health. Mental health requires absence of mental disorders. Mental disorder is a syndrome or psychological and behavioral pattern that accompanied by a discomfort (e.g. a painful symptom) or considerable increase in suffering, death, pain, disability or significant loss of freedom of action. Due to various reasons the mental aspect of health in many developing countries is not considered sufficiently. World Health Organization believes that the amount mental health issues in these countries shows ascending trend. This trend is greatly associated with population growth, rapid social changes such as urbanization and the breakdown of extended families and people's lifestyle changes and economic problems. But despite these problems, mental health issues in social-economical development programs of developing countries have a lower priority (Bakhtiarpour, 1380). Review of epidemiology studies indicates that the rate of prevalence of mental disorders has been estimated differently Due to a variety of tools used, differences in sampling, different interview techniques (Yaghoubi, 1374). Omidi (2001) in an investigation on mental health status of population of 300 teachers in three different educational levels using (SCL-90-R) test showed that 23% of teachers suffer from at least one of mental disorder types. The most common disorders were obsessive compulsive and factors affecting physical condition disorder, with 9 % and Hypochondria with 7 %. He also reported that the prevalence of mental disorders in women is greater than men. Bakhtyaripur (2001) studied mental health status of teachers in Iranian province of Isfahan using random sample of 1640 people by random cluster sampling method, and general health inventory, He has reported that prevalence of mental disorders in the studied teachers was 26.65 %. The prevalence of mental disorders in women is higher than men and the highest rate is belongs to secondary teachers. Gharehjeh (2001) assess prevalence of depression between exceptional and ordinary teachers in Golestan Province, he showed the level and severity of depression in ordinary schools and among diploma and bachelor or higher qualification is less and the highest intensity is seen in the ordinary schools and among advanced diploma degree (Gharache, 1380). But in the exceptional teachers the highest Depression

severity was related to people with diploma and lowest one was related to People with bachelor degree. According to his report half of the teachers suffering from moderate depression and only 10 % of teachers are in need of care and clinical treatment. Ziaedin and rajaenejad (2001) in research entitled Epidemiology of mental disorders am ong teachers of exceptional education department in Kerman province showed the prevalence of mental disorders in three levels: mild: 38.1%, average: 3.3% and severe: 1.4%. Depression was the common disorder with 86.1 % and Paranoid Credo with 33.9 had the lowest prevalence. According to studied research the lowest prevalence rate of mental disorder in Iran obtained from abolhasani (1994) in yazd with 6.18 and the most prevalence was in sadeghi (2007) research with57.37 in kermanshah. During a two-stage study in Sumatra, Indonesia in1992 by bahar and colleagues the prevalence rate of mental disorders in men is 10.6 % and in women 14.3 % is achieved. Lee et al (2000) in their study on the 1966 participants in rural areas of Korea reported the prevalence rate of mental disorder is 41.5 on population over 18 years old. Breet Silverstein (2004) showed in his study that the prevalence rates of depression and Somatization in women are than in men. John Denninger and associates in their study on 170 patients found that more women are suffering from depression than men. Jill Chondy(2007) in his longitudinal study of clinical trials concluded that more women are suffering from depression than men and also severity of depression in women are more than men. Ottar Bjerkeset (2008)in his research worked on the relationship between anxiety and rate of suicide and found that more women are suffering from anxiety disorder than men Therefore, women commit suicide more than men but men are more successful in their suicide attempt (Sadock and Sadock, 2007). Xin Qi Donge (2009) and colleagues Stated that there is overlap between gender and culture in depression and women suffer more than men from depression,Taram chaplin (2009) studied male and female students between 11 to 14 years old ,it showed that girls more than boys suffering from anxiety and depression.

2. Methods

The Study population consisted of all teachers teaching in academic year 2010-2011 in city of Lahijan and Siahkal which was 2109 teachers. There were 212 schools in studied population (109 rural schools, 103 urban schools). 54 schools (28 rural schools, 26 urban schools) were chosen randomly and all teachers of selected schools were tested. The study sample consisted of 74 male and 175 female teachers with the average age of 37 and they were selected from academic intervals of advanced diploma to master degree. In order to collecting data Million Clinical Multiracial Inventory-III method was used. This inventory includes 175 questions which have to be answered by yes or no options and considering the scoring key, scale of 0 to 2 points assigned to any respond. 14 clinical personality pattern and 10 clinical syndrome were measured which has been defined according to DSM criteria. In study of Sharifi (2001) Reliability of this test has been calculated by the method of internal consistency and he found that the Alpha coefficient scale in the range of 0.85 to 0.97 and validity of the test changes from 0.93 to 0.99.

3. Results

To analyze the categories of MCMI-III, the raw score was calculated for each subject. Then during the scoring process, the frequency of each disorder was found. According to the found frequency prevalence of each disorder has been determined if form of percentage. And also a comparison between prevalence of disorders with groups of different gender, educational level, work place and academic degree has been done which concluded the results below:

Histrionic personality disorder, with 47.79 %, obsessive personality disorder 40.56 %, anxiety disorder with 25.3 %, and depressive personality disorder, with 17.67 % were respectively the most prevalent disorders among studied teachers. The prevalence scales of mental disorders in women with 67.42 % were more than men, with 55.4 %. And also results showed the prevalence of mental disorders in urban areas were 60.82 % and 74.54 % in rural areas, indicating that the prevalence is higher in rural areas. Prevalence of mental disorders in teachers with academic degree of college diploma was 64.61% and teachers with undergraduate and higher educational degrees were 63.59 %. Also prevalence of mental disorders in primary school teachers was found 78 %, guidance schools 65.75 % and 47.06 % in high schools was reported.

From (Table. 1) we observe that prevalence of mental disorders among the studied teachers population is 63.86 % which histrionic personality disorder, obsessive compulsive personality disorder, anxiety disorder and depressive personality disorder, respectively, are the most common disorders. Results of (Table. 2) indicate that 159 people of teachers (63.86%) are suffering from one mental disorder on minimum. This measure in female teachers is 67.42 % and 55.4 % in male teachers. Also 90 people of studied population were recognized without any mental disorder.

Results of (Table. 3) indicate that 118 people of 194 teachers (60.82%) who had taught in urban area and 41 people of 55 teachers (74.54%) who had taught in rural area are suffering from mental disorder.

Table . 1 Frequency distribution of morbid symptom based on MCMI-III questionnaire

Mental Disorder	Observed Frequency F	Percentage of frequency P
Schizoid	2	0.8
Isolated	2	0.8
Depression	44	17.67
Dependent	5	2
Dramatic	119	47.79
Narcissistic	21	8.43
Anti-social	0	0
Sadism	2	0.8
Obsessive	101	40.56
Negatively oriented	3	1.2
Masochism	2	0.8
schizotypal	1	0.4
Border	2	0.8
Paranoid	1	0.4
Anxiety	63	25.3
Pseudo-physical	3	1.2
Manic	2	0.8
Dysthymic	5	2
Alcohol dependence	0	0
Drug-dependent	3	1.2
Traumatic Stress	3	1.2
Thought disorder	2	0.8
Major depression	0	0
Delusional disorder	1	0.4

Table 2. *Frequency distribution of morbid symptoms severity based on the MCMI-III questionnaire comparing gender.*

Morbid symptoms severity Groups	0 -74		75 and above		
	Frequency	Percentage of Frequency	Frequency	Percentage of Frequency	Total
Male	33	44.6	41	55.4	74
Female	57	32.58	118	67.42	175
Total	90	36.14	159	63.86	249

Table. 3 Frequency distribution of morbid symptoms severity based on the MCMI-III questionnaire comparing service location.

Morbid symptoms severity	0 -74		75 and above		
Service location	Frequency	Percentage of Frequency	Frequency	Percentage of Frequency	Total
Rural area	14	25.46	41	74.54	55
Urban area	76	39.18	118	60.82	194

Table. 4 Frequency distribution of morbid symptoms severity based on the MCMI-III questionnaire comparing academic qualifications

Morbid symptoms severity	0 -74		75 and above		
Academic qualification	Frequency	Percentage of Frequency	Frequency	Percentage of Frequency	Total
Diploma	23	35.39	42	64.61	65
Bachelor or higher	67	36.41	117	63.59	184

Table. 5: Frequency distribution of morbid symptoms severity based on the MCMI-III questionnaire comparing educational levels

Morbid symptoms severity	0 -74		75 and above		
educational levels	Frequency	Percentage of Frequency	Frequency	Percentage of Frequency	Total
Primary school	20	22	71	78	91
Guidance school	25	34.25	48	65.75	73
High school	45	52.94	40	47.06	85

Results of (Table. 4) indicate that 42 people of 65 teachers (64.61%) graduated with advanced diploma and 117 people of 184 teachers (63.59%) with bachelor and higher degrees are suffering from mental disorder.

As the result shows in (Table. 5, 6) from 91 teachers who were teaching in elementary schools 71 people (78%) are suffering from mental disorder. 48 teachers (65.75%) who were teaching in guidance schools and 40 teachers (47.06%) who were teaching in high schools are suffering from mental disorder. According to the result of Table 6 and calculated z (2) which is greater than z of table and level of α (α=0.05, 1.96) the Null hypothesis assumption is rejected and study assumption is confirmed. Given the significant differences between the two ratios it's been declared with probability of 95 % that there are significant differences between the frequency of mental disorders among male and female teachers, based on the MCMI-III test and according to calculated P the ratio of mental disorders among female teachers is greater than male teachers.

According to the result of (Table. 7) and calculated z (2.16) which is greater than z of table and level of α (α=0.05, 1.96) the Null hypothesis assumption is rejected and study assumption is confirmed. Given the significant differences between the two ratios it's been declared with probability of 95 % that there are significant differences between the frequency of mental disorders for different work places, based on the MCMI-III test and according to calculated P the ratio of mental disorders among rural teachers is greater than urban teachers

According to the result of table 8 and calculated z (0.16) which is smaller than z of table and level of α (α=0.05, 1.96) the Null hypothesis assumption is confirmed and study assumption is rejected. Given the insignificant differences between the differences

between academic qualifications it's been declared with probability of 95 % that there are not significant differences between the frequencies of mental disorders for different academic qualification, based on the MCMI-III test.

Table. 6: Ratio frequency distribution of mental disorder among male and female teachers based on MCMI-III test

	Statistical Index	N	F	P	Z	Z table	Level α
Work place	Rural	55	41	0.74	2	1.96	0.05
	Urban	194	118	0.61			

Table. 7 Ratio frequency distribution of mental disorder among teachers in rural and urban areas based on MCMI-III test

	Statistical Index	N	F	P	Z	Z table	Level α
Gender	Male	74	41	0.55	2	1.96	0.05
	Female	175	118	0.67			

Table. 8 Ratio frequency distribution of mental disorder among teachers comparing different academic qualifications based on MCMI-III test

	Statistical Index	N	F	P	Z	Z table	Level α
Academic qualifica-tions	Diploma	65	42	0.64	0.16	1.96	0.05
	Bachelor and above	184	117	0.63			

Table. 9 Ratio frequency distribution of mental disorder among teachers comparing different educational levels based on MCMI-III test

	Statistical Index	N	F	Df	X2	X2 Table	Level α
Educational levels	Primary school	91	71	2	9.77	5.99	0.05
	Guidance School	73	48				
	High school	85	40				

According to the result of table 9 and calculated X2 (9.77) which is greater than X2 of Table (5.99) and level of α (α=0.05) and d.f=2 the Null hypothesis assumption is rejected and study assumption is confirmed. Given the significant differences between the two values it's been declared with probability of 95 % that there are significant differences between the frequency of mental disorders for different educational levels and according to observed frequencies the ratio of mental disorders among primary school teachers is the greatest and the lowest prevalence is observed among high school teachers.

4. Discussion

The main objective of this study was to estimate the prevalence of mental disorders in teachers of different educational levels in the cities of Lahijan and Siahkal. The results obtained showed that the prevalence of mental disorders among teachers in the study

population was 63.86 % which 67.42 % was of the female teachers and 55.4 % male teachers. The prevalence of mental disorders obtained in the present study, showed the highest similarity with the results obtained by Sadeghi (2007), with a prevalence of 57.35 %. One of the factors caused that this study showed higher percentage of prevalence comparing other previous studies could be pointed as using new and comprehensive research tools. The MCMI-III test is questioner that includes and measures many scales also assess any individual in total period of his life time and does not limit the subject responses to a weak before or a previous month. Results showed significant differences between the frequency of mental disorders among male and female teachers. In general women compared to men in some secretions of their life time are at greater risk for disorders such as depression and anxiety caused by the differences in terms of gender that indicates reflections of general limits on the social role of women in contemporary society. These differences include stresses and failed expectations of the role of housekeeping, or employment and the differences between women's education and preparation for adult roles and realities of their everyday lives. Also has been shown that marriage has more supportive role for men than women. And there are evidences that single women are living better than single men. Imbalance between the sexes, a more negative attitude for women than men makes women more vulnerable to mental disorders comparing to men, while women are less able to tolerate emotional distress. Other findings of this study get significant difference between the frequency of mental disorders of urban and rural areas' teachers (Table7).

Considering that the highest prevalence of mental disorders in this study has been found among teachers in rural areas deprivation of rural schools comparing urban schools could be considered as an affecting factor. Schools in rural areas compared to urban schools have less educational and welfare facilities. And official's and family's attention to students and schools in urban area are much higher than in rural areas. In addition a teacher in rural schools may have some other responsibility as managing schools. A rural teacher in a single class may teach to several levels simultaneously and also Teachers in rural areas are engaged in their students' personal and family problems while in urban schools this is the responsibilities of consultant teachers of schools. All these factors can contribute to higher incidence of mental disorders among teachers in rural areas. The results of this study showed no significant difference in the prevalence of mental disorders among teachers with different academic qualifications. Since the minimum degree of studied teachers were diploma and this group of teacher's benefits of longer years of teaching experience can be taken such that their experience can be substituted for higher education. In fact, we can infer that the in training, experience and education roles are complementary and overlap. Statistically significant differences between mental disorders frequency of teachers in different educational levels are the other results of this study (Table. 9). Prevalence of mental disorders in primary school teachers was reported 78 %, guidance school teachers 65.75 % and high school teachers 47.06 % which indicates higher range of prevalence in lower educational levels. Training in primary levels especially in the first grade of primary school is far more difficult and harder than other educational levels. A person deposited as a pupil to a primary school teacher benefits from lowest level of knowledge and the teachers should try hard and use great efforts to educate to new students. Hardship and efforts will be multiplied for first grade teachers since reading and writing of first grade students in their early stages. Specific concerns of primary school teachers about learning of their students are far more than intermediate and high school teachers and since the higher level students are higher age and educations get easier. Teachers of higher grades unlike the primary schools' teachers do not engage whether their student has learned or not.

According to the findings and results of this study can be stated that there are mental disorders for all people and from every social stratum And no man is immune from the psychological and social pressures so it's the risk that constantly threatens current and future generations And cause of personal, social, familial, cultural, economical losses. Although mental disorder may be not tantamount to physical illness but in many ways particularly in terms of prevalence and incidence and also in terms of reducing work force is not less than physical illness.

5. References

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