

The Relationship between the Educational Standard and Psychiatric Disorders

M. H. Bahri and A. K. Wilson

The study was conducted on 500 single males living in El Sharkia Governorate, whose mean age reached 22.5 They were divided into five groups according to their educational status with each group consisting of 100 individuals. Group I included the illiterates Group II those who could barely read and write, Group III those with primary school education, Group IV those with secondary and high school education and Group V the college graduates. The groups were subjected to the General Health Questionnaire (GHQ) and clinical psychiatric interviews according to DSM III R for patients scoring above 7 degrees on the GHQ.

According to the GHQ, the percentage of patients with psychiatric disorders reached 34.2% After applying the DSM III R, this percentage was further reduced to 25% suggesting that inspite of the numerous advantages of the GHQ, its results might be overstated.

As to the relationship of the educational level to psychiatric disorders, it was noted that the highest percentage of patients with psychiatric disorders occurred among those with primary school education (28.6%) according to the GHQ and 29.6% after applying the DSM III R), followed by those with secondary and high school education (24.6% according to the GHQ and 29.6% after applying the DSM III R) with the lowest percentage taking place among college graduates (7% according to the GHQ and 6.4% after applying the DSM II R). Illiterate individuals and those who could only read and write contributed around 20% of the patients with psychiatric disturbances according to the GHQ. On the other hand, the DSM III R yielded 15.2% for the illiterate and 19.2% for those who could read and write.

The above suggests the existence of a negative correlation between the educational standard and psychiatric disorders. the same relationship exists in case of depression being one form of psychiatric disorder with a frequency of 42%. Groups III and IV - those with elementary, secondary and high school education were responsible for 33.3% and 28.6% respectively of the total depressed patients. The comparison of both groups to Group V revealed a statistically significant difference ($P < 0.005$).

To conclude, psychiatric disorders especially are more likely among those with lower education levels. It is recommended that the treatment of psychiatric disorders educational as well as social development for the patients

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INTRODUCTION

Psychiatric disorder is the inability of the individual to adjust and adapt to different circumstances (Okasha et al., 1981).

Many studies examined the effect of demographic variables on psychiatric disturbances including depression (Averill et al., 1996). For example a strong relationship was found between the social standard and psychiatric disorders whereby people with insignificant social roles were more susceptible to psychiatric disorders. Another demographic variable is the educational standard. Education appears to be associated with a lower risk of developing dementia and depression (Haller et al., 1996).

SUBJECTS AND METHODS

Purpose of the Study:

The purpose of this study is to determine the relationship between the educational status in rural areas and psychiatric disorder, particularly depression.

Scope of Analysis and Methods Applied:

This study was conducted on 500 single males living in El- Mashaala- El Sharkia Governorate. Their age ranged from 20 to 35 years with a mean age of 22.5. They were classified into 5 groups according to their educational status with each group including 100 individuals (Table 1).

Table 1
The Breakdown of the Different Groups Under Study
According to their Educational Status

Group	Educational Status	Number
Group I	Illiterate	100
Group II	Barely read & write	100
Group III	Primary School Education (Six Years)	100
Group IV	Secondary and High School Education (Nine to twelve years)	100
Group V	College Education	100
Total		500

All studied groups were of the same gender, marital status, age bracket and place of residence. These groups were subjected to the following:

(1) General Health Questionnaire (GHQ).

(2) Complete medical and neurological examination in addition to clinical psychiatric assessment according to DSM III R to those patients scoring above 7 degrees in the General Health Questionnaire.

FINDINGS AND DISCUSSION

The General Health Questionnaire is considered to be one of the accurate tools for identifying patients suffering from psychiatric disorders (Goldberg 1972). Wing et al (1977) stressed that the General Health Questionnaire (GHQ) is a better method than clinical interviews because the latter can be affected by the patient's uneasiness and confusion during the interview. Clinical interviews will also be influenced by the doctor patient relationship.

The fact that the GHQ showed controversial results was attributed to the variation in the samples under investigation or in the social and knowledge background in addition to the difference in statistical analysis. As highlighted above, all other variables including gender age, marital status and place of residence were made constant for the purpose of this study in order to separate the effect of the educational standard on psychiatric disorders. Hereunder are the results of the General Health Questionnaire (GUQ) on the various groups under study:

Table (2) shows that the percentage of patients with psychiatric disorders (recording more than

Table 2
Results of the General Health Questionnaire in Relation
to the Educational Status of all Studied

Results of the GHQ	Group I No = %	Group II No = %	Group III No = %	Group IV No = %	Group V No = %	Total No	%
From 0 to 7 degrees	67	655	51	58	88	329	56.8%
From 8 to 15 degrees	14	19	24	20	8	85	17.0%
From 16 to 28 degrees	19	16	25	22	4	86	17.2%
Total	100	100	100	100	100	500	100.0%

7 degrees in the GHQ) reached 34.2% (171 out of 500 patients). This result is confirmed by other studies using diagnostic criteria other than the General Health Questionnaire. This includes Samuel's analysis (1994) and Darel Charles' survey in the United States (1995) which revealed that the percentage which revealed that the percentage of psychiatric disorder reached 34% and 36% respectively.

* Goldberg (1972) concluded that 25% of the individuals in the out patient clinics in Philadelphia had psychiatric disorders. This is to be compared to Temopolsky's study (1969) in England stating that the percentage of patients with psychiatric disturbances reached 48%. This percentage was even higher reaching 60.5% in the rural areas of the Egyptian Society (Abdel Hamid, 1988).

Table (3) and Figure (1) present the distribution of the patients suffering from psychiatric disturbances (171 out of 500 patients) among the different groups, thereby highlighting the relationship between the educational status and psychiatric disorders.

The highest percentage of patients with psychiatric disorders occurred among those with primary school education (28.6%), followed by those

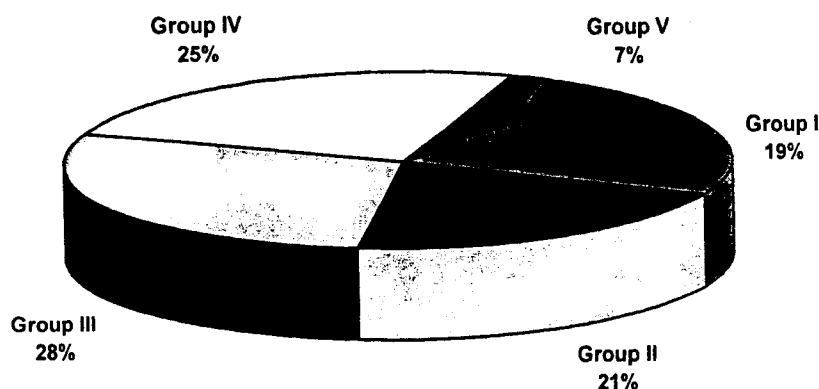
with secondary and high school education (24.6%) with the lowest percentage taking place among college graduates (7.0%). Illiterate individuals and those who can barely read and write each contributed around 20% to the group of patients with psychiatric disturbances.

The above findings are in agreement with Mutaner et al (1994) who stated that patients with low levels of skills and credentials are more likely to be admitted to state psychiatric hospitals than those with higher capabilities. This was also confirmed by Abdel Hakim (1992) in his analysis on rural areas and Darel Charles (1995) in his survey in the United States. In addition, Kessler et al (1995) found that psychiatric disorders existed in more than 305 million people who did not complete high school edu-

Table 3
Distribution of Patients with Psychiatric Disorders
According to their Educational Standard

Group	No. Of Patients with Psychiatric Disorders	Percentage
Group I (Illiterate)	33	19.3%
Group II (Read & Write)	35	20.5%
Group III (Primary Education)	49	28.5%
Group IV (Secondary and High School Education)	42	24.6%
Group V (College Education)	12	7.0%
Total	171	100%

Figure (1) Percentage of Patients with Psychiatric Disorders among the Different Groups



cation and close to 4.3 million who did not complete college education. Accordingly, the low educational level is considered to be one of the key elements leading to and intensifying psychiatric disorders

Taken from another angle, psychiatric disorders can be a cause- rather than being the effect- delaying educational development. Kessler et al (1995) stressed that the early onset of psychiatric disorders has a variety of adverse consequences including truncated educational attainment. The proportion of

school drop outs among children with psychiatric disorders increased dramatically in comparison to other normal students

The above section revealed that the application of the General Health Questionnaire determined the existence of a negative correlation between the level of education and psychiatric disorders. An other approach analyzing the relationship was the DSM III R which was applied on the patients with psychiatric disorders (with more than 7 degrees in the GHQ) (Table 4).

Table 4
Results of Applying DSM - III - R on the Different Groups
Previously Identified by the GHQ to have Psychiatric Disorder

	Group I	Group II	Group p III	Group IV	Group V	Total	Percentage to Total-Sample (500)
Psychiatric Disorder	19	24	37	37	8	125	25.0%
Unclassified	14	11	12	5	4	49	9.2%
Total	33	33	49	42	12	171	34.2%

p value <0.0005 <0.0005 <0.0005 <0.0005

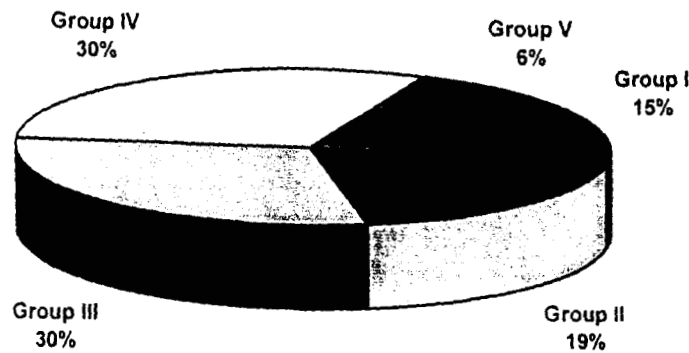
Several Conclusions can be inferred from the above table. First psychiatric disorder reached 25% out of the whole sample under analysis (125 out of 500 patients). This was arrived at after applying the diagnostic criteria of the DSM III R. Before the application of the DSM III R the GHQ yielded a higher percentage reaching 34.2 (please refer to table 2). The difference is because 9.2% (4.6 out of 17 patients) of the people identified to have psychiatric disturbance according to the GHQ showed negative results after applying the DSM III R. The above suggests that in spite of the previously mentioned advantages, the General Health Questionnaire might overstate the percentage of patients suffering from psy-

chiatric disorders- reported in studies depending solely on the General Health Questionnaire.

It is noteworthy to mention that the percentage arrived at in this study (25%) after applying the General Health Questionnaire and the DSM III R was in agreement with Layton (1963).

The second conclusion to be drawn from the table is presented in Figure (2) reconfirming that the highest percentage of psychiatric disorder occurs among those with primary, secondary and high school education followed by the illiterate and those who can just read and write. The lowest percentage was among those with college education.

Figure (2): The Percentage Distribution of Psychiatric Disorder Among the Various Groups After Applying the GHQ and the DSM-III - R.



Moreover, a comparison of the results of Group I to IV with Group V showed a highly significant difference ($p < 0.0005$) as highlighted previously in table (4).

Having applied different tools in determining the relationship between psychiatric disorders and the educational

level, and to complement this study, a closer look at the different types of psychiatric disorders in the various groups was needed. This was done with the purpose of focusing on depression in particular. Depression is among the most prevalent psychiatric conditions, varying from about 25% in public mental institu-

tions to nearly 30% in out patient and private psychiatric practice, it may account for as much as 10% of all patients seen in non psychiatric medical settings (Sdomi, 1998). Table (5) analyses the different types of psychiatric disorders including depression in relation to all studied groups.

Abdel Hakim (1992) who depended in their research on the BECK inventory Scale, concluded that depression reached 4.5% and 22.8% of the whole population respectively.

On the other hand, the distribution of depression among the various groups (Figure3), confirms that depression be-

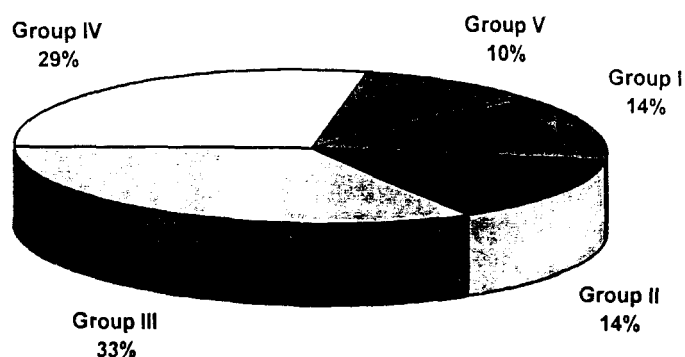
Table 5
Types of Psychiatric Disorders According to DSM
III and their Relationship to Educational Status

	Group I	Group II	Group III	Group IV	Group V	Total No	%
1- Anxiety	5	5	8	17	3	38	30.4%
2- Mood	6	5	14	12	4	24	33.6%
3- Adjustment	2	4	6	4	-	16	12.8%
4- Dissociative	1	1	2	1	-	5	4.0%
5- Personality	1	2	2	1	-	6	4.8%
6- Sexual	2	2	1	1	1	7	5.6%
7- Somatiform	2	2	1	-	-	5	4.0%
8- Factitious	-	1	2	1	-	4	3.2%
9- Schizophrenia	-	1	1	-	-	2	1.6%
Total	19	24	37	37	8	125	100.0%

The above table shows that depression accounts for 33.6% out of the various forms of psychiatric disorders (42 out of 125 patients). In addition, depression accounts for 8.4% of the whole sample under study. This is similar to the results of Welishman (1978) and Sterlis et al (1983). It is important to note, however, that Okasha (1977) and

ing on of the forms of psychiatric disorders in higher among Group III and IV-constituting primary, secondary and high school graduates reaching 33.3% and 28.6% respectively, Those with lower levels of education contribute jointly 28.6% of depressed cases with the best group being those with college degrees (9.5%). In addition, Group V if contrasted to the various groups shows a statistically significant difference.

Figure (3): The Distribution of Depression among the Different Groups under Study.



The above conclusion is not free from criticism. Romansky (1992) was against the fact that the low educational standard increases the likelihood of depression. As a matter of fact, Hirshfield and Cross (1982) went to the extreme end. They stated that the prevalence of bipolar depressive disorder is even higher among professional men and women and other individuals of high education achievement levels than among those of middle and lower levels. In spite of that, other researchers supported the existence of a negative relationship between depression and the level of education. Among those were Clearman (1980). Moreover, Salokangas et al (1996) stated that the likelihood of depression was higher in individuals with lower educational levels. Haller et al (1996) also found that higher education appears to be associated with lower risks of depression.

The latter opinion is not only advocated by statistical studies on depressed patients but also by other studies which took a further step, namely the treatment

of depressed patients, their speed of recovery and adaptation and how it is influenced by the development of the educational level. Factors associated with quick psychosocial recovery in psychiatric patients included a high level of basic education and adequate social recovery in psychiatric patients included a high level of basic education and adequate social support (Vasquez 1987). This is explained by the fact that the higher the patients ability to improve their standard of living - which is usually associated with better educational standards, the quicker the adjustment takes place due to the patients increased ability to meet their financial and social obligations.

Among the most frequent types of depression are Dysthymia accounting for 38% of depressed patients, followed by major primary depression (19%), recurrent depression and Cyclothymia (each accounting for 16.6%). Table 6 analyses the percentage of each form of depression to the total number of depressed patients according to DSM III R.

Table 6
Types of Depression According to DSM III R and
their Relationship to the Educational Status

Types of Depression	Group I	Group II	Group III	Group IV	Group V	Total	
						No	%
Major Primary Depression	1	1	3	2	1	8	19.0%
Recurrent Depression	1	1	2	3	-	7	16.6%
Dysthymia	13	2	5	4	2	16	38.0%
Bipolar Depression	-	-	2	1	-	3	7.1%
Cyclothymia	1	2	2	1	1	7	16.6%
Unclassified	-	-	-	1	-	1	2.4%
Total	6	6	14	12	4	42	100.0%
Percentage To Total Depressed cases	14.3%	14.3%	33.3%	28.6%	9.5%	100%	100.0%
p Value	Not Sig.	Not Sig.	<0.0005	<0.0005			

Table 6 shows that the frequency of the different types of depression are highest among Group III and IV representing those with elementary, secondary and high school education, for example, Group III were responsible for 62.5% (5 out of 8 patients) of major primary depressed cases. This percentage recorded 71.4%, 56.25% and 100% of recurrent depression, Dysthymia and bipolar depression respectively. Even through cyclothymic disorder of Group III and IV did not account for a majority share reaching 42.8% (3 out of 7 patients), it is still a significant percentage.

The comparison of Group III and IV to Group V also reflected a significant difference ($p < 0.005$).

The above findings were supported by previous research. For example, Gallo (1993) found that a higher risk of major depression exists among those with less than 12 years of schooling. Blazer et al (1994) also confirmed that major depression exists more in persons with less than college education.

Conclusion and Recommendation

1) Psychiatric disorders Particularly depression have a higher frequency among those with lower education (elementary, secondary and high school education). To explain, the low standard of living in Egypt leads individuals to quit school at a lower age, this makes it even more challenging for them to improve their standard of living. The failure meet these responsibilities leads to psychiatric disturbance.

2) The application of the general health questionnaire should be accompanied with clinical interviews according to DSM-III-R in order to arrive at an accurate diagnosis for the patients under examination.

3) The understanding of how the low educational standard affects the individu-

al, vulnerability to psychiatric disorders and vice versa is a guide for therapists and practitioners in designing and implementing treatment approaches for their patients. The early diagnosis of psychiatric disorder with special supportive educational and social programs to develop the patients' skills will forward their socio-economic adjustment and increase their self-confidence therefore breaking the vicious circle of depression --> socio - economic mal- adjustment --> more depression.

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La relation entre l'état éducatif et les troubles psychiatriques

Une recherche a été faite sur 500 homme habités une village a Char-kaya, agés au moyens 22 ans, partagés à 5 group, selon leur niveau éducatif.

La résultat de cette recherche a démontré qu'il ya une relation significative entre les troubles psychiatriques et la réduction de Niveau d'éducation spécialement, les symptoms depressifs.

العلاقة بين مستوى التعليم والاضطرابات النفسية

أجرى البحث على عدد ٥٠٠ ذكر من المقيمين في قرية المشاعلة بمحافظة الشرقية وبلغ متوسط أعمارهم ٢٢,٥ عام، قسموا حسب مستواهم التعليمي لخمس مجموعات تضم كل مجموعة عدد ١٠٠ فرد. تتكون المجموعة الأولى من أفراد لم يتعلموا القراءة والكتابة، والثانية من أفراد يقرأوا ويكتبوا، والثالثة لديهم تعليم ابتدائي، والرابعة تعليم متوسط وثانوي، والخامسة تعليم جامعي. وأجرى لكل المجموعات اختبار الصحة العام وحصل ٢٤,٢٪ على أكثر من ٧ درجات مما يوضح أن لديهم اضطرابات نفسية، وتم فحصهم إكلينيكيًا وإنخفض عدد من لديهم اضطرابات نفسية حسب التقييم الإكلينيكي إلى ٢٥٪. وقد ظهر أن أعلى معدل للاضطرابات النفسية في المجموعة الثانية ثم الثالثة والأقل كان في المجموعة الخامسة. وأن إضطراب الإكتئاب يزداد في المجموعة الثانية والرابعة ويتضح أن الاضطرابات النفسية خاصة الإكتئاب تزداد في المستوى التعليمي المنخفض، ومن ثم ينصح بالاهتمام برفع مستوى التعليم بالإضافة للمستوى الاجتماعي والتموي للمرضى.