

Full Length Research Paper

Training allied mental health professional to use Mini International Neuropsychiatric Interview for clinical screening

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Received 30 June, 2017; Accepted 24 August, 2017

The term “psychiatric disorder” can be synonymously used as a mental illness or mental disorder that interferes with the way a person behaves, interacts with others, and functions in routine life. This study was aimed to train allied mental health professionals on Mini International Neuropsychiatric Interview (M.I.N.I) tool in categorizing patients during their first psychiatric/psychological consultation. The study sample comprised of 107 patients who attended their first psychiatric consultation to the outpatient clinic of M.S. Chellamuthu Trust and Research Foundation. After the proper training session, the M.I.N.I was administered by the psychiatric social workers and psychologists, and the diagnosis was compared with the ICD 10 classifications by the psychiatrist. Out of 107 patients, 98 diagnoses match with each other and 9 diagnoses mismatch with each other. The accuracy of diagnosis was 91.8 percent. Overall, training to the allied health workers appears to be useful. The main finding of this study is that M.I.N.I can be administered by other allied mental health professionals after providing a proper training program. The training programs would help the trainees to develop their knowledge and skills in the particular area and enhance their ability. Psychiatric training can enhance the mental health care in clinical psychiatry with possible psychiatric implications, including early detection and better treatment for patients with mental health problems. Psychiatric institutions would benefit by incorporating this system in their work patterns in order to reduce the burden in their work and mental health system.

Keywords: Diagnosis, M.I.N.I, ICD 10, Mental Health, Training, Psychiatrists, Psychologists and Social Workers.

INTRODUCTION

The term “psychiatric disorder” can be synonymously used as a mental illness or mental disorder that interferes

with the way a person behaves, interacts with others, and functions in a routine life. The World Health Organization reported that worldwide over 450 million people suffer from psychotic disorders (Roma et al., 2014). Epidemiological studies show that the prevalence rate of psychiatric disorders ranges from 9.5 to 370/1000

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population in India (Math et al., 2007; Math and Srinivasaraju, 2010)

Mental disorders contribute heavily to the global burden of disease (Kessler et al., 2009). On the other hand, detection of psychiatric disorders and their standardised treatment lag behind when compared with the major somatic disorders. Early identification can reduce permanent disability and reduces the burden on mental health services (Rakesh, 2017). Some of the studies show that general physicians are neglecting to detect and diagnose around half of psychiatric disorder cases that come into primary care (Ustun et al., 1995; Ustun, 1998; Vazquez-Barquero et al., 1999; Goldberg et al., 2001).

The standard structured or semi-structured application of psychiatric meetings may help to enhance the quality of psychiatric diagnosis in clinical practice and therefore enhance designation to successful treatment (Nienhuis et al., 2010). There are several psychiatric structured diagnostic interview instruments available; however, the Mini International Neuropsychiatric Interview (M.I.N.I) is a widely used psychiatric structured diagnostic interview instrument by the psychiatrist in clinical settings (Sheehan et al., 1998). The interview can be administered by clinicians, after a brief training session and lay interviewers' need more extensive training (Bawo et al., 2013). Psychiatric diagnoses were measured using the Mini International Neuropsychiatric Interview administered by trained primary health care physician (de Azevedo Marques and Zuardi, 2008) and research nurses (Myer et al., 2008).

Worldwide, the M.I.N.I was widely used in psychiatric practice and clinical psychology practice. The M.I.N.I was planned to serve as a quick diagnostic screening tool for psychiatric disorders (15-20 minutes), despite the fact that it may take up to an hour to administer. Moreover, unlike CIDI and SCID-I, the interviewers do not need extensive training to administer M.I.N.I (Lorraine et al., 2013).

In most mental health care systems, psychologists and psychiatric social workers are the cornerstones in diagnosing the disorders and providing counselling. M.I.N.I is the main tool for the psychologists and social workers to diagnose the patients. However, in India, most of these professionals are not trained in the administration of M.I.N.I.

Black et al. 2004 reported that two 120 minute training sessions in the use and administration of the MINI was sufficient for interviewers with an undergraduate level of education (Black et al., 2004)

Although some studies have discussed Mini International Neuropsychiatric Interview training for primary health care physicians (de Azevedo Marques and Zuardi, 2008) and research nurses (Myer et al., 2008), there has been no research on psychologists and psychiatric social workers who work in the psychiatric hospitals.

This study was aimed to train allied mental health professionals on M.I.N.I tool in categorizing patients during their first psychiatric/psychological consultation.

MATERIALS AND METHODS

The study sample was comprised of 107 patients who attended their first psychiatric consultation to M.S. Chellamuthu Trust and Research Foundation outpatient clinic. The duration of the study was 12 months (Flow chart 1).

Inclusion Criteria

1. Age of patient : 18- 45 years
2. Patients who are accompanied by a reliable caregiver
3. Patients who are not under any form of medication for psychiatric illness
4. Both Male and female patients

Exclusion Criteria

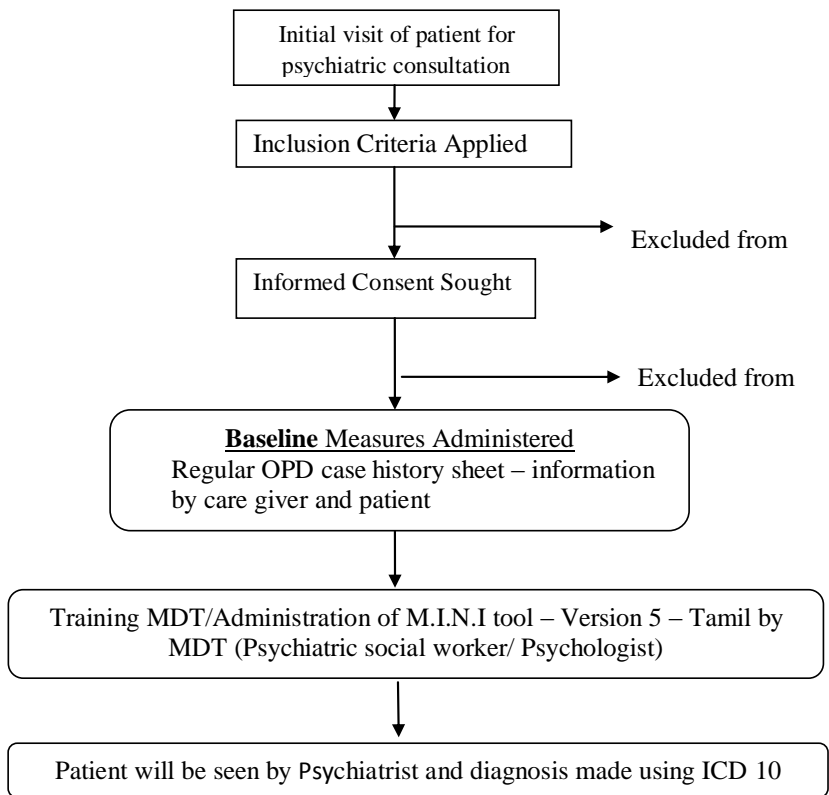
1. Patients with presence of organic or neurological conditions like head injury other than substance dependence.
2. Patients with violent and aggressive behavior.
3. Patients having mental retardation.
4. Patient or relatives who refuse to give consent to the study.
5. Patients who suffer from major physical illness allied with mental illness.

Mini International Neuropsychiatric Interview (M.I.N.I)

Mini International Neuropsychiatric Interview (M.I.N.I) (Sheehan et al., 1998; Black et al., 2004; Otsubo et al., 2005); In this study, the Tamil version (5.0) of M.I.N.I was used as a screening tool. The Tamil version was developed by Soman Elangovan (2007) and the scale was validated by Quintiles research Bangalore. The scale was administered by psychiatric social workers and psychologists after the proper training session.

International Statistical Classification of Diseases

International Statistical Classification of Diseases (ICD) (Geoffrey M. Reed, 2010) is a standard diagnostic tool for epidemiological research, health management and clinical decision. ICD-10 was used as a diagnostic tool by psychiatrists in this study. After the evaluation and diagnosis done by Psychologists and Psychiatric social



Flowchart 1. Patients attended their first psychiatric consultation to M.S.Chellamuthu Trust & Research Foundation outpatient clinic. As per the inclusion and exclusion criteria the patients were selected. Selected patients were briefed about the study and the ones who accepted, gave their consent to participate. Case history was collected from the patient and the care givers by a psychologist. M.I.N.I scale was administered by a trained psychiatric social worker and psychologist. The results are reported and the same patient is evaluated again by a psychiatrist and diagnosis is done using ICD 10.

workers using M.I.N.I tool (Tamil version), the diagnosis is to be compared with ICD 10 classifications by the Psychiatrist.

Training to the staffs

Psychologists and social workers who had minimum one year experience in the field of mental health were included in the study. Six allied mental health professionals (3 Psychologists and 3 Psychiatric social workers) were recruited from M.S. Chellamuthu Trust and Research Foundation. The training was held for two days; each day the trainees underwent 4 hours of training regarding how to diagnose common mental disorders by using the M.I.N.I. The role play interview was allotted to all the trainees to evaluate their level of understanding of M.I.N.I. After the interview, feedback were given to the trainees in relation to their performance. The trainees were enrolled into the study

after well versed with the scale. The trainees were educated about the study protocol, ethical considerations and consent procedures. The training was conducted by two psychiatrists and one clinical psychologist. The M.I.N.I scale was selected in the study as it was easy and quick to administer, covering a wide range of disorders and did not require extensive training.

Ethical Committee Approval

The approval was obtained from Institutional Ethics committee, M.S.Chellamuthu Trust and Research Foundation, Madurai, Tamilnadu, India.

Statistical Tools

Statistical analysis was performed using Epidemiological

Information Package (EPI 2012) developed by the Centers for Disease Control, Atlanta. Using this software range, frequencies, percentages, means, standard deviations, chi square, 't' value and 'p' values were calculated. 't' test and ANOVA were used to test the significance of the difference between quantitative variables and Yate's and Fisher's chi square tests for qualitative variables. A 'p' value less than 0.05 is taken to denote a significant relationship.

RESULTS

The M.I.N.I was administered to 107 patients and six allied mental health professionals (3 Psychiatric social workers and 3 Psychologist) recruited to administer the M.I.N.I. and subsequently ICD-10 rated by a psychiatrist (Table 1).

All the cases were initially diagnosed by Psychologists and Psychiatric social workers, and afterward those cases were diagnosed by the Psychiatrist separately. Out of 107, 98 diagnoses matched with each other and 9 diagnoses were mismatched with each other (Table 2, 3, 4). The reason behind this statistic is that M.I.N.I scale does not cover any of the disorders which are seen in ICD 10.

DISCUSSION

Early identification was not taken into serious consideration until the mid-1990s (Thomas, 2005). The time span between the onset of psychosis and identification and treatment can extend from a few weeks to a few years. Delay in the identification of mental health problems leads to the untreated psychotic state itself and may increase the risk of a poor outcome. Early identification requires a familiarity with risk factors, the perception of warning signs and the application of screening tools (Family physician guide, 2008).

In India, unfortunately, the psychiatrists are very few and they are busy in their clinical work (Mayes, 1998). There are 5000 psychiatrists available in the country for a billion people (Almanzar et al., 2014), which may increase the burden of the psychiatrist.

Corrigan et al. 2007 revealed that one of the important barriers in the mental health care system is psychiatrists' time constraints. Most of the mental health institutes have insufficient time to cover the basic assessments and pharmacological management of patients.

Training to the mental health professionals could be increased and improved to reduce the treatment gap in the mental health care system (Kohn et al., 2004) and it would reduce the burden on psychiatrists. Training on the screening tools helps in categorizing the patients during the initial visit, which will help the psychiatrist to arrive at a treatment plan faster.

Primary health care is the place where most of the mentally unwell individuals first come for help (Anant, 2011). In India; a treatment gap is huge in rural areas, since there is low or no mental health service availability. Mental health services in rural areas are highly neglected; it needs immediate attention which reduces the treatment gap and the burden of the disease (Goldberg, 2003).

Wani et al. 2008 reported that primary health care professionals have difficulties in identifying and diagnosing the psychiatric disorders. Time constraints for doctors can be a vital component for patients with psychiatric disorders takes extra time than other patients. The improvements in the diagnostic of psychiatric disorders may be achieved with short training and updates in psychiatry.

The accuracy of diagnosis was 91.8% and the present study also revealed that age, sex, specialization and year of experience of trainee do not have any significant association with diagnostic accuracy. The reason behind this statistics is that M.I.N.I scale does not cover some of the disorders, which are seen in ICD 10, which could be a limitation.

Overall, training to the trainees appears to be useful. The main finding of this study is that the M.I.N.I can be applied by the psychologists and psychiatric social workers after undergoing a proper training program. The training programmes would help the participants to develop their knowledge in the particular area and enhance the ability in the treatment programme.

The first professional encounter for many people seeking help for psychiatric problems is usually their general practitioner. They are most likely to prescribe, supply, or recommend a medication for the management of mental health related problems. They provide another most common form of management is counselling, advice or other treatments, with psychological counselling the most frequently provided service (Mental health services in brief, 2012).

Supporting general practitioners, primary care providers, psychologists and social workers with education and training will allow better diagnosis and treatment of psychological disorders, and will provide referral pathways for appropriate assessment and treatment of clients with psychological disorders, including by specifically qualified psychologists, clinical psychologists, accredited social workers and accredited occupational therapists (Better Access to Mental Health Care initiative, 2007).

CONCLUSION

Psychiatric training can enhance mental healthcare staff's knowledge in clinical psychiatry with possible psychiatric implications, including early detection and better treatment for patients with mental health problems. Every psychiatric institution shall incorporate

Table 1. Profile of cases studied

Variable	Parameter	Value
Cases studied	Number	107
PATIENT PROFILE		
Age (yrs)	Mean	32.1
	S.D.	8.0
Sex	Male	68 (63.6%)
	Female	39 (36.4%)
TRAINER PROFILE		
Age (yrs)	Mean	26.0
	S.D.	1.5
Sex	Male	1(16.7%)
	Female	5(83.3%)
Experience(yrs)	Mean	1.97
	S.D.	0.76
Specialization	Psychologist	3(50%)
	Social Worker	3(50%)

Table 2. Comparison of Diagnosis by Trainee and Psychiatrist

Diagnosis	Cases	
	No.	%
Matched with each other	98	91.6
Mismatched with each other	9	8.4
Total cases	107	100
Accuracy of diagnosis		91.6%

Table 3. Association of Diagnostic accuracy and other variables

Variable	Value for cases		'p'
	Tallying	Differing	
Age of patient (yrs)	32.5 ± 8.1	28.6 ± 6.6	0.1625 Not significant
Age of Trainee	26.1 ± 1.6	25.2 ± 0.7	0.1009 Not significant
Years of experience (Trainee)	2.01 ± 0.77	1.56 ± 0.61	0.084 Not significant
<u>Sex of patient</u>			
Male	63 (92.6%)	5 (7.4%)	0.4265 Not significant
Female	35 (89.7%)	4(10.3%)	
<u>Case Assessed By</u>			
Male	18 (100%)	0(0%)	0.1773 Not significant
Female	80(89.9%)	9(10.1%)	
<u>Case Assessed By</u>			
Psychologist	48(96%)	2(4%)	0.1159 Not significant
Social Worker	50(87.7%)	7(12.3%)	
<u>Sex of patient & Trainee</u>			
Same	41 (91.1%)	4 (8.9%)	0.5728 Not significant
Different	57 (91.9%)	5 (8.1%)	

Table 4. Details of differing Diagnosis

No.	Diagnosis as per	
	Trainee	Psychiatrist
1	Generalized anxiety disorder	Generalized anxiety disorder with Anxious avoidant personality
2	Major Depressive episode	Major Depressive episode with Sexual problem
3	Major Depressive episode and suicidality	Bipolar affective disorder, current severe depression with suicidal ideation
4	Obsessive compulsive disorder	Obsessive compulsive disorder with Somatoform disorder
5	Panic disorder	Panic disorder with sleep disorder
6	Generalized anxiety disorder	Generalized anxiety disorder with Anxious avoidant personality
7	Panic disorder and agoraphobia	Panic disorder with health anxiety
8	Psychotic disorder	Mild MR with Psychosis
9	Psychotic disorder	Schizoaffective disorder

this system in their work pattern which helps to reduce the burden on the mental health system. In Primary Health centers which are in rural and remote areas, use of M.I.N.I tool by the multidisciplinary staff team would complement in the screening of mental illness where mental health professionals are not readily available and long term benefits are cost effective when we train the multidisciplinary staff.

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How to cite this article: Ramasubramanian C, Soman E, Karthikeyan K, Ramasubramanian V, Raja Soundara P, Gopi R (2017). Training allied mental health professional to use Mini International Neuropsychiatric Interview for clinical screening. *Int. Inv. J. Med. Med. Sci.* Vol. 4(4): 34-40