Prevalence of Minor Psychiatric Morbidity

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Objectives: Teachers are at the risk of developing minor psychiatric morbidity (MPM) because of the stressfulness of their job. This may lead to a significant decrease in their teaching effectiveness and to the development of serious health problems, if not detected early and managed appropriately. The objectives of this study were to determine the prevalence of MPM among female teachers in girls' secondary schools in Tabuk, and to analyze certain important associated demographic characteristics.

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Prevalence of Minor Psychiatric Morbidity 31
Methods: This was a cross-sectional study. First, a proportional cluster sample was selected randomly from the three sectors of schools in Tabuk, from which female teachers (198 out of a total of 517) in the selected schools were included in the study. Data on MPM and demographic characteristics were collected by means of the General Health Questionnaire 30 (GHQ30), a validated and extensively used instrument for identifying MPM.

Results: Out of 198 participants, 187 completed the GHQ30 giving a response rate of 94.4%. The prevalence of MPM among them was 59.4% (111 participants). The variables with a statistically significant association with MPM were as follows: young age, nationality, positive participant psychiatric history, family history of medical and/or psychiatric problems, and divorced and widowed. No statistically significant associations were found with participants’ medical problems or their mental status, either single or married, housing type, monthly income, the number of children in a family, and the number of family members.

Conclusion: The finding of a high prevalence of MPM (59.4%) indicates that all participants may be at risk. Hence, appropriate and timely management, as well as social support are needed. Studies focusing on the causes and how to manage them will also be required.

Key Words: Minor psychiatric morbidity, female teachers’ stress, GHQ – 30,
Prevalence of Minor Psychiatric Morbidity

33

Secondary schools in Tabuk City, KSA was performed during one week in March 2002. Tabuk has 20 secondary schools for girls, staffed by 517 female teachers. The schools belong to three sectors as follows: Ministry of Defense and Aviation, Administration of Girls Education, and privately owned.

Cluster sampling was carried out by means of a proportional random sample of schools from each sector. We enrolled all teachers in the selected schools in the study, giving a sample size of 198 participants. Those who were on leave or who were temporarily working in other schools while their employee number was retained by the selected schools were excluded.

Data collected by GHQ30 was developed as a screening instrument for detection of non-psychotic psychiatric disorders in the general population, and subsequently validated and extensively used. Each item in the questionnaire had four responses: not at all, less than usual, usual, and more than usual.

It was a self-administered questionnaire. A telephone line was opened during distribution time for any questions to the investigator. The responses were scored by the usual GHQ scoring method (0-0-1-1) marks along the continuum of the rating scale. A cut-off point of 5/6 indicated a probable case. In the demographic characteristics section, participants were specifically asked about: age, nationality, marital status, number of children in the family and the number of family members, participants family history of medical and psychiatric problems, housing type and monthly income. Data were compiled and analyzed by descriptive and analytical statistics using Epi-Info Versions 6 and SPSSPC software packages.

RESULTS

The initial sample size to whom the questionnaires were sent consisted of 198 participants who were working at the time of the study in the selected schools. Five did not respond. Six questionnaires were excluded from the study because they were not properly completed. The final study sample size was 187 participants, giving a response rate of 94.4%. Table 1 shows the frequency distribution of the subjects’ characteristics.

Table 1: Frequency of distribution of the socio-demographic variables of 187 female teachers in Tabuk girls secondary schools

| Characteristics          | Distribution of sample |
|--------------------------|------------------------|
| Age group:               | No. (%)                |
| <27                      | 56 (29.9)              |
| 27-30                    | 83 (44.4)              |
| 31-34                    | 27 (14.4)              |
| >34                      | 21 (11.2)              |
| Nationality:             |                        |
| Saudi                    | 175 (93.6)             |
| Non-Saudi                | 12 (6.4)               |
| Marital status:          |                        |
| Single                   | 40 (21.4)              |
| Married                  | 140 (74.9)             |
| Divorced/widowed         | 7 (3.7)                |

Among all the participants, 111 (59.4%) were probable cases of MPM. The ages ranged from 23 to 46 years, with a mean age of 29.5 (SD 4.5). By nationality, 174 (93.6%) were Saudis. One hundred and 140 (74.9%) were married, 40 (21.4%) were single and (3.7%) were divorced/widowed.

There was statistically significantly association between MPM, and the mean age though this was slightly lower in MPM subjects than the others 29.1 ± 3.96 and 30.1 ± 5.23 respectively (p < 0.05), while the average number of children and family member showed no statistically significant differences in the two groups (Table 2).

Table 3 shows that MPM was significantly more frequent in Saudi citizens, either divorced or widowed, with
positive family history of medical and of mental disease. The characteristics which showed statistically positive significant association with MPM were: Saudi nationality, divorced/widowed status, participant and/or family psychiatric history, and family medical history.

**Table 2:** Comparison between the quantitative characteristics of the normal group of female teachers and the group with minor psychiatric morbidity in Tabuk girls' secondary schools

| Characteristics                   | All Sample (n=187) Mean (SD) | MPM (n=111) Mean (SD) | Normal (n=76) Mean (SD) | p-value |
|----------------------------------|------------------------------|-----------------------|-------------------------|---------|
| Age of participants             | 29.5 (4.53)                  | 29.1 (3.96)           | 30.1 (5.23)             | 0.03    |
| Number of children in family    | 2.6 (1.89)                   | 2.6 (1.81)            | 2.8 (2.02)              | >0.05   |
| Number of family members        | 5.7 (2.95)                   | 5.6 (2.83)            | 5.9 (3.14)              | >0.05   |

n=number, MPM=minor psychiatric morbidity, SD=standard deviation

**Table 3:** Comparison between the categorical characteristics of the normal group of female teachers and those with minor psychiatric morbidity in Tabuk girls' secondary schools

| Characteristics                   | All Sample (n=187) Frequency (%) | MPM (n=111) Frequency (%) | p-value |
|----------------------------------|----------------------------------|---------------------------|---------|
| Nationality:                     |                                 |                           |         |
| Saudi                            | 175 (93.6)                       | 108 (61.7)                | 0.01    |
| Non-Saudi                        | 12 (6.4)                         | 3 (25.0)                  | NS      |
| Marital status I:                |                                 |                           |         |
| Single                           | 40 (21.4)                        | 24 (60.0)                 | NS      |
| Married                          | 140 (74.0)                       | 80 (57.1)                 |         |
| Marital status II:               |                                 |                           |         |
| Divorced/widowed                 | 7 (3.7)                          | 7 (100)                   | 0.02    |
| Participant medical history:     |                                 |                           |         |
| Yes: Present                     | 14 (7.5)                         | 11 (78.6)                 | NS      |
| No: Not present                  | 173 (92.5)                       | 100 (57.8)                |         |
| Participant Psychiatric history: |                                 |                           |         |
| Yes                              | 2 (1.1)                          | 2 (100)                   | 0.001   |
| No                               | 185 (98.9)                       | 109 (58.9)                |         |
| Family medical history:          |                                 |                           | 0.001   |
| Yes                              | 72 (38.5)                        | 54 (75.0)                 |         |
| No                               | 115 (61.5)                       | 57 (49.6)                 |         |
| Family psychiatric history:      |                                 |                           | 0.007   |
| Yes                              | 10 (5.3)                         | 10 (100)                  |         |
| No                               | 177 (94.7)                       | 101 (57.1)                |         |
| Monthly income groups:           |                                 |                           | NS      |
| <3000                            | 28 (15.0)                        | 12 (42.9)                 |         |
| 3000-9000                        | 140 (74.9)                       | 90 (64.3)                 |         |
| >9000                            | 19 (10.2)                        | 9 (47.4)                  |         |
| Housing type:                    |                                 |                           | NS      |
| Villa                            | 58 (31.0)                        | 33 (56.9)                 |         |
| Apartment                        | 119 (63.6)                       | 70 (58.8)                 |         |
| Traditional                      | 10 (5.3)                         | 8 (80.0)                  |         |

n=number, MPM=minor psychiatric morbidity, NS=not significant
DISCUSSION

Our study response rate among female secondary school teachers was high (94.4%). Using a cut-off point of 5/6, almost two thirds of our subjects (111) (59.4%) were identified as probable cases. This is a higher prevalence than both local studies in Jeddah (38.2%) and Riyadh (46%) mentioned earlier. It is also higher than what had been estimated for the general population in the KSA (22-33%). However, the high prevalence of MPM among teachers is an expected result because teaching is considered the most stressful job,1 and many studies outside the KSA had similar results.2

Most of our study group were young, and 139 (74.3%) of them were below the age of 32. Their age frequency distribution showed that the incidence of MPM (Table 1) among the younger teachers was less. Comparing the mean age of groups with MPM (29% ± 4.0) and the normal group (30% ± 5.2), there was a difference of one year, which was statistically significant (p < 0.05). Some studies clearly showed that the younger the age, the less association there was with MPM.1,3,4 Unlike the findings in Jeddah and some international studies, we found no statistically significant difference between single and married status.1,3,10 However, the difference between the married and the divorced/widowed was highly significant (Table 3).

A participant’s history of psychiatric problems or a family history of such problems are strongly associated with MPM (Table 3). All those with family psychiatric history were among the probable cases.2 This finding agrees with the Al Faris study.2 Though disease of the body is expected to affect the mind and reduce the body’s resistance to stress, an unexpected result was the lack of significant statistical association between participant’s medical problems and MPM. Also, income was not associated with MPM manifestations. This might be due to the narrow variation of income and the fact that 140 (74.9%) of the participants were in the same income category (Table 3).

There was no description of the work environment of the girls' secondary school teachers in Tabuk in our study. Such a description may have pointed to some of the probable causes of the high prevalence of MPM. Interviewing some teachers might have also given some insight into the magnitude and the causes of the problems encountered. Other studies had emphasized the need for social support to prevent or relieve the morbid effects of stress in schools.11,12

Reducing stress and improving the psychological health of teachers is expected to result in the improvement of the teaching process. Social support strategies vary greatly in different cultures,13 and studies are needed to find strategies suitable to the Saudi culture.

REFERENCES

1. Milaat W. Stress in schools; prevalence of hidden psychiatric illness among Jeddah school workers. Saudi Medical J 1997; 18(3):240-3.
2. Al-Fares E, Al-Shammari SA, Al-Hammed MY. Prevalence of psychiatric disorders in academic primary care department in Riyadh. Saudi Medical J 1992; 13(1):49-53.
3. Prof A Smith, et al, Cardiff University. The Scale of occupational stress. www.hse.gov.uk/research/crr pdf/2002/crr00311.pdf.
4. UK Health and Safety Executive. Tackling work-related stress: a guide for employees. www.hse.gov.uk/pubns/indg341.pdf.
5. Goldberg DP, Garter R, Sartorius TB, et al. The validity of two versions of the GHQ in WHO study of mental illness in general health care. Psycho Med 1997; 27:191-7.
6. Al-Faris E, Al-Subaie A, Khoja T, et al. Training primary health care physicians in Saudi Arabia to recognize psychiatric illness. Acta Psychiatric Scand 1997; 96:439-44.
7. Febbo S, Burvill P. Validation of an Italian translation of the GHQ-30 for use in Australia. Australia & New Zealand Journal of Psychiatry 1995; 29:266-69.
8. Pithers RT, Fogarty GJ. Symposium on Teacher Stress: Occupational stress among vocational teachers. Br J Educational Psychology 1995; 65:3-14.

9. Punch KF, Tuetteman E. Correlates of psychological distress among secondary school teachers. Br Educational Research J 1990; 16:369-82.

10. Samuels J, Nestadt G, Anthony J, Romanoski A. The detection of mental disorder in the community using a 20-item interview version of the GHQ. Acta Psychiatric Scand 1994; 89:14-20.

11. Borg MG, Riding RJ. Teachers stress and cognitive style. Br J Educational Psychology 1993; 63:271-86.

12. Boyle GJ, Borg MG, Falzon JM, et al. A structural model of the dimensions of teachers stress. Br J Educational Psychology 1995; 65:49-67.

13. Tellenback S, Bernner SO, Lofgren H. Teacher stress exploratory model building. J Occup Psychology 1983; 56:19-33.