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Pathway of psychiatric care in Hong Kong

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KEY MESSAGES

1. Hospital doctors and general practitioners are gatekeepers of the pathway of psychiatric care in Hong Kong.
2. The median duration from problem onset to contact with first carer was 11.0 weeks and to psychiatric service was 42.0 weeks.
3. Gender, level of social support, presenting symptoms, diagnosis, and type of pathway taken influenced the duration to psychiatric service.
4. Understanding these factors facilitates the development of strategies that may shorten the delay in receiving psychiatric service.

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Introduction

It is estimated that over 15% of the general population suffer from some form of mental disorder.[1] According to the World Health Organization World Mental Health Survey Initiative, up to 50.3% of persons with serious mental disorder in developed countries and 85.3% in less developed countries receive no psychiatric treatment.[2] Early intervention reduces the risk of relapse and suicide, inpatient treatment, medication use, disruption to family and employment/development, and cost of treatment.[2] It is important to understand the help-seeking behaviour of such persons and to identify the factors that delay acquisition of psychiatric care, including individual factors (severity of symptoms and concepts about mental disorders), social factors (social support, social disadvantage, cultural factors), and health system factors (organisation and accessibility of health services, referral system).

A pathway study chronologically records the care received before presenting to specialist psychiatric services, providing information of different levels of filters and association between delays and clinicodemographic factors of patients.[3] We conducted a territory-wide study to examine the help-seeking behaviour of people with mental health problems, and to elucidate the factors that delay or speed up this process.

Methods

This study was approved by the local institutional ethical review boards and complied with the Declaration of Helsinki. It was conducted from July 2010 to November 2011. A total of 245 men and 456 women (mean±standard deviation [SD] age, 49.6±17.5 years) who presented for the first time to outpatient (n=614) or inpatient (n=87) psychiatric services in five clusters (New Territories West, New Territories East, Kowloon West, Kowloon Central, and Hong Kong East) of public hospitals were recruited.

Two trained research assistants attended each of the units for one month. Participants were interviewed with the World Health Organization Encounter Form, which is a semi-structured interview for a multi-cultural pathway study.[3] It records the carers (organisations or individuals), types of problem presented, treatment offered, and the times of illness onset, journey to carer, and referral. The end point of the pathway is defined as contact with any mental health professional.

In addition, participants were assessed using the Health of the Nation Outcome Scale (a 12-item instrument to evaluate the degree of impairment in behavioural, emotional, and social domains), the Social Support Rating Scale (for perceived instrumental and emotional support), and the Cumulative Illness Rating Scale (for chronic medical illness burden). Sociodemographics and psychiatric diagnosis (based on the tenth revision of International Classification of Diseases) were also recorded.

Results

The most common initial presenting problem was somatic symptoms (33.2%), in particular sleep disturbance (18.5%), followed by depression-related symptoms (23.7%) and anxiety-related or other

neurotic symptoms (21.3%). The diagnoses were F40-F48: neurotic, stress-related and somatoform disorders (33.5%), F30-F39: mood [affective] disorders (32.4%), F00-09: organic, including symptomatic, mental disorders (10.0%), and F20-F29: schizophrenia, schizotypal and delusional disorders (7.8%). The mean±SD Health of the Nation Outcome Scale score was 8.05±5.53, and the mean±SD Cumulative Illness Rating Scale score was 17.99±3.60.

Before presenting to specialist psychiatric services, 428 (61.1%) participants consulted one, 193 (27.5%) two, 70 (10.0%) three, and 10 (1.4%) four carers, with a mean±SD of 1.5±0.7 carers. A sum of 1064 carers were involved, including hospital doctors (n=416, 39.1%), general practitioners (n=364, 34.2%), and consultation-liaison services (n=73, 6.9%).

The pathway diagram illustrates the pathway of psychiatric care of at least 10% of the participants (Fig). Hospital doctors and general practitioners constituted approximately 80% of the first carers and made 275 (39.2%) and 269 (38.4%) referrals to the specialist psychiatric service, respectively. Non-medical carers included social workers (n=49, 7.0%) and police and the legal system (n=23, 3.3%). Recursive pathways were seen most commonly in those who went to hospital doctors or general practitioners.

The durations to first carer and to psychiatric care were not normally distributed. Outliers with a very long delay were present, and thus median rather than mean duration was used. The median duration from problem onset to contact with first carer was 11.0 weeks and to contact with psychiatric services was 42.0 weeks. About 25% of participants presented to psychiatric services within 8 weeks, but another 25% took ≥155 weeks.

Duration was compared among sociodemographic groups, diagnosis groups, main presenting problems, and pathways taken (Table 1). Better social support (higher Social Support Rating Scale score) was associated with a shorter (compared with medium) duration to first carer (U=51523.5, P=0.017). Men took a shorter duration to reach psychiatric services than women (U=46314, P=0.016). Other sociodemographics (age, marital status, literacy, living arrangement, and monthly income) did not significantly influence the duration.

The duration from onset of main problems to contact with first carer was significantly shorter (compared with medium duration) in those with diagnosis of F20-F29 (U=12225.5, P=0.003) and F40-F48 (U=43473, P=0.020) [Table 1]. The duration to specialist psychiatric service was also the shortest

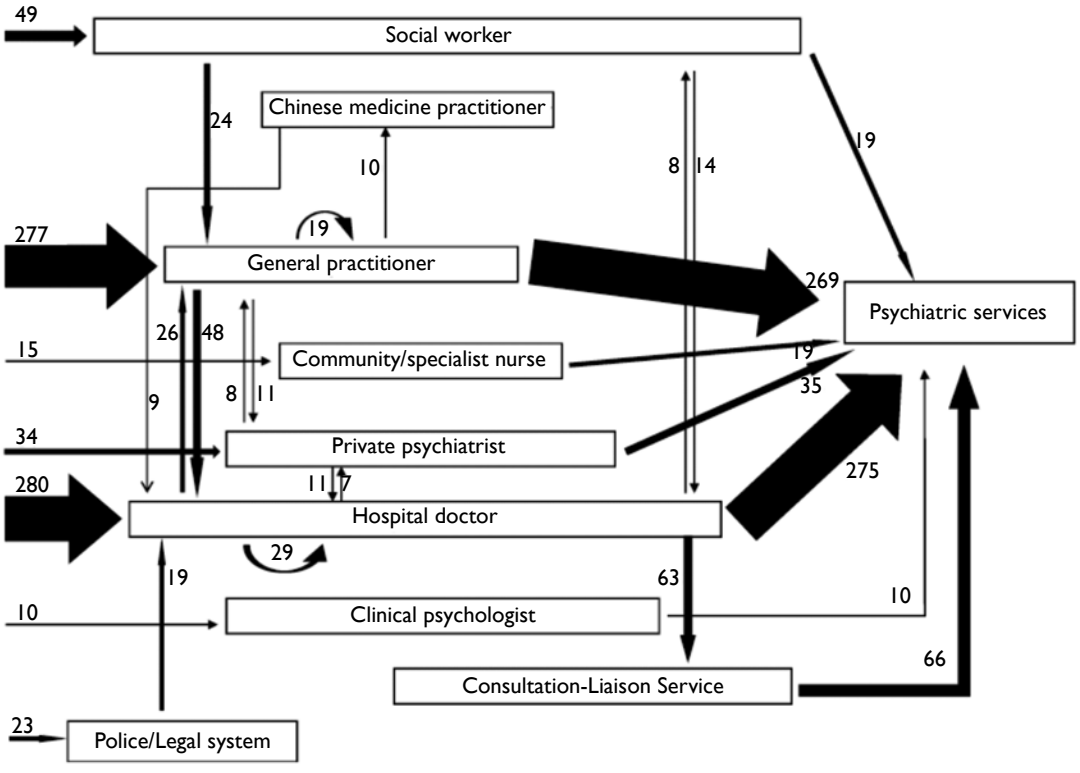

FIG. Pathway diagram: only pathways that were taken by at least 10% of participants are included. The number of participants at each step is indicated. Curved arrows represent recursive pathway.

for the diagnosis of F20-F29 (U=11864, P=0.001). In contrast, the duration to first carer was significantly delayed for the diagnosis of F30-F39 (U=41850.5, P=0.012) and F50-F59 (U=2555, P<0.001), and the duration to psychiatric care was significantly delayed for the diagnosis of F10-F19 (U=4864.5, P=0.017) and F50-F59 (U=2817, P<0.001). Participants who presented with a suicide attempt took the shortest time to reach first carer (U=7594.5, P=0.001) and psychiatric professional (U=5189, P<0.001), followed by those presenting with violence/aggression (U=8012, P=0.035). In addition, depression-related symptoms delayed presentation to first carer (U=35786.5, P=0.004) and psychiatric service (U=36352, P=0.032).

Participants who presented to hospital doctors took a shorter (than medium) time to consult the first carer (U=43058.5, P<0.001) and psychiatric service (U=40225.5, P<0.001). However, those who presented to general practitioners (U=43603.5, P<0.001) or other medical carers such as clinical psychologists and nurses (U=17481, P=0.028) experienced longer delays in reaching first carer and psychiatric care (P<0.001).

Variables that showed a trend of correlation at a level of significance of P<0.1 were entered into a logistic regression model. Consulting hospital doctors as the first carer, a higher Cumulative Illness Rating Scale score, and presenting with a suicidal attempt were predictors of reaching psychiatric service within 42 weeks (the median duration from onset of problems to meeting psychiatric professionals). In contrast, the odds of obtaining psychiatric services early were smaller for females, those who presented with organic symptoms, and with diagnosis of F10-19 and F50-59. When all predictors were considered together, whether a participant could reach psychiatric services within 42 weeks of problem onset could be predicted (X^2=76.29, P<0.001, Table 2).

TABLE 1. Duration from problem onset to contact with first carer and psychiatric service

Parameter	No. of patients	Median duration (weeks)	
		From onset to first carer	From onset to psychiatric service
Age (years)			
<65	573	12.0	42.0
≥65	128	6.0	44.0
Gender			
Men	245	4.0	27.0*
Women	456	13.0	47.0*
Marital status			
Married	371	13.0	47.0
Others	330	9.0	33.0
Literacy			
Literate	652	11.0	44.5
Illiterate	49	13.0	36.0
Living arrangement			
Living alone	98	12.5	54.5
Living with others	603	11.0	38.5
Monthly income (HK$)			
<10000	349	8.0	38.5
≥10000	280	13.0	41.5
Social Support Rating Scale score			
<mean	336	17.0*	51.0
≥mean	365	5.0*	32.0
Diagnosis			
F00-F09	70	11.0	42.0
F10-F19	22	45.0	139.5*
F20-F29	55	0.5*	8.0*
F30-F39	227	18.5*	37.0
F40-F48	235	6.0*	41.0
F50-F59	19	182.5†	348.5†
Main problems			
Somatic symptoms	233	9.5	40.5
Depression related	166	18.0*	50.0*
Anxiety related	149	13.0	49.0
Organic symptoms	39	32.5	57.0
Suicidal attempt	35	0.0*	2.0†
Psychotic symptoms	33	2.0	14.0
Violence/aggression	32	2.0	6.5*
Alcohol/drug related	10	148.0	154.0
Interpersonal	4	0.0	14.5
First carer			
Hospital doctor	280	3.5†	24.0†
General practitioner	277	22.0†	70.5†
Other medical carer	71	18.5*	104.0†
Non-medical carer	73	1.0	26.0

* P<0.05, Mann-Whitney *U* test
† P<0.001, Mann-Whitney *U* test

Discussion

Better social support facilitates the help-seeking process. Family members and friends can encourage persons with psychiatric disorders to seek psychiatric services.[4] Programmes that educate family members about mental illness may speed up the initiation of help-seeking process.

After logistic regression analysis, organic symptoms and suicide attempts were predictors of the duration to contact with first carer or psychiatric care. Depression-related symptoms were often overlooked and did not trigger help-seeking pathways or mental health consultation. So too were organic symptoms, including symptoms of dementia. This may be due to a lack of public awareness of these symptoms and prevailing societal beliefs (eg old age is inevitably linked with cognitive

TABLE 2. Logistic regression analysis for predictors of presentation to psychiatric service within 42 weeks of problem onset

Variable	B	SE	Odds ratio	P value
First carer: hospital doctor	0.90	0.18	2.46	<0.001
Cumulative Illness Rating Scale score	0.06	0.02	1.06	0.012
Main problem: suicidal attempt	1.50	0.50	4.49	0.003
Main problem: organic symptoms	-0.85	0.40	0.43	0.032
Diagnosis: F10-19	-1.59	0.54	0.21	0.003

decline). In addition, patients with mental and behavioural disorders due to psychoactive substance use (eg alcohol, opioids, cannabinoids) [F10-F19] or physiological disturbances and physical factors (eg eating disorders, non-organic sleep disorders, disorders associated with the puerperium) [F50-F59] had a longer duration to psychiatric services. These disorders were relatively less common and thus less awareness.

Programmes should aim to improve mental health literacy in the general public, particularly for symptoms/disorders that are associated with delays (eg depressive symptoms, symptoms of early dementia). In two national surveys of Australian adults in 1995 and 2003-04, the public showed better recognition of schizophrenia and depression and gave more positive ratings to interventions over 8 years following efforts to improve mental health literacy.[5]

General practitioners or other medical professionals as first carer was associated with significant delay in psychiatric consultation. It is challenging to detect and manage mental health problems in the primary care setting. The prevalence of anxiety and depression in the primary care setting was low; such an underestimation was due to somatisation of depressive symptoms, health beliefs, and short consultation time.[6] Knowledge of general practitioners about mental problems and treatment options should be enhanced through training courses. Depressed patients who present initially to the primary care service with somatic symptoms will eventually disclose their psychological symptoms following appropriate exploration.[7] Use of a brief self-administered screening questionnaire may help patients to identify their mild-to-moderate mental health problems and thus request help.[8]

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