Original Article

Pathways to Specialist Care in an Insomnia Clinic at a Psychiatric Hospital: A Comparative Analysis of Two Periods

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Abstract

Introduction: In this study, the pathways patients followed to treatment in an Insomnia Clinic in a psychiatric hospital were compared over 2 periods. The time interval to specialist referrals and patient clinical presentations were also studied. The aim was to better understand referrers' knowledge, needs and accessibility to services. Materials and Methods: A retrospective review of cases seen between 2002 and 2005 was compared with an earlier review of cases referred between 1997 and 2000. The information gathered from medical records was similar for the 2 periods. Results: There were no significant differences in the socio-demographic profiles of patients in the 2 periods. Primary Insomnia was diagnosed in 48.2% of the first period cohort and in 47.5% of the second period cohort. However, among the remaining patients there was a shift from more depressive disorders in the first period to neurosis in the second period. Significantly, there was no difference in alcohol or substance abuse or dependence between the 2 periods. More than three-quarters of the patients had received treatment prior to the referral and for 51.8% in both periods, the providers were family physicians. Treatment was mainly pharmacotherapy with an increase in the use of Sleep Hygiene measures in the second period. Conclusion: There is a need for continuing medical education on insomnia as well as a need to highlight the risks of untreated insomnia and assessment for other psychiatric disorders in this common complaint.

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Introduction

The complaint of insomnia is common and patients generally either self-medicate and/or consult primary healthcare providers.[1] Referrals to a specialist for further management largely depends on the initial assessments and findings, the presence of comorbidity and/or difficulties in treating the underlying problems.[2] The decision to refer to specialist care, however, is an important one given that there are findings of a strong correlation between insomnia and psychiatric disorders.[3,4] In addition, insomnia may impair cognitive and physical functioning and impact quality of life.[5] An analysis of pathways to psychiatric care for patients with insomnia is beneficial in understanding referrers' knowledge, needs and the requirements for further training and education, as well as determining accessibility to services.[6]

In the 1990s, a study of 85 cases referred to the Insomnia Clinic in the Institute of Mental Health/Woodbridge Hospital revealed that 55.3% were diagnosed with Primary Insomnia. The others had a Major Depression or anxiety disorders as the primary diagnosis.[7] Subsequent educational and training programmes by the hospital for primary care doctors emphasised the importance of the complaint of insomnia, the need for careful assessment for psychiatric complications and/or comorbid anxiety and depression and treatment. The expectation was that there would be a change in referral trends with more referrals from primary healthcare physicians and also fewer patients with psychiatric morbidity as they would have been treated earlier and referred appropriately to other specialist clinics such as the hospital's Anxiety and Mood Disorder Clinic.

We recently studied referral patterns to the Insomnia Clinic from 2002 to 2005. This paper compares the differences in the patients between the 2 periods from 1997 to 2000 and 2002 to 2005. The aim was to compare the pathways patients followed to treatment at an Insomnia Clinic, the time interval to specialist referrals and patients clinical presentations.

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Materials and Methods

The Insomnia Clinic is a specialist clinic in a tertiary psychiatric hospital and accepts referrals from various sources such as primary care physicians, other specialists and even self-referrals. An earlier study of referrals from 1997 to 2000 to the same clinic was approved by the hospital's then Research and Ethics Committee.

In 2005, a decision was made to review further referrals to the Insomnia Clinic. Permission was sought from the Chairman Medical Board to access medical records of patients referred to the Insomnia Clinic from 2002 to 2005. As the earlier study was for a 3 year period, a second 3 year period was selected. This study involving retrospective medical record review was approved by the hospital's Clinical Research Committee and ethics approval was obtained from the National Healthcare Group's Domain Specific Review Board.

The diagnostic criteria used in all the cases is from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV^{TR}) Classification.[8]

Statistical analyses were performed using SPSS 14.0 with statistical significance set at P <0.05. Descriptive statistics were presented as n (%). Differences between the 2 cohorts were assessed using Chi-square/Fisher's Exact tests with odds ratios presented where applicable.

Results

One hundred and ninety-five consecutive cases were seen between 1997 and 2000 and slightly fewer, 141 cases, between 2002 and 2005. The socio-demographic profile is shown in Table 1. There were slightly more females and younger patients predominantly in the 21 to 30 year age group in the second study period, but this was not statistically significant.

Referral Patterns

The most common route to specialist care at the Insomnia Clinic was via the primary healthcare services (Table 2). There was however, no significant difference (P= 0.324) between the 2 periods in terms of referrals from the primary healthcare services. These were mainly the polyclinic doctors who are physicians working in government primary healthcare clinics and family physicians, doctors managing patients in their own private clinics. One group that we no longer received any referrals from in the second period was the 'Others', namely Traditional Chinese Medicine practitioners, faith-healers and counsellors.

In comparing the length of time patients experienced sleep problems before they were referred to the clinic, there was again a significant change (P <0.001). An important finding was that there were no patients who had complaints of insomnia for more than 5 years before referral in the second study period (Table 3).

Table 1. Comparison of Referrals to the Insomnia Clinic During 2 Periods

Socio-demographic profile	1997 to 2000		2002 to 2005	
	n	%	n	%
Sex				
Male	105	53.8	65	46.1
Female	90	46.2	76	53.9
Race				
Chinese	163	83.6	121	85.8
Malay	14	7.2	5	3.5
Indian	14	7.2	9	6.4
Others	4	2.1	6	4.3
Age (y)				
Less than	9	4.6	6	4.3
21 to 30	29	14.9	30	21.3
31 to 40	49	25.1	37	26.2
41 to 50	53	27.2	27	19.1
51 to 60	35	17.9	27	19.1
>60	20	10.3	14	9.9
Marital status				
Single	47	24.1	45	31.9
Married	125	64.1	87	61.7
Divorced/Separated	19	9.7	6	4.3
Others	4	2.1	3	2.1
Education				
Nil	8	4.1	2	1.4
Primary	39	20.0	22	15.6
Secondary	100	51.3	68	48.2
A Level	13	6.7	10	7.1
Polytechnic	15	7.7	15	10.6
University	20	10.3	24	17.0
Occupation				
Professional	5	2.6	3	2.1
Management level	19	9.7	8	5.7
Admin personnel	36	18.5	35	24.8
Sales/clerical	36	18.5	24	17.0
Semi-skilled	31	15.9	20	14.2
Expected wage earner currently unemployed	11	5.6	16	11.3
Others (Student, homemaker, retirees)	57	29.2	35	24.8

Reasons for Referral

There were no significant differences in the reasons for

Table 2. Referrals to the Insomnia Clinic

	1997 to 2000		2002 to 2005	
	n	%	n	%
Self	27	13.8	22	15.6
Polyclinics	111	56.9	85	60.3
Family Physicians	28	14.4	22	15.6
Private Psychiatrists	1	0.5	1	0.7
Other Specialists	22	11.3	11	7.8
Others	6	3.1	0	0

P = 0.324

Table 3. Period of Time Sleep Problems were Experienced Before Referral

	1997 to 2000		2002 to 2005	
Period	n	%	n	%
≤3 months	57	29.2	32	29.6
4 to 5 months	20	10.3	13	12
6 to 8 months	21	10.8	14	13.0
9 to 11 months	9	4.6	11	10.2
≥1 year to 4 years	46	23.6	38	35.2
≥5 years	42	21.5	0	0

P <0.001

Table 4. Main Reasons for Referral to the Insomnia Clinic

	1997 to 2000		2002 to 2005	
Reasons	n	%	n	%
Referrer insisted	96	49.2	74	52.5
Worsening insomnia	49	25.1	39	27.7
Try new medication	30	15.4	17	12.1
Outside supply of medication stopped	5	2.6	1	0.7
Others	6	3.1	0	0

P = 0.621

Table 5. Previous Treatment provided for Patients Referred to the Insomnia Clinic

	1997 to 2000		2002 to 2005	
Treatment provider	n	%	n	%
Self medicated	9	4.6	3	2.1
Polyclinic	29	14.9	16	11.3
Family Physician	101	51.8	73	51.8
Private Psychiatrist	18	9.2	15	10.6
Other Specialist	7	3.6	9	6.4
Others	2	1.0	4	2.8
No prior treatment	29	14.9	21	14.9

P = 0.520

referral in both study periods (P= 0.621). The commonest reason was that patients had come to the Insomnia Clinic on the insistence of the referring doctor. Worsening insomnia as a reason was slightly more common in the 2002 to 2005 period (27.7%) compared to 25.1% for the 1997 to 2000 study period. The reason that patients wanted to try new medication was slightly less frequent in the later period (12.1%) compared to 15.4% for the earlier period (Table 4).

Diagnosis

The most frequent diagnosis for both periods was Primary Insomnia. The Insomnia Clinic continued to receive referrals for other diagnostic groups; however, the shift was from Major Depression/Dysthymia (20.6%) in the first period to the neurosis group, Generalized Anxiety Disorder and Obsessive Compulsive Disorder (24.1%), in the second period. This indicates that referrals still appeared to be based on symptom complaints rather than on more thorough assessments and accurate diagnosis.

Provision of Treatment Prior to Referral

More than three-quarters of the patients had received treatment before referral for specialist care, with this was 83.1% in the first period and 84.4% in the second period (*P* = 0.747). In both study periods, 51.8% of patients received treatment from family physicians although as noted earlier, these family physicians accounted for about 15% of referrals (Table 5). Thus the family physicians were willing and able to treat patients who sought help for insomnia. The next big group of treatment providers was the polyclinic doctors, 14.9% in the 1997 to 2000 period and 11.3% in the 2002 to 2005 period. Importantly, self-medication decreased by almost half from 4.6% in the first study period to 2.1% in the second study period.

Type of Treatment Provided

There was a slight increase in the use of hypnotics prior to attendance at the Insomnia Clinic from 79% in the first study period to 83.7% in the subsequent period. Significantly, however, patients in the 2002 to 2005 study group were more likely to have been taught sleep hygiene measures (*P* = 0.003; OR = 3.4; 95% CI, 1.5-8.2). Relaxation therapy, however, was less frequently used prior to the referral (5.1% decreased to 2.8%). There was no significant change in consultations with Traditional Chinese Medicine practitioners between the 2 periods (*P* = 0.145). However it is difficult to draw any conclusions, as there is an absence of referrals from this group of practitioners in the second period, which could have had an effect on this finding.

Discussion

The study indicates that there is an increasing awareness of the need for referring patients with insomnia for assessment and further management if they do not respond to initial treatment. The most common referral pathway to the Insomnia Clinic in the psychiatric hospital was via government polyclinics (approx. 60%) followed by family physicians. In total, our primary healthcare services accounted for 75.9% of the referrals. In contrast, overseas centres report predominant referrals from family physicians (40%), followed by referrals from hospital (26%) and self-referrals (23%).[6] This may be related to differences in service availability at the primary care level, utilisation and accessibility in different countries. However, there are findings that the primary care population has a higher prevalence of insomnia than the general population; Shochat et al[9] found that the prevalence of insomnia in primary care patients was 69%. This has not been studied in our local primary care population and merits further investigation.

Between 1997 and 2005, slightly more than half of the patients who sought specialist care (51.8%) had received treatment from family physicians, reflecting an important role for family physicians at the primary care level, not only as treating physicians but also as 'gatekeepers'. Studies indicate that primary care patients tend to seek medical help when they experience insomnia.[10] There is a need to elucidate insomnia-related impairment and medical comorbidity to successfully manage patients problems.[11]

Referral to a sleep centre or to a specialist medical centre could determine the impact on outcomes. The risk of untreated or poorly treated insomnia is the development of psychiatric morbidity such as depression and anxiety disorders. We have reported the prevalence of these amongst the second cohort of patients studied.[12]

One aspect of the accessibility of specialist services for sleep problems would be to measure time intervals along the pathway to care. The median interval from the onset of sleep problems to contact with specialist care was reduced in the second period. This reflects successful training and educational efforts in detection and awareness of risks of complications and comorbidity.

Referral sources are providing pharmacotherapy and increasingly behavioural approaches such as sleep hygiene measures. Although relaxation therapy can benefit many patients, time constraints in primary care practice make this a less likely treatment provision. A recent finding by the US National Institute of Health (NIH) reported office visit time constraints as 1 of 5 barriers to recognition, diagnosis and treatment of insomnia in the primary care setting.[13] Other barriers that have been identified include "inadequate knowledge base, lack of discussion about sleep, misperceptions regarding treatment and lack of evidence for functional outcomes".[14] However, there is evidence that psychological treatment for insomnia can improve sleep quality, reduce hypnotic drug use and improve health-related quality of life, with a persistence of positive outcomes for at least a year among treatment-adherent patients.[15] Furthermore, a recent study of 16 general practices involving 4754 patients has shown that short-term training of general practitioners improves their diagnostic and treatment rate for insomnia.[16]

The socio-demographic and clinical diversity of the patients seen in the Insomnia Clinic in the 2 study periods was consistent. Other studies of patients in hospital clinics and in the community have revealed a higher number of female patients with complaints of insomnia.[17,18] The complaint of insomnia is also high amongst psychiatric patients.[19] Our data for the first period showed 20.6% of major depression among those referred for insomnia but more neurotic disorders (24.1%) in the second period. These findings are not different from other centres.[20,21] However, it does raise concerns about the ability of primary healthcare providers to recognise depressive and neurotic disorders and refer them to the appropriate clinics.

This comparative study has several limitations. The number of cases seen in both periods are small and the data we have is limited and confounded by issues of adequacy of assessments and management at the primary care level. Information on treatment received prior to referral is based on self-reports and not confirmed by checks with the referrers.

Conclusion

Our findings reveal that local patients seen at government polyclinics are likely to be referred on to the Insomnia Clinic in the psychiatric hospital for further care. We have not conclusively established the reasons but raise the possibility of differences in care delivery among the various referral sources.

The time lag to referral had improved in the second period. There were no patients who had experienced insomnia for more than 5 years at the time of the referral in the study period 2002 to 2005. While the adequacy of assessments, diagnosis and treatment at the primary care level has not been established this finding indicates that there is recognition of the need for early referral.

Finally, the diagnosis of primary insomnia amongst the patients seen at the Insomnia Clinic remained the same, i.e. slightly less than half. The remaining group had depression or a neurotic disorder. This finding reinforces the need for continuing medical education and awareness of the risks of insomnia.

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