Relationship between Mental Health and Interest in Field of Study in Nursing and Midwifery Students

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Abstract: Nursing and midwifery students face high level of stress in their educational experiences which could influence on their mental health status. Furthermore, motivation and interest in field of study are important factors for students' academic achievement and lack of them conducive to their failure. This study aimed to identifying relationship between mental health and interest in field of study in nursing and midwifery students. In this corrolational- cross sectional study, 209 nursing and midwifery students in Mashhad University of medical sciences were selected by stratified-cluster random sampling. Data were collected by demographic data form, General Health Questionnaire (GHQ-28), and questionnaire for interest in field of study. Data was analyzed by using SPSS software. Results showed according to GHQ score 32.1 % of students had poor mental health. There was a negative significant relation between interest in field of study and mental health status (r= - 0.22 P=0.001), the lower interest in field of study brought the higher score of GHQ-28 representing worse mental health status or greater problems. In conclusion; lack of interest in field of study had a negative effect on students' mental health. So it is recommended to considering students' interest and providing educational and psychiatric consultation in order to improve educational condition and mental health promotion.
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1. Introduction

Mental health is one of the important aspects of health and related to the mental well-being component include in WHO's definition of health "a state of physical, mental and social well-being and not merely absence of disease" (Ganji, 2000).

Nursing and midwifery students are the future professional staff in health care system who play an important role in providing care, treatment and support patients physically and psychologically (Parsa 2000, Carveth et al. 1998). Nursing is an important career which requires very good mental health (Ni et al. 2010). Nursing and midwifery students face stress factors in their educational experiences (Carveth et al. 1998) including hospital atmosphere, working with dying patients, special clinical skills, interpersonal relationship with nurses, other stuff and patients, examinations and academic workload and lack of free time (Gibson et al. 2009, Pryjmachuk and Richards 2008, Beck 1991). High level of stress can cause physical and mental health problems and my affect students' academic performance (Sreeramareddy et al. 2007).

Some epidemiologic studies provide a lot of evidences that 7.7-28.6 % of Chinese nursing students have mental health problems. Mental disorders have become a leading cause of absenteeism, suspension and suicide (Ni et al. 2010). Stress level among British nursing students seem to be high, with studies reporting harmful stress levels in between 20-55% of students, determined by GHQ (Pryjmachuk and Richards 2008). Hong and Chongde (2003) in their study conducted on 788 Chinese nursing students concluded that college stress consisted of academic hassle, personal hassle and negative life event exert negative impacts on psychological well-being. Also Lotfi et al. (2010) assessed mental health of 689 medical sciences students in Iran using GHQ-28 and concluded 35.7% of students experience mental health problems of which nursing and midwifery students showed the highest percentage of mental health problems. Papazisis et al. (2008) in Greece used GHQ-30 in 170 nursing students and reported 35.2% of students had psychiatric morbidity and also 52.4% of them experienced depression symptoms. In Pryjmachuk et al. (2008) cross sectional study in UK; prevalence of stress among 120 midwifery students using GHQ-12 was reported 43.1%.

Psychologists believed personal characteristics, psychological and environmental stress, socioeconomic and familial status, lack of achieving goal in life and lack of motivation affect on individuals mental health (Ganji 2000, Shamlou 2001). Motivation is considered as an important factor for learning, skill acquirement and finally students' academic achievement (Dalir et al. 2011). Interest is a type of actual motivation and interest in field of study is under influence of personal, social, economic factors and consistency between content

with individual capabilities and talent (Arfaei et al. 2008). Parsa (2000) in her study on 114 nursing and midwifery students in Iran concluded 50.9% of students suffered from problems such as lack of motivation and self concept as well as dissatisfaction of their field of study. Pourrahimi et al. (2000) and Arfaei et al. (2008) studies showed low interest in field of study in nursing and midwifery students.

Lack of motivation, dissatisfaction of field of study and studying in undesired faculty inhibit progress and positive activity and could lead to tension, physical illness, psychological stress, social maladjustment, unsuccessfulness and failure (Pourrahimi et al. 2000, Uner et al. 2008). In Rafati and Ahmadi (2004) study in Iran, 60% of nursing students had mild to moderate depression and students with strong interest in field of study had significantly lower depression. Dadkhah et al. (2006) reported in 426 students studying in medical sciences field, more mental health was related to students with higher interest in their field of study.

According to studies and as motivation and interest in education are necessary for educational success and lack of them lead to frustration and educational failure, so student's interest in their field of study is so important. In addition as nursing and midwifery students will be responsible for community health maintenance and health promotion, their mental health should be paid especial attention, so this study aimed to detect relationship between mental health and interest in field of study in nursing and midwifery students.

2. Materials and Methods

This corrolational - cross sectional study was conducted on 209 nursing and midwifery students who studying at school of nursing and midwifery, Mashhad University of medical sciences. They were selected by stratified-cluster random sampling. At first two class of nursing and midwifery was detected, then they were divided in to clusters based on educational term and some of them were selected at random. Data collection instruments were demographic data form, General Health Questionnaire (GHQ-28) and questionnaire for testing interest in field of study. Demographic data included age, gender, marital status, job and educational level of parents, economic status, educational term, failing courses, residency place, psychiatric disease and drug history, and stressful event in recent 3 months. Psychological assessment was conducted by means of the General Health Questionnaire (Goldberg and Hiller, 1972), the short version of GHQ-28 has been widely used for the screening of psychiatric problems in the general population , it contain 28 items divided into four sub-scales evaluating physical symptoms, anxiety, social dysfunction and depression. All the items have a 4 point scoring system, with descriptors of (better/healthier than normal, same as usual, worse/more than usual, and much worse/more than usual). The Likert scoring method was used in the current study (scoring as: 0, 1,2,3), and score range was "0-84". The cutoff point for GHQ-28 was 23. The students who acquired a score of less than 23 had good mental health status and the scores ≥ 23 indicate poor mental health (mental problems). Reliability and validity of the questionnaire have been reported before (Dadkhah et al. 2006, Rezaei et al. 2007).

The other questionnaire was interest in field of study questionnaire including 11 questions and tested a spectrum of interest elements of nursing and midwifery, each question tested quality of intrinsic and extrinsic motivations. Scoring was based on 3 points Likert scale (yes, in some extent, no) and scoring as 1-3. The scores range was "11-33". For classification the level of interest, the lower 25% of score (≤17) was considered low interest, the score between "18-22" was moderate, and the higher 25% (≥23) considered high interest. Reliability and validity of the questionnaire have been reported before in Pourrahimi et al. (2000) study, content validity and Cronbakh's alpha reliability (α= 0.72). In present study alpha was calculated α=0.76.

Data collection has done in the middle of educational semester, researcher explained necessary information for students in selected classes at random, and concentrated on confidentiality of data by anonymous complement of questionnaires. Students who would not like to participate were excluded. Data were analyzed using SPSS 11.5 software by descriptive (frequency, mean, standard deviation) and analytic (t-test, ANOVA, Pearson correlation coefficient, multiple regression) statistic. Confidence interval was considered 95%.

3. Results:

Students aged 18-27 years old (20.79±1.74) and 74.2% (155) were female and 25.8% (54) were male. 75.1% (157) were single and 24.9% (52) were married. 66% (138) were studying in nursing and 34% (71) in midwifery. 87.1% of students had average economic status. 19.1 % (40) of students experienced a stressful event in recent 3 months.

Results showed according to GHQ, 32.1 % (71) of the students were found to have scores above cut-off point GHQ (scores ≥23), indicating poor mental health and probable psychiatric problems. The mean GHQ scores were 19.21±12.75.In terms of interest in field of study 37.8% of students had low interest, 52.2% moderate interest and 10% had high interest. Their mean interest scores were 20.47±4.6.

By Pearson correlation test, significant negative relation was found between GHQ scores and interest in field of study (r= -0.22 P=0.001), indicating the lower interest in field of study brought the higher score of GHQ, representing poor mental health or greater mental problem. This negative relation was found for each subscales of GHQ-28 including physical symptoms, anxiety, social dysfunction and depression with level of interest in field of study. The lower score for interest in field of study was accompanying with higher score in each subscale, indicating more problems in each subscale (Table 1).

There was significant difference between students' mental health status with gender and having stressful event in recent 3 months by t-test. Prevalence of mental problems was more among female (p=0.004) as well as students who experienced stressful event in recent 3 months (p=0.036) (Table 2). No significant difference was found between mental health status and other variables such as age, marital status, economic status, educational term, failing courses, parents' job and educational levels, disease and psychiatric drugs history.

Table 1: **Correlation between Mental health score (GHQ-28), GHQ subscales scores and Interest in field of study**

	GHQ-28	GHQ subscales			
	Mental health	Physical symptoms	anxiety	Social dysfunction	Depression
Interest in field of study	-0.22**	-0.17*	-0.11*	-0.23**	-0.22**

**P value <0.01, *P value <0.05

Table 2: Comparison Mean scores of the mental health (GHQ) for gender and stressful events

Variable	GHQ Mean±SD	Statistical test
Gender		
female	20.57±12.83	t=2.91
male	15.3±10.97	P=0.004
Stressful events		
yes	22.95±1077	t=2.11
no	18.33±12.83	P=0.036

P value is considered significant if <0.05

There was significant difference between level of interest in field of study and failing course by t-test (P=0.04), i.e. Students who experienced failing their courses had lower interest (Table 3). No significant difference was found between interest in field of study and other variables.

Table 3: Comparison Mean scores of the Interest in field of study for failing course

Failing course	Interest in field of study Mean±SD	Statistical test
yes	18.91±4.72	t= -2.916
no	21±4.44	P=0.004

P value is considered significant if <0.05

At the present study, independent variables such as interest in field of study, gender and stressful event in recent 3 months had significant effect on mental health status (GHQ), so these variables were entered in a stepwise multiple regression model. As Table 4 shows, in the stepwise multiple regression model, the final model contained significant variables interest in field of study (P<0.001) and gender (P= 0.013). Stressful event was dropped from the final model (Table 4).

Table 4: Multiple regression analysis with Mental health status (GHQ)

Independent variables	B	S.E	Standardized Beta	t	sig
(Constant)	27.993	3.994		7.009	0.000
Interest in field of study	-0.642	0.181	-0.235	-3.540	0.000
Gender	4.862	1.939	0.170	2.508	0.013

R=0.318, R Square=0.101

4. Discussion

As to the result, of 209 nursing and midwifery students 32.1% had poor mental health. In other studies, prevalence of mental problems in nursing and midwifery students using GHQ in Papazisis et al. (2008) study 35.2% and Rezaei et al. (2007) study 30.6% has been reported which are very close to present study. In Lotfi et al. (2010) study the prevalence was reported 40.8% in nursing and midwifery students; and in Pryjmachuk and Richards (2008) study reported 43.1% for midwifery students by using GHQ, which were higher than present study. The cause of these differences may be related to different educational, social and cultural conditions of the students.

The level of interest in field of study was in average level (20.47±4.6) which similar to Pourrahimi et al. (2000) study that reported 20.17 in nursing students. In present study 90% of students showed low-average level of interest. In Parsa (2000) study 50.9% of nursing and midwifery students showed lack of motivation and dissatisfaction of their field of study, and in Dadkhah et al. (2006) study 72.8% of nursing students had no interest to their field of study, also in Arfaei et al. (2008) study 80.8% of midwifery students showed low-average level of interest. At the present study, the probable reason for low interest may be due to negative cultural and social attitude toward nursing and its effect on individual attitudes about social position of this career.

In Law and Arthur (2003) study, negative attitude of more than 50% of students was related to low social position of nursing, also Pearcy and Elliott (2004) concluded that the students' interest in nursing as a career was directly affected by their observations of trained nurses and their attitudes, and the cause of leaving nursing course was students' negative experiences in clinical setting due to negative attitudes of personnel toward nursing and nursing students. Deary et al. (2003) reported one of the nursing personnel's reason for leaving nursing is that nursing programmes have not lived up to their expectations. Some students believed there is no respect and enough recognition of nursing (Buerhaus et al. 2005). Also the stereotypical image of nursing and negative societal perception of nursing status is effective on decreasing entrance to this field of study (Miers et al. 2007, Brodie et al. 2004). Arfaei et al. (2008) mentioned some reasons for low interest in field of study in midwifery students are lack of social position, lack of employment possibility and lack of free time for midwifery students.

As to present study, there was a negative significant relation between mental health status (GHQ score) and interest in field of study. The lower interest brought the worse mental health status, which in agreement with Dadkhah et al. (2006) study. According to table 4 interest in field of study is inversely related to GHQ scores, so decrease of interest leading to a increased score of GHQ by the value B (indicating worse mental health status).

In Rafati and Ahmadi (2004) and Bayati et al. (2009) studies in nursing and medical students, lack of interest in field of study was the most important risk factor for depression. Depression in students is primarily caused by adaptive difficulties and stresses and disorientation regarding the university environment and lack of interest in field of study may all lead to psychiatric problems and failure in academic achievement. Uner et al. (2008) reported studying in desired faculty and academic achievement affected on mental health of students and students with lower academic achievement were 3.07 times more risk for mental problems. If students had to studying in undesired department/faculty, they would go toward unsuccessfulness and educational failure. Also Faragher et al. (2005) in Meta analysis study reported job dissatisfaction can be hazardous to individuals' mental health and wellbeing. In Kaewboonchoo et al. (2009) study nurses who intent to leave the profession had poor mental health. Tendency to success and meeting this need is necessary for mental health and one of the main reasons for feeling of inferiority is failure to achieve predetermined goals (Shamlou 2001).

In this study, prevalence of mental problem in female was more than males' students which is similar to Uner et al. (2008), Papazisis et al. (2008) and Lotfi et al. (2010). According to Table 4 gender was a strong predictor for mental health status and female student experienced more mental problems. The probable reason may be related to physiologic characteristics of females as well as their social performance in interpersonal relationship and their fragility against stress. Also prevalence of mental problems was higher in students who experienced stressful events in recent 3 months, which is similar to Hong and Chongde (2003) and Uner et al. (2008) studies; they reported presence of a negative events affect negatively on mental health of university students. In Beck (1991) study, students experienced high stress levels and that they were at risk of having physical and psychiatric illness. Although at the present study having stressful event was dropped from the final regression model.

No significant relation was found between age and marital status with students' mental health status, which was consistent with Lo (2002), Banks et al. (2012) and Esfandiari (2001) studies. However Shariati et al. (2007) study showed lower prevalence of mental problems among married and higher level

of depression among single students. Simon (2002) reported married persons had better mental health status and single persons had more depressive symptoms.

No significant relation was found between economic status and mental health status which similar to Lo (2002) study. But it is different with Uner et al. (2008), Dadkhah et al. (2006) and Shariati et al. (2007) studies; in these studies mental problems in students with low economic status was higher. According to studies financial problem is one of the important stressors during academic course (Pryjmachuk and Richards 2008, Beck 1991, Rafati and Ahmadi 2004). Nonsignificant relation in present study may be due to the economic status of students was nearly similar, so that 87.1% of them had middle economic status. No significant difference was found between mental health status of nursing and midwifery students, which in agreement with Esfandiari (2001) study. It seems nursing and midwifery courses are similar and have similar effect on mental health.

As to the results, students who had failed their courses, showed significantly lower interest in field of study. It is in agreement with Najafpour and Yektatalab (2008) study which 53.6% of failed students lacked interest in their field of study. Interest and motivation link highly to academic achievement and interest is considered as a predictor for academic achievement (Najafpour and Yektatalab 2008, Tanaka and Yamauchi 2001). Motivation, capability and quality of education are the most important factors for success. Highly motivated students are more active and experience more academic achievement; in many situations presence or absence of motivation lead to success and failure obviously (Dalir et al. 2011).

Limitations of the present study include personal difference, personal interpretation of students of questions and psychological state at answering questionnaire. As this study has been done in one school in cross sectional design, the results could not be generalized, so it is necessary to conduct it in larger scale for providing external validity.

5. Conclusion

The study showed around one-third of nursing and midwifery students had poor mental health and there was a relationship between interest in field of study and students mental health status .i.e. lack of interest in field of study had a negative effect on students' mental health. According to findings and regarding prevalence of mental problems among nursing and midwifery students and as they face several stressors during their academic course, it is necessary to intervene for decreasing stress level and preventing mental problems. Also according to the results, as nursing and midwifery students lacked enough interest in field of study and regarding the importance of interest and its effect on students' mental health, it is necessary to give consultation by special organization for presenting information about academic disciplines before entering university and provide opportunity for students to choose their field of study by interest. It would be effective giving specific information about curriculum, rules and regulations, the attitudes and behaviors expected of students for examples of some stressful situation, they may encounter as students and they could be advised to visit clinics and hospitals for better knowing of their professional setting. By awareness of problems which conductive to lack of interest, could be provide strategies for improving education as well as their interest.

Nursing professors could be helpful for early diagnosis of students' stress and mental problems. They could give consult to students and help them to cope with their discipline. There is need to revising nursing curriculum and students' educational program for evaluating what impacts on students stress levels. It is recommended to introduce strategies for stress management for reducing the stress level as well as providing proper educational condition, psychiatric and educational counseling sessions and effective strategies for confronting stressful situations in order to maintain and promote students mental health.

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