



Assessing catatonia using four different instruments: Inter-rater reliability and prevalence in inpatient clinical population



Siddharth Sarkar^{a,b,*}, Sreekanth Sakey^a, Kaliaperumal Mathan^{a,c}, Balaji Bharadwaj^a, Shivanand Kattimani^a, Ravi P. Rajkumar^a

^a Department of Psychiatry, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, India

^b Department of Psychiatry and National Drug Dependence Treatment Centre, All India Institute of Medical Sciences (AIIMS), New Delhi, India

^c Department of Psychiatry, Indira Gandhi Medical College and Research Institute, Puducherry, India

ARTICLE INFO

Article history:

Received 4 March 2016

Received in revised form 2 July 2016

Accepted 6 July 2016

Available online xxx

Keywords:

Catatonia

Diagnosis

ICD10

DSM5

ABSTRACT

Background and aims: The present study aimed to assess inter-rater reliability and prevalence of catatonia according to four diagnostic methods: Bush Francis Catatonia Rating Scale (BFCRS) both screening and complete scale, Braunig's Catatonia Rating Scale (CRS), ICD 10 and DSM5.

Methods: For inter-rater reliability, different raters evaluated patients using the definitions provides by the four scales: BFCRS Screen and Total, CRS, ICD10 and DSM5. Krippendorff's α was used to compute the inter-rater reliability. Concordance between different systems was assessed using spearman correlation. Prevalence of catatonia was studied using the four definitions in a clinical sample of consecutive adult admissions in a psychiatry ward of a tertiary care hospital.

Results: The inter-rater reliability was found to be good for BFCRS Total ($\alpha = 0.779$), moderate for DSM5 and BFCRS screen ($\alpha = 0.575$ and $\alpha = 0.514$ respectively) and low for CRS and ICD10 ($\alpha = 0.111$ and $\alpha = 0.018$ respectively). BFCRS Total and DSM5 definitions of catatonia had highest concordance ($r_s = 0.892$ $p < 0.001$). In the prevalence sample of consecutive hospital admissions, the prevalence was found to be highest with the definitions of BFCRS Screen and ICD 10 (10.3%, confidence intervals [CI] 3.9% to 16.7%), followed by BFCRS Total and DSM5 definitions 6.9%, CI 1.6% to 12.2%) and while CRS yielded the lowest prevalence rate (3.4%, CI 0% to 7.2%).

Conclusion: Different methods used to determine catatonia in the clinical sample yield different prevalence of this condition.

© 2016 Elsevier B.V. All rights reserved.

1. Introduction

Catatonia is an important clinical symptom and diagnostic syndrome encountered in psychiatric clinical practice (Fink, 2009; Fink and Taylor, 2009; Francis, 2010; Padhy et al., 2014). It has been characterized by a variety of signs and symptoms including mutism, negativism, posturing, rigidity, staring, stereotypy, mannerisms, echophenomena, perseveration, automatic obedience and others (Francis, 2010; Tandon et al., 2013). Catatonia can be present in a variety of psychiatric disorders including depression, mania, schizophrenia, as well as, in organic disorders (Francis, 2010; Krüger and Bräunig, 2000). Recognition of catatonia

is important as it can be associated with significantly impaired self care, poor oral intake and/or unpredictable aggression leading to threat to self or others. Thus, patients with catatonia often require management in the inpatient setting.

The rate of catatonia in the inpatient setting has been found to be variable in the published literature. The rate of prevalence of catatonia has ranged from 0.7% to 31.1% (Bräunig et al., 1998; Usman et al., 2011), though many studies have reported the rate to be in the range of 5 to 10% (Bush et al., 1996; Chalasani et al., 2005; Dutt et al., 2011). The differences in rates can be explained to some extent by the setting and hospital admission policies, but it also depends on how catatonia has been conceptualized and assessed. Retrospective studies have yielded lower rates of catatonia than prospective studies which have systematically assessed catatonia (Chalasani et al., 2005; Narayanaswamy et al., 2012; Thakur et al., 2003; Usman et al., 2011), suggesting that catatonia might not be given separate consideration while making a diagnosis or might be missed when not looked for specifically.

* Corresponding author at: Department of Psychiatry and National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, Ansari Nagar, New Delhi, 110029, India.

E-mail address: sidsarkar22@gmail.com (S. Sarkar).

The place of catatonia in the psychiatric nosological systems has been debated, and the differences in conceptualization of catatonia have been brought to attention. Yet, there is a lack of studies which have assessed the concordance of the diagnosis of catatonia according to various methods of assessing catatonia. Hence, this study attempted to assess the concurrence of the various catatonia ascertainment methods in clinical population, and aimed to find the prevalence rate of catatonia in the inpatient setting.

2. Methods

2.1. Setting of the study

The present study was conducted at the department of psychiatry of a tertiary-care teaching hospital in south India. The hospital is central government funded institution, and caters to patients from in and around Puducherry. The department of psychiatry of this general multispecialty hospital provides both outpatient and inpatient services. The patients registered in the department of psychiatry are assessed in detail and discussed with consultant for arriving at a diagnosis.

Treatment is highly subsidized through government funding. The hospital provides treatment in the form of pharmacotherapy and psychotherapy. Appropriate investigations are conducted as per clinical need, and modified electro-convulsive therapy (ECT) is utilized when required. Inpatient treatment is typically of short duration, lasting less than a month and focussing on stabilization of acute disturbance. Typically, family members stay along with the patient during the period of inpatient stay. Long stay patients are referred to more equipped centres for further management. The present study was conducted in the inpatient setting of the hospital. The study had institutional ethics committee approval, and was conducted from Nov 2013 to July 2014.

2.2. Instruments used for assessment of catatonia

The study was based on the premise that different catatonia diagnostic methods would view catatonia from different perspectives. The present study evaluated four diagnostic systems as discussed below.

Bush Francis Catatonia Rating Scale (BFCRS) (Bush et al., 1996): This is a widely used instrument used for assessment of catatonic symptoms in the clinical setting. This clinician rated instrument has 23 items covering the various catatonic signs and symptoms. The first 14 items constitute the screening questionnaire (BFCRS – Screen), while the entire 23 item questionnaire provides a more comprehensive assessment (BFCRS–Complete). An individual is suggested to have catatonia if 2 or more items are endorsed at least to some extent on the BFCRS Screen, or when 4 or more items are endorsed on the BFCRS complete questionnaire.

The Braunig's Catatonia Rating Scale (CRS) (Bräunig et al., 2000): This is yet another instrument that is helpful in establishing the diagnosis of catatonia. This clinician rated instrument has 21 items, each of which is rated on a likert scale from 0 (absent) to 4 (severe). Catatonia is deemed to be present when at least 4 items are graded at 2 or more.

ICD 10 (World Health Organization, 1992, p. 10): Different sections of ICD 10 conceptualize catatonia differently. In fact, there is no specific provision of catatonia under mania, and 'stupor' is the qualifying term for patients suffering from depression presenting with catatonic symptoms. Hence, the present study used definition provided for catatonic schizophrenia. Clear presence of one out of the seven symptoms is sufficient for the diagnosis of catatonia.

DSM5 definition (American Psychiatric Association, 2013): The DSM5 provides a cross-cutting definition of catatonia, which is consistent across diagnostic groups. According to DSM5, catatonia

is deemed to be present if 3 out of 12 symptoms are present simultaneously.

2.3. Phase 1: inter-rater reliability

Assessment of inter-rater reliability was conducted in subset of patients suspected to have catatonia. The patients were selected by one of the investigators. Several residents and one assistant professor from the department of psychiatry were asked to rate for the presence of catatonia using the various diagnostic criteria, i.e. BFCRS Screen, BFCRS Complete, CRS, ICD 10 and DSM5. The raters included two residents with 1–2 years of training, three residents with 4–5 years of experience in psychiatry and one assistant professor with 8 years of experience in psychiatry. The assessments for a particular patient were made by the assessors on the same day to minimize temporal variations in catatonic symptoms over time. The raters were given copies of the various diagnostic assessment systems and given an opportunity to clarify doubts if any, prior to conduct of the assessments. Thereafter, the raters independently used the catatonia diagnostic systems following the instructions from the instruments. This was done to emulate real-world setting wherein specific didactic and practicum training for all catatonia diagnostic methods might not be compulsorily included in residency, and clinicians have to rely on their understanding of the text.

2.4. Phase 2: prevalence study

In this part of the study, consecutive patients admitted to the inpatient facility were included if they were admitted for a period of more than 24 h and were accompanied by a caregiver. All patients irrespective of their admission diagnosis were offered participation. Patients were excluded if the patient and/or the caregivers failed to provide informed consent. At the time of inclusion in the study, the basic demographic details of the patients, and the admission diagnosis was recorded. The patients who were included were assessed by only one of the two raters (SS or MK) for the presence of catatonia according to the four diagnostic methods as described above. The first assessment was conducted within 48 h of admission and the subsequent assessment was conducted at weekly intervals till the time of discharge.

2.5. Statistical analysis

For computation of inter-rater reliability, ratings on each of the diagnostic methods were converted into presence or absence of catatonia. Krippendorff's α was used to calculate inter-rater reliability, using a web based portal (Freelon, 2010). This statistic was chosen as multiple raters assessed the same patient. The correlation of the presence of catatonia according to various catatonia diagnostic methods was assessed using Spearman's correlation coefficient (ρ). The statistical analysis for the prevalence estimation of catatonia primarily relied on descriptive statistics. Ninety five percent confidence intervals were computed for the prevalence rate of catatonia using the various catatonia rating methods. A p value of less than 0.05 was considered significant and missing value imputation was not conducted.

3. Results

3.1. Phase 1: inter-rater reliability

The inter-rater reliability assessment was conducted on a set of 3 patients by 6 different raters. All the raters assessed all the 3 patients. The inter-rater agreement in terms of Krippendorff's α are shown in Table 1. It was seen that BFCRS complete scale had the

Download English Version:

<https://daneshyari.com/en/article/316647>

Download Persian Version:

<https://daneshyari.com/article/316647>

[Daneshyari.com](https://daneshyari.com)