

Childhood behavioural disturbance in a community sample in Al-Ain, United Arab Emirates

V. Eapen,¹ H. Swadi,¹ S. Sabri¹ and M. Abou-Saleir²

الاضطرابات السلوكية في الطفولة لدى عينة من مجتمع العين – الإمارات العربية المتحدة

فلساما إيبين، وسارث سوادى، وسفيان صبري، ومحمد أبو صالح

خلاصة: تم تقييم معدلات انتشار المشكلات العاطفية والسلوكية بين 620 من المواطنين في الإمارات العربية المتحدة من تتراوح أعمارهم بين 6-18 عاماً وذلك باستخدام استبيان الوالدين لروتر. وقد أسرز 11.8% من الأطفال أحراراً تزيد عن نقطة القِيَصَل الدالّة على الاضطرابات السلوكية. وتبين أن معدلات انتشار المشكلات السلوكية أكثر بين الأطفال الذكور بينما كانت المشكلات العاطفية أكثر بين الإناث. وتبين أن هذه الاضطرابات السلوكية ترافقت مع بعض الصعوبات الحياتية المزمنة غير النوعية، أو مع صعوبة تعامل الوالدين مع أطفالهم أو مع سوابق عائلية لاضطرابات نفسية. إلا أنه لم يلاحظ ترابط يُعتمدُ به إحصائياً مع الجنس أو الحالة الاجتماعية والاقتصادية أو حجم العائلة، أو أحداث الحياة الحاضرة. وتدلل نتائج هذه الدراسة على وجود اضطرابات سلوكية في عدد لا يستهان به من الأطفال في سن المدرسة في المجتمع.

ABSTRACT The prevalence of behavioural and emotional problems was evaluated among 620 United Arab Emirates nationals aged 6–18 years using the Rutter Parent Questionnaire. Of these children, 11.8% scored above the cut-off point indicating behavioural disturbance. The prevalence of conduct problems was greater among boys, while emotional problems were more common among girls. Certain unspecified chronic life difficulties, parental distress in relation to their children, family history of psychiatric illness and alcohol or drug use in a family member were associated with behavioural disturbance, but no significant association was found with gender, socioeconomic status, family size or recent life events. Our findings suggest that behavioural disturbance exists among a substantial number of school-aged children in the community.

Les troubles comportementaux des enfants dans un échantillon de population à Al-Ain (Emirats arabes unis)

RESUME La prévalence des problèmes comportementaux et émotionnels a été évaluée chez 620 ressortissants des Emirats arabes unis âgés de 6 à 18 ans à l'aide du questionnaire de Rutter destiné aux parents. Parmi ces enfants, 11,8 % ont obtenu un score dépassant le seuil qui indique des troubles comportementaux. La prévalence des problèmes de conduite était plus importante pour les garçons, tandis que les problèmes émotionnels étaient plus fréquents chez les filles. Certaines difficultés de vie chroniques non spécifiées, la détresse des parents vis-à-vis de leurs enfants, les antécédents familiaux de maladie psychiatrique et la consommation d'alcool ou de drogues chez un membre de la famille étaient associés aux troubles comportementaux, mais aucune association significative n'a été trouvée avec le sexe, le statut socioéconomique, la taille de la famille ou des événements vécus récemment. Nos conclusions montrent que des troubles comportementaux existent chez un nombre important d'enfants d'âge scolaire dans la communauté.

¹Faculty of Medicine and Health Sciences, UAE University, Al-Ain, United Arab Emirates.

²St George's Hospital Medical School, London, United Kingdom.

Introduction

Mental health of children has recently been receiving increased attention in many parts of the world. However, such attention has been lacking in developing countries, particularly in the form of systematic research [1], with only very few exceptions [2,3]. Most of our knowledge about the nature and extent of child mental health problems in non-Western settings comes from studies carried out in the primary care setting [4,5] and among the school population [6-13]. The findings from these studies suggest that, while the prevalence and nature of mental health problems in children are similar to those reported from the West, the majority go unrecognized and untreated.

Although studies from primary care and school settings are easier to conduct, these studies may not give a true account of the problems as they occur in the community. Ignorance, negative attitudes and social stigma may result in failure to seek help. Further compounding the issue is underreporting of the problems due to lack of recognition and referral bias. All these may contribute to the underestimation of prevalence rates. Moreover, those who seek medical help may do so because of the severity of the problem or because of the co-existence of other problems in the form of co-morbidity. Thus, studies performed in primary care settings may miss milder forms of mental health problems in the community. Similarly, studies performed in schools may not truly represent the pattern and extent of the problems in the community as psychiatric problems may be overrepresented among school dropouts. Thus there is a need for epidemiological investigations among community samples of children.

We aimed to ascertain the prevalence and nature of behavioural and emotional

problems in a representative random sample of United Arab Emirates (UAE) national households in the community in Al-Ain. The association between behavioural disturbance and some selected individual, family and psychosocial variables was also examined. These factors were chosen with regard to the results of previous studies and the unique sociocultural characteristics of this country.

Methods

The population of Al-Ain is estimated to be approximately 308 000, of whom approximately 30% are UAE citizens [14]. We identified residential areas in Al-Ain with a high percentage of nationals. Using the best maps of the area, a random selection of streets was made. From each selected street, every alternate household was surveyed. If the selected house was not a national household, then the next house was taken in sequence. From each of the households thus selected, two children (one boy and one girl) aged 6-18 years were identified using the lot method. A parent, usually the mother, of each child was asked to complete the Rutter children's behaviour questionnaire - A2 scale for parents [15,16].

The Rutter questionnaire, including its Arabic version, has been found to be a reliable and valid instrument in diverse sociocultural settings [17-20]. The Rutter A2 scale is a 31-item questionnaire and a cut-off point of 13 has been found to be valid in previous studies performed in the UAE [11,12]. Individual, family and psychosocial variables were ascertained using a semi-structured interview schedule. These included individual variables such as sex, scholastic performance and physical health; family variables such as family structure and constitution, separation or di-

voice, family size, income, parental education and occupation, previous nationality of parents if different, presence of family history of psychiatric disorder and drug or alcohol misuse; and psychosocial variables such as quality of parental marriage, presence and involvement of full-time domestic help in child care, life events in the last 6 months and chronic life difficulties.

Results

The mean household size was 9.8 persons [standard deviation (SD) = 2.8]. About a quarter of the households had four or fewer children and the remaining three-quarters had more than four children. Children living with both parents with the nuclear or extended family constituted 73.5%; those living with one parent and extended family constituted 22.7%; and the remaining 3.7% were with a single parent alone or with no parents but living with relatives. We surveyed only households of UAE citizens, of whom 30% of fathers had held a different nationality prior to becoming a UAE citizen. Socioeconomic status was high in about one-third of the households. The demographic details are given in Table 1.

The current study screened 620 children from 321 households for psychiatric morbidity. Their mean age was 10.6 years (SD = 3.3, range 6–18 years). There were 315 boys (50.8%, mean age = 10.8 years) and 305 girls (49.2%, mean age = 10.5 years).

Of the 620 children, 73 (11.8%) had a score of 13 or more on the Rutter A2 scale. Of the boys and girls, 12.5% and 11.1% respectively were positive. Of the 321 households, 16.4% had 1 child who was positive for psychiatric problems and 3.1% had 2 children who were positive for psychiatric problems. Conduct, emotional and hyperactivity problems were noted in

Table 1 Sociodemographic characteristics of 321 United Arab Emirates households interviewed for psychiatric morbidity

Characteristic	No.	%
<i>Family size</i>		
4 or fewer children	77	24.0
More than 4 children	244	76.0
<i>Previous nationality</i>		
United Arab Emirates	223	69.5
Gulf Arab	59	18.4
Other Arab	31	9.7
Asian	8	2.5
<i>Family composition</i>		
Living with both parents	236	73.5
Living with one parent and extended family	73	22.7
Living with a single parent or relatives only	12	3.7
<i>Income</i>		
High	113	35.2
Middle	148	46.1
Low	60	18.7

12.0%, 10.6% and 11.1% of households, respectively.

The prevalence of conduct problems was higher among boys than among girls (sex ratio = 1.4:1), while that of emotional problems was higher among girls than among boys (sex ratio = 1.3:1). This pattern is consistent with previous studies in Western and non-Western settings [7,21].

Of the several risk factors examined with Rutter "case" and "non-case" as the dependent variable, the results showed a statistically significant association with the presence of a positive family history of psychiatric problems in the parent or in a family member, as well as a positive family history of drug or alcohol use (Table 2). The presence of specific chronic life difficulties, such as illness in the family, finan-

Table 2 Risk factors for Rutter cases and non-cases

Factor	Case No.	Non-case No.	P-value
<i>Parental distress in relation to children</i>			0.022
Yes	8	25	
No	65	522	
<i>Psychiatric illness in a parent</i>			0.012
Yes	18	72	
No	55	475	
<i>Family history of psychiatric illness</i>			0.055
Yes	8	29	
No	65	518	
<i>Alcohol or drug use by a family member</i>			0.014
Yes	7	19	
No	66	528	
<i>Chronic life difficulties (unspecified)</i>			0.05 ^a
Yes	5	13	
No	68	534	

^aFisher exact test

cial problems, relationship problems and problems at work, did not show any association with caseness. However, chronic life difficulties of unspecified type were found to be significantly associated with caseness. Significantly more parents of children who were identified as cases reported feeling stressed in relation to their children.

Factors that did not show any significant association were sex, previous nationality of the parent, separation/divorce or loss of parent through death, socioeconomic status, family structure, family size or recent life events.

Discussion

This is one of the few large-scale community-based epidemiological studies of child-

hood behavioural and emotional problems in the Middle East. The prevalence of behavioural disturbance as assessed by the Rutter parent questionnaire was 11.8%. Compared with the findings of other studies that have used the Rutter parent questionnaire [6-13,21], similar trends emerged. For example, conduct disorders tended to be more common among boys and emotional disorders among girls. However, the effect of gender on the overall prevalence of disorders was not significant. Previous studies in Western and non-Western settings have observed that adverse family and psychosocial factors are associated with psychiatric disorders [22-25]. We found that parental distress about their children and unspecified chronic life difficulties were associated with caseness. However, we failed to find any association with family size or socioeco-

nomie status. This is in contrast to the results from our earlier study, which included Arab expatriate children as well, where it was found that a large family size (odds ratio = 1.7) and low socioeconomic status (odds ratio = 1.6) increased the risk of psychiatric disorders [11]. This may be due to the broad sociocultural similarity of UAE national households with regard to family structure and family size as well as socioeconomic status. In fact, UAE households are very similar in family composition and in the standard of living they enjoy. Furthermore, family size may not be as much of an issue in UAE national households as in expatriate households. The availability of domestic help and the rather low employment rates of mothers may provide more opportunities for supervision, stimulation and protection of children. Furthermore, many of the children live in extended families. Even when the parents are separated or divorced, the children often live with the extended family of either parent or with relatives, thus providing much needed family and social support.

Associations with a positive history of psychiatric disorder in either the parent or other family members may suggest the importance of genetic factors as well as the complex interaction between genetic and environmental factors in the modulation of child psychiatric disorders. The association with alcohol or drug use in a family member is interesting and deserves further exploration. However, in many cases, it may be that substance use *per se* is not necessarily a risk factor. Rather, as clinical experience seems to show, the parenting style and the family environment that may result from parental substance use can be more

influential [26]. In this regard, the findings from a postpartum study in the United Arab Emirates are also noteworthy [27] in that alcohol or drug use in a close relative was associated with postpartum psychiatric disturbance.

Our survey suggests that behavioural disturbance is present among a substantial number of UAE national children 6–18 years of age in the community. There is also some support for the notion that parents of disturbed children feel particularly stressed in relation to their children. The study further suggests that behavioural and emotional problems are more frequent among children when there is a positive family history of psychiatric disorder or drug or alcohol use in a family member. Although the identification of risk factors does not imply a causal association, awareness of such factors can help sensitize child health professionals to the possibility of psychiatric disorders [28]. It may therefore be worthwhile for professionals to enquire about mental health problems in children when these risk factors are present. The study, although limited, will no doubt help in the planning of a comprehensive child mental health service for the country.

Acknowledgements

This study was supported by a research grant from the Faculty of Medicine, United Arab Emirates University. The authors thank the nurses who took part in the study for their assistance in carrying out the screening.

References

1. Nikapota AD. Child psychiatry in developing countries. *British journal of psychiatry*, 1991, 158:743-51.
2. Bird HR. Epidemiology of childhood disorders in a cross-cultural context. *Journal of child psychology and psychiatry*, 1996, 37:35-49.
3. Verhulst FC, Koot HM. *Child psychiatric epidemiology: concepts, methods and findings*. Newbury Park, Sage Publications, 1992.
4. Giel R et al. Childhood mental disorders in primary care: results of observations in four developing countries. *Pediatrics*, 1981, 68:677-83.
5. Gureje O et al. Psychiatric disorders in primary care clinic. *British journal of psychiatry*, 1994, 165:527-30.
6. Javed M, Kundi M, Khan P. Emotional and behavioural problems among schoolchildren in Pakistan. *Journal of the Pakistan Medical Association*, 1992, 42:181-3.
7. Matsuura M et al. A cross-national prevalence study of children with emotional and behavioural problems — a WHO collaborative study in the Western Pacific Region. *Journal of child psychology and psychiatry*, 1993, 34:307-15.
8. Morita H et al. Psychiatric disorders in Japanese secondary school children. *Journal of child psychology and psychiatry*, 1993, 34:317-32.
9. Al-Kuwaiti M, Moshaddeque H, Absood G. Behaviour disorders in primary school children in Al-Ain, United Arab Emirates. *Annals of tropical pediatrics*, 1995, 15:97-104.
10. Kuramoto H. Comparison of behavioural and emotional problems related to school nonattendance in Japanese elementary and junior high school students. *Japan journal of public health (Nippon Koshu-Eisei Zasshi)*, 1995, 42:930-41.
11. Eapen V et al. Mental health problems among school children in United Arab Emirates: prevalence and risk factors. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1998, 37(8):880-6.
12. Swadi H. Screening for psychiatric morbidity among a community sample of Arab children in the United Arab Emirates. *Emirates medical journal*, 1998, 16(2):99-104.
13. Steinhausen HC et al. Prevalence of child and adolescent psychiatric disorders: the Zürich Epidemiological Study. *Acta psychiatrica scandinavica*, 1998, 98:262-71.
14. *Annual Report*. United Arab Emirates, Preventive Medicine Department, Ministry of Health, 1996.
15. Rutter M. A children's behaviour questionnaire. *Journal of child psychology and psychiatry*, 1967, 8:1-11.
16. Rutter M, Tizard J, Whitmore K. *Education, health and behaviour*. London, Longman, 1970.
17. Wong C. The Rutter parent scale A2 and teacher scale B2 in Chinese. II. Clinical validity among Chinese children. *Acta psychiatrica scandinavica*, 1988, 78:11-7.
18. Abiodun OA. Emotional illness in a pediatric population in Nigeria. *Journal of tropical pediatrics*, 1993, 39:49-54.
19. Iloeje S. Rutter's behaviour scale (B2) for children (teacher's scale): validation and standardization for use on Nigerian children. *Journal of tropical pediatrics*, 1992, 38:235-9.

20. Ekblad S. The children's behaviour questionnaires for completion by parents and teachers in a Chinese sample. *Journal of child psychology and psychiatry*, 1990, 31:775-91.
21. Rutter M et al. Attainment and adjustment in two geographical areas. I. The prevalence of psychiatric disorder. *British journal of psychiatry*, 1975, 126:493-509.
22. Rutter M et al. Attainment and adjustment in two geographical areas. III. Some factors accounting for area differences. *British journal of psychiatry*, 1974, 125:520-33.
23. Garralda ME, Bailey D. Children with psychiatric disorders in primary care. *Journal of child psychology and psychiatry*, 1986, 27:611-24.
24. Costello EJ et al. Psychiatric disorders in pediatric primary care: prevalence and risk factors. *Archives of general psychiatry*, 1988, 45:1107-16.
25. Gureje O, Omigbodun O. Children with mental disorders in primary care: functional status and risk factors. *Acta psychiatrica scandinavica*, 1995, 92: 310-4.
26. Swadi H. Parenting capacity and substance misuse: an assessment scheme. *ACPP review and newsletter*, 1994, 16:237-44.
27. Ghubash R, Abou-Saleh MT. Postpartum psychiatric illness in Arab culture: prevalence and psychosocial correlates. *British journal of psychiatry*, 1997, 171: 65-8.
28. Eapen V et al. Child psychiatric disorders in the United Arab Emirates: functional status and implications for service provision. *Primary care psychiatry*, 1999, 5(1):25-9.

Strengthening mental health promotion

Mental health is not just the absence of mental disorder

The positive dimension of mental health is stressed in WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." WHO's 191 member states have endorsed this sweeping statement.

*Source: WHO Fact sheet No.220,
Revised 2001*