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ORIGINAL PAPER

Pathways to psychiatric care in Bangladesh

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Abstract
Introduction The pattern of care seeking of psychiatric patients is important for service and policy issues. We conducted a study in 2008 in Bangladesh to find out the referral patterns, delays to reach mental health professional (MHP), diagnoses and treatment received before reaching psychiatric care etc.
Materials and methods We interviewed 50 consecutive new patients at the Psychiatry outpatient department of a tertiary hospital using the translated version of WHO pathway encounter form.
Results 84% of the patients we interviewed consulted other carers before they arrived at a MHP (2.5–3.1 steps were needed to reach MHP) and the range of delay was 8–78 weeks (indirect pathway). 16% of the patients came directly to a MHP with mean delay of 10.5 weeks from onset of mental illness (direct pathway). Among the patients who took the indirect pathway 44% first visited the Individual Private practitioners (PP), 22% first visited native or religious healers (NRH) and 12% rural medical practitioners (RMP). Patients reaching NRH or RMP made the least delay (2–2.5 weeks) and the shortest pathway to MHP (4.5–7 weeks). Most delay occurred from PP to MHP/General Hospital (22–31 weeks). About a third of patients were informed of diagnosis with poor concordance with the diagnosis made by MHP. 70 and 40% of patients with mental illness who attended General Hospital and PP were referred to MHP, respectively.
Conclusion In the study we found four major pathways to mental health care in Bangladesh. They are direct pathway and referrals from PP, general hospitals and NRH. PP did not play a pivotal role in reaching MHP. Family members had a significant role on the decision to seek help from health service.

Keywords Pathway · Mental health · Bangladesh · Psychiatric care · Pathway to mental health care

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Introduction

The care-seeking behavior of patients with mental illness is central to the effective planning of psychiatric services in the country. In both developed and developing countries the help-seeking behavior is influenced by socio-economic, cultural and other factors. National services in Bangladesh are under enormous pressure to provide for a large population in need of mental health services [1] and a successful service development is a challenge for the concerned authority. Pathway studies highlight the help-seeking behavior of patients with physical and mental illness. A number of researches on pathways to care of psychiatric patients have been done in various parts of the world, but there have been few reports from Asian countries [2–6].

Mental health system in Bangladesh is on the way to development and exploring the care-seeking behavior of mentally ill and the dynamics of the behavior will be helpful for an effective service development.

Goldberg and Huxley proposed five levels and four filters in the pathways to psychiatric care [7]. The first level corresponds to the prevalence of psychiatric disorder in the community; the second level, the prevalence of mental illness in those who attend their General Physician (GP); the third level, the prevalence of mental disorder correctly identified by the GP; the fourth level, the prevalence of psychiatric morbidity referred to specialist mental health services; and the fifth level, the prevalence of patients with mental disorders admitted to hospital. The first filter is the health-seeking behavior of patients. The second is the ability of the GP to diagnose a mental disorder correctly, the third filter is referral to specialist mental health services and the fourth filter is the decision by specialist mental health services to admit the patient to hospital [8]. The first filter in Bangladesh which is illness behavior, awareness of symptoms and self-referrals, was considered important in a previous study [9]. But the second and third filters (ability of primary health care physician to diagnose and refer, respectively) are also getting increasing importance with the increasing availability of primary health care services in the country.

People in Bangladesh tend to go to different types of carers for their physical or mental illness. They may consult their friends and family, native or religious healers (NRH), general hospitals (GH), individual private practitioners (PP), and other medical facilities. People in a Bangladeshi community showed varied treatment preferences in a previous study [9] where 69, 12.5 and 13.8%, showed preference for qualified medical practitioners, spiritual healers and traditional healers or herbalists, respectively. In the Bangladeshi context, PPs are individual general medical practitioners having a basic medical degree (MBBS). People from a specific locality are not supposed to see a specific physician (like GP system in UK), rather they can choose from primary, secondary or tertiary level center/consultation depending on their ease and comfort. A native healer is commonly known as "Ojha" and a religious healer is usually known as "Baba" or "Pirr" or "Sufi" or "Huzur" in Bangladeshi culture. According to common belief, they bring relief to mental illness through their performed rituals or holy verses. They explain mental illness on the basis of possession by the evil spirit, by jinni or by magical influences cast by enemies. There are also services by rural non-qualified medicine practitioners which can be termed as 'other medical facilities'. The absence of effective regulatory and monitoring policies is thought to facilitate the existence of non-qualified practitioners [9].

Materials and methods

Study setting

Dhaka Medical College Hospital is one of the best medical centers in the country. Epidemiological studies in Bangladesh report the prevalence of mental health problems between 7 and 28% [1, 10–12]. Bangladesh is a low-income economy group country [13]. The country is divided into 64 administrative districts and 496 sub-districts (Upazilla). Each district is served by a District General Hospital and each Upazilla is served by a Upazilla Health Complex and several Rural Health Centers; the latter two have been given responsibility of coordinating primary health-care services at the community level. There is no specific mental health authority in Bangladesh and mental health services are not organized in terms of catchment/service areas [14]. There are 50 outpatient mental health facilities in the country which treat about 26 users per 100,000 general population [14]. A small portion of patients are reporting to government facilities and they receive some psychotropic medicines from the facilities [14]. No mental disorder is covered in social insurance schemes [14]. No human rights review body exists in the country to inspect mental health facilities [14]. According to the National Mental Health Survey in 2003–2005 about 16.05% of the adult population in the country are suffering from mental disorders and the prevalence was significantly related with socio-economic deprivation and higher in women (19%) than men (12.9%) [12]. The users treated in outpatient facilities were primarily diagnosed with schizophrenia (30%), mood disorders (20%) and neurotic disorders (20%) [14]. There is low number of referrals to MHP from both physician-based and non-physician-based primary health-care centers [14]. Primary health-care nurses and non-doctor primary health-care workers are not allowed to prescribe psychotropic medication [14].

Sample

The study was performed between April and May in 2008 at Dhaka Medical College Hospital, which is the biggest medical college hospital in the country. Approval of the ethical committee of the concerned hospital was taken prior to the beginning of the study. Among the individuals attending the outpatient psychiatric service 50 consecutive, newly registered subjects with new episodes of psychiatric illness were enrolled in the study. Informed written consent of the participants was taken prior to the interview. We considered those who had not sought care from a mental health service during previous 1 year, as a 'newly referred subject', and a 'new episode' was defined as a problem for which the subject had never sought care from a mental

health service. Taking consideration of the feasibility and previous examples a sample size of 50 was considered sufficient for a meaningful analysis [15].

Method of data collection

The study adopted the methodology of the WHO Pathway Study [6] and the multi-center pathway study conducted in Eastern Europe [15]. Each participant went through a semi-structured questionnaire, which was prepared, based on an encounter form developed in the World Health Organization (WHO) collaborative study. We translated and back translated the encounter form to and from Bangla (Bengali), we compared the original and back translated version, we took help of professional translators and took advice from qualified persons working in mental health field about the Bangla translation and revised it necessarily to adjust it to the situation in Bangladesh. The subjects' demographic background (age, sex, place of residence, socio-economic status), the initial and intermediate carers, the primary reason for seeking mental health care, the main problem presented at each center, the main treatments offered, and the durations of each step in the subjects' journey to seek mental health care were recorded. The number of steps needed to reach mental health personnel was also noted. The questionnaires were filled in and the diagnoses were made according to the WHO International Classification of Diseases (ICD-10) [16] by the psychiatrist in charge.

Analysis of data

The demographic profile of the participants, presenting features at the initial carer, relation of the person(s) who referred the patient to a carer etc., were collected. The time interval between symptom onset and arrival at the initial carer, the time interval between arrival at initial carer and arrival at the psychiatric services and the time interval between symptom onset and arrival at a psychiatric service were analyzed. These time intervals were compared among the diagnostic groups, and the types of initial caregivers. The routes taken by the patients were compiled into a pathway diagram. Diagnoses made at different centers were compared with the diagnoses at MHP. Treatments offered at different levels were analyzed and compared.

Results

All the patients who were approached agreed to participate in the study. Fifty patients were analyzed. Statistical software was used to analyze the data. We included only those patients who reached the study center through different referral pathways or directly.

Sample characteristics

The average age of the participants was 25.8 years and the range was 13–45 years. Among the 50 participants 21 (42%) were female. The two largest occupational categories were students (38%) and housewives (30%). Among the participants, 52% were single, 40% were married, 6% were separated and 2% were widowed. Of the respondents, 40% were graduation level and above, 38% completed higher secondary school, and 22% read up to primary education (Table 1).

Presenting features and diagnoses

At the final carer, Mood disorders (F3) and Neurotic, stress-related and somatoform disorders (F4) were the two most common diagnoses, accounting for 34 and 32% of the

Table 1 Socio-demographic data and diagnoses at MHP

Socio-demographic data	
Number of subjects	50
Age (average) (SD)	25.8 (8.7)
Sex	
Male	29
Female	21
Marital status	
Single	26
Married	20
Separated	3
Widowed	1
Occupation	
Unemployed	4 (8%)
Student	19 (38%)
Housewife	15 (30%)
Office worker/Self-employment	8 (16%)
Educational level	
Less than 12 years	30 (60%)
More than 12 years	20 (40%)
Current diagnosis	*T* (*D* + *I*)
F2 Schizophrenia, schizotypal and delusional disorders	13 (1 + 12)
F3 Mood disorders	17 (4 + 13)
F4 Neurotic, stress-related and somatoform disorders	16 (3 + 13)
F5 Behavioral syndromes associated with physiological disturbances and physical factors	1 (0 + 1)
F6 Disorders of adult personality and behavior	2 (0 + 2)
F9 Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	1 (0 + 1)

T total, *D* direct pathway, *I* indirect pathway

diagnoses, respectively; the next most frequent diagnoses were schizophrenia, schizotypal and delusional disorders (F2), accounting for 26%. Few subjects were diagnosed as having organic disorders and substance-abuse disorders. 84% of the respondents took the indirect pathway to psychiatric care (Table 1).

The participants were asked about their presentation at the initial carer. According to the structured interview 28% of the patients came to the first carer with psychotic features, 26% with depressive features, 20% with anxiety features, 10% with manic features, 16% with somatic and other features. About 22% patients with anxiety and depressive features consulted MHP directly but only 11% patients with manic and psychotic presentation took the direct pathway (Table 2).

Pathways to care

The most common initial care giver was private practitioner (PP) (44%), followed by native or religious healer (NRH) (22%), other medical facilities (12%) and general hospital (4%). Direct pathway was the third most common pathway (16%).

Durations and steps in the pathway

The mean duration from the onset of symptoms to the arrival at the initial caregiver was 13.87 weeks. The median duration for the direct pathway was 10.5 weeks and the range was 1–52 weeks. The mean duration from the onset of symptoms to the arrival at MHP was 48.08 weeks, median duration was 25 weeks and the range was 1–156 weeks. On an average a patient consulted 2.7 carers before reaching a MHP and the median and mode steps needed to reach MHP was three consultations (Table 3; Fig. 1).

Most of the patients with depressive (62%) or anxiety features (50%) selected PP as their initial carer and a few of them consulted NRH in the initial step. Individual with psychotic features almost equally selected NRH and other

Table 2 Main problem presented to first carer and suggestion for initial consultation by

Main problem	Direct pathway (no. of patients)	Indirect pathway (no. of patients)	Total patients (%)	Suggestion for initial consultation by
Depression	2	11	13 (26)	9 consultations were suggested by family members, 3 consultations by self-suggestion
Anxiety	3	7	10 (20)	6 consultations by the advice of the family members, 2 by self-suggestion
Mania	1	4	5 (10)	3 consultation by the advice of family members, 2 by others
Psychotic	1	13	14 (28)	Most referrals were from family members (12), one was self-referral
Somatic	0	4	4 (8)	3 consultations were suggested by family members
Others	1	3	4 (8)	(Not calculated)
Total	8	42	50 (100)	36 consultations suggested by family members, 8 consultations by self-referral

Table 3 Durations according to main features at initial carer

Main features at first carer	First carer (no. of patients)					Delays and steps		
	MHP	GH[a]	PP[a]	NRH	Other medical facility	Onset to first carer[b]	First carer to MHP[b]	Steps needed[c]
Total (50)	8	2	22	11	7	10.5	8.5	2.7 (1.0)
Depressive (13)	2	1	8	1	1	4	8	2.8 (1.0)
Anxiety (10)	3	0	5	2	0	24.5	42	2.3 (1.2)
Psychotic (14)	1	0	6	5	2	14.5	16	2.6 (0.7)
Other features (13)	2	1	3	3	3	NC	NC	NC

NC not calculated

[a] Non-psychiatric facility

[b] Median weeks

[c] Average (SD)

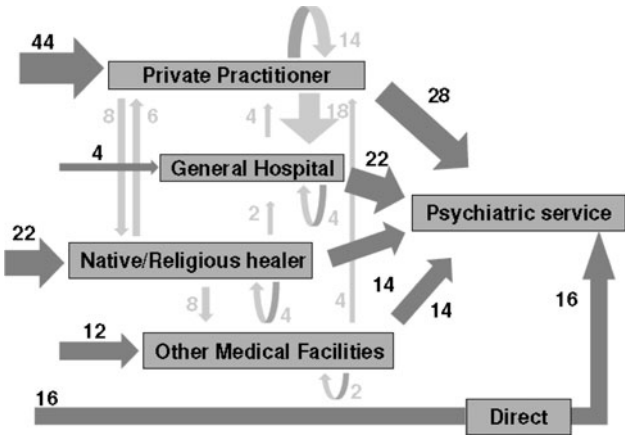

Fig. 1 Diagram of pathway to psychiatric care. Each *number* represents percentage of the subjects in each category

medical facility (50%) and PP (43%) as their initial carer. The median delay to reach initial carer for patients with anxiety features (24.5 weeks) was more than those with psychotic (14.5 weeks) or depressive presentations (4 weeks). This trend continued in reaching the MHP too (Table 3).

Durations according to diagnostic groups and first carer are shown in Table 4

In the present study, the subjects who visited the PP or GH in the initial stage made the longest delay to reach MHP (median delay was 58 and 32 weeks, respectively). This delay was significantly higher than those who selected NRH as initial carer (median delay of 6 weeks) or consulted the MHP directly (Median delay of 10.5 weeks). The total delay from symptom onset to arrival at MHP was significantly shorter for direct consultation and NRH than PP or GH as the initial carer.

We also compared the diagnosis made by GH and PP with the diagnosis at MHP. Less than 50% of the patients who visited PP or GH were informed of a diagnosis (14/36 and 5/15, respectively) and the concordance of the diagnosis made at PP (6/36) and GH (3/15) with the diagnosis made at MHP was poor. No standard diagnostic terminology were used in both GH and PP level, rather vague terms like 'mental illness', 'anxiety neurosis' etc. were used. The rate of treatment with psychotropic medication could not be elicited in most cases and where it was elicited the number of prescription was poor.

Discussion

Main study findings

This is the first formal pathway to psychiatric care study in Bangladesh which was performed through an international cooperation among young psychiatrists in Asia Pacific region [17]. The study participants were those who attended mental health OPD of the study center. All patients who were approached accepted to participate in the study. In the current study 58% of the participants were male. Although the nationwide epidemiological study [12] found that psychiatric disorder are more prevalent in females (19%) than males (12.9%). In previous studies conducted in Dhaka city, it was also seen that males come to outpatient service more than females [18–20]. This disparity may reflect the attitude of the society to female sufferers. The mean age of 25.8 years in the present study was also close to the mean age of 30.21 and 30.02 years in two previous studies [19, 20]. The two largest occupational categories were students (38%) and housewives (30%). Younger patients and students might be over-represented in the sample possibly due to location of the study center in an educational park area but it was similar to a previous study [20] conducted in Dhaka city where we found 56% of the patients were in 19–39 age group and students (27.5%) and housewives (25.4%) constituted the majority of occupational categories. In another study [18], schizophrenia and

Table 4 Durations to the psychiatric services by diagnostic groups and first carer

Patient groups (no. of patients)	Time from onset to first seeking care[a]	Time from first care-seeking to MHP[a]	Time from onset to MHP[a]	Number of carers[b]
Diagnosis				
F2 (13)	13	33	44	2.7 (0.8)
F3 (17)	5	15	12	2.6 (1.2)
F4 (16)	14.5	29	27.5	2.7 (1.1)
First carer				
Direct (8)	10.5	–	10.5	1.0
PP (22)	14.5	58	78	3.1 (0.7)
NRH (11)	5	15	6	3.1 (0.6)
GH (2)	46	32	78	2.5 (0.7)

[a] Median weeks

[b] Average (SD)

other psychotic disorders, anxiety and somatoform disorders and mood disorders constituted 37.5, 22.7 and 20.1% of the patients, respectively, which was also close to the current study (26, 32 and 34%, respectively). The increased frequency of mood and anxiety disorders in the current study may be related to high educational attainment and increased awareness of neurotic symptoms in the participants.

Social networks are reported to become smaller in individuals with severe mental illness and patients' social networks and social support may impact on their utilization of psychiatric services [21]. In the current study, the suggestion to seek initial help came mostly from a family member living with the subject (70%) or the subject himself/herself (16%). In case of first episode psychosis, family members become involved in help-seeking in 50% cases, and this involvement was associated with shorter help-seeking delays [22]. In a psychiatric outpatient clinic in Dhaka city, 72% of the patients were referred by relatives, friends, neighbors and previously treated patients [19]. This may indicate presence of strong social bonding in Bangladeshi culture. Very few subjects with psychotic or manic presentation made the decision to seek initial help by self-referral (5.36%, the rest of the consultations were suggested by family members) whereas significant subjects with depressive presentation (23%, $p < 0.05$) or anxiety features (20%, $p < 0.05$) took own decision to seek initial consultation. This also supports the finding of a previous community based study [9].

In the present study we did not find patients with substance-abuse disorders. Strong religious restrictions against drug abuse probably explain the low rate of substance-abuse disorders. In the nationwide epidemiological study the prevalence of substance dependence was also found to be very low (4%) [12]. In the study conducted at National Institute of Mental Health, Dhaka [18] the utilization of outpatient services by the patients with substance dependence were also low (7.7%). Also, the presence of separate treatment facilities for substance disorders might have led to fewer referral rates for substance abuse to the study center.

In the current study, the initial care giver was PP (44%), NRH (22%), direct pathway (16%), other medical facilities (12%) and GH (4%) and there was frequent multiple care-seeking. This findings were similar to a recent study [19] performed in Dhaka city where we found that two-third of the patients consulted NRH, PP and specialists of other discipline before they contacted MHP (only NRH 16%, only PP 16%, only other specialist 20%, simultaneous PP, NRH and other specialists 29%). In the present study, 44% of the subjects initially visited a private practitioner, but only 28% of the subjects reached the psychiatric service immediately after having visited a private practitioner. Individual private practitioners did not act as gatekeepers to the psychiatric service in Bangladesh unlike Western European [6] cities and like East European cities [15] and Africa [23, 24]. In previous studies it was seen that individuals tend to visit the psychiatric service directly if it is possible [25, 26] which is also evident in the current study. The model proposed by Goldberg and Huxley seems to fit well with a hierarchical system of care in which the only access to specialized care is by referral from a primary care physician. This does not necessarily pertain to countries like Bangladesh where direct access to specialized care is permitted. The use of multiple types of service providers in the current study was also documented in previous Bangladeshi studies [9]. One explanation for the use of multiple types of service providers may be related to their beliefs about etiology and their expectations regarding the efficacy of a particular type of therapy. The high cost of psychiatric treatment and time needed to reach psychiatric centers may also be related to less utilization of mental health services.

A substantial percentage of the subjects choose NRH as their initial caregiver. Not only did 22% of the subjects choose NRH as their initial caregiver, but 14% ultimately reached a psychiatric service via a native or religious healer. At least 30% patients saw a NRH in their pathway to mental health care. Native or religious healers play an important role in Asian and African countries [3, 4, 6]. This may be related to the number of psychiatrists in these areas, which have one or less psychiatrists per 100,000 population. In most part of Bangladesh, medical resources are not equally distributed, and native or religious healers traditionally play an important role in helping people with physical or mental illness. The utilization of services from NRH may also be related with the communication gap resulting from socio-economic differences between the patients and the practitioners of western medicine [9]. The involvement of native or religious healers in pathways to mental health-care causes longer delays in some studies [3, 6, 27] but in the current study subjects who initially sought care from native or religious healers did not experience longer delays in arriving at the psychiatric services. The total duration of pathways originating with native or religious healers was shorter than that of pathways originating with private practitioners. Education and information about mental illness through mass media and training courses for native or religious healers are being done in Bangladesh. These efforts might enable NRH to make prompt referrals and they might also understand their limitations in treating patients with certain mental problems. In some regions, it is seen that if a native or religious healer suggests attending a psychiatric service, people tend to do so immediately [3].

It is of utmost importance that health system of a country becomes integrated enough to facilitate referral of

psychiatric patients to MHP in the shortest time as treatment delays cause poorer recovery at 12 and 24 months [28]. Even in developed countries treatment delays are common occurrence. In a recent study conducted in Dhaka city [19], delays to reach MHP was associated with lack of knowledge about symptoms of mental illness (69%), social stigma (12%), delay by doctors (8%), belief system (8%) and lack of social and financial support (3%) etc.

Some interesting findings are seen in the current study which may be helpful for health decision-makers. Firstly, the suggestion to seek initial help came mostly from a family member living with the subject; secondly, PP did not play a role as gatekeepers to mental health care in Bangladesh like that in Eastern Europe [15] and Africa [22]; thirdly, a significant portion of the patients consulted traditional and religious healers in the initial step of help-seeking and in intermediate stages. Subjects with anxiety features experienced longer treatment delays. We have found a low concordance of the diagnosis made by PP or GH with that of MHP which was similar to the findings of pathway study in Japan [29]. Non-psychiatrist physicians did not prescribe antipsychotics or antidepressants which is similar to the finding in Eastern Europe [15] even when they made a psychiatric diagnosis necessitating treatment and they were permitted to do so.

Limitations

Dhaka Medical College Hospital is one of the best centers for health service and this may not represent the mental health services available in other parts of the country. Younger patients and students might be over represented in the sample possibly due to location of the study center in an educational park area. We interviewed 50 subjects. Though this number was thought to be sufficient to characterize the pathways, this number may be insufficient to discuss about the pathways of the individual diagnostic categories conclusively.

The willingness and ability of the subjects to acknowledge their previous sources of care might also have affected the findings. Some people may not be able to recall the details of their pathway, while others may be reluctant to admit that they consulted native or religious healers. All data was gathered retrospectively from subjects who had been referred to the institution involved in the study. Pathways of patients with mental illness who were suffering and consulted NRH or other carers but were not referred, were not considered in the current study. In this way the consultation pathway may not represent the total help-seeking behavior at the community. Pathway studies tend to emphasize the importance of medical caregivers who are more likely to refer their patients to medical colleagues in psychiatry than to non-medical ones. But these limitations are difficult to avoid in a pathway study.

This study is a preliminary investigation, and other systematic studies examining the organization of mental health care and other health services are needed to improve the mapping of care providers for those with mental disorders.

Conclusion

This is the first pathway study in Bangladesh. In the present study we have found four major pathways for psychiatric consultation in the country. They are direct pathway and referrals from private practitioners, general hospitals and native or religious healers. Patients with anxiety features at presentation made considerable delay to reach to the initial carer and MHP. Educating primary care doctors about the prevalence and detection of anxiety disorders in the community and awareness building in general public are necessary. Although individual private medical practitioners did not play a pivotal role in reaching MHP, there are a number of filters in the described pathway. The NRHs are still playing an important role in the country. Increasing the availability and accessibility of psychiatric services, improvement of referral from PP and GH through emphasizing on Psychiatry in undergraduate studies and continued training of doctors, performing educational campaign through media are necessary to improve the situation. Family education is necessary as family members had a significant role on the decision to seek help from health service. Involvement of public and private sectors, non-government organizations, different support groups for patients and caregivers in formation of a effective mental health system is also essential.

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