

Developing Services with Limited Resources: Establishing a CAMHS in Pakistan

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Background: There are very few mental health services in Pakistan. In 2002, the Department of Psychiatry at Aga Khan University Hospital started a separate clinic for children under the age of 15 years to meet the population needs. This service took direct referrals from other physicians as well as from parents and schools. **Method:** A DSM-IV based semi-structured interview with a uniform written format was used for an initial evaluation by a child psychiatrist. Data regarding demographic characteristics, referral source, diagnoses and treatment were collected. **Results:** A total of 290 new referrals were made to the clinic over 3 years. The most common reason for referral was aggressive behaviour, although this possibly masked other kinds of mental health problems, as indicated by the assessment. Attention deficit-hyperactivity disorder was the most frequent diagnosis, made in 25% of children. **Conclusions:** Despite the limited resources and the high level of need in developing countries, resources can be used effectively within the framework of their health and educational systems, so maximising protective factors within their communities.

Keywords: Child mental health; Pakistan; mental health services

Mental health in Pakistan

Pakistan is located along either side of the historic Indus River, following its course from the valleys of the Himalayas down to the Arabian Sea. Pakistan's 796,095 square kilometers of territory include a wide variety of landscapes, from arid deserts to lush, green valleys to snow covered mountains. Agriculture accounts for about one fifth of the economy and employs more than half of the workforce. The social development has remained slow, and inequality between social classes, genders and rural and urban areas has led to widespread poverty. The most recent estimate of Pakistani population is nearly 150 million.

Mental illness is one of the major health care concerns, with an estimated 10–16% of the general population suffering from mild to moderate mental health illness, and 1% from severe mental illness. Nearly 16 per 1000 children between 3 to 9 years of age suffer from severe mental retardation (Mubbashar & Saeed, 2001). There are several possible causes that may contribute to the high rates of mental health problems in Pakistan, including interfamily marriages, high rates of birth injuries, economic decline and high rates of unemployment, rapidly changing social and cultural values, fragmentation of the family system, and loss of religious values. The last two decades have seen mass migration of people from rural to the urban areas.

Mental illness is considered a major social stigma. The root causes of this are illiteracy, indifference, intolerance and ignorance, which are meshed in the social fabric of the society. Many people consult faith healers and spiritual leaders before visiting mental health professionals. Under these circumstances, professionals faced with the task of developing mental

health services for children in Pakistan are confronted with a number of challenging issues. In contrast to Western societies, in developing countries such as Pakistan the shortage of trained and specialist mental health professionals means that they have to cover a broad range of conditions, including neurological and developmental disorders, mental retardation, educational difficulties and psychiatric disorders.

In Pakistan, the current scarcity of child mental health services mirrors the scarcity of epidemiological evidence. There has been only one study carried out in Lahore to establish the prevalence of emotional and behavioural problems in school children, using the Rutter scales. This found a prevalence of 9.3%, with antisocial problems being the most frequent type of problem (Javad, Kundi, & Khan, 1992). The lack of adequate statistical data and research findings makes it difficult to plan and target services and resources.

Although the situation appears quite bleak and there is a great shortage of mental health professionals, mental health care needs are delivered, as in many other developing countries, through the existing network of primary care services, especially for rural populations. This is possible through training of primary care medical and other health professionals, and has proved to be cost effective (Chisholm et al., 2000). Involvement of the community is essential to the success of these programmes, and in some areas village mental health committees have been formed to help. In Pakistan, school mental health programmes have evoked great interest among teachers and other members of the local community. One such programme was developed in a rural area of Pakistan with the aim of introducing mental health principles to improve the learning environment in schools, to increase mental

health awareness, and to train primary school teachers and primary health care professionals in managing such problems (Mubbashar et al., 1989).

As faith healers and religious leaders are the people whom most mentally ill patients first approach, the potential benefits of involving faith healers in the provision of mental health services instead of alienating them are manifold, the most important being the perception by the community that services are in line with their health belief system. One study found that about 16% of the patients presenting to faith healers in a sub district of Pakistan with a population of 0.5 million were given a 'medical diagnosis' and referred to the nearest health facility, a significant departure from past practices (Saeed et al., 2000).

The child mental health service at Aga Khan University Hospital

The Aga Khan University Hospital opened to patients in 1985, but psychiatric services did not start until 1988. Initially, this was a private practice based model with two adult and one part-time child psychiatrists. There were no separate services for children, who were seen sporadically by the available faculty on an as-needed basis. In the late 1990s, out-patient services for children were introduced, with the addition of another part-time child psychiatrist who liaised with schools and offered consultations upon referral from other physicians. Migration of professionals abroad has unfortunately led to a drop in the number of available psychiatrists to work with children and adolescents. General psychiatrists and pediatricians filled the gap for some time. In 2002, the Department of Psychiatry at AKU took an initiative and started a separate clinic for children under the age of 15 years. This clinic took direct referral from other physicians from the institution and outside. Parents and schools could also make appointments with this clinic without first consulting other medics or other health professionals. Two full-time and one part-time psychologist conduct intellectual or other psychometric assessments, as appropriate, although they are not specialised in working with children. They also offer therapy to older children. The clinic does not employ occupational and speech therapists, but can access such resources from other hospital departments such as pediatrics, neurology and rehabilitation.

The first consultation usually includes a basic health parameters assessment by a nurse and an initial interview by a trainee psychiatrist. The consultant then interviews children either individually and/or with their parents, depending on the situation and need. Play interview techniques are employed in the case of young children or those who feel difficult to open up on a one-on-one basis. In most cases, a provisional working diagnosis is made, and parents receive a verbal summary of the findings and recommendations. Potential outcomes include referral to a special school, remedial tutoring, further psychological assessments, or pharmacological treatment. Most times, the assessment findings and recommendations are communicated in writing to teachers. The clinic has a list of available resources around the city of Karachi, which includes psychologists, remedial teachers, speech therapists,

occupational therapists, and schools catering for children with special educational and emotional needs.

Service activity patterns over 3 years

In the period between March 2002 and March 2005, a total 290 children were assessed at the clinic. The sources of referral were primarily medical professionals from other disciplines ($n = 124$, 42.7%) and self-referral by parents ($n = 118$, 40.7%). School referrals constituted a small proportion ($n = 17$, 5.8%). The sample predominantly consisted of males ($n = 210$, 72.4%). The age group most referred was 6–10 years ($n = 117$, 40.3%), followed by 11–15 year olds ($n = 98$, 33.8%), and those under 5 years ($n = 75$, 25.9). A small number of children (7.8%) had previous contact with a psychologist or psychiatrist.

The reasons that most commonly led to the referral were aggressive behaviour toward others ($n = 73$, 25.1%), other oppositional behaviours ($n = 39$, 13.4%), poor attention and overactivity (combined $n = 74$, 25.2%), and learning difficulties ($n = 29$, 10.0%) (see Table 1).

Different types of developmental delays were recorded on history and assessment. Reports of domestic violence and different kinds of abuse remain low in Pakistan, and this is reflected by 1% of mothers describing domestic violence in their homes, 3.4% children having been physically abused, and 6.3% having been subjected to verbal abuse. Sexual abuse was reported in one case.

Table 2 provides an overview of the provisional diagnosis according to DSM-IV criteria identified at the initial visit. Diagnostic categories include disruptive disorders, mood and anxiety disorders, and all types of developmental delays such as autism and other pervasive developmental disorders. Attention deficit hyperactivity disorder was the most frequent diagnosis, made for 24.8% of the children ($n = 72$), with depressive and anxiety disorders (excluding panic and obsessive-compulsive) following at 15.9% ($n = 46$) and 9.3% ($n = 27$) respectively. Suicidal ideas and attempts were under reported. We only had four children (1.4%) who had suicidal ideas, and the same number with self-harm acts. Children who physically harmed peers or adults were around 23% of the total, while those who exclusively harmed themselves but not with suicidal intent accounted for 5%.

The pharmacological agents most frequently prescribed were from the antidepressants group, i.e.

Table 1 Frequency of presenting complaints (reasons for referral, $n = 290$)

Presenting complaints	<i>n</i>	%
Aggression	73	25.1%
Oppositional behaviour	39	13.4%
Poor attention	35	12.1%
Physical overactivity	32	11.0%
Learning difficulties	29	10.0%
Speech delay	30	10.3%
Anger	42	14.5%
Emotional symptoms	6	2.1%
Sleep problems	4	1.4%

Table 2. Provisional diagnosis (DSM-IV, $n = 290$)

Diagnostic category	<i>n</i>	%
ADHD	72	24.8
Depression	46	15.9
Mental retardation	23	7.9
Conversion disorder	4	1.4
Borderline intellectual functioning	9	3.1
Anxiety disorder	27	9.3
Epilepsy	7	2.4
Adjustment disorder	7	2.4
Obsessive-compulsive disorder	9	3.1
Language disorder	11	3.8
Learning disability	3	1.0
Stammering	4	1.4
Pervasive developmental disorder	7	2.4
Developmental co-ordination disorder	7	2.4
Schizophrenia	1	0.3
Down syndrome	4	1.4
Phobia	6	1.8
Disruptive disorder	5	1.4
Encopresis	1	0.3
No diagnosis	32	9.8

Serotonin Selective Reuptake Inhibitors and Tricyclic Antidepressants ($n = 70$, 24.1%), followed by stimulants (Methylphenidate) at 13.27% ($n = 40$). Psychotherapy/counselling were suggested as the mainstay of treatment in 35 (12.1%) cases, and behavioural modification advice was given to parents of 29 (10%) children. A similar proportion was referred either to a special education institution or remedial teaching.

Lessons learned and implications for other countries

This is a descriptive study presenting the activity data from the first 3 years of the service, and the emerging referral and clinical trends, in order to predict and plan further service development and response. There is an extreme paucity of child mental health literature from developing countries such as Pakistan. The limited evidence arises from either school surveys or small-scale clinical samples. However, some observations on the links between societal changes and child mental health can be drawn from the wider international literature. In Western societies several risk factors have increased vulnerability to child mental health disorders, including loss of extended and even nuclear families, informal social controls, lack of community safety, and exposure to violence and crime (McArdle, 2004). The urban population in Karachi would have similar vulnerabilities, and hence may be at risk of the same range of psychiatric morbidity. But there are also certain protective factors specific to society in Pakistan, particularly the extended family setup that takes care of some parenting issues such as supervision of the child, relief from burden, and respite if necessary. Deeply religious faith and belief in destiny can protect people from total despair and suicide. Grandparents and extended family can ensure continuity of cultural and family traditions by passing on these values to children, thus helping them build a better foundation for their moral and social development.

Epidemiological data would help in planning our services and determining our needs. Our school system does not have a mental health philosophy, and so our teachers are not trained to identify children with problems in learning and emotions. Most children who have mental health problems or learning difficulties are simply ignored or labelled as 'slow', 'disobedient' or 'problem children', and schools can be too keen to exclude them rather than help them address these issues. Another issue is the shortage of child mental health professionals, with specialist occupational and speech therapists also being rare. The number of child mental health professionals is substantially lower than European countries, even those classified as low-income (for example, the Ukraine - Levar et al., 2004). There are a number of NGOs in the country who are carrying out independent voluntary work on a wide range of child mental health problems, including autism, sexual abuse, child labour, and remedial help for children with learning disabilities. However, there is a lack of collaboration or an institution providing all required services under one platform.

In our clinic, non-psychiatrist physicians, including pediatricians, were our biggest source of referral, which points to the need to enhance their child mental health training, and expand their potential to adequately address the needs of this young population. Another striking finding of this study was that most of the children were referred because of behavioural problems but not diagnosed with disruptive disorders. This seems to indicate that mental health or developmental problems were 'masked' by the behaviour and that the behaviour was misinterpreted as 'naughtiness'; this calls for a need to train our teachers and parents to be able to at least identify those children most needy of mental health attention, and to be able to make appropriate and timely referrals.

Future plans for the child mental health service

Based on our previous experience, and in conjunction with population needs, service gaps and available resources, we put forward the following service strategy for the future:

- Organise the child mental health professionals who are currently working individually, and build a network for referrers. Also, improve their communication, which would enable a more efficient use of specialist time and facilitate the planning of interventions for children.
- Establish an assessment centre with several child mental health services under one roof so that parents and schools have access to the full range of professional skills of a multidisciplinary team.
- Set up an in-patient unit for children and young people, for short-term stay, thus facilitating effective management of children who are in a crisis situation such as suicidality, or those with mental illness, if out-patient and community interventions have not worked.
- Subspecialty training in child psychiatry for graduates of general psychiatry programs, once a more structured and resourceful service is in place.

- Initiate research projects to establish the level of psychiatric morbidity among children, and their related needs, as well as factors that make them vulnerable and protect them within our society. This evidence would help establish service models, which will require further evaluation.

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