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Beliefs About Outcomes for Mental Disorders: A Comparative Study of Primary Health Practitioners and Psychiatrists in Singapore

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ABSTRACT

Objectives: To compare responses to a mental health literacy survey assessing the likely outcome of three major mental disorders by primary health practitioners (OPD doctors and GPs) and by psychiatrists in Singapore.

Methods: We used two vignettes of Major Depression and Schizophrenia developed in an Australian study. In addition, a third vignette of Mania was developed locally and included. The respondents were required to choose one of the set of prognostic options if the patients received or did not receive professional help, to rate the likely impact of the disorder, and to assess the likelihood of the patient being discriminated against. Psychiatrists' responses were obtained by surveying staff at Woodbridge Hospital, while the primary health practitioners were required to respond to a postal survey.

Results: The response rate for the psychiatrists was 70%(69/99), while the Primary health practitioners had an overall response rate of 38% (264/691). The response from OPDs being 51%(77/151) and that of the GPs being 35% (189/540). There was evidence of disorder specificity, with schizophrenia judged as having the worst outcome and depression the best outcome in response to treatment. There was also evidence of group specificity, with the psychiatrists most optimistic and the OPD doctors least optimistic about the outcome following professional intervention. The majority of both the primary health practitioners and the psychiatrists judged that patients would be discriminated against, more so for schizophrenia and mania than for depression. Compared to the OPD doctors, a lower percentage of GPs felt that the patients would be discriminated against.

Conclusion: Primary health practitioners in Singapore hold more negative views than Singapore psychiatrists about the outcome of professional intervention for three major psychiatric disorders. This finding has implications for education and training for primary health practitioners as well as for treatment of psychiatric patients in the primary health setting.

Keywords: primary health practitioners, psychiatrists, mental health literacy, outcome, discrimination

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INTRODUCTION

While numerous studies have been undertaken of public and professional attitudes towards people with mental disorders[1-4], such an issue has not been assessed locally. As health professionals have much greater contact with mental disorders than the public, their mental health literacy, defined by Jorm et al as "the knowledge and beliefs about mental disorders which aid their recognition, management or prevention"[5] is crucial in managing patients as well as influencing society in its attitude towards mentally disordered patients. Primary health practitioners (both OPD doctors and GPs) represent the largest medical group and are of influence via their provision of primary health care to the population. Jorm et al found that both the Australian GPs and psychiatrists rated a better prognosis if patients with depression or schizophrenia were to receive professional help[6]. There, both the GPs and the psychiatrists also rated outcomes as poorer, and discrimination as more likely, for the person with schizophrenia than for the one with depression. Compared to the psychiatrists, the GPs rated a more positive outcome for the person with schizophrenia and a more negative outcome for the person with depression[4]. The identification of differences in the attitudes and beliefs of mental disorders between the primary health practitioners and the psychiatrists has implications both for the education and training of doctors as well as the clinical management of patients with mental disorders in Singapore.

This Singapore study builds on the Australian methodology used by Jorm et al. In particular, it compares the mental health literacy of primary health practitioners with psychiatrists in regards to (i) attitudes

concerning the long-term functioning of, and discrimination against those with mental illness, as well as (ii) views about the prognosis for each disorder – whether treated or untreated. In addition, it attempts to compare the responses of two main groups of primary health practitioners (i.e. OPD doctors vs GPs), in view of the greater emphasis on psychiatric training for primary health practitioners in recent years.

METHOD

A questionnaire was developed, essentially based on the Australian methodology developed by Jorm et al[7], and which involves respondents being presented with a vignette meeting ICD-10 and DSM-IV criteria for Major depression or for Schizophrenia. In addition, a locally developed vignette on Mania was included: "Mr. A is 27 and lives with his parents. He has been employed for most of the time since leaving school, but has recently left his job as a salesman. He has never taken any illicit drugs. His parents state that in the past three weeks he has been extremely active, requiring less sleep and not appearing tired, being over-talkative and disinhibited and – on occasions – quite irritable. He claimed to have invented a machine for curing cancer and wished to go to the US to sell it. When stopped by his parents, he became violent and they called the police."

Questionnaires with one of the three vignettes were distributed to a randomly selected one-in-three sample of GPs (N=540) and to all OPD doctors (N=151). Departmental heads of the OPDs were requested by telephone or letter to encourage questionnaire returns, while a second questionnaire was sent to all the 540 Singapore GPs after several weeks. Questionnaires to both groups sought anonymous responses. Independently, psychiatrists at Woodbridge Hospital were requested to respond to all three vignettes (given out over fortnightly intervals) as there were comparatively fewer psychiatrists available than the primary health practitioners.

The respondents were asked questions about the diagnosis of the person described in the vignette and the helpfulness of various interventions. The respondents also rated the likely impact of the disorder on the patient's future (based on 5 negative and 5 positive long-term impacts) compared to 'other people in the community'. The 5 negative 'long-term impact' items were: 'To be violent?', 'To drink too much alcohol?', 'To take illegal drugs?', 'To have poor friendship?' and 'To attempt suicide?'. The 5 positive 'long-term impact' items were: ' To be understanding of other people's feelings?', 'To have a good marriage?', ' To be a caring parent?', 'To be a productive worker?', and 'To be creative or artistic?'. The respondents also had to choose one of a set of prognostic options if the patient received and (separately) did not receive appropriate professional help. The seven options included 'Full recovery with no further problems', 'Full recovery, but problems would probably re-occur', 'Partial recovery', 'Partial recovery, but problems would re-occur', 'No improvement', 'Get worse' and 'Don't know'. In addition, the respondents were asked to assess the likelihood of the patient being discriminated against by others in the community as a result of having the disorder.

Fisher's exact tests were used to calculate the statistical significance of the differences in frequencies, and Mann-Whitney U-tests examined for mean score differences between groups.

RESULTS

The response rate for the psychiatrists was 70% (69/99) compared to 38% (264/691) for the primary health practitioners. In the latter group, the OPDs had a higher response rate of 51% (77/151) than the 35% (189/540) of the GPs.

To respect anonymity, age was recorded across five age bands. For the psychiatrists, 58% were 30-39 years old and 24% were 40-49 years old. The OPD doctors were comparatively younger, with 90% aged 39 years old or less. In contrast, the GPs had more respondents in the older-age group, with 68% over the age of 40 years. Not surprisingly, the number of years as a doctor was higher for the GPs than for the OPD doctors (21 vs 9). In terms of previous psychiatric training, 46% of the OPD doctors indicated they had had such training, while the figure for the GPs was only 12%.

First, we consider overall group responses, with views of the primary health practitioners and psychiatrists (GP/OPD vs Psys) contrasted. In regards to the 5 negative and 5 positive long-term impacts (Table I), both the primary health practitioners and the psychiatrists generally gave similar ratings on the positive impacts for Major Depression and for Mania. The one significant difference was for Mania, where the primary health practitioners rated the patients as being less likely to take illegal drugs compared to the psychiatrist ($p=0.03$). For the Schizophrenia vignette, the psychiatrists differed significantly from the primary health practitioners in viewing patients with schizophrenia as being more likely to have poor outcomes on eight of the ten impact parameters. While we did not formally examine ratings across the three vignettes, mean ratings indicate a clear hierarchy, across both psychiatrists' and primary practitioners' responses, for Depression to have the most positive long-term impacts and Schizophrenia the least positive (with Mania intermediate).

Table I. Mean ratings for long-term impacts for the three vignettes, contrasting judgements made by the three professional groups.

Outcome	GP	OPD	PSY	P-values GP vs OPD	P-values GP/OPD vs PSY
Depression					
Negative outcomes					
Be violent	1.36	1.48	1.41	0.37	0.96
Drink too much	1.41	1.76	1.29	0.06	0.25
Take illegal drugs	1.38	1.76	1.50	0.05*	0.84
Have poor friendships	1.51	1.63	1.31	0.40	0.23
Attempt suicide	1.47	1.79	1.71	0.08	0.46
Positive outcomes					
Understand others' feelings	2.47	2.36	2.67	0.43	0.44
Have a good marriage	2.29	2.30	2.46	0.93	0.59
Be a caring parent	2.47	2.26	2.54	0.13	0.59
Be a productive worker	2.45	2.24	2.56	0.18	0.46
Be creative or artistic	2.18	2.15	2.31	0.78	0.50
Mania					
Negative outcomes					
Be violent	1.28	1.38	1.41	0.98	0.37
Drink too much	1.46	1.31	1.67	0.41	0.12
Take illegal drugs	1.35	1.40	1.71	0.95	0.03*
Have poor friendships	1.64	1.59	1.76	0.69	0.40
Attempt suicide	1.37	1.56	1.90	0.53	0.06
Positive outcomes					
Understand others' feelings	2.05	2.13	2.13	0.71	0.87
Have a good marriage	2.07	2.15	2.07	0.73	0.89
Be a caring parent	2.07	2.40	2.17	0.17	0.92
Be a productive worker	2.28	2.50	2.29	0.23	0.60
Be creative or artistic	2.10	2.24	1.88	0.44	0.15
Schizophrenia					
Negative outcomes					
Be violent	1.26	1.67	1.83	0.02*	0.005**
Drink too much	1.37	1.57	1.79	0.17	0.02*
Take illegal drugs	1.38	1.57	1.95	0.21	0.002**
Have poor friendships	1.64	1.96	2.36	0.19	0.003**
Attempt suicide	1.49	1.87	2.35	0.09	0.001***
Positive outcomes					
Understand others' feelings	2.10	1.78	1.68	0.13	0.15
Have a good marriage	1.93	2.04	1.53	0.61	0.04*
Be a caring parent	1.98	2.05	1.56	0.74	0.04*
Be a productive worker	2.06	2.09	1.67	0.90	0.04*
Be creative or artismtic	1.85	2.17	1.71	0.07	0.15

High scores indicate outcome more likely.
Rating scale: 3= 'more likely'; 2= 'just as likely'; 1= 'less likely'. *P<0.05, **P<0.01, ***P<0.001.

Table I data also examine for differences between the two primary health practitioner sub-groups. There is a relatively consistent trend for the OPD doctors to rate the impact of depression more negatively than rated by the GPs (but statistically significant only for the greater chance of taking illegal drugs). For Mania, no differences or trends were identified. For Schizophrenia, there was a consistent trend (significant only in regards to violence) for the OPD doctors to rate the chance of a negative impact as more likely. Overall, differences between the two primary health practitioner groups were less than their combined differences with the psychiatrists.

In Table II, we examined prognostic estimates (forced "most likely" outcome) across the three practitioner groups. For Major Depression and Mania, the majority in the three groups judged that the patient would most likely get worse without professional help. All the psychiatrists rated that the patient would most likely achieve full recovery with or without further problems if he received professional help. The primary health practitioners were significantly less optimistic: with professional help, 10% of the GPs and 17% of the OPD doctors rated that the depressed patient would most likely have a partial recovery with or without reoccurrence of problems, while the corresponding figures for Mania were 20% for the GPs and 44% for the OPD doctors.

Table II. Prognosis (percentage estimates of "most likely outcome") provided by psychiatrists, GPs and OPDs if patients either did not receive, or did receive professional help, with statistical tests examining for differences across the three groups.

Prognosis	GPs	OPDs	PSYs	χ^2	P
Depression					
Likely results without professional help					
Full recovery with no further problems	0	0	0		
Full recovery, but problems would probably reoccur	1	3	11		
Partial recovery	1	3	5		
Partial recovery, but problems would probably reoccur	7	24	21		
No improvement	7	7	0		
Get worse	83	59	63		
Don't know	0	3	0	17.1	0.02
Likely result with professional help					
Full recovery with no further problems	13	14	37		
Full recovery, but problems would probably reoccur	78	69	63		
Partial recovery	0	7	0		
Partial recovery, but problems would probably reoccur	10	10	0		
No improvement	0	0	0		
Get worse	0	0	0		
Don't know	0	0	0	11.2	0.05
Mania					
Likely results without professional help					
Full recovery with no further problems	0	0	0		
Full recovery, but problems would probably reoccur	2	0	9		
Partial recovery	0	0	0		
Partial recovery, but problems would probably reoccur	6	6	26		
No improvement	6	0	0		
Get worse	86	94	65		
Don't know	0	0	0	10.1	0.05
Likely result with professional help					
Full recovery with no further problems	8	0	4		
Full recovery, but problems would probably reoccur	73	56	96		
Partial recovery	6	0	0		
Partial recovery, but problems would probably reoccur	14	44	0		
No improvement	0	0	0		
Get worse	0	0	0		
Don't know	0	0	0	15.8	0.004
Schizophrenia					
Likely results without professional help					
Full recovery with no further problems	0	0	0		
Full recovery, but problems would probably reoccur	0	0	4		
Partial recovery	0	0	0		
Partial recovery, but problems would probably reoccur	3	4	0		
No improvement	5	13	4		
Get worse	90	83	92		
Don't know	2	0	0	6.7	0.61
Likely result with professional help					
Full recovery with no further problems	5	0	4		
Full recovery, but problems would probably reoccur	60	58	72		
Partial recovery	2	4	4		
Partial recovery, but problems would probably reoccur	33	38	20		
No improvement	0	0	0		
Get worse	0	0	0		
Don't know	0	0	0	4.1	0.64

For the Schizophrenia vignette, all three groups shared a negative view of the outcome for the patient without any professional help (with the psychiatrists being more negative than the other two groups). If professional help was provided however, the psychiatrists anticipated a somewhat more positive outcome than members of the other two groups.

The majority in each of the three groups rated that patients with any of the three mental disorders would be discriminated against, with Schizophrenia and Mania more likely than Depression (Table III). For Schizophrenia, significantly fewer GPs (85%) compared to the psychiatrists and OPD doctors (100% for both) rated that patients would

Table III. Ratings by psychiatrists, GPs and OPDs as to whether patients would be discriminated against by others.

Discrimination	GPs (%)	OPDs (%)	PSYs (%)	χ^2	P-values
Depression					
Yes	46	52	67		
No	54	48	3 3	2.5	0.28
Mania					
Yes	82	94	91		
No	18	6	9	2.4	0.29
Schizophrenia					
Yes	85	100	100		
No	15	0	0	8.0	0.02

be discriminated against, while the respective figures for Major Depression were much lower: 46% for GPs, 52% for OPD doctors and 67% for psychiatrists. For Mania, fewer GPs rated that the patient would be discriminated against compared to the psychiatrists and the OPD doctors (82% vs 91% and 94%) (Table III).

DISCUSSION

The mean ratings for the five positive and five negative long-term impacts for Major Depression and Mania suggested that both the primary health practitioners and the psychiatrists viewed relatively minimal negative impact of these two disorders on functioning over time. As the ratings were given with the assumption that the patient had received help, the similarity might have reflected their common view about the effectiveness of the treatment rendered rather than just the natural course of the disorders. Using other data from the present study[8,9], it was found that both psychiatrists and the primary health practitioners overwhelmingly rated doctors (especially psychiatrist and general practitioners) as likely to be helpful for all three disorders. There, both groups were also similarly positive in their views about the likely helpfulness of anti-depressants for Major Depression and anti-psychotics for Mania and Schizophrenia. These shared views might have stemmed from the common medical training (thus the adoption of a medical model) of the two groups. The psychiatrists were particularly more likely to endorse the interventions associated with their own profession, a finding similar to that of Jorm et al[7] in Australia. This finding was supported in the present analysis by 100% of the psychiatrists judging that patients with major depression and mania would have a full recovery with or without reoccurrence of the problem after professional help was rendered. In contrast, a significant percentage of the primary health practitioners (about one - fifth for major depression and one-quarter for mania) rated a less positive outcome (i.e. a partial recovery with problem reoccurring) even after professional help was given.

For Schizophrenia, all groups anticipated a more negative impact of the disorder (compared to the other two), and a very negative outcome in the absence of professional help. However, the psychiatrists gave a more positive prognosis compared with the primary health practitioners if professional help was given.

The relative optimism of the psychiatrists compared to the primary health practitioners might be due to the recent advances in psychopharmacology in the treatment of affective disorders[10-12] and schizophrenia[13-15]. These advances have enabled psychiatrists to treat those patients whose illnesses did not respond to the 'older' generations of medications or who were intolerable of the side-effects of those medications. There are also data that suggest the newer medications are subjectively better tolerated and have a more favourable impact on the quality of life compared with the conventional ones[16].

The World Health Organization (WHO) study of consecutive presenters in primary care reported an average prevalence rate of 10.4% for current depressive episode[17]. But there is growing body of research data suggesting that depression in primary care may differ from that in psychiatry in its nature, severity, comorbidity, and responsiveness to treatment[18]. Coyne et al[19] found that family physicians performed relatively poorly in detecting depression. But the detection was strongly related to severity with 73% of severely depressed – as opposed to only 18.4% of mildly depressed – patients being detected. This may account for the less optimistic belief about the outcome of depression of the primary health practitioners if they may pick up only the more severe cases and miss the milder ones.

Studies in primary care setting[20,21] found less than 1% of patients met the criteria for schizophrenia or bipolar disorder. In the local setting, most of the patients with schizophrenia remain under the care of the psychiatric outpatient clinics. The patients with possible schizophrenic illness are likely to be referred to the psychiatrist by the primary health practitioners. It is therefore probable that managing schizophrenic illness forms only a very small proportion of the primary health doctors' practice. Thus, the primary

health practitioners may not have the opportunity to observe the improvement of the patients they have diagnosed and referred.

The causes of stigmatization of mental disorders are multi-factorial. This study reinforces the finding by Jorm et al that patients with schizophrenia are viewed by psychiatrists and primary health practitioners as having a higher propensity of being discriminated against compared to those with Major Depression. In our study, the Mania vignette also received very high discrimination rating. A possible reason might be the attitude that being depressed is 'less abnormal' and socially more acceptable compared to the psychotic manifestations of schizophrenia and mania.

For the primary health practitioners, the GPs were seemingly more optimistic than the OPD doctors regarding the outcome of depression and mania when professional help was given and a lower percentage of them, compared to the OPD doctors, rated that patients with the three mental disorders would be discriminated against. It is uncertain if the differential percentage of the two groups with previous psychiatric training contributed to the difference in the responses of the two groups of primary health practitioners.

The low response rate of the primary health practitioners (especially the GPs) limits the generalisability of this study. Another limitation is that the questionnaire was based on one developed for lay persons and not necessarily optimal for professional respondents. The respondents were required to make a simple choice without scope for qualification.

This study highlights the need for the primary health practitioners to keep abreast of advances in the treatment of mental disorders as much as the other disciplines of medicine. Orstein[22] found high prevalence and wide interpractice variations of diagnosing depression and prescribing antidepressants in primary care. Further studies to look into the knowledge and usage of psychiatric medications in primary care locally may be useful in clarifying their differential beliefs about the outcome of major mental disorders compared to the psychiatrists.

In addition, there should be studies to assess the mental health literacy of the Singapore general public. This would then have enormous implications for the way both psychiatrists and primary health practitioners manage and communicate with psychiatric patients.

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