Child and Adolescent Mental Health Service (CAMHS), Terengganu, Malaysia: milestones so far and the paths to the future

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ABSTRACT

This study aims to provide an overview of mental health problems of children and adolescents in Malaysia in general and the state of Terengganu in particular. It also highlights the challenges and the opportunities in the establishment of child and adolescent mental health services (CAMHS). CAMHS in Malaysia are developing slowly but have not reached the standards found in developed countries. Significant improvements are needed to ensure that the service can provide optimal help to children and adolescent as well as their families. Constraining factors such as a lack of trained workers, limited financial resources for training and inadequate facilities are among the challenges. Despite all these challenges, specific strategies are required to optimally utilise the potential existing resources. The Ministry of Health initiatives in creating and implementing the national mental health policy and increasing mental health awareness campaigns for children and adolescents are of paramount importance. To overcome the lack of resources in the implementation of CAMH services, in-service education and training, integration of mental health services with the existing primary health care facilities and cultivation of cooperative and communicative networks between primary care professionals, mental health workers and other relevant agencies are crucial steps.

Socio-demographics: National and local health context

Malaysia is an upper-middle income country [1] with a population of 28.7 million citizens [2]. Demographically, it is a diverse, multiracial country consisting of Bumiputeras (predominantly Malays in Peninsular Malaysia, Ibans and Kadazan/Dusun in Sarawak and Sabah respectively), Chinese, Indians and others. 69.7% of the country's population is aged between 15–64 years, 24% under 14 years of age and 6% above 65 years. The life expectancy is 72 years for males and 77 years for females [2].

Terengganu has a population of 1.2 million. It is one of the states with 8 districts located on the East coast of Malaysia. The life expectancy is lower than the national rate, namely, age 68 years for men and 74 years for women [2]. National and health context of Malaysia are summarised in Table 1.

KEYWORDS

Child; adolescent; mental-health-service; Malaysia; Terengganu

WHY THIS MATTERS TO ME

We describe an example of CAMHS in Terengganu, Malaysia to illustrate the importance of strategic planning in developing a service in a resource-constrained environment. Inadequate funds for training and a lack of health professionals needed to form multidisciplinary teams are among the greatest challenges during the initial phase of CAMHS implementation. CAMHS Terengganu was initiated in December 2004 and is led by a child and adolescent psychiatrist along with three other health workers to provide services to children and adolescent and their families in Terengganu and the east coast. Over the years, efforts were made to improve knowledge and to provide necessary skills through continuous in-service education and training among mental health practitioners and primary care professionals. The aim was to consolidate existing knowledge and employ evidence-based approaches for better skills in assessing and managing children and adolescent with mental health problems. The implementation of CAMHS in Terengganu has served to facilitate numerous improvements in promoting the prevention and increasing awareness of mental health problems in young people. The authors of this paper are keen to share their experience with others who are responsible for developing CAMHS. It matters to us greatly because it is impossible to deliver good quality CAMHS without understanding the possible challenges and realising opportunities.

KEY MESSAGE

Government strategy is the key element of developing CAMH service in a resource-constrained environment.

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Mental health statistics

Mental health problems in children are a growing concern due to their wide-ranging effects on self-esteem, behaviour, emotional development, educational attainment, social relationship and quality of life. British Nationwide survey [3] indicated 1 in 10 of children and young people below age 16 years had a diagnosable mental health disorder and less than half had any contact with mental health workers [3]. The most common disorders were disruptive behaviours such as oppositional defiant disorder and conduct disorders, emotional disorders (anxiety and depression) and attention deficit hyperactivity disorder [3]. In Asian countries, the prevalence of children and adolescents with mental health disorder ranges from 10 to 20 percent [4].

In Malaysia, the national-level data from National Health & Morbidity Survey (NHMS) revealed an upward trend of mental health problems among children aged 5–15 years from 1996 (13.0%), 2006 (19.4%) and 2011 (20.0%) [4], but showed a reduction in overall prevalence in 2015 (12.1%).

Table 1. Malaysia: National and local context at a glance.

| National (Malaysia) |  |
|---------------------|-----------------|
| *Population of citizen (million):* | 28.7 |
| • Male | 14.5 |
| • Female | 14.2 |
| *By age group (years):* |  |
| • 0–14 | 7.7 (24.1%) |
| • 15–64 | 22.3 (69.7%) |
| • 65+ | 2.0 (6.2%) |
| *Life expectancy at birth (years):* |  |
| • Males | 72.7 |
| • Females | 77.4 |
| **World bank income group (2010):** | Upper middle income |
| **Gross national income per capita (PPP int. $, 2013):** | 22 |
| **Total expenditure on health per capita (PPP int. $, 2014):** | 1,040 |
| **Total expenditure on health as a percentage of GDP (2014):** | 4.2 |

| Local (Terengganu) |  |
|---------------------|-----------------|
| *Population (million):* | 1.21 |
| • Male | 0.62 |
| • Female | 0.59 |
| *Life expectancy (years):* |  |
| • Males | 68.8 |
| • Females | 74.6 |

| Source: Selected demographic statistics estimates, Malaysia 2017 (https://www.dosm.gov.my/v1/index.php), assessed on 26 March 2018. | **Global Health Observatory World Health Organization (WHO)|Malaysia, (http://www.who.int/countries/mys/en/), assessed on 26 March 2018. |  |

Table 2. Median rate of human resources per 100,000 population working in the mental health sector by World Bank income group.

| Income group (World bank) | Psychiatrist | Other medical doctors | Nurses | Psychologists | Social workers | Occupational therapists |
|---------------------------|--------------|-----------------------|--------|---------------|----------------|------------------------|
| Malaysia                  | 0.83         | UN                    | 3.31   | 0.29          | UN             | UN                     |
| Upper middle income countries | 2.03  | 0.87                  | 9.72   | 1.47          | 0.76           | 0.23                   |
| World                     | 1.27         | 0.33                  | 4.95   | 0.33          | 0.24           | 0.06                   |

Note: UN = Information unavailable.
Source: Mental Health Atlas 2011 – WHO website http://apps.who.int, assessed on 17 May 2018.
goals, NMHSP primarily aims to provide service to those with the greatest overall needs through comprehensive care, treatment, control, protection and rehabilitation [7].

The integration of mental health care into primary health care systems under the public health administration [7] has cultivated cooperative and communicative networks between primary care professionals and is crucial for effective service linkage. This network has led to better mental health awareness in the community and further improvement in the care of patients with mental health illnesses. The scope of service includes mental health promotion, early detection and intervention (individual and family), follow-up of mentally-ill patients and psychosocial rehabilitation [7]. Cultivating cooperative and communicative networks between primary care professionals is crucial for effective service network.

In Malaysia, mental health services for children and adolescents were initially started by general psychiatrists. The Mental Health Atlas 2011 [8] by the World Health Organisation (WHO) has revealed a considerable difference in median numbers of health professionals in the mental health sector in Malaysia compared with other upper-middle-income countries. The scope of service includes mental health promotion, early detection and intervention (individual and family), follow-up of mentally-ill patients and psychosocial rehabilitation [7]. Despite such constraints, Malaysian professionals have endeavoured to deliver services that are readily and widely available; continuous efforts have been made in improving knowledge and skills of paediatricians and family physicians in the management of less complicated child and adolescent patients with mental health disorders in their settings.

**The specific local context - CAMHS in Terengganu, Malaysia**

The prevalence of mental health problems among children in Malaysia and Terengganu in the year of 2006 [10] and 2015 [6] is illustrated in Table 3. The NHMS in the year 2015 [6] shows an overall prevalence of mental health problems among children and adolescent in Terengganu to be lower (9.9%) than the national prevalence (12.1%). However, the prevalence of peer-related problems is higher (36.9%) and pro-social skills are lower (8.1%) when compared with the national figures (Table 3) [6].

| NHMS          | Prevalence (%) |
|---------------|----------------|
|               | Overall        |
|               | National (Malaysia) | Terengganu |
| 2006          | 20.3           | 26.6        |
| 2015          | 12.1           | 9.9         |

Table 3. Prevalence of mental health problems among children 5–15 years in Terengganu in comparison with national statistics in the NHMS 2006 and 2015.

In December 2004, a child psychiatry clinic was re-established in Terengganu and re-branded with the new name of Child and Adolescent Mental Health Service (CAMHS). The CAMHS was managed with a team consisting of one consultant child and adolescent psychiatrist, one medical officer who was attached to this clinic on a rotational basis for a year, an assistant nurse and an attendant. The main service provided was screening, diagnosing and interventions by the team.

As shown in Figure 1, the number of patients in the year 2006 was low as it was the first year of the introduction of CAMH service with a limited input from the child and adolescent psychiatrist. In 2012, the number of patients seen had increased dramatically in line with the increase in the input of the psychiatrist. The geographical distribution of the referrals had increased significantly as well. The slight decline in the number of treated patients in subsequent years might be attributed to the on-going training provided by the CAMHS team to other health workers, especially in district hospitals and primary health care.

Latest figures indicate that the most frequent diagnoses in 2017 were Intellectual Disability (59%) and Global Developmental Delay (20%), while diagnoses with the lowest frequency (0.9%) were Attention Deficit Hyperactivity Disorder, Schizophrenia and Obsessive Compulsive Disorder (Figure 2). It is important to note that the high frequency of the Intellectual Disability diagnoses was due to the inclusion of specific learning disorders into this category. The two conditions will be separated in the future.

Despite having a lower overall prevalence compared with national figure, the number of children with mental health problems in Terengganu remains a concern. Particular emphasis should be given to the reduction of mental health problems associated with peer-related difficulties and to creating programmes or activities with a focus on improving pro-social skills and appropriate life-skills. There is still an urgent need to strengthen, refine and upgrade the existing CAMH service in Terengganu.
Disclosure statement
No potential conflict of interest was reported by the authors.

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