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Investigating the Mental Health of the Staff Working in Petrochemical Company of Ilam

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Abstract

Based on the census of the World Health Organization the prevalence of mental disorders is increasing in developing countries, while in the social and economic planning the lowest attention is conferred upon these disorders. Hence a research with the objective to investigate the mental health of the working staff in the petrochemical company of Ilam in 2013 was carried out. The current paper is among the comparative-descriptive causal researches. The statistical population of this study includes all the staff working in the petrochemical company of Ilam which adds up to 510 people. The sampling was carried out using the random sampling method. The sample size was determined based on Morgan's table to be 171 participants and they were presented with a questionnaire. Based on the obtained results it was shown that economic status and stress-inducing factors exerted a significant impact on the general health of the participants and they were interrelated. Moreover the results also showed that other research variables did not have a significant impact on general health or their impact is negligible.

Keywords: Mental Health; Staff; Petrochemical Company; Ilam.

Introduction

In recent decades psychologists by investigating behavioral disorders and social deviations have reached the conclusion that many disorders and complications are rooted in the inability of people to accurately analyze themselves in their own situation, lack of perceived self-control and self-sufficiency in order to encounter difficult situations as well as lack of knowledge about the problem solving skills (Kaplan et al., 2003). Hence regarding the increasing changes and sophistication of the society, the expansion of social relations, preparing people especially the young generation in order for them to be able to overcome difficult situations is a necessity. Regarding this fact, psychologists with the support of national and international organizations has started mental and physical health educations all around the world and in schools so that they can prevent mental diseases and social deviations (Taremian et al., 1999).

Based on the census of the World Health Organization the prevalence of mental disorders is increasing in developing countries, while in the social and economic planning the lowest attention is conferred upon these disorders. The reason behind this surge is partly the increasing population of these countries as well as rapid social changes such as urbanization, family problems, and economic complications (Adler and Fagley, 2005). In today's postindustrial world with the complications and the high speed and volume of changes training and educating the young generation is one of the issues which face the political and training systems. Regarding this fact schools, as one of the most important elements of training and education, have a grave responsibility for developing healthy personalities of the students and preserving and securing their mental health (Aghajani, 2002). Hence the schools not only should focus on improving the educational competencies of students they should

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pay attention to securing and preserving their mental health and provide certain measures for realizing this objective, since if this objective is realized many educational complications will be solved too (Mousavi, 2006).

Word Health Organization (WHO) defines mental health as a concept which "lies in the concept of local health and health is the perfect capability to fill the social, mental and physical roles. Health is not just lack of diseases or disabilities" (Ganji, 2004).

In other words mental diseases, antisocial and non-social behaviors, running away from home, dangerous sexual behaviors, committing suicide and drug abuse are the most important measures for evaluating the mental health of the members of the society. The little information which exists about the mental health of students and the news published every day show that today's teenager is facing several problems and complications. Their lack of awareness, the lack of ample research and analysis about the underpinning factors of these complications and the lack of extensive long-term and proper short-term programs and plans will bear significant negative consequences (Dehle and Landers, 2005; Shoari Nejad, 1998).

Today the importance of mental health is emphasized all over the world and everyday different and extensive researches show its importance in personal and social life. Hence the year 2001 was called the global year of "mental health" by the World Health Organization. This organization considered the motto "stop neglecting, let's care" in order to better illustrate the importance of this subject matter (WHO, 2001).

This shows that mental health is an issue which should be considered all around the world. One of the reasons for the grave importance of this issue is the increasing prevalence of mental disorders all around the world. Another significant reason is the importance and necessity of preventing mental diseases. Indeed it can be said that the main objective of mental health is prevention and among the three kinds of preventions put forward in mental health the basic prevention is more important (Adler and Fagley, 2005).

In a study entitled "Family breakdown in childhood and the danger of depression in adulthood" Adler and Fagley (2005) studied 1104 American students using their biography and their results showed that the child's separation from parents at the beginning of childhood exerts a great danger of depression in later years. Also frequent family fights and low socio-economic status are among the major factors of depression in adulthood. The main objective of this study is to investigate the mental health of the staff working in the petrochemical company of Ilam. Other objectives of the current study include: investigating the difference between the mental health of permanent and temporary staff, identifying the most common mental disorder among the participants and comparing the mental health status of permanent and temporary staff.

Materials and Methods

The current paper is a comparative-descriptive causal research, since it evaluates the impacts of economic status and gender on general health. These variables drive the research into the realm of retrospective studies. Also it evaluates the relationship between age and general health which is among descriptive studies. The statistical population of this research includes all the staff working in the petrochemical company of Ilam in 2013 which adds up to 510 people. The sampling was carried out using the random sampling method. The sample size base on the Morgan's table was calculated to be 171 participants who were presented with a questionnaire. In order to gather the required data three questionnaires were used:

GHQ: in this study the general health questionnaire which includes 28 questions (GHQ-28) was used as the data gathering tool. This questionnaire is one with multiple nature and self-run which is designed to evaluate the mental health and mental disorders in the society (Goldberg et al., 1979).

The general health questionnaire was first developed by Goldberg in 1972. This questionnaire is an updated psychological questionnaire which is used for identifying people with mental complications. This tool predicts mental disorders with two week time extent and it is very sensitive for transient disorders. The 28-question form of this questionnaire includes four measures with each one having seven questions which evaluate four categories of non-psychotic disorders including: physical problems, sleep disorders and disturbances, social functioning disorders and depression.

The questionnaire of personal information made by the researcher to gather the information regarding the age and monthly income as well as other demographic information of the participants.

Table 1. Alpha Coefficient for the Questions

Number	Alpha Coefficient
30	0.76

In order to analyze the obtained data two groups of statistical analyses were used; namely descriptive statistics and analytical statistics. In the descriptive statistics section we used tables, frequency, percentages and correlative coefficient. Analytical statistics include one-way variance analysis and independent t-test. The obtained data were analyzed using SPSS software package.

Results and Discussion

Based on Table 2 regarding the gender distribution 10 percent of the participants were female and the remaining 90 percent were male. Based on Table 3 regarding age, 28.2 percent of the participants were under 30 years old while 51.2 percent were between 30 and 40 and 20.6 percent were more than 40 years old.

Based on Table 4, 27.2 percent of the participants had a bad economic status (under a million tomans monthly income), 51.6 percent had an average economic status (between a million and a million and a half tomans monthly income) and 22.2 percent had a good economic status (more than a million and a half tomans monthly income).

Table 5 indicates the most important factors contributing to stress in the staff. Based on the data shown in this table 11.7 percent of the participants had emotional complications, 20.5 percent had economic problems and 67.8 percent had negative attitude towards future.

Table 2. Frequency Distribution of Participants Based on Gender

Gender	Frequency	Percent
Male	17	10
Female	154	90
Total	171	100.0

Table 3. Frequency Distribution of Participants Based on Age

Age	Frequency	Percent
Under 30 Years	48	28.2
30-40 Years	87	51.2
More than 40 Years	36	20.6
Total	171	100.0

Table 4. Frequency Distribution of Participants Based on Family's Economic Status

Economic Status	Number	Percent
Weak	44	27.2
Average	89	51.6
Good	38	22.2
Total	171	100.0

Table 5. Frequency Distribution of Participants Based on Stress Factors

Stress Factors	Frequency	Percent	Cumulative Percent
Emotional Problems	20	11.7	4.7
Economic Problems	36	20.5	13.55
Concern for Future	115	67.8	100.0
Total	171	100.0	-

Table 6 shows the physical problems of the participants. Based on the obtained results the highest physical problems are related to question 3 with 61 percent (more than normal) and the least problems are related to question 1 with 5 percent (more than normal).

Table 7 shows the status of sleep disorders among the participants. Based on the obtained results the highest ratings of sleep disorders among the participants were for question 8 with 66.2 percent and the lowest one was question 11 with 6.5 percent.

Table 8 shows the disorders of social functioning among the participants. Based on the obtained results the highest disorder in social functioning of the participants was for question 20 with 20.5 percent and the lowest disorder was for question 18 with 0.7 percent.

Table 9 shows the extent of depression among the participants. Based on the obtained results the highest depression among the participants is for question 25 with 23.4 percent and the lowest depression is for question 26 with 2.2 percent.

Based on Table 10 which shows the effects of gender on general health, there is no significant relationship between gender and general health. In other words gender does not affect mental health which means that there is no difference between the mental health of men and women.

Table 6: Frequency Distribution of Participants Based on Questions of Physical Problems

Physical Problems	Never		Normal		More than Normal		Very Much	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Question 1	111	65	21	13	10	5	28	17
Question 2	114	66	12	8	24	13	20	13
Question 3	28	14	14	11	104	61	24	15
Question 4	33	18	116	64	11	6	10	7
Question 5	89	51	11	8	53	31	17	11
Question 6	111	67	29	18	22	12	8	5
Question 7	28	16	106	64	19	11	17	11
Total	514	297	309	186	243	139	124	79
Average	73.4	42.4	44.1	26.9	34.7	19.5	17.7	11.2

Table 7 Frequency Distribution of Participants Based on Questions of Sleep Disorders

Sleep Disorders	Never		Normal		More than Normal		Very Much	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Question 8	26	16.1	20	11.2	109	66.2	15	9
Question 9	4	3	131	77.1	13	11.1	22	12.7
Question 10	103	59.3	22	13	22	16.5	23	13
Question 11	106	61.2	33	19.1	5	6.5	26	15.1
Question 12	134	78	5	2.1	9	9	22	12.8
Question 13	132	76.8	14	8.1	21	15.4	3	1.8
Question 14	118	68.9	18	10.5	109	13.1	17	10
Total	623	363	243	141.1	179	137.8	128	74.4
Average	89	49.9	34.7	19.9	29.8	19.6	18.2	10.6

Table 8. Frequency Distribution of Participants Based on Questions of Social Functioning

Social Functioning	Never		Normal		More than Normal		Very Much	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Question 15	5	3.1	162	98.2	1	0.7	3	1.8
Question 16	41	24.2	100	61.8	7	4.8	23	13.5
Question 17	21	12	124	75.9	13	7.1	13	7.6
Question 18	8	4.1	138	84.1	24	14.1	1	0.7
Question 19	29	17	126	77.1	10	6	6	3.5
Question 20	16	8.9	85	52.9	36	21.4	34	20.5
Question 21	42	24.6	101	62.4	1	0.7	27	15.9
Total	162	93.9	836	512.4	92	54.8	107	63
Average	23.15	12.2	119.9	71.2	13.1	7.8	15.2	9.6

Based on Table 12 which shows the effects of economic status on mental health, there is a significant relationship between economic status and mental health. In other words those who have a better economic status possess better general health and those who have a weak economic status have a lower level of general health.

Based on Table 13, which shows the relationship between general health and age, there is no statistically significant relationship between these two variables. In other words general health and age have no relationship.

Table 9. Frequency Distribution of Participants Based on Questions of Depression

Depression	Never		Normal		More than Normal		Very Much	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Question 22	71	42	55	33.1	28	15.3	16	9.1
Question 23	102	59.3	25	15.1	13	6.6	30	18.8
Question 24	86	49.4	27	16.9	30	16.6	27	17
Question 25	86	48.9	21	12.9	25	13.6	38	23.4
Question 26	128	74.3	30	18	9	4.3	3	2.2
Question 27	107	62.3	25	15.2	33	18.1	5	3.5
Question 28	91	53.1	19	11.5	35	19.4	25	14.9
Total	671	389.3	202	122.7	173	93.9	144	88.9
Average	95.8	55.6	28.8	17.52	24.7	13.4	20.5	12.7

Table 10. The First Hypothesis-Is There a Significant Relationship between General Health and Gender?

General Health	Lyon's Test		Tests for Equality of Means						
	F Statistic	Sig.	t	Degree of Freedom df	Tow-Way Significance Level P-Value	Mean Difference	Standard Deviation Error	95% Confidence Interval	
								Lower Bound	Upper Bound
Equal Variance Assumed	0.042	0.9396	0.69012	180.36	0.566	0.722	1.131	-1.510	2.954
Equal Variance not Assumed	0	0	0.6966	166.32	0.562	0.722	1.120	-1.491	2.935

Table 11. The Second Hypothesis- Does Economic Status Affect Health?

Status	Number	Average	SD	Mean Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Bad	44	60.7027	6.074118	0.905473	58.87781	62.52749
Average	89	57.84399	7.27071	0.784018	56.28515	59.40282
Good	38	60.52876	7.427144	1.189299	58.12107	62.93633
Total	171	59.21658	7.10924	0.545253	58.14015	60.29301

Table 12. Economic Status Variance Analysis

	Average Sum Squared	Degree of Freedom	Average Squared	F Statistic	Sig.
Intergroup	294	2	146.209	3.340	.038
Intergroup	7302	168	43.769		
Total	7596	170	-	-	

Table 13: The Third Hypothesis- Is There a Significant Relationship between General Health and Age?

	Average	Standard Deviation	Number
Health	62.56846	7.51165	171
Age	18.9504	0.78064	171

Table 14. The Fourth Hypothesis- Is There a Statistically Significant Relationship between General Health and Stress Factors?

Stress Factors	Number	SD	Mean Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Emotional Problems	20	2.90012	1.02535	32.34	38.297
Economic Problems	36	5.03511	1.30006	39.567	46.123
Concern for Future	115	6.55095	.86018	64.1568	73. 845
Total	171	6.70683	.51439	54.8492	56.8802

Table 15. Variance Analysis of the Relationship between General Health and Stress Factors

	Average Sum Squared	Degree of Freedom	Average Squared	F Statistic	Sig.
Intergroup	432.0086	3	144.0029	3.31296	0.03808
Intergroup	8082.106	167	48.68752		
Total	8514.115	170	-	-	

Based on Table 15 which shows the relationship between general health and stress factors there is a statistically significant relationship between these two variables and the hypothesis is confirmed. In other words general health and stress factors are related. This means that those who have less emotional problems have a lower general health and those who have a higher general health and are not concerned for future have a higher general health.

In a study carried out by Vazquez et al., (2001) on 1223 people with more than 17 years of age in a region in Spain, using the general health questionnaire and psychological and social evaluation questionnaire the results showed that 14.7 percent of the participants had had various mental complications in the last month. The prevalence in females was 20.6 and in males was 8.1 percent.

Felner (2007) based on an epidemiological research regarding the psychological disorders of young participants showed that in a school with 1000 students it can be expected that between 80 to 220 students are suffering from psychological disorders.

Conclusions

In this study some of the demographic variables were analyzed which showed that some of these can significantly affect the mental health and personality of the studied staff. Based on the confirmed hypotheses the economic status and stress factors have a significant impact on the general health of the participants and also they are interrelated. The results showed that other research variables did not exert a significant impact on the general health if any.

Recommendations

Based on the results of this study and other researches done on the subject matter the following recommendations can be useful in improving the mental health and social personality of the workers community:

- It is recommended that based on the fact that workers have a significant role in the future of any country if possible the work ministry can establish a guideline for improving the mental health of the office workers.
- It is recommended that the national T.V. produce educational programs for overcoming the underlying factors as well as how to treat mental complications
- Regarding the impact of social, cultural, geographical, and time conditions it is recommended that this study can be done in other places and times
- It is recommended to use other data gathering method such as interview or observation for improving the accuracy of the results.

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