CHANGE IN PERCEPTION OF MENTAL ILLNESSES BY UNDERGRADUATE MEDICAL STUDENTS OF ADDIS ABABA FOLLOWING PSYCHIATRIC ATTACHMENT

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SUMMARY

That the mental health problems are as common in the developing countries as in the developed ones has been amply shown by many epidemiological studies. Providing mental health care to a large patient population in developing countries has remained an uphill task. One of the strategies is to involve general health practitioners in mental health services for which they must be given adequate training in their undergraduate medical curriculum. Success of a training programme depends upon the change in attitudes among the trainees regarding mental health problems. Vignettes have been successfully used to measure such changes. In this paper, the authors discuss in brief the difficulties in the delivery of mental health care and report their experience with vignettes as an evaluative design to gauge the attitudinal changes among undergraduate medical students in Addis Ababa.

Mental health care in the developing countries has remained awfully inadequate inspite of the fact that serious mental disorders are as common in developing countries as in the industrialised world. How to provide at least a basic mental health care, to such an enormous patient population in a cost-effective manner especially in developing countries, has remained an important theme in many International seminars (Bashker 1972, Basheer et al. 1975). The consensus of these seminars has been that it would be highly unrealistic to try to provide care to the needy population through trained psychiatrists due to obvious reasons of limited man-power and scanty resources. Alternatively, mental health services could be integrated with the general health services and medical and paramedical workers be trained for providing a basic care to the mentally sick in the community. This resulted in the launching of W.H.O. sponsored programme, “The WHO collaborative study on strategies for extending Mental Health Care” in four geographically defined areas in Columbia, India, Senegal and Sudan and is designed to develop and evaluate alternative and low cost methods of mental health care including training methods in developing countries (Wig et al. 1981, Srinivasa Murthy and Wig 1983). Wig et al. (1981) have already reported their experiences in training peripheral health workers to provide mental health care at health centres. A systematic work was also done by Wig and Parhee (1984) and Issac et al. (1985) in providing training to the general practitioners. However, very little systematic work has been done to evaluate the effectiveness of training provided to undergraduate medical students in bringing about specific attitudinal changes regarding mental illnesses and importance of such a knowledge cannot
be over-emphasized. To study the change in undergraduate medical students’ attitude regarding mental illnesses, the present study was designed and completed in undergraduate medical students of Faculty of Medicine, Addis Ababa University in Addis Ababa, Ethiopia before and after 6 weeks of full time psychiatric course. The perception and attitudes were studied with the help of vignettes.

**Material and Methods**

The Department of Psychiatry at Addis Ababa University runs a 6 week full time course in Psychiatry for undergraduate medical students during their final year (Khandelwal and Fikre 1986a). This is a 6 week full time course in Psychiatry during the final year of four-year medical curriculum. Psychiatry is one of the subjects which are taught and examined in the final year, the others being medicine, surgery, gynaecology and obstetrics, ophthalmology and community medicine. During psychiatry attachment, they daily (five days a week) attend the out-patient services where they learn about history taking, mental state examination, various psychiatric syndromes and their management. They also learn to independently work up a case for detailed group discussion. The afternoon session comprises of a seminar presentation by a student of previously allotted topic followed by active group discussion. The topics covered during such seminars are the ones which are clinically and socially relevant to the students. The vignettes used for them were adapted from the work of Wig et al. (1980) and duly modified for local conditions. These vignettes represented conditions like mental retardation, epilepsy, acute psychosis, manic excitement, depressive psychosis, process schizophrenia and depressive neurosis. Three more vignettes representing alcohol dependence, normal grief reaction and obsessive personality were constructed and included in the study. Hence, there were 10 vignettes in all.

Each vignette was followed by a series of structured questions and students were asked to mark the response which they thought to be most appropriate. The questions were regarding the presence of illness and its social consequences. Each response was graded on a 3 point scale from normal to most serious. In this way, attitudinal ratings were made for gravity (seriousness of illness), its prognosis (prediction of outcome) and its influence on marriage prospects (chances of getting married or continuation of a marriage), family life (ability to live at home) and work of the affected individual. The study was completed on 100 students before and after they attended psychiatric course of six weeks. On both the occasions, same set of vignettes was used. The two sets of responses were compared by ‘test of two sample proportions’ (Wallis and Roberts 1969) to see if any significant changes emerged following the psychiatric training.

**Results**

The following statistically significant results were obtained.

More students felt mania, alcohol dependence and obsessive personality to be illness.

Table 3 shows: More students opined that mania, depressive psychosis and alcohol dependence were very serious conditions. Mental retardation, epilepsy, acute psychosis and process schizophrenia remained serious conditions. Others remained less or not serious.

Table 4 shows: Less number of students thought worse outcome for acute psychosis and mania following the training i.e., the outcome was thought to be more favourable. It also became more optimistic for epilepsy, while mental retardation was reconsidered to have a pessimistic outcome.
Table 1
Scale of ratings for response to vignettes

| Response                  | Scale          |
|---------------------------|---------------|
| Gravity                   | Not serious   |
| Prognosis                 | Will improve  |
| Marriage prospects        | No impairment |
| Family relations          | No problem    |
| Work                      | Normal        |

| Vignettes                  | Before Training | After Training |
|-----------------------------|-----------------|----------------|
| Mental retardation          | 92              | 100            |
| Epilepsy                    | 100             | 100            |
| Acute psychosis             | 100             | 100            |
| Mania                       | 87              | 100*           |
| Depressive psychosis        | 92              | 100*           |
| Process schizophrenia       | 100             | 100            |
| Depressive neurosis         | 83              | 88             |
| Alcohol dependence          | 72              | 93*            |
| Normal grief                | 43              | 45             |
| Obsessive personality       | 23              | 48*            |

* shows significant change

Table 2
Presence of illness

| Vignettes                  | Yes                          | No                          |
|-----------------------------|------------------------------|-----------------------------|
|                            | Before Training | After Training | Before Training | After Training |
| Mental retardation          | 92              | 100            | 8              | 0              |
| Epilepsy                    | 100             | 100            | 0              | 0              |
| Acute psychosis             | 100             | 100            | 0              | 0              |
| Mania                       | 87              | 100*           | 13             | 0              |
| Depressive psychosis        | 92              | 100*           | 8              | 0              |
| Process schizophrenia       | 100             | 100            | 0              | 0              |
| Depressive neurosis         | 83              | 88             | 17             | 12             |
| Alcohol dependence          | 72              | 93*            | 28             | 7              |
| Normal grief                | 43              | 45             | 57             | 55             |
| Obsessive personality       | 23              | 48*            | 77             | 52             |

* shows significant change

Table 3
Gravity

| Vignettes                  | Not serious | Quite serious | Very serious |
|-----------------------------|-------------|---------------|--------------|
|                            | Before Training | After Training | Before Training | After Training |
| Mental retardation          | 3           | 0             | 35            | 23            | 62            | 77*           |
| Epilepsy                    | 3           | 3             | 48*           | 63*           | 49            | 34*           |
| Acute psychosis             | 0           | 3             | 20            | 25            | 80            | 72            |
| Mania                       | 43          | 3*            | 55            | 70*           | 2             | 27*           |
| Depressive psychosis        | 22          | 7             | 52            | 40*           | 26            | 53*           |
| Process schizophrenia       | 5           | 3             | 35            | 22            | 60            | 75*           |
| Depressive neurosis         | 45          | 62*           | 48            | 38            | 7             | 0             |
| Alcohol dependence          | 27          | 12*           | 62            | 32*           | 11            | 56*           |
| Normal grief                | 62          | 78*           | 33            | 22            | 5             | 0             |
| Obsessive personality       | 87          | 87            | 13            | 13            | 0             | 0             |

* shows significant change
Table 4
Prognosis

| Vignettes               | Will improve Before Training | Will improve After Training | Same Before Training | Same After Training | Worse Before Training | Worse After Training |
|-------------------------|-----------------------------|-----------------------------|----------------------|---------------------|-----------------------|----------------------|
| Mental retardation      | 22                          | 10*                         | 58                   | 75*                 | 20                    | 15                   |
| Epilepsy                | 43                          | 70*                         | 40                   | 15*                 | 17                    | 15                   |
| Acute psychosis         | 47                          | 75*                         | 10                   | 5                   | 43                    | 20*                  |
| Mania                   | 75                          | 82                          | 10                   | 15                  | 15                    | 3*                   |
| Depressive psychosis    | 57                          | 65                          | 10                   | 15                  | 33                    | 20                   |
| Process schizophrenia   | 20                          | 32                          | 30                   | 27                  | 40                    | 41                   |
| Depressive neurosis     | 82                          | 92                          | 12                   | 8                   | 6                     | 0                    |
| Alcohol dependence      | 50                          | 57                          | 10                   | 2                   | 40                    | 41                   |
| Normal grief            | 93                          | 95                          | 5                    | 5                   | 2                     | 0                    |
| Obsessive personality   | 40                          | 40                          | 60                   | 60                  | 0                     | 0                    |

* shows significant change

Table 5
Marriage

| Vignettes                | Like any person in society Before Training | Like any person in society After Training | Some difficulty Before Training | Some difficulty After Training | Impossible to get married Before Training | Impossible to get married After Training |
|--------------------------|-------------------------------------------|------------------------------------------|--------------------------------|----------------------------------|------------------------------------------|------------------------------------------|
| Mental retardation       | 7                                         | 5                                        | 58                             | 30*                             | 35                                       | 65*                                      |
| Epilepsy                 | 23                                        | 52*                                      | 63                             | 46*                             | 14                                       | 2*                                       |
| Acute psychosis          | 2                                         | 17*                                      | 25                             | 50*                             | 73                                       | 33*                                      |
| Mania                    | 28                                        | 22                                        | 68                             | 78                              | 4                                        | 0                                        |
| Depressive psychosis     | 23                                        | 38*                                      | 57                             | 47                              | 20                                       | 13                                       |
| Process schizophrenia    | 0                                         | 7                                        | 23                             | 23                              | 77                                       | 70                                       |
| Depressive neurosis      | 48                                        | 78*                                      | 43                             | 22*                             | 9                                        | 0                                        |
| Alcohol dependence       | 15                                        | 20                                        | 77                             | 65                              | 8                                        | 15                                       |
| Normal grief             | 88                                        | 93                                        | 8                              | 7                               | 4                                        | 0                                        |
| Obsessive personality    | 80                                        | 73                                        | 220                            | 27                              | 0                                        | 0                                        |

* shows significant change

Table 5 shows: Following training, more students felt impossibility of marriage for mentally retarded individuals. More favourable response was obtained for epilepsy and acute psychosis. Mania and depressive psychosis also obtained favourable responses, though they failed to reach statistical significance. It remained bad for process schizophrenia and alcohol dependence.

Table 6 shows: Usually optimistic response for family relations was obtained for most of the conditions after
the attachment and it was highly significant for acute psychosis.

Table 7 shows: Impaired work record was perceived by more students in conditions like mental retardation, acute psychosis and mania. A significant number of students felt that it was impossible for mentally retarded individuals to carry on with their occupation. More favourable responses were obtained for epilepsy, process schizophrenia and acute psychosis.

Discussion

In this paper, we have tried to find out the change brought about by a short term psychiatry training in undergraduate medical students' attitudes regarding mental illnesses. We have already described else-

Table 6
Family relations

| Vignettes                  | No difficulty | Some problem | Impossible to live at home |
|----------------------------|---------------|--------------|---------------------------|
|                            | Before Training | After Training | Before Training | After Training | Before Training | After Training |
| Mental retardation         | 18            | 10           | 70            | 85           | 4              | 5             |
| Epilepsy                   | 38            | 53*          | 60            | 45           | 2              | 2             |
| Acute psychosis            | 0             | 7            | 25            | 57*          | 75             | 36*           |
| Mania                      | 42            | 18*          | 55            | 80*          | 3              | 2             |
| Depressive psychosis       | 17            | 35*          | 77            | 53*          | 6              | 12            |
| Process schizophrenia      | 7             | 10           | 43            | 45           | 50             | 45            |
| Depressive neurosis        | 38            | 72*          | 58            | 28*          | 4              | 0             |
| Alcohol dependence         | 27            | 23           | 63            | 65           | 10             | 12            |
| Normal                     | 85            | 90           | 15            | 10           | 0              | 0             |
| Obsessive personality      | 65            | 70           | 35            | 30           | 0              | 0             |

* means significant change

Table 7
Occupation

| Vignettes                  | Normal | Impaired | Impossible |
|----------------------------|--------|----------|------------|
|                            | Before Training | After Training | Before Training | After Training | Before Training | After Training |
| Mental retardation         | 8      | 2        | 67         | 50*          | 25             | 48*           |
| Epilepsy                   | 33     | 43       | 58         | 53           | 9              | 4             |
| Acute psychosis            | 0      | 15       | 17         | 62*          | 83             | 35            |
| Mania                      | 26     | 15       | 72         | 82           | 2              | 3             |
| Depressive psychosis       | 12     | 17       | 80         | 67           | 8              | 16            |
| Process schizophrenia      | 0      | 10*      | 27         | 28           | 73             | 62            |
| Depressive neurosis        | 37     | 60*      | 57         | 40*          | 6              | 0             |
| Alcohol dependence         | 12     | 13       | 77         | 75           | 11             | 12            |
| Normal                     | 85     | 88       | 15         | 12           | 2              | 0             |
| Obsessive personality      | 88     | 87       | 12         | 13           | 0              | 0             |

* shows significant change

of students felt that it was impossible for mentally retarded individuals to carry on with their occupation. More favourable responses were obtained for epilepsy, process schizophrenia and acute psychosis.
objectives, since if we know beforehand the kind of attitudes a particular group is having about mental illnesses, we can suitably modify our training programme to correct any unrealistic positive or negative attitudes. The situation in Africa as a whole remains unsatisfactory in terms of psychiatric services and psychiatric care. Ethiopia is still more fortunate than many other African countries in having excellent epidemiological studies.

For many decades to come, general practitioners and other health professionals will have to be the main providers of psychiatric care in the developing countries. For this reason, they should be given adequate training based on their earlier beliefs and attitudes. In this study, mental retardation evoked a very pessimistic response following the training. For process schizophrenia, there was no shift following the course. It remained very serious condition with least favourable social consequences. Epilepsy and acute psychosis continued to be serious conditions but with more favourable outcome following the course. Mania and depressive psychosis were reassessed to be more serious but with a better outcome. Alcohol dependence was reconsidered to be a very serious condition with difficult social outcome. Depressive neurosis, normal grief and obsessive personality showed no significant change in consequences, though more students perceived obsessive personality as illness. From this study as well as from students’ response (Khandelwal and Fikre 1986a), the changes reflect the time spent on teaching and discussion of these conditions during the training as well as the change in a patient’s condition with treatment during the follow-up. An appreciable change with treatment is likely to be seen in acute psychosis, mania, depression and epilepsy while not in mental retardation and process schizophrenia in a short period. The results of such a work could be used in selection of priorities for developing countries and designing appropriate training methods and education material.

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