

Behaviour disorders among urban schoolboys in south-western Saudi Arabia

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الاضطرابات السلوكية بين تلاميذ الحضر في جنوب غرب المملكة العربية السعودية
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خلاصة : تم تقدير الاضطرابات السلوكية بين 305 تلميذا تتراوح أعمارهم بين ثماني سنوات واثنتي عشرة سنة ، واستعمل لهذا الغرض استبيان خاص بسلوك الأطفال وضعه راتر . وتبين أن تواتر الاضطرابات السلوكية بلغ 13.4% . وتم استجواب آباء الأطفال للحصول منهم على معلومات اجتماعية وديموغرافية عن العائلة . ووجد أن الاضطراب السلوكي كان مرتبطا بحجم العائلة ومنسب الازدحام ومستوى تعليم الوالدين وترتيب الولادة وموت أحد الأبوين والطبقة الاجتماعية . ومع تطبيق التحليل التحويفي وجد أن هذه العوامل مجتمعة أسهمت بنسبة 12.8% في تفاوت الدرجات الإجمالية للسلوك . ومن ناحية أخرى كانت أمية الأم هي العامل المهم الوحيد للتكهن بالأطفال غير الأسوياء ($P=0.02$) . كما وجد أن ضعف الأداء المدرسي للأطفال يرتبط بشدة مع الاضطراب السلوكي .

ABSTRACT Behaviour disorders among 305 schoolboys aged 8–12 years in Abha were assessed using the children's behaviour questionnaire developed by Rutter. The frequency of behaviour disorders was 13.4%. Children's parents were interviewed to obtain social and demographic information about the family. Behaviour disorder was associated with family size, crowding index, parents' education, birth order, parental death and social class. When multiple regression analysis was applied, these factors jointly contributed 12.8% of the variance in total behaviour score. However, mother's illiteracy was the only significant predictor of maladjusted children ($P = 0.02$). Poor academic performance of children was strongly associated with behaviour disorder.

Les troubles du comportement chez les écoliers d'une agglomération urbaine dans le Sud-Ouest de l'Arabie saoudite

RESUME Les troubles du comportement ont été évalués chez 305 écoliers âgés de 8 à 12 ans et vivant à Abha, en utilisant le questionnaire sur les comportements de l'enfant mis au point par Rutter. La fréquence des troubles du comportement était de 13,4%. Les parents des enfants ont été interviewés pour obtenir des informations sociales et démographiques sur la famille. Les troubles du comportement étaient associés à la taille de la famille, au degré de peuplement, à l'éducation des parents, au rang de naissance, au décès d'un des parents et à la classe sociale. Lorsque l'analyse de régression multiple a été appliquée, ces facteurs ont contribué tous ensemble pour 12,8% à la variation du score total relatif au comportement. Toutefois, l'analphabétisme du côté de la mère était le seul facteur prédictif significatif de l'inadaptation de l'enfant ($P = 0,02$). Les mauvais résultats scolaires des enfants étaient fortement associés aux troubles du comportement.

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Introduction

Studies on children of school age have tended to focus on nutritional and other health problems related to communicable diseases. School-age children may also suffer a variety of physical disabilities and emotional and behavioural problems, as well as learning disorders. As countries develop their school health services, it will be necessary to ascertain the prevalence of different disorders in order to develop relevant personnel and other resources. Like all developing countries, Saudi Arabia is experiencing rapid sociopolitical, demographic and economic changes. The effect of such changes on children, operating through the school system and the family unit, will need to be assessed from time to time.

The children's behaviour questionnaire (CBQ) has become a widely used screening instrument for diagnosing the presence of emotional/behavioural disorders [1]. It has been applied in a variety of different cultural settings, such as inner-city London [2], West Indian and Pakistani children living in London [3], Uganda [4], Beijing [5] and Mauritius [6].

The aim of this work was to study the ecology of behaviour disorders among primary-school boys in Abha, Saudi Arabia, through the following:

- estimation of the prevalence of emotional/behavioural problems in 8–12 year-old schoolboys using the children's behaviour questionnaire;
- determination of some social and family factors related to such behaviour disorders;
- assessment of the relationship between the academic performance of the child and behaviour disorder.

Subjects and methods

Sampling procedure

Abha, capital city of Asir province (population 1 200 000) in south-western Saudi Arabia, lies about 2250 m above sea level and approximately 200 km from the northern border of neighbouring Yemen. Because of the abundance of water and the fertile soil, agriculture is the main occupation in the Abha region. Industrial activity in the region includes construction materials and timber processing, maintenance workshops and other secondary industries.

As an urban population, people enjoy many modern facilities but retain the basic dietary and social habits of rural communities. Meat, chicken and rice constitute the major dietary items. Health service are provided by primary health care centres.

There are five education areas in Asir. The one in Abha is responsible for the supervision of 17 primary, 11 intermediate and 5 secondary schools for boys and one teacher training college. All these schools are governmental. Generally, all children of school age in Abha attend school.

Out of the total of 17 primary schools for boys, a two-stage stratified random sample of 308 children was selected, representing about 14% of the original school population of 2214 in grades 4, 5 and 6. Their ages ranged from 8 to 12 years. At the first sampling stage, the 17 schools were classified into three groups according to geographical location and socioeconomic level (roughly categorized into high, moderate and low social classes based on an expert opinion). Using the equal allocation method of sampling, two schools were randomly selected from each of the three groups. In the second sampling stage, three classes were selected randomly from each of the six selected schools to represent

grades 4, 5 and 6. Thus, a total of 18 classes were identified in the sample. Each class was considered as a cluster and all children in the selected classes constituted the target group of the present study.

Methods

All children were assessed by means of the children's behaviour questionnaire [7]. This questionnaire is a rating scale for diagnosing behaviour disorders in childhood. It consists of 26 brief statements to be completed by the class teacher about common behaviour problems of children. An Arabic version of the questionnaire was constructed, with an estimated reliability of more than 0.90. The teacher marked whether each statement "certainly applies", "somewhat applies" or "does not apply" to the child in question. The answers were given a weight of 2, 1 and 0 respectively, to produce a total score ranging from 0 to 52. The estimated cut-off score at the 90th percentile of the scores of the children studied was 11. Accordingly, a child with a total score of 11 or more was considered to have a behaviour disorder.

In those with a high score, a "neurotic" subscore was obtained by summing the scores of items 7, 10, 17 and 23 in Table 1. An "antisocial" subscore was obtained by summing the scores of items 4, 5, 15, 19, 20 and 26. If the antisocial score exceeded the neurotic score, the child was defined as showing antisocial behaviour; those with the reverse pattern were defined as showing neurotic behaviour. If both subscores were equal, the child was defined as showing undifferentiated behaviour.

Because the assessment was done by the teachers, the following precautions were considered: a) only the class teacher was included in the study to avoid the effect of turnover of teachers, b) the test was applied during the second half of the academ-

ic year to allow enough time for the teacher to get to know the children and c) all teachers included in the study were trained and oriented in the test items before the study to minimize interobserver variation.

The teachers were also asked to provide an assessment of the academic performance of each child under the headings "reading ability", "numeric skills" and "homework". Assessment was based on the results of the examinations the child took during the first semester of the current academic year.

A questionnaire was also sent to the parents to complete to collect social data, such as father's and mother's education and occupation, number of family members and number of rooms in the house. Previous history of hospitalization of the child and details of parental death and divorce were also asked for. When there was parental death or divorce, personal data were excluded from these couples. The social class of the child was determined based on the occupation of the head of the family [7] as follows:

Social class 1: higher professional and administrative occupations

Social class 2: lesser professional occupations and employees in industry and retail trades

Social class 3: skilled occupations

Social class 4: partly skilled occupations

Social class 5: unskilled occupations.

A total of 308 children's behaviour questionnaires were distributed and completed by the teachers. Only questionnaires with no missing responses were considered satisfactory and represented the sample upon which estimation of the prevalence of behaviour disorders was based. A total of 305 questionnaires representing 99% of the target were used. Data were analysed by computing percentages, and differences

Table 1 Frequency and percentage of behavioural traits among 305 Saudi schoolboys

Behavioural trait	Does not apply		Applies somewhat		Certainly applies		Odds ratio
	Nor. No.	Mal. No.	Nor. No.	Mal. No.	Nor. No.	Mal. No.	
1. Restless	217 (71.1)	3 (1.0)	45 (14.8)	29 (9.5)	2 (0.7)	9 (2.9)	58.48*
2. Plays truant	256 (83.9)	35 (11.5)	7 (2.3)	4 (1.3)	1 (0.3)	2 (0.7)	5.49*
3. Squirming	238 (78.0)	20 (6.6)	25 (8.2)	18 (5.9)	1 (0.3)	3 (1.0)	9.61*
4. Destroys belongings	243 (79.7)	18 (5.9)	20 (6.5)	21 (6.9)	1 (0.3)	2 (0.7)	14.79*
5. Fights with others	180 (59.1)	14 (4.6)	83 (27.2)	22 (7.2)	1 (0.3)	5 (1.6)	4.13*
6. Not liked	243 (79.7)	12 (3.9)	21 (6.9)	26 (8.5)	0 (-)	3 (1.0)	27.96*
7. Worried	210 (68.9)	4 (1.3)	54 (17.7)	28 (9.2)	0 (-)	9 (2.9)	35.97*
8. Solitary	203 (66.6)	7 (2.3)	57 (18.7)	23 (7.5)	4 (1.3)	11 (3.6)	16.16*
9. Irritable	223 (73.1)	27 (8.9)	38 (12.4)	13 (4.3)	3 (1.0)	1 (0.3)	2.82*
10. Miserable	227 (74.5)	9 (2.9)	37 (12.1)	24 (7.9)	0 (-)	8 (2.6)	21.81*
11. Has twitches, tics	246 (80.6)	35 (11.5)	16 (5.2)	6 (2.0)	2 (0.7)	0 (-)	2.34
12. Sucks thumb	263 (86.2)	34 (11.2)	1 (0.3)	7 (2.3)	0 (-)	0 (-)	54.15*
13. Bites nails	263 (86.2)	27 (8.9)	0 (-)	13 (4.3)	1 (0.3)	1 (0.3)	136.37*
14. Absent for trivial reasons	201 (65.9)	1 (0.3)	63 (20.7)	28 (9.2)	0 (-)	12 (3.9)	127.62*
15. Disobedient	239 (78.4)	19 (6.2)	24 (7.9)	18 (5.9)	1 (0.3)	4 (1.3)	11.07*
16. Poor concentration	202 (67.3)	4 (1.3)	59 (19.3)	26 (8.5)	0 (-)	11 (3.6)	32.14*
17. Fearful	191 (62.7)	12 (3.9)	72 (23.6)	28 (9.2)	1 (0.3)	1 (0.3)	6.32*
18. Fussy	244 (80.0)	18 (5.9)	20 (6.5)	21 (6.9)	0 (-)	2 (0.7)	15.59*
19. Lies	247 (81.0)	20 (6.7)	16 (5.2)	18 (5.9)	1 (0.3)	3 (1.0)	15.26*
20. Steals	261 (85.6)	39 (12.7)	3 (1.0)	2 (0.7)	0 (-)	0 (-)	4.46
21. Wets or soils	264 (86.6)	40 (13.1)	0 (-)	1 (0.3)	0 (-)	0 (-)	6.6
22. Frequent complaints of aches	252 (82.7)	32 (10.5)	12 (3.9)	8 (2.6)	0 (-)	1 (0.3)	5.91*
23. Tearful/school refusal	260 (85.9)	37 (12.1)	4 (1.3)	4 (1.3)	0 (-)	0 (-)	7.03*
24. Stutters	260 (85.2)	35 (11.5)	4 (1.3)	6 (2.0)	0 (-)	0 (-)	11.14*
25. Speech difficulty	256 (84.0)	32 (10.5)	8 (2.6)	9 (2.9)	0 (-)	0 (-)	9.0*
26. Bullies	170 (55.8)	16 (5.2)	94 (30.8)	17 (5.6)	0 (-)	8 (2.6)	2.83*

Nor. = normal, Mal. = maladjusted

*Significant odds ratio at 95% confidence interval

were tested statistically by applying the chi-square test and Fisher exact test at 5% and 1% levels of significance. For each of the 26 items on the children's behaviour questionnaire, the odds ratio for being graded as having a behaviour disorder was calculated, together with its 95% confidence interval (CI) as recommended by Rothman [8]. Multiple regression analysis was applied upon the most significant variables, with behaviour score as the dependent variable.

Results

The mean score for the children's behaviour questionnaire was 4.67 ± 5.215 (range 0–28). Using the cut-off point of 11, 41 schoolboys were found to have emotional disorders out of 305 boys in grades 4 to 6, giving a prevalence of 13.4%. Of these, 21 boys (6.9%) showed traits of antisocial behaviour, 18 (5.9%) showed traits of neurotic behaviour and two (0.7%) had a mixed behavioural disorder.

The overall prevalence of each of the 26 items in the children's behaviour questionnaire for normal and maladjusted children is shown in Table 1, together with its corre-

sponding odds ratio for being graded as having a behaviour disorder. High odds ratios (≥ 10 to < 20) were scored in six categories (destroys belongings, solitary, disobedient, fussy, lies and stutters). Very high odds ratios (≥ 20 to < 40) were scored for four items (not liked, worried, miserable and poor concentration). The highest odds ratios of ≥ 40 were scored in four items (restless, sucks thumb, bites nails and absent for trivial reasons).

Table 2 shows that children with emotional/behavioural difficulties were academically behind in school, both regarding reading and numeric skills, and they submitted unsatisfactory homework. In all cases, differences between those with and those without difficulties were statistically highly significant ($P < 0.001$).

Among the family-related factors examined, significant factors were: social class, family size, crowding index, birth order, father's education, mother's education and parental death (Table 3). Families in the lower socioeconomic classes were 11 times more likely to have children with behaviour problems than families in the higher socioeconomic classes. Also large families of four or more children were 2.5 times more likely to have children with a behaviour

Table 2 Distribution of 305 Saudi schoolboys according to their CBQ behavioural scores and their academic performance

Academic assessment	Behavioural score	Academic performance				χ^2 (df = 2)		
		Poor		Average			Good	
		No.	%	No.	%	No.	%	
Reading ability	≥ 11	10	100.0	23	29.9	8	3.7	100.143 ($P < 0.001$)
	< 11	0	0.0	54	70.1	210	96.3	
Numeric skills	≥ 11	7	87.5	28	25.9	6	3.2	69.298 ($P < 0.001$)
	< 11	1	12.5	80	74.1	183	96.8	
Homework	≥ 11	12	80.0	23	29.9	6	2.8	95.635 ($P < 0.001$)
	< 11	3	20.0	54	70.1	207	97.2	

Table 3 Distribution of Saudi schoolboys according to the CBQ behavioural score and family-related characteristics*

Characteristic	Score \geq 11		Score $<$ 11		χ^2	Odds ratio
	No.	%	No.	%		
<i>Social class</i>						
Low (class 4 and 5)	11	32.4	23	67.6	11.044 ($P = 0.0009$)	11.0*
Middle (class 2 and 3)	27	12.1	196	87.9		
High (class 1)	1	4.2	29	95.0		
<i>Family size</i>						
Large (\geq 4)	25	20.2	99	79.8	6.828 ($P = 0.009$)	2.46*
Small ($<$ 4)	15	9.3	146	90.7		
<i>Crowding index</i>						
\geq 2	16	24.6	49	75.4	8.155 ($P = 0.004$)	2.74*
$<$ 2	23	10.6	193	69.4		
<i>Birth order</i>						
\geq 4	29	19.0	124	81.0	9.173 ($P = 0.003$)	3.22*
$<$ 4	9	6.6	124	93.2		
<i>Father's education</i>						
Illiterate/read and write	28	26.2	79	73.8	21.465 ($P < 0.01$)	4.99*
Other	12	6.6	169	93.4		
<i>Mother's education</i>						
Noneducated	32	21.8	115	78.2	15.588 ($P = 0.0001$)	4.63*
Educated	8	5.7	133	94.3		
<i>Mother's work</i>						
Nonworking	37	14.8	213	85.2	1.315 ($P = 0.251$)	2.03
Working	3	7.9	35	92.1		
<i>Parental death</i>						
Yes	4	40.0	6	60.0	Fisher exact ($P = 0.035$)	4.48*
No	36	12.9	242	67.1		
<i>Parental divorce</i>						
Yes	0	-	3	100.0	Fisher exact ($P = 1.0$)	2.04
No	40	14.0	245	66.0		
<i>Type of family</i>						
Polygamous	2	7.4	25	92.6	Fisher exact ($P = 0.394$)	0.47
Nuclear	38	14.6	229	65.4		
<i>Hospitalization</i>						
Yes	16	18.6	70	81.4	2.280 ($P = 0.131$)	1.70
No	24	11.9	178	66.1		

* Results based on the number of children for whom social data were available

* Statistical significance at 95% confidence level

disorder as compared to small families. The prevalence of behaviour disorders was significantly higher among children from more crowded homes than among those from less crowded homes. High birth order children (fourth or more) were 3.2 times more likely to have a behaviour disorder than low birth order children. Illiterate and/or primary-educated fathers and noneducated mothers were four or five times more likely to have children with behaviour disorders as compared to more educated fathers and mothers. On the other hand, children of working mothers were no different from those of nonworking mothers as regards prevalence of behaviour disorders. Children with one or both parents dead were 4.5 times more likely to have a behaviour disorder than those whose parents were alive. However, children whose fathers had other wives in addition to their mothers were no different from other children. Also maladjusted children showed no significant differences from normal children as regards previous history of hospitalization.

The combined effect of the seven most significant variables, i.e. social class, birth order, father's education, mother's education, family size, crowding index and death of one or both parents, was examined by means of multiple regression analysis with behaviour score as the dependent variable (Table 4). They jointly contributed 12.8% of the variance in the total score. Of these, mother's lack of education was the only significant predictor of maladjusted children ($P = 0.02$).

Discussion

The universal applicability of a diagnostic tool like the children's behaviour questionnaire, which is dependent on subjective as-

essment, can be questioned. The relevance of such a test for developing countries has been discussed [6,9]. In the present study, there was a wide distribution of abnormal behaviour and traits between normal and problem children with some traits clustered more than others among the problem children, as shown by their odds ratios for being graded as having a behaviour disorder.

The rate of behaviour disorders in urban Abha schoolboys in this study was 13.4%. This is less than that described for inner London children (19.1%) [2], in Uganda (18%) [4] and in Lusaka (14.8%) [9], but higher than the frequency observed in Beijing (8.3%) [5]. Moreover, the proportion of antisocial behaviour to neurotic behaviour varies in different areas: 2.1 in

Table 4 Multiple regression analysis of CBQ behavioural scores of Saudi schoolboys on certain family-related independent variables*

Independent variable	Partial regression coefficient <i>b</i>	Computed <i>t</i> for <i>b</i>	Probability <i>P</i>
Social class	0.13	0.54	0.5872
Birth order	-0.64	-0.84	0.4026
Crowding index	-0.75	-1.41	0.1599
Parental death	-2.61	-1.60	0.1109
Mother's education	-2.21	-2.29	0.0228*
Father's education	-1.48	-1.75	0.0810
Family size	0.21	0.27	0.7915

*Results based on number of children for whom data were available

Multiple $r = 0.3584$; $r^2 = 0.1284$; adjusted $r^2 = 0.1059$; $SE = 4.8691$; $F = 5.705$; $P < 0.01$

*Statistically significant

London; 1.9:1 in China; 1.2:1 in Lusaka and in Abha. However, it should be noted that the cut-off score used for abnormal behaviour in the present study (11 or more) is different from those used in the other studies and thus renders comparability difficult.

The method used to screen behaviour disorders in this study has some limitations. Validation of the children's behaviour questionnaire as a screening tool for the target study was not done; this might affect the critical interpretation of the results. For example, the fact that some symptoms such as stuttering or nail biting had high odds ratios, in spite of their low relevance to a child's mental health in Europe and the United States, is most likely due to their low baseline overall and not to any psychopathological significance. Furthermore, we do not know how valid Saudi teachers' opinions are about behaviour which does not usually occur in school, e.g. wetting and soiling of clothes.

School health services are in the embryonic stage in most developing countries, and educational psychologists are virtually nonexistent. Thus, for children who have an emotional or behavioural disorder, there may be very little skilled help available. This raises the question of the natural history of such disorders. In the present study, the frequency of abnormal behaviour varied significantly with differences in the social and demographic background of the family in terms of social class, family size, crowding index, parents' education, birth order and parental death. However, when these factors were tested by regression analysis, mother's education was the strongest influence on a child's behaviour. This finding answers the question, "Does female education make a difference?"

Three main reasons have been suggested to explain why mother's education makes such a difference. First, educated

women are more likely to be able to break with tradition and employ modern means for safeguarding the health of their children. Secondly, educated women are better able to manipulate the community's system to the best advantage of their children. Thirdly, educated women may be able to change the balance of family relationships [10]. In Saudi Arabia, formal female education was delayed until 1959 when a Royal Decree was issued establishing a department to oversee the education of girls called the General Presidency for Girls' Education, with branches in various parts of the country [11].

Rutter [12] found that children who are brought up in one-parent households are more likely to have behaviour problems. The present study revealed a significant association between abnormal behaviour and parental death. On the other hand, polygamous families, i.e. families with more than one wife at a time, constituted 9.4% of all families in the present study, with no significant influence upon the behaviour of the children. Islamic law allows a man four wives so long as he observes the Quranic condition that he treat his wives equally.

Repeated admission to hospital during early childhood has been shown to lead to an increase in later emotional/behavioural disorders [13]. Both the insecurity caused by separation from the family and the unpleasantness and pain associated with hospitalization are responsible for the damage. The present study failed to detect any such significant influence. However, the number of previous admissions was not investigated by the present study.

Behaviour disorders in children are most likely to be due to a complex interaction of the personality and biological make-up of the child with both the family relationships at home and the environment of the school. In the present study, children

with behaviour disorders did badly in school. This association has been described in other studies [9,13]. It is difficult to say which comes first; poor academic progress may cause emotional upsets through frustration.

Conclusions and recommendations

From the collective findings of this study, bearing in mind its limitations, the results may be considered to give a preliminary indication about the behaviour of Saudi schoolboys.

- Behaviour disorders constitute a health problem among Saudi boys in Asir region.
- Mother's lack of education is the most significant predictor of such behaviour disorders. Application of compulsory

education to girls in the country is recommended.

- Academic performance of the child in school is strongly associated with behaviour disorder, a finding that indicates the need for help with school work as well as psychotherapy.

Establishment of a mental health clinic in the main school health unit in Asir region is recommended.

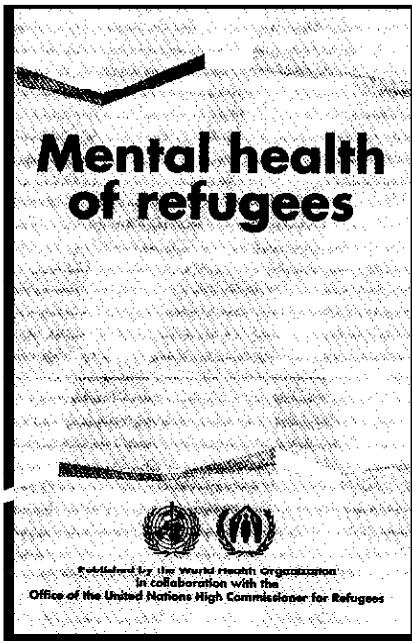
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References

1. Rutter M. A children's behaviour questionnaire for completion by teachers: preliminary findings. *Journal of child psychology and psychiatry and allied disciplines*, 1967, 8:1-11.
2. Rutter M. Why are London children so disturbed? *Proceedings of the Royal Society of Medicine*, 1973, 66:1221-5.
3. Cochrane R. Psychological and behavioural disturbances in West Indians, Indians and Pakistanis in Britain: a comparison of rates among children and adults. *British journal of psychiatry*, 1979, 134:201-10.
4. Minde KK. Psychological problems in Ugandan schoolchildren: a controlled evaluation. *Journal of child psychology and psychiatry and allied disciplines*, 1976, 16:49-59.
5. Wang YF et al. An epidemiological study of behaviour problems in schoolchildren in urban areas of Beijing. *Journal of child psychology and psychiatry and allied disciplines*, 1989, 30:907-12.
6. Venables PH et al. Factor structure of the Rutter 'Children's Behaviour Questionnaire' in a primary-school population in a developing country. *Journal of child psychology and psychiatry and allied disciplines*, 1983, 24:213-22.
7. Barker DJ, Rose G. *Epidemiology in medical practice*, 3rd ed. Edinburgh, Churchill Livingstone, 1984.

8. Rothman KJ, Boice JD. *Epidemiologic analysis with a programmable calculator*. Washington DC, United States Government Printing Office, National Institutes of Health publication, 1979.
9. Lin Y-Q, Ebrahim GJ. Frequency of behaviour disorder and related factors in schoolchildren in Lusaka. *Journal of tropical pediatrics*, 1991, 37:303-9.
10. Coldwell JC. Maternal education as a factor in child mortality. *World health forum*, 1981, 2:75-8.
11. Ministry of Information, Saudi Arabia. *This is our country*. Jeddah, Dar Al-Ilm, 1992.
12. Rutter M. Isle of Wight revisited: twenty-five years of child psychiatric epidemiology. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1989, 28:633-53.
13. Polany L, Hull D. Emotional development and disorder. In: Polany L, Hull D, eds. *Community paediatrics*. Edinburgh, Churchill Livingstone, 1993.



Concern for refugees' mental health has too long been neglected. This manual—intended for those who work with refugees and other displaced persons or who aim to assist them—looks at the mental health problems that are all too common in persons who have fled their homes and countries. War and natural disasters cause stress, terror, loss and bereavement. These may in turn be compounded by the effects of torture or rape.

The manual describes the mental health impact of these and other traumatic experiences. It gives practical advice on how to help refugees and other displaced persons through counselling, self-help groups, modern drugs and traditional medicine. There is a special section on the mental health of refugee children.

The refugee experience begins with fear and often progresses, amid all kinds of physical hardship and difficulty, to a state of hopelessness and despair. The aim of this manual is to strengthen refugees' own capacity to face up to, and perhaps even overcome, the desperate situation they are in.

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