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**Results:** It was shown that 50% of school teachers in the sample were good at picking up signs of mental distress while others felt that they did not have the skills in this field nor was it their role to do so. The majority of physicians and nurses (66.03%) in school health unit and PHC centers identify family problems as predictor of mental disorders. From the stand point of the primary care provided by health centers, early diagnosis of cases and provision of treatment were considered unimportant compared to the role of case referral as stated by 15.38% and 53.84% of workers, respectively.

**Recommendations:** It is recommended that the role of these services be expanded to develop skills in dealing with common mental problems.

**Key Words:** Mental health promotion, primary health care, school health unit, role of different service agencies in mental health.

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**INTRODUCTION**

Mental health problems are the leading causes of morbidity and disability that create distress for individuals and families as well as impose a significant and costly burden on public health resources. Despite widespread recognition of the need for preventive strategies that promote mental well being, health care provision has traditionally focused only on the treatment of people with sufficient mental health problems to constitute cases. Apart from the psychiatric hospital, the involvement of other agencies is needed for mental care. These include all community facilities pertinent in anyway to primary prevention, early diagnosis, treatment and preparation of individuals for psychiatric care.

It is well known that health workers in services such as school health units and primary health care centers already deal with a range of mental problems. They are at the forefront of managing patients with emotional disorders such as depression and anxiety.

In a study conducted in Sweden (1993) with the aim of defining the prevalence of mental problems in primary care, it was found that the frequency of mental problems was 26% in primary care patients. The emphasis of primary care is on developing preventive programs and effective interventions. There are a variety of interventions that have proved to be effective in promoting mental health; for example, reducing levels of anxiety and depression, improving self-esteem, giving emotional support, counseling and therapeutic listening.

On the other hand, schools are the most strategic places for shaping the child’s behavior and promoting mental health. School teachers have both a positive and preventive role. They should be concerned with helping all children attain sound mental health in order to develop into mature responsible and well-adjusted adults. In many countries, schools have begun to work as partners and allies of the health services. Based on this review, our study was conducted as an attempt to identify roles of schools, school health units and PHC centers in the promotion and prevention of mental health problems.

**AIMS OF THE STUDY**

The aims of this study were: (1) to identify mental health promotional activities as offered by personnel in different service agencies; (2) to determine the high risk groups for mental illness; (3) to assess the ability of subjects to specify warning signs for
the early detection of mental diseases; (4) to address the predominant mental problems as diagnosed by physicians in different health settings.

MATERIAL AND METHODS
A descriptive approach was used to carry out this study in different service agencies located in Abha region. Questionnaires were mailed during the year 1997 to all girls’ secondary schools (n=6), the female school health unit and all PHC centers (n=6).

Although the issue of this study is not specific to females, it was suggested that an initial study be done with female teachers and female school health units as a pilot study to be applied to a larger population.

Moreover, it should be pointed out that the College of Health Sciences for Females in Abha was faced with problems such as difficulty in communication, non-response to questionnaire and limited facilities necessary for the collection and analysis of data.

About 120 questionnaires were mailed to all available secondary schools in the city of Abha. However, the drawback of this method was that there was a high non-response rate of 85% since only 18 questionnaires returned from the schools.

While the sample of school teachers (n=18) was small compared to the total population of teachers, the situation was different as regards the groups of physicians and nurses in PHC. The total number of health professionals included came from all available centers in the city of Abha (rural and semi-rural centers were not included). There was 100% response from the PHC physicians and 25 nurses. Again a combination of nurses and physicians (10 and 4 respectively) were included in the school health unit. A total of 71 questionnaires were ultimately completed.

The questionnaire included 4 basic open-ended questions designed to elicit information in 4 areas which were warning signs of poor mental health, indications of high risk groups of mental disorder, activities that promote sound mental health and mental health problems most commonly encountered in health settings.

The questions used were simple straightforward ones that could be interpreted in one way only. The actual wording of the questions were as follows: (1) What are the warning signals or signs that may indicate the beginning of a psychiatric problem? (2) Who are the high risk groups exposed to mental health problems? (3) What is your role as a health worker in a PHC center towards mental health promotion for patients who attend clinics.

Furthermore, the procedure that was used for the analysis of the open-ended items was the development of categories and the assignment of the open-ended responses to those categories. The finalization of these categories in the tables was carried out after reviewing literature and relevant references.

The statistical analysis in the study was based on the comparison of 2 groups of subjects in different places of work (school health workers versus PHC workers). It was thought that school health professionals being specifically concerned only with school children may present information different from those given by PHC health workers with regard to warning signs, high risk groups, mental problems encountered and promotional activities needed.

RESULTS
Sociodemographic and working characteristics of subjects in the study: A total of 71 subjects were included in the study. The respondents of school teachers (n=18) were between the ages of 23 and 31,
physicians (n=18) were between 30 and 57 while nurses.

Table 1: Mental health promotional activities according to health workers’ statements in different settings

| Activities                        | School Health (n=14) unit workers No. (%) | PHCC workers (n=39) No. (%) | Z Test |
|-----------------------------------|------------------------------------------|-----------------------------|--------|
| Counseling                        | 6 (42.86)                                | 15 (38.46)                  | 0.2887 |
| Encouragement & support           | 8 (57.14)                                | 16 (41.03)                  | 1.0387 |
| Communication with families       | 3 (21.43)                                | 1 (2.56)                    | 2.2928*|
| Health education & religious      | 2 (14.29)                                | 10 (25.64)                  | 0.8704 |
| awareness                         |                                          |                            |        |
| Identification of high risk group | 0 (0.00)                                 | 1 (2.56)                    | 0.6052 |
| Early diagnosis and treatment of  | 2 (14.29)                                | 6 (15.38)                   | 0.0978 |
| simple cases                      |                                          |                            |        |
| Case referral                     | 4 (28.57)                                | 21 (53.85)                  | 1.6289 |

Table 2: High risk groups for mental disorders as stated by health workers in different settings

| High risk groups                    | School health unit (n=14) No. (%) | PHCC (n=39) No. (%) | Z test |
|-------------------------------------|-----------------------------------|---------------------|--------|
| People with behavior disturbance   | 6 (42.86)                         | 5 (12.82)           | 2.3766*|
| People with family problems        | 6 (42.86)                         | 29 (74.36)          | 2.1356*|
| Young age                          | 2 (14.29)                         | 3 (7.69)            | 0.7245 |
| Illiteracy                          | 0 (0.00)                          | 2 (5.13)            | 0.8651 |
| People with poor socioeconomic     | 3 (21.43)                         | 6 (15.38)           | 0.5171 |
| conditions                          |                                   |                     |        |
| Disabled group                      | 2 (14.29)                         | 2 (5.13)            | 1.113  |
| People with spiritual distress      | 2 (14.29)                         | 0 (0.00)            | 2.4098*|
| People exposed to stress           | 2 (14.29)                         | 12 (30.77)          | 1.1994 |
| Chronically ill patients            | 0 (0.00)                          | 5 (12.82)           | 1.4072 |
| People with family history of       | 0 (0.00)                          | 13 (33.33)          | 2.5023*|
| psychiatric illness                |                                   |                     |        |

Table 3: Warning signs for early detection of mental diseases according to health workers’ statements

| Warning signs                          | School health unit workers (n=14) No. (%) | PHCC workers (n=39) No. (%) | Z test |
|----------------------------------------|------------------------------------------|-----------------------------|--------|
| Excessive emotional reaction           | 11 (78.57)                               | 23 (58.97)                  | 1.31   |
| Impaired social interaction            | 11 (78.57)                               | 19 (48.72)                  | 1.93   |
| Symptoms of depression                 | 7 (50.0)                                 | 22 (56.41)                  | 0.4133 |
| Psychosomatic symptoms                 | 9 (64.29)                                | 10 (25.64)                  | 2.587* |
| Sleep pattern disturbances             | 10 (71.43)                               | 9 (23.08)                   | 3.2363*|
| Sensory/perceptual alterations (hallucinations) | 3 (21.43) | 5 (12.82) | 0.7722 |
| Ineffective coping (suicidal tendency, violence) | 3 (21.43) | 4 (10.26) | 1.0588 |
*statistically significant (n=35) were between 21 and 52. The majority of the subjects in the study (83.09%) were married. A high proportion of doctors included in the study were general physicians (94.4%) and the rest (5.6%) were pediatricians. Nurses with diploma represented 62.86% while those with bachelor degrees were 37.14%.

**Mental health promotional activities:** According to subjects’ statements, promotional activities that were familiar to school teachers included counseling, encouragement and support communication with families, health education and religious awareness. In addition to other promotional activities shown in Table 1 the identification of high risk groups (2.56%) and early diagnosis and treatment (15.38%) were mentioned by a minority of primary health workers.

**Identification of high risk groups:** In response to the question that dealt with identification of high risk groups, none of the health workers and 33.33% of school teachers specified that students with educational difficulties were susceptible to mental problems. Table 2 shows the results of a comparison between school health workers’ statements and primary workers’ as regards the identification of high risk groups. It was revealed that school health workers listed groups of people with behavioral disturbances, and spiritual distress significantly more than primary health workers. While the latter were more concerned about family problems and positive family history.

**Warning signs for early detection of mental diseases:** School teachers who reported warning signs of mental disorders represented half of the teachers’ sample. The information obtained from health workers is shown in table 3, where school health workers identified psychosomatic symptoms and sleep pattern disturbances as being warning signs (64.29% and 71.43%, respectively) as compared to 25.64% and 23.08%, respectively, of primary health workers with significant difference.

**Mental health problems as diagnosed by physicians in different health services:** Table 4 highlights the mental problems encountered in different health services according to physicians’ opinions. In school health unit, hysteria, depression, anxiety and psychosomatic conditions were reported to be prevalent among students. On the other hand depression was recognized by 57.14% of physicians as a mental problem in primary care practice.

| Mental problems                  | SHP* (n=4) No. (%) | PHC physicians (n=14) No. (%) | Z test |
|----------------------------------|--------------------|-------------------------------|--------|
| Hysteria                         | 2 (50)             | 3 (21.43)                     | 1.1252 |
| Depression                       | 1 (25)             | 8 (57.14)                     | 1.1337 |
| Anxiety                          | 1 (25)             | 3 (21.43)                     | 0.1515 |
| Psychosomatic conditions and hypochondriasis | 1 (25)             | 6 (42.86)                     | 0.6462 |

*SHP=School health physicians

**DISCUSSION**
Mental disorders and mental symptoms often go untreated in both chronic care and primary care settings. To ensure adequate promotive and preventive mental health care, a reorientation of medical care toward optimizing function and well-being as well as longevity is required. Generally speaking, multisectoral teamwork approach is required in mental health. Both educational and primary care sectors have the opportunity for establishing promotive services for mental care, to enable them to progress beyond the tasks they undertake.
Regarding the educational sector in our study, the resources did not allow a strict scientific sampling of school teachers for inclusion in statistical analysis. The possible explanation of having a very low response rate could be due to the negative attitude taken by teachers towards the importance of health promotion in schools. Negligence and unawareness of teachers’ roles in mental health promotion are additional reasons.

At the beginning of the study, it was suggested that the sample of teachers be deleted to avoid the risk of serious response bias. However, after analysing the data it was found that the teachers had made some interesting comments that may enrich both discussion and conclusion. Moreover, schools are an important focus for the promotion of health in general and their role should not be underestimated. Unfortunately, 50% of the school teachers in the study claimed that it wasn’t their job nor did they have the skills to promote mental health.

With regard to the health sector, it was previously mentioned that the comparative statistical analysis in the study was based on the differences in place of work and not on professional background. In the current study, it was thought inappropriate to compare physicians and nurses. The analysis of data showed that the responses of the physicians and nurses were nearly the same. There were similarities in their perception about warning signs, high risk groups and their roles in the promotion of mental health.

The difference lay in the fact that physicians’ functions included diagnosing mental problems whereas nurses did not have such a role in the PHC centers.

Generally speaking, subjects in the study recognized counseling, as an activity that promoted good mental health. However, it was described as that activity concerned with listening to problems and trying to solve them; giving opportunity to people to express their feelings, and exploring their fears and anger. Participants in the study viewed health education and promotion of healthy spiritual state as a component of mental health promotional activities. Spiritual state includes integrity, principles and ethics, religious awareness. It is well known now that serious consideration should be given to the spiritual dimension and its role in promoting physical and psychological well being.

Communication with families as a promotional activity was significantly more reported by school health workers than primary care workers. This could be due to their close contact with parents. In fact, families should have a role in relieving patients’ stress, as the family may sometimes be the cause of the patient’s problems or a contributory cause. In addition, one of the important functions of health workers is the assessment of the family.

Generally, to promote mental health, a working partnership of schoolteachers, social workers, families and community agencies is essential.

Although the role of health professionals in primary care is important and should be placed above those provided in mental services, the identification of high risk groups as a promotional activity as well as early diagnosis was reported by a very small percentage of primary health workers, 2.5% and 15.38%, respectively. This could be attributed to the fact that primary health workers are not oriented or trained in the specific technical skills.

In a study carried out in Riyadh to assess the needs of PHC physicians for continuing medical education, it was found that 52.6% of PHC physicians needed training in psychosocial medicine.
Moreover, it was perceived that the role of PHC was to refer the patient to the psychiatrists rather than deal with him at the local level. This increased the burden on the psychiatrists. If primary health workers feel they have neither the skills nor the time to help in this respect, accurate assessment should help them to decide who needs referral and who can be managed locally with appropriate support.

In the present study, all health workers and 50% of the school teachers were able to identify high risk groups of mental diseases. Students with educational difficulties were identified by 33.33% of school teachers as a high risk group. According to teachers’ statements, these difficulties include backwardness in studies, school phobia and school failures followed by refusal to continue education. About three-quarters of primary health workers and 42.86% of school health workers defined people with family problems as susceptibles for mental disorders.

In an attempt to study the effect of family problems on mental health, an English study concluded that family stress was the strongest predictor of function in terms of mental health, social health, general health, self-esteem, anxiety and depression. Table 2 demonstrated that school health workers considered behavioral disturbances as a predictor of mental disorders significantly more than primary health workers did. This is due to the fact that school physicians and nurses are much more involved with behavioral problems than primary physicians.

It is obvious that minor or transient deviation from usual behavior is common in young children. There have been many studies revealing the high prevalence of such individual behavior as temper, fear and enuresis.

Almost all-warning signs of mental diseases mentioned by health workers in Table 3 were correct except for hallucinations, which cannot be considered an early sign.

Many health workers in the study defined patients with psychosomatic complaints as patients who presented with diffuse and vague clinical picture. These patients have long been identified as health care misusers due to their persistent pursuit of medical care. They are hypochondriatics, problem patients, and those who are well but worried and persistent somatizers. They have a wide range of chronic symptoms and an underlying depression.

However, physicians need to be sensitive to the interpersonal nature of this problem so as not to discourage preventive medical use and to recognize the value of these visits and to use them in promotion of mental health.

Predominant mental problem as stated by 50% of school physicians was hysteria, specifically conditions with hysterical aphasia, which existed among female students. Manifestations of psychosomatic illness in school pupils as mentioned by physicians include anorexia, headaches, vomiting at school time and nocturnal enuresis. On the other hand, high on the list of primary physicians diagnoses was depression followed by psychosomatic conditions in the form of headaches, hyperacidity, vomiting, diffuse aches all over the body, weakness and fatigue.

In a Canadian study, the prevalence of psychiatric illness was identified in patients presenting with fatigue, which is a major reason for consultation in primary care settings. Psychiatric diagnoses among fatigued patients were limited to major depression where it was diagnosed in 17.2% of fatigued patients.

CONCLUSION
1. There is a general orientation of subjects in the study of mental health. However, promotion of mental health has been found to exist on a narrow base as a function of different agencies. 

2. The possible roles played by 50% of school teachers were counseling, encouragement and support, and promotion of spiritual and religious state. 

3. School teachers identified students with educational difficulties as a susceptible group for mental disorders. 

4. Despite the satisfactory level of knowledge of health workers on the key symptoms of mental disorders, their role in the identification of risky groups and their early detection and treatment was not apparent. 

5. Most physicians in the health services seemed not to be adequately trained to manage mentally ill patients locally. This was indicated by the high incidence of case referral. 

6. School health workers stated significantly more behavioral disturbances as early signs than did primary health workers. Again, they reported hysteria as a predominant mental problem among students, while depression was frequently encountered among primary care patients. 

RECOMMENDATIONS

In Primary Health Care Centers

1. Develop a standardized screening questionnaire that can be applied in all primary centers for the early detection of mental illness. The criteria for diagnosis of mental disease should if possible be based on early changes that precede the occurrence of manifest signs and symptoms. 

2. Greater definition of roles and responsibilities and appropriate training are required to maximize the benefits that patients gain from the skilled personnel. 

3. More consideration to be given to the scope and effectiveness of specific forms of counseling. 

4. Effective communication between primary and secondary care. Psychiatric nurses, psychologists and specialist doctors can help to meet the primary physicians’ needs in the area of mental care. Psychiatrists might be employed to provide support and supervision for primary physicians. 

5. Expand the role of primary care in dealing with common emotional problems at a local level. 

In Schools and School Health Units

1. Training programs directed at school teachers with the aim of changing their attitudes towards promoting mental health and enabling them to progress beyond their usual tasks. 

2. Cooperation between school health unit workers and teachers to identify cases, consult, help in dealing with minor problems and refer major cases. 

3. As behavioral problems are more common in school pupils, physicians can obtain more detailed information about parent concerns, child behavior and environmental, social interactions using screening questionnaires and behavioral interviews. 

4. School-based social skills programs and training for parents in specific parenting skills are required. 

5. There should be child guidance service including professionals such as specialist nurses, psychologists, and social workers in schools. 

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