University College of Takestan

Available online at **http://UCTjournals.com**

Iranian Journal of Social Sciences and Humanities Research

UCT . J. Soc. Scien. Human. Resear. (UJSSHR)

Volume 5,Issue1 *34-39 (2017)* *ISSN 2382-9753*

A study of general health status in employees of health sector in Kohkiloye County in 2014

Elahe Pirai

Master of epidemiology student-Isfahan- Isfahan University of Medical Sciences- faculty of Health

Original Article:
Received 17 Dec. 2016 Accepted 1 Jan. 2017 Published 28 Jan. 2017

ABSTRACT
Mental health in the society is one of the pivots for assessment of health in different societies. According to studies mental disorders are one of the main and most significant parts of the total burden of diseases and it is predicted that mental and neurological disorders' share of total burden of diseases is increased 50 percent by 2020 and reaches 15 percent, up from the present 10.5 percent .this study is a descriptive-analytical study that was conducted in winter 2014. The population of the study is consisted of 423 employees of health sector in the Kohgiloye County which entered the study using census method. The data were collected using the standard General Health Questionnaire-28 (GHQ-28) and were analyzed by SPSS using descriptive and inferential statistics. the samples were consisted of 236 males and 187 females. Significant relationships were found between sex and general health (P<0.001), between marital status and general health (P<0.021), between education level and general health (P<0.002), between work experience and general health (P<0.02) and between workplace and general health (P<0.02). However, no significant relationship of occupation, age and monthly income with general health was found. the findings of this study indicated that mental disorders are prevalent in the employees of the health sector in Kohgiloye County to an average extent. Therefore, authorities should pay attention to mental health in these individuals and improve their general health status by creating interventional programs.

Keyword:
general health, GHQ28, Kohkiloye, health

*** Corresponding author:** ***Pirai***

Peer review under responsibility of **Iranian Journal of Social Sciences and Humanities Research**

INTRODUCTION

Health has been a subject in human life in different eras however, its physical aspect has been generally considered more and other dimensions of health, especially mental health, have been less paid attention (Arasteh, 2008). In fact, general health is an aspect of the general concept of health and refers to all methods and measures that are used for preventing affliction with mental diseases and their treatment and rehabilitation. The statistics published regarding the prevalence of mental disorders in different countries, including Iran, show the importance of paying attention to mental health (World Health Organization, 2001). Adaptation with the environment is highly important in some definitions of mental health. According to these definitions an individual will be normal in terms of mental health, if he/she can be compatible to the family members, colleagues, neighbors and generally the society around him/her. The individual should be able to solve internal and external conflicts and resist against inevitable failures. Therefore, the prerequisites for mental health at a high level are the flexibility of the individual in difficult situations and his/her ability to gain his/her mental balance in any condition(TALAEI, A 2007)

There are different factors that negatively impact mental health including the lack of social justice, the lack of prosperity opportunities for individuals, the existence of illogical biases and the lack of social security (Sadock, J 2011). Individuals' mental health is highly important in the advancement of national and aspirational objectives in a society in terms of saving monetary and non-monetary costs. According to studies mental disorders are one of the main and most significant parts of general burden of diseases and it is predicted that mental and neurological disorders' share of total burden of diseases is increased 50 percent by 2020 and reaches 15 percent, up from the present 10.5 percent(Wu SY 2006).

As human resource is considered one of the main resources and capitals of any organization and the health of employees has a determining role in the increase of productivity, any planning and even investment in this sector that leads to maintaining and improving the general health of employees can ultimately lead to the increase of efficiency and return on the investment (World Health Organization 2001). Mental disorders lead to disruption in doing duties, reduction of motivation, anxiety fear and worry and make the individual spend a lot of his/her energy on such problems and consequently he/she will not have enough energy and interest for working in the organization(Dad khah. B 2006). World Health Organization suggested in 1991 that individuals working in the society get damaged and die more. Employees' general health is a determining factor in the increase of work force productivity and better and more effective services in any organization(Arasteh 2008). According to statistics about 52 million individuals in the world suffer from severe mental diseases and 250 million individuals have mild mental diseases. Multiple studies have been conducted on the prevalence of mental disorders in different regions in Iran. The prevalence was varied from 12.5 percent in Yazd to 23.84 percent in Sowme'eh Sara. Of course, in the national program for exploring health and diseases in Iran using GHQ-28, the prevalence of mental disorders in individuals aged 15 and higher in the Iranian society was explored and it was determined that the prevalence of mental disorder in the country was 21 percent and the highest prevalence was in Chaharmahal and Bakhtiari Province with 39.1 percent (Soltanian. AR 2004).

Some jobs involve special and extraordinary stresses. Workplaces such as the operating room (Katz P 1981), burn and psychiatric wards in hospitals(HASHEM ZADEH 2000) criminal police departments(**Simon D.**1991), mortuaries in hospitals (**Ashforth BE** 2002)and workplaces involving the dead and burial(Thompson, W.E 1991, Ashforth. B.E. and Kreiner, G.E., 1999). can have a significant impact on the general health status of individuals working in these places. One of the main domains of health development in societies is health and medical sector that has a direct relationship with human health and in this regard, hospital employees and especially nurses are considered as individuals with a stressful job (Lambert, V.A 2007, Lambert, V.A. and Lambert, C.E., 2001) and therefor, the present study is conducted for identifying and understanding employees' problems so that its results are used for providing counseling services, improvement of general health in employees and prevention of wasting human power and economic resources of the young and active workforce.

Method:

The present study is of cross-sectional (descriptive-analytical) type that was conducted on 423 employees of the health sector in health department headquarters, hospitals, emergency medical service department and the health centers. The data were collected using General Health Questionnaire-28 (GHQ-28). This questionnaire is the most famous tool for screening in psychiatry that has had a significant impact on the progress of studies and is widely used for identifying non-psychotic mental disorders (Arasteh 2008). This questionnaire was designed by Goldberg and Hillier in 1979 for screening for non-psychotic mental disorders(Robinson, K.L 2004).

The main version of the questionnaire has 60 items and the questionnaire has versions with 12, 28 and 60 items and has been translated into 38 languages and used in 70 countries. This questionnaire is an up-to-date psychological questionnaire that is used for identifying individuals with mental problems. This questionnaire is focused on normal changes and performance and includes two groups of important phenomena: inability in continuing normal performance in the individual and the emergence of new phenomena with distress-creating nature.

In addition, the questionnaire identifies problems with less than two week duration and is sensitive to transient diseases. In surveys in the total population, survey studies are used in specific group and in comparative studies for mental diseases in a population in different times. The questionnaire has been repeatedly explored and revised (this questionnaire has four subscales:somatic symptoms; anxiety/insomnia; social dysfunction, and severe depression. The cutoff point of 23 was used in this study. A score higher than 23 for the total test indicates mental disorder and a score below 23 indicates general health. The data were entered into computer, after data collection and

questionnaire scoring, and analyzed using SPSS statistical software, Mann-Whitney, chi-square and Kruskal-Wallis.

Findings:

The findings indicated that the age range of the employees was 20-51 years and most of them (38.8%) were in 20-30 years age range. 55.8% of the employees were male and 44.2 % were female. 23.9% of the subjects were male, 97.6 percent married and 1.2% had married more than once. 34.3 % of the individuals in the study had 1-5 years of experience, 16.8% had 6 to 10 years, 9.9% had 11 to 15 years, 16.8% had 16 to 20 years and 22.2 % had over 20 years of work experience. 23.59% of the individuals in the study had an administrative job, 27.2% had a medical job, 48.5% had a health-related job and 0.5% had an educational job. 18.7% were working in hospital, 18.9% in health clinic, 32.6% in health centers, 27% in medical centers and 2.8% were working in medical emergency service centers. The results indicted the relationship of the four subscales and the total GHQ with the demographic characteristics byMann-Whitney, Kruskal-Wallis, mean and standard deviation.

In relation with age, the highest mean score was 7.3 which belonged to the third subscale (social dysfunction) in the age range 31-40 years; and the lowest mean score was 1.3 which was related to the fourth subscale (severe depression) in the age range of 50 years and higher. Also, the highest overall mean score was 23.68 which belonged to the 31-40 years age range. Kruskal-Wallis test did not show a significant difference between age and GHQ subscales. Regarding the association between sex and general health, the score of depression was 2.5 in men which was lower than 3.71 in women and was significant at ($p<0.001$) level.

The mean score of overall general health scale in the single employees was lower than the one in the married employees and the difference was significant ($p=0.02$). In addition, there was a relationship between the mean score of somatic symptoms and marital status in a way the mean score of the somatic symptoms was 5.9 and higher than the one for the single individuals which was 3.94 ($p=0.001$). also, the mean score of anxiety/insomnia in single employees was 5.03, lower than the score of 6.16 for the married and the score was 11.66 in individuals with more than one marriage and the difference was significant ($p=0.02$). The mean score of the somatic symptoms was highest in the employees of medical centers(7.28) and lowest in medical emergency service centers (3.33) and the difference was significant ($p=0.008$). The mean score of the overall general health scale was highest in the employees of medical centers (25.47) and lowest in the employees of health centers (19.34) and the difference was significant ($p=0.027$). The above exploration did not show a significant difference of the subscales social dysfunction and anxiety/insomnia with workplace.

The results regarding general health and work experience indicated that the highest mean score of general health scale was related to the individuals with 16-20 years of work experience (score=25.74) and the lowest score was related to the individuals with 1-5 years of work experience and the study indicated a significant relationship between the overall score of general health and work experience ($p=0.023$). The comparison of the mean of the subscale anxiety/insomnia with work experience indicated a significant relationship ($p=0.023$) and the comparison of the mean of total general score with education level showed a significant relationship ($p=0.002$). The results regarding the relationship between genera health and workplace indicated the highest means of general health score belonged to individuals working in medical centers (25.47) and those working in hospitals (20.54). However, the comparison of the mean of the subscale severe depression and the workplace indicated a significant different ($p=0.035$). The comparison of the mean score of somatic symptoms and workplace indicted a significant difference ($p=0.003$). No significant difference was found between the overall score of general health and monthly income level. The results regarding general health and income level indicated that the highest overall mean scores of general health belonged to individuals with a monthly income equivalent to$300-600 USD (22.40) and lower than an equivalent of $300 USD (20.04). However, the comparison of the mean score of anxiety/insomnia with income level indicated a significant difference ($p=0.05$) but no significant relationship was found between the overall general health and monthly income level ($p=0.04$).

Table 1: the distribution of absolute and relative frequencies of general health components in the employees explored

General health components		Absolute frequency	Relative frequency
Somatic symptoms	0-6 (favorable)	280	66.2
	7-13 (to some extent favorable)	113	26.7
	14-21 (unfavorable	30	7.1
Anxiety/insomnia	0-6 (favorable)	267	63.1
	7-13 (to some extent favorable)	123	29.1
	14-21 (unfavorable	33	7.8
Social dysfunction	0-6 (favorable)	195	46.1
	7-13 (to some extent favorable)	213	50.4
	14-21 (unfavorable	15	3.5
Severe depression	0-6 (favorable)	355	83.9
	7-13 (to some extent favorable)	49	11.6
	14-21 (unfavorable	19	4.5
General health	0-27 (favorable)	315	74.5
	28-55 (to some extent favorable)	95	22.5
	56-84 (unfavorable	13	3.1

In the above table, considering the cutoff point of 6 for each subscale, the scores between 14 and 21 are considered indication of severe disorders, 7 to 13 as average problem and the scores less than 6 are considered as indication of a healthy individual. 26.7% of the individuals in the subscale somatic symptoms, 29.1%in anxiety/insomnia, 50.4%in social dysfunction and 11.6% in severe depression had an average disorder. In addition, 7.1% of the employees in the subscale somatic symptoms, 7.8% in anxiety/insomnia and 4.5% in severe depression had severe disorder. The total general health score is varied from 0 to 84; in this regard, 74.5% of the individuals obtained a score lower than 27, 22.5% obtained a score between 28 and 55 and 3.15 obtained a score higher than 56.

Table 2: the distribution of absolute and relative frequencies of general health components based on the demographic variables in the individuals explored

Variable	General health	Does not have		has		Significance level
		Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	
Age	20-30	32	19.5	132	80.5	0.04
	31-40	27	50	27	50	
	41-50	2	20	8	80	
	51 and higher	5	19.2	21	80.8	
sex	male	42	17.8	164	82.2	0.001
	female	66	35.3	121	64.7	
Marital status	single	18	17.8	83	82.2	0.009
	Married	83	26.6	229	73.4	
	Remarried	4	80	1	20	
	divorced	1	3.33	2	66.7	
Education level	Lower than diploma	30	36.6	52	63.4	NS
	diploma	40	28.4	101	71.6	
	Associate degree	19	17.4	90	82.6	
	Bachelor's degree	17	23.6	55	76.4	
	Master's degree and higher	2	10.5	17	89.5	
Work experience	1-5	26	17.9	119	82.1	0.016
	6-10	18	25.4	53	74.6	
	11-15	11	26.2	31	73.8	
	16-20	26	36.6	45	63.4	
	More than 20	27	28.7	67	71.3	
Job type	administrative	31	30.7	70	69.3	
	medical	24	20.9	91	79.1	NS
	Health-related	52	25.4	153	74.6	
	educational	1	50	1	50	
income	Less than an equivalent of $300USD	10	23.3	33	76.7	
	An equivalent of $300-600USD	88	28.9	216	71.1	0.04
	An equivalent of $600-1000USD	7	11.9	52	88.1	
	An equivalent of over $1000USD	3	17.6	14	82.4	
workplace	hospitals	20	25.3	59	74.7	
	Health centers	28	20.3	110	79.7	NS
	Health clinics	17	21.2	63	78.8	
	emergencies	3	25	9	75	
	Medical centers	40	35.1	74	64.9	

As table 2 show, the chi-square test did not show a relationship of education level, job type and workplace with general health. However, a significant relationship was shown regarding age, sex, marital status, work experience and income.

Discussion

The aim of this study was exploring the status of general health in the employees of health sector in Kohgiloyie County in which 4 dimensions of general health (somatic symptoms, social dysfunction, anxiety/insomnia and severe depression were explored. Based on the findings of the study, 25.53% (108 individuals) of the employees explored had mental disorders of which 17.8% (42 individuals) were male and 35.35% (66 individuals) were female. This is 2.5 times higher than the global statistics reported by WHO and indicates that about 10 percent of the adults in the society are afflicted with mental disorders (World Health Organization, 2001)The findings of the present study are consistent with the findings of other studies conducted in Iran like the study by Bahrainian, Akasheh and Noorbala (Rajkumar, P. and Christian, D., 2016). In the study by Soltanian et al on the students in Bushehr province it was found that mental disorders in females was 44.7% higher, compared with males (Soltanian AR 2004). A significant association between being female and general health has been reported in several other studies (Cortès, I, Artazcoz 2004, Shi, Q.C., Zhang, J.M 2005).

Women, due being more influenced by the family and the social environment, are more at risk. Maybe another interpretation of this finding is that women have motherhood and housework responsibilities in addition to their job as an employee or the reason may be life problems, the responsibility of raising children and less inclination towards using spare times. In similar studies, Rafati(Kaviani, H. and Khaghanizade, M., 2007& Dad khah B 2006). did not find significant difference between the general health mean scores in men and women. Of course, the scores were categorized in three sections for more exploration and 74.5% of the individuals in first section

obtained a score below 27 (favorable), 22.5% in the second section obtained a score between 22 and 55 (to some extent favorable) and 3.1% obtained a score higher than 56 (unfavorable). In the study by Arimura the rate is reported to be 65% in nurses(Arimura, M 2010). In the national program for determining the mental disorders in individuals aged 15 and higher in Iran the prevalence of disorders was estimated to be 21%(Rasul, F 2002).

Swallow et al reported the prevalence of mental disorders in women to be 39.6%(Sahebi, L. and Ayatollahi, M., 2007). In a study by Roberts et al, the prevalence of mental disorders was reported to be 25% (Srinath, S., Girimaji, S.C 2005). Mental disorders were seen more in individuals ages 31-40 years, which is not consistent with the results of the study by Khorsandi et al who showed that the life quality is reduced with the increase of age.The results indicated that a high percentage of individuals who are not living with their spouse due to divorce or death or their spouse suffer more from mental disorders. Exploring effective strategies for preventing mental disorders in such individuals like providing counseling or financial resources for solving family problems is recommended. The highest percentage of mental disorder was related to individuals with an education level lower than diploma. An inverse relationship between education level and disorder in general health was seen. The highest percentage of mental disorder is related to the group having a work experience of 16 years or more. According to this study, most aspects of general health have been deteriorated with the increase of work experience. This can be due to the inverse relationship of the increase of age and work experience with general health and this result was not consistent with the study by Hadi et al in which individuals had a better general health, with the increase of work experience(Hadi, N. and MALEK, M.L., 2007) but was consistent with the study by Sadeghan et al(Sadeghian, F 2006).

No significant relationship between job type and disorder in general health was seen. The highest levels of disorder were seen in administrative (22.51%), health-related (21.93) and medical employees (19.49). Among job groups, health-related and administrative employees obtained highest GHQ scores, compared with other groups. According to studies there is a high correlation between occupational anxiety and mental health(Mino, Y 1999 Davis, P.A 1998).

A significant difference was seen between the mean of general health dimensions and the amount of the income in the present study which is consistent with the finding of the studies by Vahdaninia et al and Falahi et al in which a significant relationship between the amount of age and life quality was reported (35, 36).(RAFIEI, M., 2004, Fallahee Khoshknab, M 2007)

A direct relationship between individuals' income level and life quality was seen in the study by Ko et al; this means that the more the income of the individuals, the better their life quality (37)(Wai, H.P.S. and Tsang, P.C.C., 2006) and this is consistent with the findings of the present study. No significant difference was seen between education level and general health. Perhaps the loss of the value of education and academic certificates in the current society justifies this results and perhaps it can be said that education does not have a high impact on health level and life quality and this part of the results of the present study is consistent with the study conducted by Hadi which showed the lack of impact of education on the life quality of the individuals explored (31))(Hadi, N. and MALEK, M.L., 2007). However, the result is not consistent with the study by Montazeri which explored the health status of individuals in Tehran and reported that individuals with a higher level of education had a higher health level (38)(Montazeri, A 2005). The results regarding general health and workplace indicated that the highest mean score of general health belonged to individuals working in medical centers with a mean of 25.45 and then those in hospitals with a mean of 20.54.

Conclusion

Studies indicate that though General Health Questionnaire does not definitely verify a mental or physical problem, it identifies individuals at risk. Therefore, this requires authorities to help in reducing risk factors. As sorrow, anxiety, depression and mental disorders can reduce employees' attention, concentration and focus and increase mistakes and accidents in the workplace, for the improvement of employees' mental health the managers are recommended to identify employees' potential talents, look for the causes of negligence, absenteeism, boredom and the like and refrain from passing hasty judgments and resorting to force. They are also recommended to prevent the creation of feeling of inferiority and insecurity in employees and help them become familiar with the workplace realities. The creation of different interventional programs such as holding educational classes for coping with stress familiarity with defense mechanisms and serious psychotherapy and psychiatric interventions, increasing job support and providing psychological and counseling services to these individuals in addition to making efforts for improving loans and income by considering job difficulties by managers and more interaction with scholars in the field of mental health seem necessary for designing preventive programs and reduction of mental disorder in employees in the health sector.

The limitations of this study include conducting the study only on the employees of the health sector in Kohkiloye country and the lack of willingness of some employees to complete the questionnaires. The results of this study can be employed as an information and statistical resource for authorities in the domain of general health programs.

Suggestions of the study

Despite problems such as depression, personality disorder, anxiety and adjustment disorder, employees do not seek counseling services from experts and the related centers much. In such conditions counselors can teach employees appropriate coping strategies using appropriate methods and help them in their problems and this will lead to more employee efficiency and optimal use of employees' talents

References:

-Arasteh, M., et al. (2008). "Assessment of mental health status and its related factors among medical and non medical staff in the hospitals of Sanandaj city in 1385." Scientific Journal of Kurdistan University of Medical Sciences 13(3): 35-44.

-Arimura, M., et al. (2010). "Sleep, mental health status, and medical errors among hospital nurses in Japan." Industrial health 48(6): 811-817.

-Ashforth, B. E. and G. E. Kreiner (1999). "“How can you do it?”: Dirty work and the challenge of constructing a positive identity." Academy of management Review 24(3): 413-434.
-Ashforth, B. E. and G. E. Kreiner (2002). "Normalizing emotion in organizations: Making the extraordinary seem ordinary." Human Resource Management Review 12(2): 215-235.
-Chisholm, D., et al. (2000). "Integration of mental health care into primary care." The British Journal of Psychiatry 176(6): 581-588.
-Cortès, I., et al. (2004). "Inequalities in mental health in the working population." Gaceta Sanitaria 18(5): 351-359.

-Dadkhah, B., et al. (2006). "Mental health status of the students in Ardabil university of medical sciences, 2004."
-Davis, P. A., et al. (1998). "Stress, Headache, and Physiological Disregulation: A Time-Series Analysis of Stress in the Laboratory." Headache: The Journal of Head and Face Pain 38(2): 116-121.

-Fallahee Khoshknab, M., et al. (2007). "Quality of life and factors related to it among psychiatric nurses in the university teaching hospitals in Tehran." Hakim Research Journal 9(4): 24-30.
-Hadi, N. and M. L. MALEK (2007). "Evaluation of health state and quality of life in primary school teachers of Shiraz, 2003."
-HASHEM, Z. I., et al. (2001). "The relationship between job stress and mental health in a group of hospital employees in Shiraz."
-Katz, P. (1981). "Ritual in the operating room." Ethnology 20(4): 335-350.
-Kaviani, H. and M. Khaghanizade (2007). "The relationship between burnout and mental health among nurses." Tehran University Medical Journal TUMS Publications 65(6): 65-75.
-Lambert, V., et al. (2007). "Predictors of physical and mental health in hospital nurses within the People’s Republic of China." International nursing review 54(1): 85-91.
-Lambert, V. A. and C. E. Lambert (2001). "Literature review of role stress/strain on nurses: an international perspective." Nursing & health sciences 3(3): 161-172.

-Mickus, M., et al. (2000). "Knowledge of mental health benefits and preferences for type of mental health providers among the general public." Psychiatric Services 51(2): 199-202.
-Mino, Y., et al. (1999). "Perceived job stress and mental health in precision machine workers of Japan: a 2 year cohort study." Occupational and Environmental Medicine 56(1): 41-45.
-Montazeri, A., et al. (2005). "The Short Form Health Survey (SF-36): translation and validation study of the Iranian version." Quality of life research 14(3): 875-882.-
-Organization, W. H. (2001). The World Health Report 2001: Mental health: new understanding, new hope, World Health Organization.
-RAFIEI, M. (2004). "Investigation of quality of life (psychological dimension) of Arak Islamic Azad University staff, 2003."

Rajkumar, P. and D. Christian (2016). "Adolescent Users of Chewable Tobacco: Male/Female Personality Comparisons." The International Journal of Indian Psychology, Volume 3, Issue 3, No. 5: 116.

Rasul, F., et al. (2002). "Common mental disorder and physical illness in the Renfrew and Paisley (MIDSPAN) study." Journal of psychosomatic research 53(6): 1163-1170.

Robinson, K. L., et al. (2004). "Psychological distress and premature mortality in the general population: a prospective study." Annals of epidemiology 14(7): 467-472.

Sadeghian, F., et al. (2006). Survey of Quality of life Shahrod workers in 2004. 6th Conference of safety and environment health in mines and mineral industries.

Sadock, J. and A. Sadock (2011). "Summary of psychiatry: Behavioral sciences Clinical psychoiatry." Tehran: Arjomand publications.

Sahebi, L. and M. Ayatollahi (2007). "Mental health status of hospitals staffs in Shiraz." The Horizon of Medical Sciences 12(4): 26-33.

Shi, Q., et al. (2005). "Epidemiological survey of mental illnesses in the people aged 15 and older in Zhejiang Province, China." Zhonghua yu fang yi xue za zhi [Chinese journal of preventive medicine] 39(4): 229-236.
Simon, D. (2008). Homicide: A year on the killing streets, Canongate Books.
Soltanian, A., et al. (2004). "Mental health survey of high school students in Bushehr province and its influencing factors in the academic year 83-1382." Iranian south medical journal 7(2): 173-182.
Srinath, S., et al. (2005). "Epidemiological study of child & adolescent psychiatric disorders in urban & rural areas of Bangalore, India." Indian Journal of Medical Research 122(1): 67.
Srinath, S., et al. (2005). "Epidemiological study of child & adolescent psychiatric disorders in urban & rural areas of Bangalore, India." Indian Journal of Medical Research 122(1): 67.
TALAEI, A., et al. (2007). "Burnout in staffs of health care centers in Mashhad."
Tehrani, H., et al. (2012). "Relationship between Mental Health, personality Trait and Life Events in Nurses Working in Tehran Emergency Medical Service (Tehran 115)." Iran Journal of Nursing 25(75): 52-59.
Thompson, W. E. (1991). "Handling the stigma of handling the dead: Morticians and funeral directors." Deviant Behavior 12(4): 403-429.
Wai, H. and P. Tsang (2006). "Hong Kong men with low incomes have worse health-related quality of life as judged by SF-36 scores." Hong Kong Med J 12(5): 351-354.
Wu, S., et al. (2006). "Study of the intervention measures for the occupational stress to the teachers in the primary and secondary schools." Wei sheng yan jiu= Journal of hygiene research 35(2): 213-216.