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Review Article

Child Psychiatry in Developing Countries

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Child psychiatry in developing countries has recently attained the status of an established specialty. This review looks at available epidemiological data, and factors contributing to similarities and differences in rates of disorder. The relevance of child psychiatry to child health in these countries has service, training and research implications.

Significant growth in child psychiatry in developing countries has occurred only in the last 20 years despite the fact that children under 15 years of age constitute 40–50% of the population of these countries. Evidence of the substantial morbidity arising from mental health problems and of the significance of psychosocial factors to childhood morbidity has, however, only recently become available. An earlier review points out that to recognise the needs of children with maladaptive behaviour, an understanding of local developmental and child-rearing practices is required, which is difficult for psychiatrists trained within Western cultures (Minde, 1976). Scarce resources have been used to combat major causes of childhood mortality and morbidity; since child psychiatry was not considered relevant to these concerns it was accorded low priority (Olawatura, 1978).

Developing countries all share certain features. They are, by definition, less industrialised than developed countries, with limited resources for service development. Populations are relatively young and often predominantly rural. Many countries have established traditional cultures which affect beliefs and life-styles. Changes in traditional values due to economic, political, and educational influences lead to considerable diversity within and between countries. There are, nevertheless, many areas and issues of common interest with regard to child psychiatry, which are relevant also to the discipline as a whole. This review will focus on these issues in relation to firstly the epidemiology of child psychiatric disorders and secondly the development of child psychiatric services.

Epidemiological issues

The importance of epidemiology is related to demonstrating presence of, and need for services for, mental health problems, the relevance of these problems to major causes of mortality and morbidity such as malnutrition and infections, and the identification of causal links and preventive measures (Graham, 1980). There are few data from community-based epidemiological studies compared with developed countries. However, sufficient evidence does exist to demonstrate significant morbidity from child psychiatric disorders. Surveys in Ethiopia (Giel *et al*, 1969), the Sudan (Baasher & Cederblad, 1966), and India (Lal & Sethi, 1977) reported prevalence rates ranging from 3% to 11%, for children and adolescents. Disorders identified included emotional and behaviour problems, developmental delays, psychosis, mental retardation and epilepsy with associated behaviour disturbance.

A four-country study done in primary health-care settings in the Sudan, Columbia, India and the Philippines (Giel *et al*, 1981) gave a prevalence rate which varied from 12% to 29% for child psychiatric disorders. A major reason for differences in reported rates at the different sites was consultation patterns for children with mental retardation and associated behaviour problems. Mental retardation is part of the child psychiatric case load in developing countries. Prevalence rates are in the region of 8–12 per 1000 children aged between three and ten years (Narayanan, 1981; Belmont, 1984; Tao, 1988).

Controlled studies of school children in the differing situations of urban Uganda (Minde, 1975), Beijing (Yu-Feng, 1989), and Hong Kong (Luk *et al*, 1988) have demonstrated that the rate of behaviour problems in school children approximates very closely to rates of disturbance reported from studies in developed countries. World Health Organization (WHO) case studies done in a number of countries which included Egypt, Nigeria, India, Indonesia, Thailand and Sri Lanka illustrated that child psychiatric symptomatology does not differ to a significant extent across cultures. Findings from these case studies also demonstrated that culture-specific disorders are very rare among children.

There may be cross-cultural differences, however, in symptoms or behaviour which initiate help-seeking behaviour. A multi-centre study in SE Asia found that 10–15% of children presenting with somatic symptoms had functional complaints

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(Sell *et al*, 1988). Parents are anxious about physical illness in childhood and accustomed to seeking treatment for such problems. Paediatric clinic populations include a significant number of children with mental health problems (Singh *et al*, 1989). Child psychiatric clinic data highlights parental and community concerns and reflects perceptions of need. Certain common features can be observed in data from clinic populations (Minde, 1977; Indian Council for Medical Research, 1982; Nikapota, 1983). Children with mental retardation form a substantial proportion of those seen, and are easily identifiable. Many local languages have a specific term for mental retardation. Help-seeking behaviour is associated with the recognition of this condition whether from a traditional healer, indigenous medical practitioner or Western-trained doctor. Expanding educational services have led also to the identification of children with learning disorders who are presented as lazy or disinterested in study. Children with emotional and neurotic disorders are commonly seen. Hysterical disorders are probably more common than in developed countries, but conduct disorders rarely present. Difficult behaviour is not perceived as requiring help or treatment but rather as a situation requiring advice or discipline. Help may be sought from family elders or community leaders, rather than health facilities.

Children seen at clinics often do not have psychiatric problems, reflecting parental anxieties and differing perceptions of abnormality (Bose & Goh, 1979). The author found a number of normal young children with a stammer being brought because of anxiety that the stammer predicted 'brain' problems (Nikapota, 1983).

Adolescents with depression and psychosis may present more commonly to adult psychiatric facilities. Available information indicates that schizophreniform psychosis may be more common among adolescents from Asia and Africa than in Western cultures. An emerging problem among adolescents, causing high levels of concern among families and communities, is experimentation with, and addiction to, dependence-producing drugs. The magnitude of the problem varies enormously from country to country, from 16% in Kenya (Dhadphale *et al*, 1982) to an estimated 43% in Colombia. Anorexia is rare and reported particularly in adolescents from middle- and upper-class families (Al-Ansari & Shubar, 1987; Buhrich, 1981; Parry Jones, 1986). Adolescents who have attempted suicide rarely present to out-patient facilities, often because of social or religious taboos or legal sanctions which are in force for attempted suicide (Dissanayake & De Silva, 1974; Sathyavathi, 1975).

Factors contributing to differences in rates of child psychiatric disorders

Findings quoted above indicate that patterns of child psychiatric disorder and prevalence are similar across cultures, lending validity to the current practice of using common criteria and classification systems. It could be argued that differences in rates reflect variations in the influence of predisposing or protective factors in the respective communities or cultures. It is also possible that current diagnostic criteria do not always permit identification of disorder in particular cultural contexts although evidence so far suggests that significant differences do not occur.

Organic factors

Evidence of the relative role played by organic as opposed to environmental factors is insufficient except in the case of mental retardation where the role of preventable organic factors has been demonstrated through clinic data as well as community-based studies (Hasan & Hasan, 1981; Narayanan, 1981; Belmont, 1984). The association between levels of cognitive development and conditions such as non-acute malnutrition (Chavez & Martinez, 1982) or anaemia (Agarwal *et al*, 1989) highlights the need for further study on the effect of organic factors on the child's ability to interact with and make demands from its natural environment.

Individual and environmental differences

Age, sex, and urban or rural setting are commonly associated with differences in rates in a manner which is similar across cultures. This has been observed in studies from Uganda (Minde, 1975), Hong Kong (Luk *et al*, 1988), Nigeria and the Sudan (Cederblad, 1988), Thailand (Weisz *et al*, 1987) and China (Yu-Feng *et al*, 1989). Findings have been comparable with those from Sweden (Cederblad, 1988) and the United Kingdom (Rutter *et al*, 1975). Conduct disorders are commoner in boys and neurotic disorders in girls, incidence increasing with age. It would appear that the mechanisms by which individual differences in children modify responses to environmental experiences may be stable across cultures. Cultural factors may play a part in determining how experiences lead to a facilitatory or potentially maladaptive response from a child according to age, sex or differences such as position in family. Multiparity is an established risk factor, irrespective of age and sex. Younger children are more vulnerable in situations where the traditional

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caring patterns do not include attempts to help young children adapt to or understand change. In some cultures, family responsibilities seem to contribute to an increased vulnerability in the eldest son (Al-Issa, 1989).

The higher rates observed in urban samples may indicate that influences of urban living increase the vulnerability of children, despite possible advantages such as easier access to health care and educational facilities. This effect has been observed even where traditional support systems have been preserved during the rural to urban transition (Rahim & Cederblad, 1984). Differences in family life-style and employment patterns; changes in parental expectations, and attitudes to and tolerance of behaviour; educational and academic pressures; and an increased level of family stress, are all factors related to urban living that have been implicated as causing increased rates of disturbance in children (Minde, 1975; Giel *et al*, 1981; Rahim & Cederblad, 1984).

Family factors and child-rearing practices

There has always been an assumption that the extended family is protective with regard to emotional and behaviour problems in children, particularly where surrogate parenting is required due to separation from parents, or marital disruption. This was reflected in case-study reports from a number of countries (Sartorius & Graham, 1984) and in studies in the Sudan and Nigeria (Cederblad, 1988), and China (Yu-Feng, 1989). On the other hand, intergenerational conflict of values can be associated with a higher rate of problems (Minde, 1975; Kong *et al*, 1988). Both negative and positive effects of the extended family have been observed clinically. A study on the vulnerability of the nuclear family has been done in China with particular reference to the one family, one child policy; evidence so far does not indicate that this practice has undesirable psychological sequelae (Tseng *et al*, 1988).

Marital conflict, separation and divorce are associated with increased problems in children (Sartorius & Graham, 1984). Separation or divorce may lead to social isolation of a mother or disruption of extended family networks. Clinically, these mothers are often observed to be depressed, leading to poor levels of care for their children. Recent work in SE Asia which looked at risk factors for child mental health and development found a significant association between social isolation, poor levels of care and increased risk of developmental delays (World Health Organization, 1989).

Despite significant degrees of socio-economic deprivation and morbidity from physical disease, rates for non-organic child psychiatric disorder appear to be no greater in developing countries than developed countries. Previous beliefs that children are exposed to less stress, or that the extended family functions as a protective mechanism cannot be considered valid explanations. It is important for developing countries to identify facilitatory as well as maladaptive mechanisms within current child-care patterns. Strengthening potentially facilitatory practices and community education to alter potentially maladaptive ones is a part of primary prevention. Close physical contact with mother from infancy is cited as one positive factor (Cederblad, 1988), but a protective function cannot invariably be assumed for the close physical contact which is often a part of child-care practice. In the author's experience the benefit of this contact depends on the quality of the carer's responsiveness and sensitivity to the needs of the child she is carrying around. This view is also expressed in a paper reviewing causes of morbidity in pre-school children in Indonesia (Humris & Saputro, 1985).

Recent work on the relevance of caring styles and feeding practices, not only to early child development, but also to important physical health problems in the young child such as malnutrition, has highlighted the importance of bonding and a responsive carer–child interaction (Cravioto & DeLicardie, 1976; Choudhry & Rao, 1983; Heptinstall *et al*, 1987).

Carers often do not appreciate the degree to which children react to events within a family, or the child's need to express these feelings. Families may behave in a way that denies, rather than acknowledges, the event and the feelings aroused, to reduce distress in the child. This practice is clinically associated with problems in children. For example, sibling rivalry is acknowledged by parents but children are often actively discouraged from expressing these feelings, which are considered socially inappropriate. Sibling rivalry leading to behaviour problems is commonly encountered clinically. Conflicting reports of the effect of parental involvement with education have been given. Yu-Feng *et al* (1989) found that parental involvement was associated with fewer problems in school-age children, but the same factor often presents clinically in SE Asia as leading to problems.

Controls and disciplinary practices are an area of caring which is influenced by socio-cultural factors and has a significant impact on parent–child relationships. Parents seem to have a common yardstick for rating behaviour as desirable or undesirable (Honig & Chung, 1989). Attitudes to physical punishment as a negative reinforcer vary; where widely used it may be the commonest form of physical abuse in a country (Wilson-Oyelaran,

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1989). Associations between conduct problems and physical punishment of the child (Minde, 1975) may be due to the fact that conduct problems are perceived as requiring discipline, or alternatively could be of significance in leading to the problem in the child.

Socio-cultural factors, attitudes and perceptions

Socio-cultural values, attitudes and circumstances may lead to differing rates of disorder. It is accepted that the relative rarity of anorexia except among middle-class adolescents could be due to the value accorded to food in cultures where sufficient food is a luxury. Culture-bound fears about aspects of sexual development such as masturbation and nocturnal emission have been associated with anxiety disorder in adolescents (Dissanayake, 1981). Mention has been made of clinical data which indicate that functional complaints may be commoner in cultures where there is pressure on children and adolescents to conform to social norms. Cultural norms with regard to behaviour do alter rates of observed behaviour problems, as reported in a cross-cultural comparison of Thai and US children (Weisz *et al*, 1988). The role of the peer group is an area which has not yet been sufficiently explored. In many Asian cultures, peer-group influence may be less than in Western cultures. Peer-group support was a protective factor identified in a study of Colombian street children (Aptekar, 1989).

Rates presenting at health facilities will be affected by attitudes and perceptions of the need for help. Higher educational levels among parents was one of the factors significantly associated with attendance at a clinic for learning disabilities in Kenya (Resnick *et al*, 1988). The author found, however, that education was not always associated with greater understanding of a child's problem, since education was also associated with higher and less flexible expectations with regard to the child.

It is of interest to note that there is considerable common ground across cultures in relation to children's perceptions of stress, despite differences in cultural background and upbringing. Academic stress is commonly associated with school refusal and a variety of functional complaints including the 'brain fag' syndrome (Nikapota, 1981; Okasha *et al*, 1988). Both the low and high achievers have been observed as being vulnerable. The latter group become vulnerable because of personal and family expectations of high achievement. A cross-cultural comparison of children's perception of stress found that certain stresses such as loss of a parent are universally rated as stressful. Experience did, however, affect the children's perceptions of certain situations. For example, blindness was rated as more stressful by children in communities where this was a common phenomenon. The World Health Organization case studies referred to earlier found that stress factors identified were similar to those in developed countries and included academic stress, separation from parents, marital conflict or disruption, and bereavement (Sartorius & Graham, 1984).

Risk groups

Child abuse is an issue of concern which in developing countries has received relatively little attention. There is often a belief that abuse does not occur. This is not so, although the availability of the extended family as well as the relative lack of privacy within families may serve as a protection against physical abuse of the baby or young child. Deliberate neglect of unwanted children because of illegitimacy or severe disability has been known. There is some evidence from a study in Hong Kong that the group at risk of abuse are older children (Lieh-Mak *et al*, 1983).

There has been little systematic study of sexual abuse although it is known that incest involving adolescent children does occur in many communities. Major problems of abuse rise from the existence of social systems such as exploitative child labour. Issues apart from poverty seem to determine family decision-making processes leading to the selection of a particular child for entry into labour, similar to the psychodynamic process which leads to the scapegoating of a particular child. Any study of abuse must, therefore, include the psychological impact of enforced work on children. The problem, and hence the risk group, is immense in some countries (Sundari *et al*, 1984; Maheswari *et al*, 1986; Wilson-Oyelaran, 1989). In the author's experience many of these children are also subject to physical or sexual abuse since they are perceived as being without rights.

Street children, and children engaged in prostitution, are identified risk groups for psychiatric morbidity (United Nations International Children's Emergency Fund (UNICEF), 1987). Delinquency is a problem where the attitudes of society, as well as legal sanctions, lead to the identification and labelling of groups of children and adolescents who may not have delinquent traits. There are some studies of this group of youngsters which have demonstrated common associated factors such as poverty, family disruptions, and loss of supportive networks. These groups are not otherwise significantly different from

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other disturbed but non-delinquent youngsters (Minde & Musisi, 1990).

A number of developing countries are currently faced with situations of violence and conflict due to repressive political systems or terrorist action. The cost to children of these situations is immense (UNICEF, 1989). Anecdotal reports from Mozambique and Sri Lanka, for example, indicate that the emotional problems and maladaptive behaviour displayed by these children are similar to reactions to trauma and stress observed elsewhere. The trauma occurs in most instances to children who will additionally be subject to stresses such as poverty, malnutrition, lack of education, and disruption of normal living. The critical issue for such children is not study of symptomatology but identification of meaningful interventions which may need to focus on strengthening coping skills of the child, family and community within the prevailing situation rather than on psychotherapeutic approaches for the individual child.

Services, clinical strategies, and interventions

Child psychiatry is now a recognised specialty within developing countries. There is a wide variation in the degree to which services have developed in individual countries, but services do have certain features in common. In general, child psychiatric facilities are more closely linked to adult psychiatric facilities than in the West. Services, whether state or private, are urban-based. There are few qualified child psychiatrists, and they are usually based at academic centres. The majority of children with problems are seen by general psychiatrists or clinical psychologists. A significant proportion of the population does not have access to facilities either because it is predominantly rural or because the state-run specialised services are too expensive (Sartorius & Graham, 1984).

Clinical work includes management of the range of child psychiatric disorders seen elsewhere, but also includes the management of children with developmental disabilities and impairment, including mental retardation. Epileptic children may also present. The case load seen will, to some extent, depend on the availability of, and liaison with, other specialties such as paediatrics and neurology. Clinical practice and orientation often reflect the colonial or political links of the country (Minde, 1976; Al-Issa, 1989).

There has been no systematic evaluation of the validity of using clinical techniques developed in a very different cultural situation, nor have guidelines been developed to facilitate the adaptation or development of culture-appropriate techniques. This is currently an *ad-hoc* procedure. Clinicians need to be sensitive to the differing backgrounds, attitudes and experiences which may influence expectations and behaviour of children and their families.

Available information indicates that clinicians follow similar principles governing history-taking and assessment as are used elsewhere. Principles such as obtaining information from a number of sources and interviewing carer as well as child, have a clear cross-cultural applicability, although interviewing styles may have to differ according to background of child and family. Parents may find it difficult to discuss family problems with a professional whom they view as an outsider, or in front of their children. Where cultural values or beliefs lead to resistance, clinicians need to develop strategies to overcome them, since imposition of an alien approach will only lead to loss of contact with the family. Children may require help to express feelings about family factors, particularly in cultures where the verbalising of such opinions by children is considered very inappropriate. Drawing and giving a rank order to family members were observed by the author to be helpful in obtaining this information. Play materials need to be meaningful in relation to the child's background and experience.

The range of therapeutic interventions used in centres in developing countries will depend very much on available resources. Well-resourced centres will use a similar range of techniques to those employed elsewhere. Family therapy, as practised in clinics in the UK, is not widely used. Principles governing analysis of family function can usefully be applied for diagnostic formulations and planning of interventions. There are no systematic evaluations of the effectiveness of therapeutic approaches used, but some case reports are available. There are certain factors which influence the choice of treatment and outcome. Parents often expect a particular treatment such as medication, as this is associated with Western medicine and is popularly equated with quick results. Compliance with therapy which involves behaviour change may be affected if adequate explanation and reassurance is not given by the clinician. Many parents may find frequent clinic attendances difficult to maintain due to economic factors; families may have to travel considerable distances and cope with difficult transport conditions (Krahl *et al*, 1981). Many strategies currently employed as effective, such as the bell and pad for enuresis or stimulants for hyperactivity, can only be made available or used appropriately in well-resourced urban clinics. Finally, the professional may have to contend with a lack of support services, which limits therapeutic outcome. A practice of defining achievable therapeutic outcomes

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may need to be adopted. For example, in the absence of remedial education for learning problems, the therapist may have to be content with preventing or reducing associated emotional problems by working with parents to provide supportive attitudes at home for the child. Such limited outcome is, however, helpful and worth achieving.

The identification and evaluation of effective strategies in child psychiatry is far from satisfactory. There are few effective treatments for specific conditions, or criteria developed to guide clinicians in the selection of the best mode of treatment (van Engeland, 1989). The absence of clear guidelines for the choice of effective and feasible treatment approaches and the presence of the constraints already mentioned often lead to the use of inappropriate treatments. Anecdotal information leads to the conclusion that medications such as anxiolytics for school refusal and neuroleptics for a hyperactive or retarded and restless child are used more widely than is necessary or appropriate.

Epidemiological data serve to highlight need. The prevalence of morbidity in developing countries is similar to that in other countries. The coverage currently afforded by child and general psychiatrists together is one psychiatrist for populations varying from 500 000 to 3 000 000. In contrast, standards set for the UK are for two child and adolescent psychiatrists per 200 000 population in addition, of course, to general psychiatrists (Royal College of Psychiatrists, 1983). Child psychiatric expertise in developing countries may, therefore, have to be deployed differently in order to have relevance for the mental health needs of children.

Child psychiatry and services for child mental health

The value of mental health services which draw on available specialist resources for the development of mental health skills and programme activities at a primary-care level has been acknowledged. A review of some of these programmes from China, Brazil, Chile, Honduras, and India (World Health Organization, 1984) found that children with mental health problems were recognised as part of the case load for these services. The WHO collaborative study on extending mental health care (Giel *et al*, 1981) provided answers to important questions such as how, where and by whom problem children could be identified at a primary-care level.

Primary-care services for child psychiatry are better regarded as services for child mental health. There is considerable validity in integrating these services with existing services for child health (WHO, 1977). The child's needs and health status will then be considered as a whole, which facilitates primary prevention, and promotion of healthy development. Existing constraints to a better understanding of children's needs, such as a lack of consistent content on child development in training in child health within primary care (Gonzalez, 1978), will be reduced by this approach. There have been several initiatives in this direction focusing on the introduction of mental health skills into child health services or schools. One such example is a child mental health programme initiated in Sri Lanka several years ago (Nikapota, 1983; De Silva *et al*, 1988). Defined tasks relating to the promotion of healthy development and identification of children with mental health problems were introduced into primary-care services for children. Child psychiatric expertise contributed to the development of a variety of inputs of preventive or promotive relevance, development of strategies for intervention for children with problems, and training of primary-care personnel.

Therapeutic interventions based in schools are one way of extending help to children. The Newcastle study demonstrates the effectiveness of psychotherapy and behaviour therapy in the school setting and provides valuable guidelines for similar work in developing countries (Kolvin *et al*, 1981). Training of teachers as counsellors was found to be effective in India (Kapur & Cariapa, 1980). The Child Youth and Development Centre in Manila has expanded its area of work by integrating mental health activities into school curricula (Yatco, 1979). Training guidelines for child mental health programmes based in primary care are available, such as the World Health Organization's manuals on child mental health and development (WHO, 1982) and the training package on the recognition and management of children with functional problems (WHO, 1987). Many countries have developed their own mental-health training packages for primary-care workers, although these deal primarily with problems of adult mental health.

Several developing countries are looking at ways of facilitating early child development through stimulation programmes linked with primary-care programmes for health and nutrition (Myers, 1988). Psychiatrists in SE Asia are developing strategies for health workers to be able to use psychotherapeutic skills to enhance coping skills and facilitate health compliance in risk groups of families (WHO, 1989).

The role of the child psychiatrist

It is clear, in the light of programme needs discussed, that the role of the child psychiatrist is not that of

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clinician alone but of planner, teacher and research worker. Acceptance of such a diverse role can cause problems, and conflicts arise when prioritising time. There may have to be a reduction in time spent on developing individual clinical interests. Liaison with other professionals is an important aspect of work for highlighting the value of child psychiatric approaches. The child psychiatrist may also have an important part to play in advocacy for change in social policy such as recognition of abusing situations like exploitative child labour, and provision of better institutional child care or day care for groups of children at risk.

Training in child psychiatry

The potential role of the child psychiatrist and the need for child psychiatric expertise at various levels of health care have implications for training at an undergraduate and postgraduate level. Most undergraduate schools have some psychiatric input though not always specific content with regard to child psychiatry. There may be a reluctance among the traditional specialties of medicine and surgery to give equal weighting to paediatric and psychiatric courses (Bartlett, 1989). There is also a tendency to emphasise issues relating to adult mental illness in psychiatric courses even in countries where children constitute between a third and a half of the population. Epidemiological data reviewed in this paper highlight the value of undergraduate training which is orientated towards the development of psychosocial skills and knowledge appropriate for use in community health settings.

Training in child psychiatry for clinicians working in developing countries is an issue of some importance. Child psychiatric work in the foreseeable future in most developing countries will be done not only by child psychiatrists but by paediatricians, general psychiatrists, and psychologists. Many countries have postgraduate training in psychiatry and paediatrics which may therefore require review and revision with regard to child psychiatric content. A recent symposium on postgraduate psychiatric training looked at the needs and constraints of psychiatric training in developing countries. An outline of training which included theoretical knowledge, and development of clinical, research, teaching and administrative skills required for work in child psychiatry was contained in the report of this symposium (Cox, 1989). A course for child psychiatry developed in Britain for overseas trainees is unfortunately not easily accessible to trainees because of current fee structures for overseas students. There is a place for regional initiatives with inputs from specialised centres in other countries, and this would be a useful form of collaboration between developed and developing countries. These efforts could take the form of regional study groups such as held recently for the development of leadership skills in the African region (Checkoway & Orley, 1990).

Research needs

Work in developing countries provides considerable scope for developing a clearer understanding of psychopathological processes, and also for development of innovative, feasible and cost-effective clinical strategies. The researcher in this context has to focus on issues of clinical relevance and is often constrained by a lack of resources. Many important areas requiring study have been identified in this article, including research into the way individual differences and socio-cultural factors interact to mediate experiences, or the impact of chronic malnutrition and anaemia on the cognitive processes of children. There is a need for culture-appropriate criteria to permit consistency in diagnosis (Olukoyade-Jegede & Olawatura, 1982). Work on the development of culture-appropriate indicators of development has commenced as a collaborative study co-ordinated by the World Health Organization (1986). The need for systematic evaluation of treatment approaches which are feasible for use in centres with limited resources or in primary-care settings has already been commented on.

Research methods suitable for use in developing countries must also be identified. Many of the studies reported in this paper have used screening procedures or interview techniques developed in a different country and culture. Techniques adopted from other settings need to be adapted to allow for differences in reporting due to situational, cultural or semantic factors. Teacher ratings were affected by classrooms being overcrowded in Hong Kong (Luk *et al*, 1988). A tendency towards over-rating by Hispanic mothers may have contributed to high rates observed in Puerto Rico (Bird *et al*, 1988). Misinterpretation of questions on eating habits appeared to result in misleading responses in a recent study of eating attitudes in Indian schoolgirls (King & Bhugra, 1989). Questions must also be formulated so as to take into consideration the characteristics of interviewer and informant. This was done for the Reporting Questionnaire for Children (Giel *et al*, 1981), leading to a few simple questions with a yes/no response since this format was considered likely to give accurate reporting within the context of the developing country being studied. Such a format contrasts with questionnaires and schedules used in

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developing countries. It is important to explore whether questionnaires or interview formats cover areas of concern for the target population.

Conclusion

Child psychiatry in developing countries is now an established field. These countries are subject to rapid socio-cultural and political changes which affect the life-styles of children and their families and hence their physical and emotional well-being. The need for child psychiatry is highlighted by established links between psychosocial factors and physical health, and existing morbidity among children due to mental health problems. Child psychiatric skills and expertise cannot therefore be restricted to sparse centres at a secondary or tertiary level. The specialist with child psychiatric skills may have to spend a substantial amount of time providing leadership and training for the development of community-based resources for child mental health. Academic work is also needed for the expansion of knowledge of psychopathology and for the development of effective and feasible clinical strategies. Child psychiatry can also contribute to changes in social policy about children. The diverse role of the child psychiatrist demands training which equips clinicians for these demands. The practice of child psychiatry in such a context can be exciting, challenging and of great relevance to the well-being of children as a whole.

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