A STUDY OF DISABILITY IN MAJOR MENTAL ILLNESS IN IN-PATIENTS AND OUT-PATIENTS IN A PSYCHIATRIC HOSPITAL

DISSERTATION SUBMITTED

For Partial Fulfilment of the

Rules and Regulations

DOCTOR OF MEDICINE
BRANCH - XVIII (PSYCHIATRY)

INSTITUTE OF MENTAL HEALTH

MADRAS MEDICAL COLLEGE,

THE TAMIL NADU DR. M. G. R. MEDICAL UNIVERSITY, CHENNAI, INDIA

MAY 2018

CERTIFICATE

This is to certify that the dissertation titled, **"A STUDY OF DISABILITY IN MAJOR MENTAL ILLNESS IN IN-PATIENTS AND OUT-PATIENTS IN A PSYCHIATRIC HOSPITAL"** is the bona fide work of **Dr. NISHANT KUMAR SAHU**, in partial fulfilment of the requirements for the M.D. Branch – XVIII (Psychiatry) examination of the Tamil Nadu Dr.M.G.R. Medical University, to be held in May 2018.

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CERTIFICATE OF GUIDE

This is to certify that the dissertation titled, **"A STUDY OF DISABILITY IN MAJOR MENTAL ILLNESS IN IN-PATIENTS AND OUT-PATIENTS IN A PSYCHIATRIC HOSPITAL"** is the bona fide work of **Dr. NISHANT KUMAR SAHU,** done under my guidance submitted in partial fulfilment of the requirements for M.D. Branch- XVIII [Psychiatry] examination of The Tamil Nadu Dr. M.G.R. Medical University, to be held in May 2018.

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DECLARATION

I, **Dr. NISHANT KUMAR SAHU,** solemnly declare that the dissertation titled, **"A STUDY OF DISABILITY IN MAJOR MENTAL ILLNESS IN IN-PATIENTS AND OUT - PATIENTS IN A PSYCHIATRIC HOSPITAL"** is a bona fide work done by me at the Institute of Mental Health, Chennai, during the period from March 2017 – August 2017 under the guidance and supervision of **Dr. SHANTHI NAMBI, M.D.** Professor of psychiatry, Madras Medical College.

The dissertation is submitted to The Tamil Nadu Dr. M.G.R. Medical University towards partial fulfilment of requirement for M.D. Branch XVIII[Psychiatry] examination.

Dr. NISHANT KUMAR SAHU

Place :

Date :

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INSTITUTIONAL ETHICS COMMITTEE
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Dear Dr.Nishant Kumar Sahu,

The Institutional Ethics Committee has considered your request and approved your study titled **"A STUDY OF DISABILITY IN MAJOR MENTAL ILLNESS IN IN-PATIENTS AND OUT-PATIENTS IN A PSYCHIATRIC HOSPITAL " - NO.30012017 (III)**

The following members of Ethics Committee were present in the meeting hold on **31.01.2017** conducted at Madras Medical College, Chennai 3

1.Dr.C.Rajendran, MD.,	:Chairperson
2.Dr.M.K.Muralidharan,MS.,M.Ch.,Dean, MMC,Ch-3	:Deputy Chairperson
3.Prof.Sudha Seshayyan,MD., Vice Principal,MMC,Ch-3	: Member Secretary
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8.Tmt.J.Rajalakshmi, JAO,MMC, Ch-3	: Lay Person
9.Tmt.Arnold Saulina, MA.,MSW.,	:Social Scientist

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

Member Secretary, Ethics Committee

MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE
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https://prezi.com/6gv_bfonr_qr/occupational-therapy-specialization-psychiatrics/
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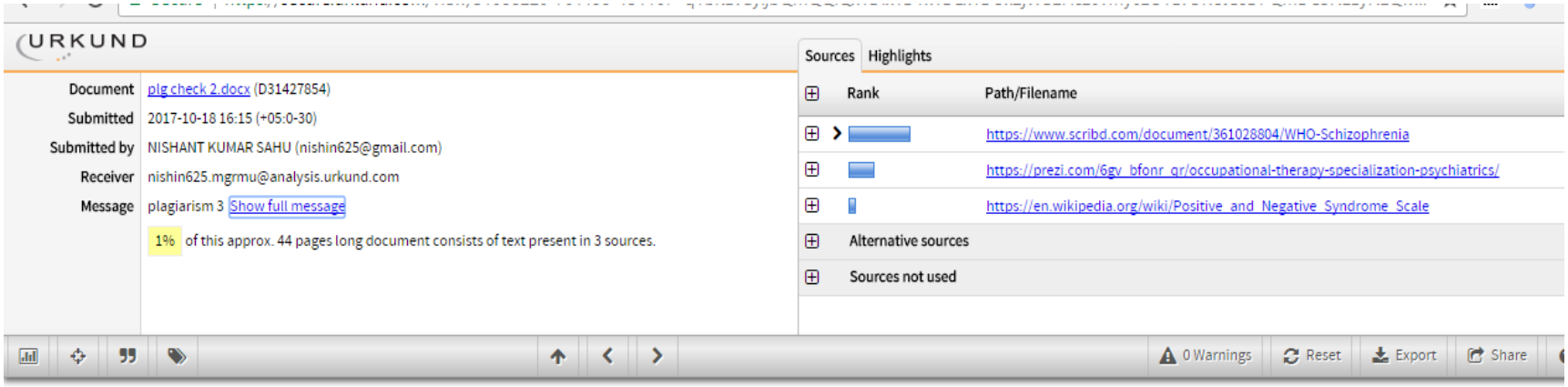

INTRODUCTION

Disability is complex, multidimensional and dynamic, so defining disability is difficult, and one single definition can not cover all facets of disability.

World Health Organisation (WHO) Definition: "Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives."[1] These refer to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).[2]

Jablensky et al[3] defined disability as disturbances in the performance of social roles that would normally be expected of an individual in his habitual milieu.

According to the Rights of Persons With Disabilities Act 2016 (RPWD Act 2016)[4] "Mental Illness" means a substantial disorder of thinking, mood, perception, orientation or memory that grossly impairs judgment, behaviour, and capacity to recognise reality or ability to meet the ordinary demands of life. According to World Report on Disability 2011,[5] Schizophrenia and BPAD feature in the top twenty causes of moderate to severe disability worldwide.

javascript:void(0); Cr persons are 'disabled' which is

ABBREVIATIONS

BPAD	Bipolar Affective disorder
BPRS	Brief Psychiatric Rating scale
CGI-S	Clinical Global Impression Severity Scale
DAS	Disability Assessment Schedule
DSM V	Diagnostic And Statistical Manual Fifth Edition
ICD 10	International Classification Of Disease 10^{th} Edition
ICMR	Indian Council of Medical Research
IDEAS	Indian Disability Evaluation and Assessment Scale
IP	In Patient
IPS	Indian Psychiatric Society
MDD	Major Depressive Disorder
OCD	Obsessive Compulsive Disorder
OP	Out Patient
PANSS	Positive And Negative Syndrome Scale
PCC	Pearson Correlation Coefficient
PMI	Persons with Mental Illness
PWD	Persons With Disabilities
QOL	Quality Of Life
RDD	Recurrent Depressive Disorder
RPWD Act 2016	Rights of Persons With Disabilities Act, 2016

SANS	Scale for the Assessment of Negative Symptoms
SAPD	Schedule for Assessment of Psychiatric Disability
SCAN	Schedule for Assessment in Neuropsychiatry
SD	Standard Deviation
SES	Socio Economic Status
WHO	World Health Organisation
WHO DAS II	World Health Organisation Disability Assessment Schedule II
WHO QOL-BREF	World Health Organization Quality of Life Scale– Brief version
YMRS	Young Mania Rating Scale

CONTENTS

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As per Census 2011,[6] in India, out of the 121 Cr population, 2.68 Cr persons are ‘disabled’ which is 2.21% of the total population. Mental illness accounts for the 2.7% of the disabled population by type of Disability.

Only few well-documented studies are there to determine the prevalence and pattern of mental disability. There are no community-based studies using ‘Indian Disability Evaluation and Assessment Scale’ (IDEAS) for assessment of mental disability, but there are some hospital-based studies among mental illness patients to assess mental disability using IDEAS. This instrument was used in other studies to assess mental disability in mental illness that included schizophrenia, bipolar affective disorder, anxiety disorders, depression, obsessive compulsive disorder, dementia, mental and behavioural disorders due to the intake of alcohol.[7,8]

Information on disability is an important component of health information, as it shows how well an individual is able to function in general areas of life. Along with traditional indicators of a population's health status, such as mortality and morbidity rates, disability has become important in measuring disease burden, in evaluating the effectiveness of health interventions and in planning health policy. Defining and measuring disability, however, has been challenging.

REVIEW OF LITERATURE

Schizophrenia

Schizophrenia is undoubtedly one of the most puzzling and debilitating psychiatric syndromes. Schizophrenia is characterized by distortions in thinking, perception, emotions, language, sense of self and behaviour. The symptom dimensions in Schizophrenia can be classified into Positive symptoms, Negative symptoms, Affective symptoms , Formal thought disorder, and Neurocognitive symptoms.

Common experiences include:

a. Hallucination: hearing, seeing or feeling things that are not there.

b. Delusion: fixed false beliefs or suspicions that are firmly held even when there is evidence to the contrary.

c. Abnormal Behaviour: strange appearance, self-neglect, incoherent speech, wandering aimlessly, mumbling or laughing to self.

Magnitude of problem:

Schizophrenia affects more than 21 million people worldwide but is not as common as many other mental disorders. It is more common among males (12 million), than females (9 million). Schizophrenia also commonly starts earlier among men. Schizophrenia is associated with considerable disability and may affect educational and occupational performance. People with

schizophrenia are 2-2.5 times more likely to die early than the general population. This is often due to physical illnesses, such as cardiovascular, metabolic and infectious diseases.

More than 50% of people with schizophrenia are not receiving appropriate care. Ninety percent of people with untreated schizophrenia live in low- and middle- income countries. Lack of access to mental health services is an important issue. Furthermore people with schizophrenia are less likely to seek care than the general population.

People with schizophrenia are prone to human rights violations both inside mental health institutions and in communities. Stigma of the disorder is high. This contributes to discrimination, which can in turn limit access to general health care, education, housing and employment.

Marneros et al[9], reported that schizophrenia caused persistent alterations in social life like social and occupational drift, premature retirement, and inability to achieve the expected social development.

Bipolar Affective Disorder:

This disorder affects about 60 million people worldwide. It typically consists of both manic and depressive episodes separated by periods of normal mood. Manic episodes involve elevated or irritable mood, over activity, pressure of speech, inflated self-esteem and a decreased need for sleep. People who have manic attacks but do not experience depressive episodes are also classified as having bipolar disorder.

It has a lifetime prevalence of 0.4-1.6%. The illness is typically described as episodic, but varying degrees of residual symptoms during the inter-episodic period is reported.[10,11] During the episodes, the illness causes much disability in social, occupational, marital and interpersonal domains. Studies have found that the level of dysfunction in Bipolar Affective Disorder is comparable to that in schizophrenia.[12]

Disability

Concept of disability has moved from an individual impairment to a more social thing. So disability is complex and it shows interaction between virtue of a person's body and elements of the society in which he resides. Disabled persons are restricted in performing daily activities due to complex set of factors associated to each other, some related to the person and some to the environment and socio-political functioning. The social barriers affecting persons with disabilities can be physical or attitudinal. Therefore, Government programs and policies worldwide have evolved to modify the environment (suitable for disabled) and provide monetary benefits or work-related supports (job reservations) to aid persons with disabilities, so that they can involve themselves in a better way in the community and the workplace.

The World Health Organization (WHO) definition goes beyond a medical approach to take a much broader view of disability which has already been discussed in Introduction.

According to World Report on Disability 2011[5], globally an estimated 2.9% had severe disability and 15.3% had moderate or severe disability, and disability due to mental illnesses takes a major share. On considering the major causes of disability, adult onset hearing loss and refractive errors are the most common and Depression stands third. Other mental disorders like alcohol use disorders, bipolar disorder and schizophrenia also appear in the top 20 causes. Depression is the most frequent cause of disability in population less than 60 years old in the low and middle income countries.[6]

The disabilities due to psychiatric disorders are quite different to the disabilities due physical impairments, in the way they transpire. The social implications of mental illnesses are severe and occupational functioning is affected. The consequences of mental disorders like poor self care, communication problems and poor inter personal skills are not appreciated like other physical disabilities, and moreover they are aggravated by stigma and discrimination and may be denied of disability benefits. Keeping this in mind, the measures for psychiatric disability have been made over the years.

Researchers have focused more on psychiatric disability due to Schizophrenia, in India and other countries. Work has been done for development or modification of scales for disability assessment and disability evaluation in persons with major psychiatric illnesses. Assessment of disability in psychiatric patients has been studied in hospitals and in community settings including follow-up studies.[7]

Wig et al[13] constructed a scale named 'PGI Disability Scale' as they felt need for simple and short instrument to measure disability in Indian psychiatric patients, as early in 1979. The scale included three domains, namely personal disability, social disability and occupational disability. They found that disability scores were significantly more in psychotics compared to the neurotics and persons with greater personal disability accepted treatment more often than those with less personal disability scores. They mentioned that personal, social and occupational areas were selected because disability due to psychiatric illnesses exhibit in these areas.

There was a need of standardised methods to analyse disability in psychiatric patients which was easily applicable as well. Also there was a lack of agreed concepts and framework regarding clinical, social and epidemiological features of disability. So, a pilot study was launched by WHO in 1976 in seven countries to study the applicability, reliability and validity of available instruments and procedures for assessment of functional impairments and disabilities in psychiatric patients with potentially severe disorders. WHO Psychiatric Disability Assessment Schedule (WHO DAS) was a primary instrument under study. It was finalized after completion of the field studies by the collaborating investigators in 1984.[14]

Studies showed that it isn't easy to illustrate a direct and consistent correlation between psychopathology and social functioning (Weissman 1975; Cooper 1985; De Jong et al. 1985).[15,16,17] There was a constant need to update

the disability assessment tools, so WHO Psychiatric Disability Assessment Schedule version II (WHO DAS II) 1985 was made.[18]

Thara et al[19] during their project found that the Disability Assessment Schedule (WHO DAS-II) was not totally culture free and needed changes. They divided the whole schedule into four main areas of personal disability, social, occupational and global disability by modifying certain items in DAS II. Thus it was just a modification of the original instrument DAS and not a completely new instrument. It was named as the Schedule for Assessment of Psychiatric Disability (SAPD) and it was validated during the study. They inferred that the reliability of the schedule is high and recommendable for evaluation of disability in out-patient schizophrenic patients.

The Indian Council of Medical Research (ICMR) sponsored multisite study "Factors affecting the course and outcome of schizophrenia"[20] was going on at Madras, Vellore and Lucknow between 1981 and 1988. The patient sample of this study at Madras were administered SAPD at fourth, fifth and sixth year of follow-up and used by (Thara and Rajkumar)[21] for their paper. After completion of main study, 68 schizophrenia patients were available and were included in the result. They observed low degree of disability and little fluctuation over a three year course probably because the patients were closely followed-up at 2-4 weeks intervals and treatment was initiated in early stage of the illness. Occupational functioning showed maximum level of disability probably due to more objectivity in this area.

Shankar et al [22] studied married patients with schizophrenia and reported the gender differences in disability. 30 married patients including either sex, living with partner at the time of study, satisfying Diagnostic and Statistical Manual (DSM) III criteria for schizophrenia were studied. They used modified version of the Disability assessment schedule to measure disability. Findings showed more disability in women compared to men, contrary to the literature reports probably due to the existing social structure in India. Negative symptoms were strongly correlated to factors linked with global disability in men as well as women.

Srinivasa Murthy et al [23] did study on untreated schizophrenia patients in rural communities of Karnataka, in order to evaluate the cost effectiveness of a community outreach program. Hundred cases were selected who had not received any treatment or were not on treatment for 6 months and given appropriate medication and support psychosocially. Assessment for symptomatology, disability, family burden, resource use and costs was done at three month intervals for one and a half years. Disability scores along with psychotic symptoms and family burden reduced significantly over the follow-up period. Maximum reduction was observed at the first follow up. So the study concluded that decentralisation of mental health services can significantly benefit patients and their families.

Mohan et al [7] compared disability using Indian Disability Evaluation and Assessment scale (IDEAS) in patients with schizophrenia and obsessive-compulsive disorder (OCD). Patients with only mild severity of illness were

included. Schizophrenic patients were mostly from rural areas but OCD patients belonged chiefly to urban areas. Disability was more in schizophrenic patients across all domains of IDEAS. Longer duration of illness didn't affect disability scores much in schizophrenia patients. They concluded that the instrument IDEAS was able to pick up disability even at mild severity of illness.

Choudhry et al[8] conducted study to assess disability associated with seven psychiatric disorders: Schizophrenia, bipolar affective disorder, anxiety disorder, depression, obsessive-compulsive disorder, dementia and mental and behavioural disorders due to the use of alcohol. Aim of study was to evaluate the nature of disability, quantify disabilities in the study groups, and compare the extent of disability with disease severity. A sample of 228 out-patients at Dibrugarh Medical College over a one year period was taken. ICD-10 diagnostic guidelines were used for diagnosis and re-assessment using 'Schedule for Clinical assessment for Neuropsychiatry (SCAN)' was done, once consent for study was taken. Relevant subscale for each disorder was administered to measure disease severity. For Disability assessment, IDEAS scale was used and administered at the time of recruitment and then six and 12 months follow-up. Results demonstrate that degree of disability tends to correlate with disease severity indicated by the rating scales, even though some associations were not significant. All disorders under study were associated with significant disability; but schizophrenia and dementia respectively caused maximum disability. Various disorders had variable affect on different domains

of disability, though schizophrenia caused dysfunction in all four areas and was unquestionably most disabling. Disability due to alcohol use disorder and anxiety was comparable to disability associated with obsessive-compulsive disorder. One of the major limitations of the study was low follow-up rates, so it was difficult to comment on the disability constancy. They concluded that knowledge of specific areas of dysfunction in various disorders and focusing on those areas can help to provide treatment effectively as psychosocial management is an important component of psychiatric care. They also concluded that, study suggests that IDEAS is a sensitive tool for assessment of differences in disability due to different types of mental disorder, both qualitatively and quantitatively.

Tharoor et al[24] did a cross-sectional study to compare the inter-episode quality of life (QOL) and disability in patients with Bipolar Affective Disorder (BPAD) or Recurrent Depressive Disorder (RDD) under remission and with and without co morbid chronic medical illness. 20 patients were recruited in each of the four subgroups. Quality of Life was assessed using the World Health Organization (WHO)-QOL-BREF Kannada version and disability using the 'Schedule for Assessment of Psychiatric Disability (SAPD)', an Indian modification of the WHO disability assessment schedule-II. In group of patients with medical co morbidity, BPAD patients were considerably more disabled than RDD patients in the 'social role' domain (P= 0.04); whereas RDD patients had significantly more disability in the 'home atmosphere' domain (P= 0.001). In group of patients with no medical co morbidity, BPAD

patients had comparatively greater disability in the ‘overall behaviour’ domain to RDD patients (P 5 0.002); whilst RDD patients had more disability in ‘assets and/or liabilities’ (P= 0.004) and home atmosphere (P= 0.001) domains. There was no significant difference in the QOL measures between the two disorders. The conclusion of the study was that, “The medical illnesses may have a role in increasing disability but less likely to have a significant impact on QOL in the two disorders during euthymia”.

Kumar et al[25] did a community based cross-sectional study to assess ‘the prevalence and pattern of mental disability’ using IDEAS in four villages of a rural taluka of Karnataka district. A sample of one thousand subjects randomly selected from the mentioned setting and IDEAS instrument was applied. The prevalence of mental disability in the study sample was 2.3%. Out of these, majority had mild disability, followed by severe, moderate and profound disability. They found that disability was seen in subjects who were previously diagnosed with any of the mental disorders. Thus this study also indicated that IDEAS is a sensitive tool to measure disability in mental disorders.

Krishnadas et al[26] did study to determine if there is a relationship between measures of cognition and functional disability. Neurocognitive assessment was done on 25 schizophrenia patients under remission who attended department of psychiatry of a general hospital in Mumbai. Brief psychiatric rating scale (BPRS) and the Scale for the assessment of negative symptoms (SANS) were used to confirm remission. The battery of tests for

neurocognitive assessment included: The PGI memory scale, Trail making tests A and B, Rey-Osterrieth complex figure test and frontal assessment battery. There was substantial cognitive deficit in most of the domains analysed and thus replicated the findings of many studies done earlier. IDEAS instrument was used for assessment of disability. The study didn't find any significant association between cognitive dysfunction and disability scores, which was contrary to many previous studies.

Gururaj et al[27] assessed the family burden, quality of life and disability in moderate to severe OCD patients did comparison with schizophrenia patients of equivalent severity. Disease severity rating was done using the Clinical Global Impression-Severity (CGI-S). The Family Burden Schedule and the WHO QOL-BREF scale were used to measure family burden and quality of life respectively. The WHO-DAS was used to assess disability. Family and financial burden were significantly higher in schizophrenia as was disruption of family routine, when compared to OCD. QOL in regard to the psychological and social domains was comparable in OCD and schizophrenia patients. Both groups were similar in most domains of disability on WHO-DAS. The authors came to a conclusion that OCD also causes significant disability, family burden and poor quality of life, similar to schizophrenia and there is a need to recognise and treat OCD effectively.

Thirthalli et al[28] did study with an aim to compare disability of schizophrenia patients who had been receiving antipsychotics drugs continuously with those who were either irregular on treatment or didn't

receive any treatment. A total of 182 schizophrenia patients in Thirthalli taluka of Shimoga district of Karnataka were taken and assessed using IDEAS scale. The study findings indicated a significantly less disability in all domains of IDEAS and in total IDEAS scores, in patients receiving antipsychotics. There was three times greater chance of suffering from disability if patients were off-treatment. Dose-dependent effect on disability was seen with antipsychotic use in schizophrenia patients, indicated by multivariate regression analysis. This was in keeping with previous studies which had shown association between treatment compliance and disability.[20,29,30] Further they did a prospective study to see the course of disability in schizophrenia patients receiving antipsychotics in comparison to those untreated in a rural community.[31] Initially 215 schizophrenia patients from a rural south Indian community were selected, of which 58% were not receiving antipsychotics. Assessment of disability was done using IDEAS, on 190 subjects at baseline and after one year. Results showed a significant decline in disability scores over a period of one year on initiating antipsychotic treatment, whereas the scores were steady in subjects who remained untreated. So the ratio of patients classified as 'disabled', declined in the treated group, while it was unchanged in the untreated group. It was evident that treatment of schizophrenia patients in the community with antipsychotics results in a substantial reduction in disability.

Disability Legislation and benefits:

Theoretically, The United Nations Declaration of Human Rights, 1948 marks the initiative towards the right of persons with disabilities. Since then many directives have been made, yet rights for disabled has been a difficult goal to achieve. Persons with disabilities have been victims of rejection and discrimination for many decades and call for their rights has often been ignored. The United Nations International Year of Disabled Persons (IYDP) in 1981 was a point of reference which drew the attention of the world towards disability issues. IYDP was followed by 'The World Programme of Action Concerning Disabled Persons'[32], declared in 1982 and then by the United Nations Decade of Disabled Persons 1983-1992. The goals were to prevent the causes of disabilities, their rehabilitation and to ensure their equality and participation in the community.

The Expert Group Meeting was organised by UNESCAP in August 1991 at Bangkok, to review and assess the goals achieved by the United Nations Decade of Disabled Persons in the Asian and Pacific Region and an obvious need for a second decade of disabled persons was recognised by the committee to strengthen the gained achievement.

The Asian and Pacific region was the first and only region to promote a specific regional initiative in the area of disability, following the end of the first United Nations Decade of Disabled Persons, 1983-1992.

The Asian and Pacific Decade of Disabled Persons, 1993-2002 was a unique Asian and Pacific initiative which was launched at Beijing in December 1992 and proclaimed full participation and equality of disabled people in the Asian and Pacific Region. It primarily focused on extending opportunities for disabled people so that they can participate fully and attain equality in the society. It was aimed at encouraging Government Ministries and Departments, NGOs, international organisations, including United Nations agencies and bodies, and committed individuals to take action to achieve these goals. India was a signatory to the proclamation adopted in the above mentioned meeting and thus enacted the law for the benefit of the persons with disability. The Persons with Disabilities (Equal opportunities, Protection of rights and Full Participation) Act (PWD Act 1995) [33] was passed in the parliament in 1995. Mental illness was included in the list of disabilities with a gazette notification in 2002 [Ministry of Social Justice and Empowerment Notification, Gazette no 49 dated 18th Feb 2002]

Mental illness was defined as “Any mental disorder other than mental retardation”, in the PWD Act 1995 and persons with mental illness were made eligible to avail all the benefits under the persons with disability act 1995. To classify for the benefits under the act, a disability certificate showing more than 40% disability is required which must be certified by a competent authority.

The disability act covered seven disabilities:-

1) Blindness
2) Low vision

3) Deaf and Dumb
4) Leprosy cured
5) Mentally retarded
6) Orthopaedic handicap
7) Mental illness

The assessment tools were already available for the visually impaired, hearing impaired and orthopaedic handicap and persons with mental retardation. Thus it was easy for them to get disability certificates from authentic bodies to avail the benefits under the PWD Act 1995. But there was a lack of authenticated assessment tool for the certification of mentally ill people and faced difficulty in availing disability benefits even after having disability. To counter this problem, the task force of Rehabilitation Committee of the Indian Psychiatric Society (IPS) developed assessment tool for disability certification in 2001 and was named as Indian Disability Evaluation and Assessment Scale (IDEAS), for measuring and quantifying disability in patients with mental disorders.[34]

The field testing for IDEAS instrument was done across eight centres in the country, involving 1,078 patients. It was found to have good internal consistency, face, content and criterion validities.[35] In 2001, a Committee was constituted by the Department of Health, Government of India (GOI) under the Chairmanship of Director General of Health Services on the basis of request made by the Ministry of Social Justice & Empowerment to prescribe guidelines for evaluation and assessment of disability associated with mental illnesses and

procedure for certification under the provisions of PWD Act, 1995. The Committee approved IDEAS as developed by IPS with some modifications for the assessment and certification of disability associated with mental illnesses.[36]

According to the IPS [34], only patients with the following diagnoses as per ICD-10 or DSM criteria are eligible for disability benefits:

a. Schizophrenia
b. OCD
c. Bipolar disorder and
d. Dementia

Government benefits for the disabled include:

• Travel concession in Railways and Bus

• Monthly maintenance allowance

• Employment Schemes

• Income tax benefits

• Family pension

• Employment reservation

India signed and endorsed the UNCRPD in 2007 and after that the process of enacting a new legislation to replace The Persons with Disabilities Act, 1995 (PWD Act, 1995) started in 2010 to make it acquiescent with the

UNCRPD. A series of meetings in the drafting procedure followed and finally the Rights of Persons With Disabilities Act, 2016 (RPWD Act, 2016) was passed by both the houses of the Parliament and it was notified on December 28, 2016 after receiving the president's approval.[4]

Principles that have been mentioned to be implemented for empowering disabled persons are respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons. The Act emphasises on non-discrimination, full and effective participation and inclusion in society, respect for difference and acceptance of disabilities as part of human diversity and humanity, equality of opportunity, accessibility, equality between men and women, respect for the evolving capacities of children with disabilities, and respect for the right of children with disabilities to preserve their identities. The principle reflects a conceptual shift in thinking about disability from a social welfare concern to a human rights issue.

In the RPWD Act, 2016, the list has been expanded from 7 to 21 conditions.

Blindness

Low-vision

Leprosy Cured persons

Hearing Impairment (deaf and hard of hearing)

Locomotor Disability

Dwarfism

Intellectual Disability

Mental Illness

Autism Spectrum Disorder

Cerebral Palsy

Muscular Dystrophy

Chronic Neurological conditions

Specific Learning Disabilities

Multiple Sclerosis

Speech and Language disability

Thalassemia

Hemophilia

Sickle Cell disease

Multiple Disabilities including deaf-blindness

Acid Attack victim

Parkinson's disease

The term Mental Retardation has been replaced by Intellectual Disability and has been defined as “A condition characterized by significant limitation both in intellectual functioning (reasoning, learning, problem-solving) and in adaptive behaviour which covers a range of every day social and practical skills including specific learning disabilities and autism spectrum disorders.” [4]

Definition of mental illness according to the act is “A substantial disorder of thinking, mood, perception, orientation, or memory that grossly impairs judgment, behaviour, and capacity to recognize reality or ability to meet the ordinary demands of life but does not include retardation which is a condition of arrested or incomplete development of mind of a person, especially characterized by sub normality of intelligence.”[4]

“Persons with benchmark disabilities” are defined as those with at least 40% of any of the above disability. PWD having high support needs are those who are certified as such under section 58(2) of the Act.

The RPWD Act, 2016 provides that:

“The appropriate Government shall ensure that the PWD enjoy the right to equality, life with dignity, and respect for his or her own integrity equally with others.”

The Government is to take steps to utilize the capacity of the PWD by providing appropriate environment. It is also stipulated in the section 3 that no PWD shall be discriminated on the ground of disability, unless it is shown that the impugned act or omission is a proportionate means of achieving a legitimate aim and no person shall be deprived of his personal liberty only on the ground of disability. Living in the community for PWD is to be ensured and steps are to be taken by the Government to ensure reasonable accommodation for them. Special measures are to be taken to ensure women and children with disabilities enjoy rights equally with others. Measures are to be taken to protect

the PWD from being subjected to cruelty, inhuman, and degrading treatments and from all forms of abuse, violence, and exploitation. For conducting any research, free and informed consent from the PWD as well as a prior permission from a Committee for Research on Disability to be constituted in the prescribed manner.

Under section 7(2) of the Act, any person or registered organization, who or which has reason to believe that an act of abuse, violence, or exploitation has been, is being or likely to be committed against any PWD, may give information to the local Executive Magistrate who shall take immediate steps to stop or prevent its occurrence and pass appropriate order to protect the PWD. Police officers, who receive a complaint or otherwise come to know of violence, abuse, or exploitation, shall inform the aggrieved PWD of his right to approach the Executive Magistrate. The police officer shall also inform about particulars of nearest organization working for the rehabilitation of the PWD, right to free legal aid, and right to file complaint under the provisions of this Act or any other law dealing with such offence.

Equal protection and safety in situations of risk, armed conflict, humanitarian emergencies, and natural disasters are to be provided to PWD. Children with disability are not to be separated from parents except on the order of a competent court and information about reproductive rights and family planning to the PWD is to be ensured. Accessibility in voting and access

to justice without discrimination to the PWD are to be ensured. Public documents are to be made available in accessible formats.

It is to be ensured that all PWD enjoy legal capacity on an equal basis with others in all aspects of life and has the right to equal recognition everywhere, as any other person before the law and have the right, equally with others, to own and inherit movable and immovable property as well as control their financial affairs (Sec 13). It is also provided that a PWD with benchmark disability who consider himself to be in need of high support, he/she or any other person or organization in his behalf may apply to the authority appointed by the Government for the same and the authority shall take steps to provide support accordingly (Sec 38). However, the PWD would have the right to alter, modify, or dismantle the support system and in case of conflict of interest, the supporting person would withdraw from providing the support [sec 13(4&5)]. It has been provided in the section 14 of the Act that a District Court or any designated authority, as notified by the State Government, finds that a person with disability, who had been provided adequate and appropriate support but is unable to take legally binding decisions, may be provided further support of a limited guardian to take legally binding decisions on his behalf in consultation with such person, in such manner, as may be prescribed by the State Government. It is also provided that the District Court or the designated authority, as the case may be, may grant total support to the person with disability requiring such support or where the limited guardianship is to be granted repeatedly.

In these cases the decision regarding the support to be provided shall be reviewed by the Court or the designated authority, as the case may be, to determine the nature and manner of support to be provided. Limited guardianship has been explained to mean a system of joint decision which operates on mutual understanding and trust between the guardian and the person with disability, which shall be limited to a specific period and for specific decision and situation and shall operate in accordance to the will of the person with disability. It is also provided that on and from commencement of the Act, every guardian appointed under any other law for time being in force shall be deemed to function as a limited guardian.

The Act provides for the access to inclusive education, vocational training, and self-employment of disabled persons without discrimination and buildings, campuses, and various facilities are to be made accessible to the PWD and their special needs are to be addressed. Necessary schemes and programs to safeguard and promote the PWD for living in the community are to be launched by the Government. Appropriate healthcare measures, insurance schemes, and rehabilitation programs for the PWD are also to be undertaken by the Government. Cultural life, recreation, and sporting activities are also to be taken care of. All Government institutions of higher education and those getting aid from the Government are required to reserve at least 5% of seats for persons with benchmark disabilities. Four percent reservation for persons with benchmark disabilities is to be provided in posts of all Government establishments with differential quotas for different forms of disabilities.

Incentives to employer in private sector are to be given who provide 5% reservation for persons with benchmark disability. Special employment exchanges for the PWD are to be set up.

Awareness and sensitization programs are to be conducted and promoted regarding the PWD. Standards of accessibility in physical environment, different modes of transports, public building and areas are to be laid down which are to be observed mandatorily and a 5-year time limit is provided to make existing public building accessible. Access to information and communication technology is to be ensured. The Central and State Advisory Boards on disability are to be constituted to perform various functions assigned under the Act. District level Committees are also to be constituted by the State Government. Chief Commissioner and two Commissioners for PWD are to be appointed by the Central Government at the central level for the purposes of the Act. Similarly, State Commissioners for PWD are to be appointed by the State Governments. National Funds for PWD and State Funds for PWD are to be constituted at the central and state levels respectively by the appropriate Governments. Contraventions of the provisions of the Act have been made punishable by a fine of an

amount up to ten thousand for first contravention and fifty thousand extendable up to five lakhs for subsequent contraventions. Atrocities on PWD have been made punishable with imprisonment of 6 months extendable to 5 years and with fine. Fraudulently availing of the benefits meant for PWD has also been made punishable.

The Rights of Persons with Disabilities Act, 2016 and Persons with Mental Illness:

Mental illness has been included as one of the conditions applicable for disability, but on reviewing the act it is noticed that special needs of persons with mental illness (PMI) and their families have not been catered to as disability due to mental illness requires a different than usual consideration by virtue of illness nature. Persons with severe mental illness often lack insight and under such circumstances their families are instrumental in providing care and support, especially in India where there is scarcity of personnel required for mental health care.[37] So there is a need that family members get involved fully in the mental health care and should be encouraged because family support provides moral, emotional, and physical support to the PMI.[38] But the provisions of the section 7(2) of the Act possibly can lead to a situation where the family members and other caregivers may be apprehensive and willingness to provide help may be reduced.[37] Any layman can report for violation of this law and care provider can be held responsible even if it is not the case and the mentally ill person may be a risk to the society at that point of time. The section 7(2) has been introduced to prevent any exploitation or inhuman treatment of mentally ill persons but should be framed in a better way so that the rights of caregivers can also be taken care of. The mental health services provided in our country are in a poor state and the Government run mental health services are very few and non existing in a third of the districts in India. A majority of PMI with high support needs have only their families to support

and should be encouraged otherwise mental ill and persons may be at risk of getting abandoned. Thus the responsibility lies highly on NGOs to provide high support needs for such persons but they may not be able to seek help by themselves. The Act has not mentioned how such an extensive support system will be built for millions of severely mentally ill persons in India, especially remote areas where even the most basic health needs are not met.

In the RPWD Bill presented to the Rajya Sabha, there were provisions of limited and plenary guardianships in appropriate circumstances to be granted by the District Court for "a mentally ill person."[38] However, the reference to "mentally ill persons" is now replaced by "a person with disability," i.e., to include the PWD due to other reason too and the term "plenary guardianship" have been dropped to be replaced by a clause "may grant total support to the person with disability" leaving a lot of ambiguity in its meaning and application.

Job reservation has been provided for PWD but chapters on education, vocational, and self-employment don't mention the specific measures needed to be taken so that the rights for PMI can be protected, keeping in mind the attitudinal and environmental barriers faced by PMI. There should have been special emphasis and social welfare measures to bring them into mainstream.[39]

Challenges and barriers of disability in mental illness:

There are many hindrances in the path of improving the fate of the mentally disabled, especially in developing countries like India. Stigmatization

and discrimination are big factors hindering the mentally ill from receiving full disability benefits. People often have pre-formed ideas about them that they are lazy or can be dangerous. Discrimination on the ground of their mental illness leads to further lowering of their self esteem (Self-stigmatization) which may worsen their disability. Better knowledge of mental illness does not always influence the discriminatory attitudes. Sometimes even personnel from medical background who are well informed about mental illness are intolerant towards the mentally ill. Consequences of inability to eliminate discrimination can be detrimental as it increases vulnerability to disability, magnifies the impact of illness and deprives care and treatment. Some other factors can also restrict the disabled from accessing the due benefits. These include: Poor knowledge about the IDEAS, fear of Misuse of Certificates, difficulty to approach government hospitals, time constraints, rigid negative thinking about legal issues, denial of disability, and external pressure to issue disability certificates.

AIMS AND OBJECTIVES

AIM

To evaluate the nature of disability in the study groups and compare the degree of disability with the severity of the disorder

OBJECTIVES

Primary Objective

1. To analyse and compare the disability in Schizophrenia and BPAD in-patient and out-patient groups using IDEAS.
2. To compare the degree of disability with the severity of the disorder.

Secondary Objective

1. To evaluate the quality of life in the groups
2. To correlate QOL with the disability scores

HYPOTHESIS

NULL HYPOTHESIS:

There is no significant difference between disability in Schizophrenia and BPAD patients

There is no significant difference between disability in Schizophrenia in-patients and out-patients

There is no significant difference between disability in BPAD in-patients and out-patients

There is no significant difference between PANSS scores in Schizophrenia in-patients and out-patients

There is no significant difference between YMRS scores in BPAD in-patients and out-patients

There is no significant difference between QOL in Schizophrenia in-patients and out-patients

There is no significant difference between QOL in BPAD in-patients and out-patients

MATERIALS AND METHODS

SETTING:

The study was conducted in Institute of Mental health, Madras Medical College, Chennai, a tertiary care centre for Tamil Nadu. The necessary prior permission for conduct of the study was obtained from Institutional Ethics Committee, Madras Medical College, Chennai.

STUDY POPULATION:

Schizophrenia and BPAD patients attending the Out-patient department and those admitted in the acute ward of the Institute of Mental Health were taken for the study.

SAMPLE SIZE:

A total of 100 subjects were taken including 25 Schizophrenia out-patients and 25 in-patients and similarly 25 BPAD out-patients and 25 in-patients were taken up for the study.

SAMPLE SIZE CALCULATION:

When we calculate sample size using g software with an effect size of 0.40, alpha error probability of 0.0139 and a power (1-β error probability) of 0.80 for this present study, it comes to 100.

PERIOD OF STUDY:

Study was conducted for a total duration of 6 months from March 2017 to August 2017

SAMPLING METHOD:

Consecutive Sampling

RESEARCH DESIGN:

Cross sectional study

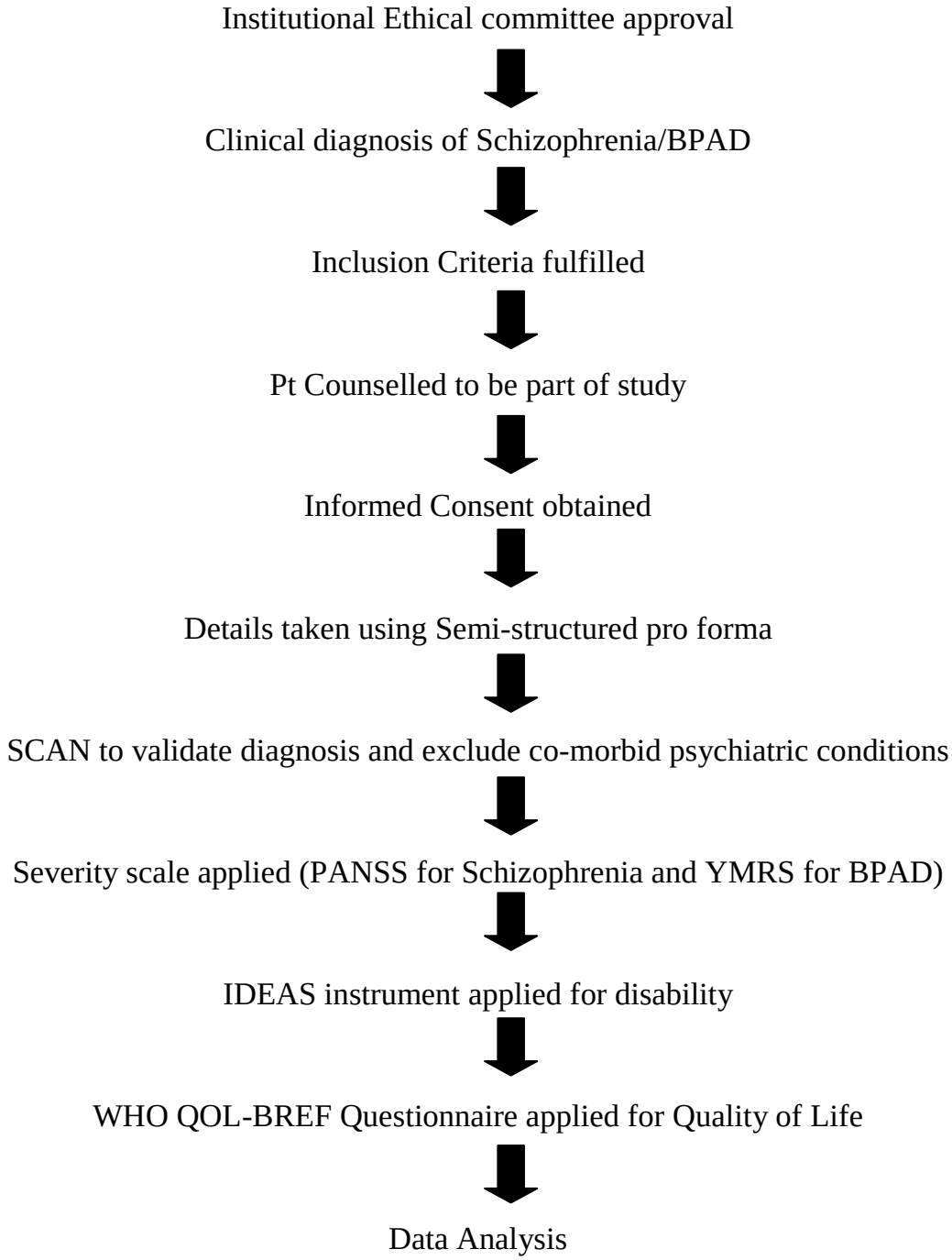
INCLUSION CRITERIA:

1. Subjects meeting the ICD 10[40] Diagnostic criteria for Schizophrenia or Bipolar Affective Disorder
2. Age 18 yr and above
3. Sex- Male or Female
4. Consent for participation in the study

EXCLUSION CRITERIA:

1. Persons with Mental Retardation
2. Persons with Chronic Debilitating Illness(Cancer, Rheumatoid arthritis, Heart disease, Chronic Kidney Disease)
3. Persons with Organic Brain disease
4. Persons having Substance Dependence
5. Any other Psychiatric comorbidity
6. Not willing to participate or denied consent

OPERATIONAL DESIGN:



INSTRUMENTS USED:

- Semi-structured pro forma for socio demographic data and clinical characteristics
- Schedules for Clinical Assessment in Neuropsychiatry (SCAN)
- Positive and Negative Syndrome Scale (PANSS)
- Young Mania Rating scale (YMRS)
- Indian Disability Evaluation and Assessment Scale (IDEAS)
- World Health Organization Quality of Life (WHO QOL)-BREF

1. SEMI-STRUCTURED PRO FORMA – FOR SOCIO-DEMOGRAPHIC DATA AND CLINICAL CHARACTERISTICS:

It is a semi-structured pro forma to collect demographic details which includes age, sex, education, occupation, religion, socioeconomic status, marital status, and domicile. Details regarding illness characteristics like symptoms, duration of illness, course, episodes, substance use and other relevant positive and negative history were taken.

2. SCHEDULES FOR CLINICAL ASSESSMENT IN NEURO-PSYCHIATRY (SCAN)[41]:

Schedules for Clinical Assessment in Neuropsychiatry (SCAN) are manuals created by the World Health Organization (WHO) for assessing, measuring and classifying the mental illnesses. It can be used in variety of settings like the clinical and research settings. This system has a bottom-up approach where diagnosis-driven frames are not applied in symptom clustering. Its stability and validity has been proven by various studies.

SCAN is a semi structured standardized clinical interview with provision for cross examination of the subject. There is no fixed order of the flow of the interview which makes this instrument flexible and versatile. Each section of the schedules starts with the important questions about the symptoms pertaining to that section. If these questions are answered positively, then the questions below the cut-off point are also ask to the patient.

3. POSITIVE AND NEGATIVE SYNDROME SCALE (PANSS):

The PANSS developed by S R Kay et al [42], is used to assess symptoms in schizophrenia and it finds its use both clinically and in research studies. It is a 30 item rating scale created on the basis that schizophrenia has two distinct symptom profiles namely the positive and the negative symptoms. The patient is rated on a 1 to 7 rating scale on 30 different symptoms which includes positive, negative and general psychopathology. PANSS roughly takes about 40 minutes to complete.

4. YOUNG MANIA RATING SCALE:

The Young Mania Rating scale (YMRS)[43] is used to quantify the severity of the manic symptoms during the episode and as well during the recovery phase in the treatment. It consists of 11 items scored on a likert scale 0 to 8 for four items, 0 to 4 for 7 items. Reliability is good based on inter-rater reliability and consistency studies.

5. INDIAN DISABILITY EVALUATION AND ASSESSMENT SCALE:

Rehabilitation Committee of the Indian Psychiatric Society (IPS) developed assessment tool for disability certification in 2001 and was named as Indian Disability Evaluation and Assessment Scale (IDEAS)[34], for measuring and quantifying disability in patients with mental disorders. The field testing for IDEAS instrument was done across eight centres in the country, involving 1,078 patients. It was found to have good internal consistency, face, content and criterion validities.[44]

IDEAS consists of following items:

I. **Self care:** Includes taking care of body hygiene, grooming, health including bathing, toileting, eating and taking care of one's health.

II. **Interpersonal Activities (Social Relationship):** Includes initiating and maintaining interactions with others in a contextual and socially appropriate manner.

III. **Communication and Understanding:** Includes communication and conversation with others by producing and comprehending spoken/ written/ nonverbal messages.

IV. **Work:** Three areas are Employment/ House work/ Education measures any one aspect.

a. Performing in Work/ Job: Performing in work / employment (paid) employment /self employment family concern or otherwise. Measures ability to perform tasks at employment completely and efficiently and in proper time. Includes seeking employment

b. Performing in Housework: Maintaining household including cooking, caring for other people at home, taking care of belongings etc. Measures ability to take responsibility for and perform household tasks completely and efficiently and in proper time.

c. Performing in school/ college: measures performance in education related tasks.

Scores for Each Item:

0 – No Disability

1 – Mild Disability

2 – Moderate Disability

3 – Serve Disability

4 – Profound Disability

Total Disability Score = Sum of scores of Items I to IV

MI 2Y (Months of Illness in last 2 years):

Obtain months of illness in the last two years (MI 2Y). Interview with informant and case notes if available should be used to determine for how many months in the last two years the patients exhibited symptoms (range 1-4)

MI 2 Years < 6 months: score to be added is 1

7-12 months: add 2

13-18 months: add 3

> 18 months: add 4

Global Disability

Total disability score + MI 2Y score = Global Disability Score (range 1-20)

Percentage:

For the purpose of welfare benefits, 40% will be cut off point. The scores above 40% have been categorized as Moderate, Severe, and profound based on the Global disability score. This grading will be used to measures change overtime.

Score of 0- No disability = 0%

1-7 – Mild Disability = <40%

8 and above = > 40%

(8-13 Moderate Disability; 14-19 Severe Disability; 20 Profound Disability)

6. WORLD HEALTH ORGANIZATION QUALITY OF LIFE (WHOQOL)-BREF[45]:

The QOL assessment was made with this scale in a Tamil version with letter of permission from W.H.O – Geneva. It was chosen, as it is generic scale developed simultaneously in 15 field centres including India. It is 26 –item scale and measures four domains.

Physical health Domain – questions 3, 4, 10, 15, 16, 17, 18

Psychological Health Domain – questions 5, 6, 7, 11, 19, 26

Social relationship Domain – questions 20, 21, 22

Environment domain – questions 8, 9, 12, 13, 14, 24, 25

Overall perception of General well being (QOL) – question 1

Overall perception of Health – question 2

All questions are scored from 1 to 5 likert scale, with a total score ranging from 26 – 130. Higher score indicates better quality of life in each Domain. The psychometric properties are in comparison with WHO- QOL-100. Both have a good correlation in the four domains with a value of 0.89 or above.

As a whole this scale has good test-retest validity, internal consistency, good discriminate validity and content validity.

STATISTICAL ANALYSIS

The results were tabulated and analyzed using the IBM SPSS Software version 20.[46]

Descriptive statistics was used to obtain the mean and standard deviations with respect to different variables of socio-demographic profile. T-test was used to compare the mean values of PANSS in Schizophrenia IP and OP groups and also for YMRS in BPAD IP and OP groups. Pearson correlation coefficients were obtained for correlating IDEAS with PANSS and YMRS. Pearson correlation was also used to correlate WHO QOL-BREF domains with IDEAS global disability score.

ANOVA was used to compare the IDEAS and its components in the subject groups and then Post –Hoc Test Bonferroni for comparing each domain of IDEAS in between the individual groups. ANOVA and Post-Hoc Test Bonferroni were also used for comparing WHO QOL-BREF domains in the subject groups.

RESULTS

The study sample consists of 100 subjects divided into four groups:-

a. **Schizophrenia In-patients(IP)**

b. **Schizophrenia Out-patients(OP)**

c. **BPAD In-patients(IP)**

d. **BPAD Out-patients(OP)**

The results will be discussed based on the findings in these four groups

Socio-demographic Variables:

Age: The majority of subjects were clustered in the 21-40 year age group in all the four study groups (Schizophrenia OP- 64%; BPAD IP & OP- 72%; Schizophrenia IP- 84%). Only one subject was there in > 60 years age group and was a Schizophrenic in-patient.(Table 1; Figure 1)

Figure 1: Age Distribution in Subject Groups

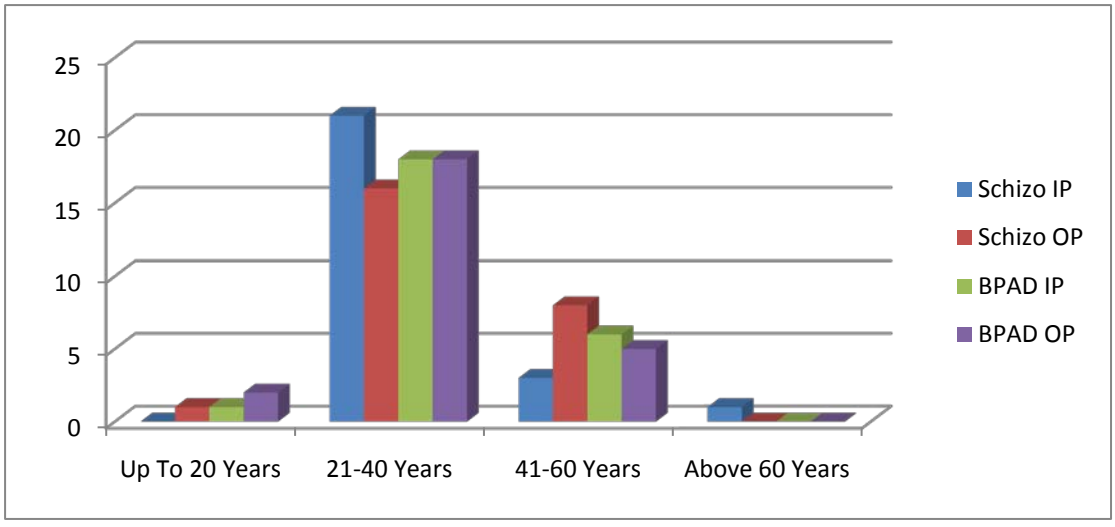
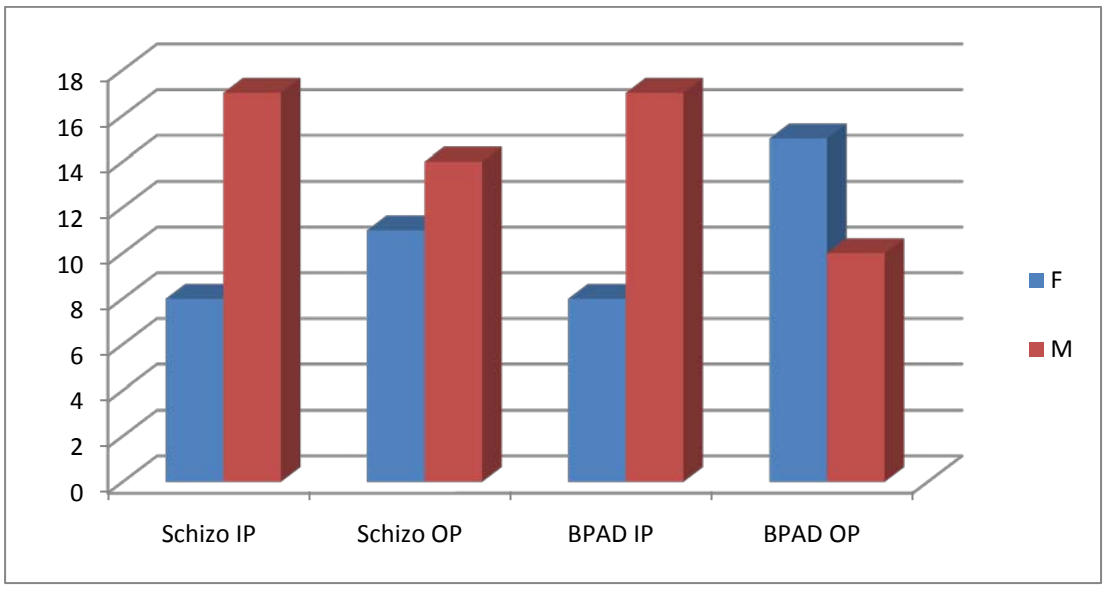


Table 1: Subject Group * Age Group Cross-Tabulation							
			AGE GROUP				Total
			Up To 20 Years	21-40 Years	41-60 Years	Above 60 Years	
Subject Group	Schizophrenia IP	Count	0	21	3	1	25
		%	0.0%	84.0%	12.0%	4.0%	100.0%
	Schizophrenia OP	Count	1	16	8	0	25
		%	4.0%	64.0%	32.0%	0.0%	100.0%
	BPAD IP	Count	1	18	6	0	25
		%	4.0%	72.0%	24.0%	0.0%	100.0%
	BPAD OP	Count	2	18	5	0	25
		%	8.0%	72.0%	20.0%	0.0%	100.0%
Total		Count	4	73	22	1	100
		%	4.0%	73.0%	22.0%	1.0%	100.0%

Table 2: Subject Group * Sex Cross-Tabulation					
			Sex		Total
			F	M	
Subject Group	Schizophrenia IP	Count	8	17	25
		%	32.0%	68.0%	100.0%
	Schizophrenia OP	Count	11	14	25
		%	44.0%	56.0%	100.0%
	BPAD IP	Count	8	17	25
		%	32.0%	68.0%	100.0%
	BPAD OP	Count	15	10	25
		%	60.0%	40.0%	100.0%
Total		Count	42	58	100
		%	42.0%	58.0%	100.0%

Figure 2: Sex Distribution in Subject Groups



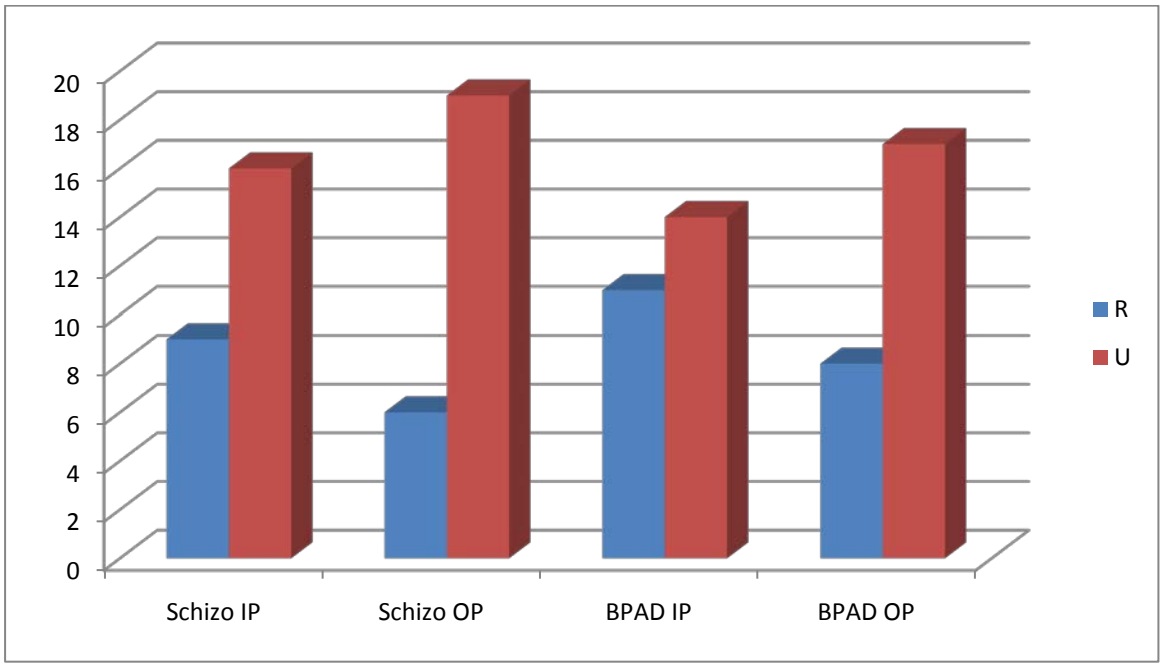
Sex:

Males were in majority in three groups except the BPAD OP group (Males in BPAD OP: 40%; Schizophrenia OP: 56%; Schizophrenia IP and BPAD IP groups: 68%). (Table 2; Figure 2)

Table 3: Subject Group * Rural/Urban Cross-Tabulation

			Rural/Urban		Total
			R	U	
Subject Group	Schizophrenia IP	Count	9	16	25
		%	36.0%	64.0%	100.0%
	Schizophrenia OP	Count	6	19	25
		%	24.0%	76.0%	100.0%
	BPAD IP	Count	11	14	25
		%	44.0%	56.0%	100.0%
	BPAD OP	Count	8	17	25
		%	32.0%	68.0%	100.0%
Total		Count	34	66	100
		%	34.0%	66.0%	100.0%

Figure 3: Rural/Urban Distribution in Subject Groups



Domicile:

Most of the patients in all groups were from urban background and 66% overall. (Table 3; Figure 3)

Figure 4: Education Distribution in subject Groups

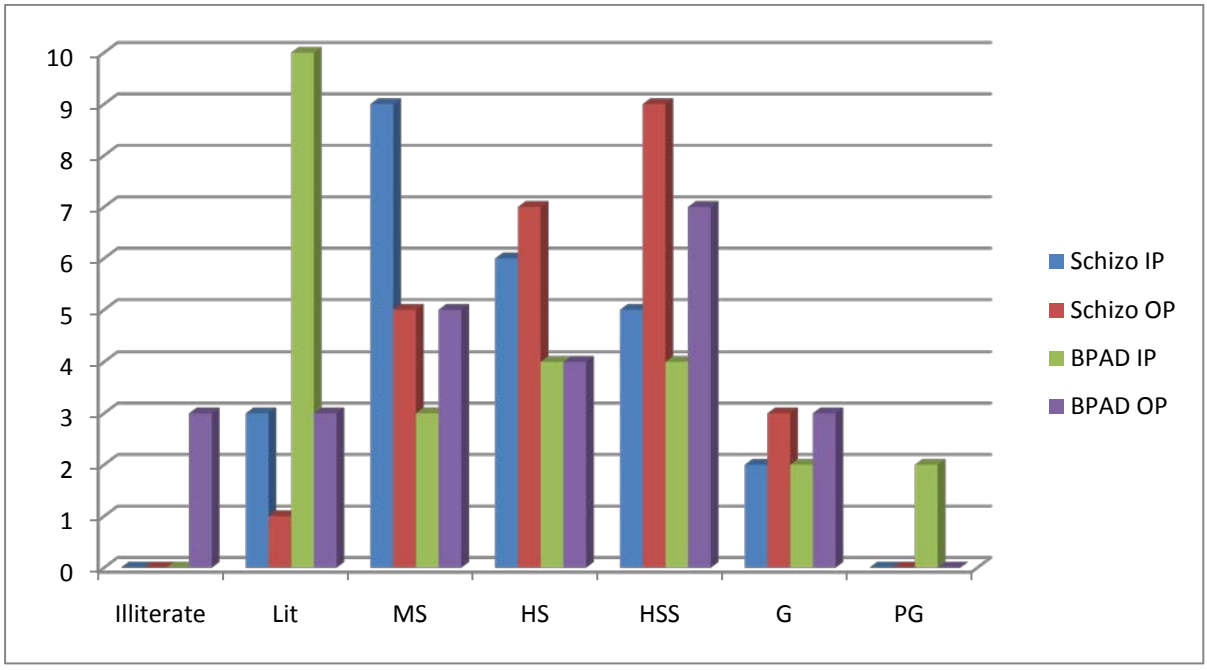


Table 4: Subject Group * Education Cross-Tabulation										
			Education							Total
			Illiterate	Lit	MS	HS	HSS	G	PG	
Subject Group	Schizophrenia IP	Count	0	3	9	6	5	2	0	25
		%	0.0%	12.0%	36.0%	24.0%	20.0%	8.0%	0.0%	100.0%
	Schizophrenia OP	Count	0	1	5	7	9	3	0	25
		%	0.0%	4.0%	20.0%	28.0%	36.0%	12.0%	0.0%	100.0%
	BPAD IP	Count	0	10	3	4	4	2	2	25
		%	0.0%	40.0%	12.0%	16.0%	16.0%	8.0%	8.0%	100.0%
	BPAD OP	Count	3	3	5	4	7	3	0	25
		%	12.0%	12.0%	20.0%	16.0%	28.0%	12.0%	0.0%	100.0%
Total		Count	3	17	22	21	25	10	2	100
		%	3.0%	17.0%	22.0%	21.0%	25.0%	10.0%	2.0%	100.0%

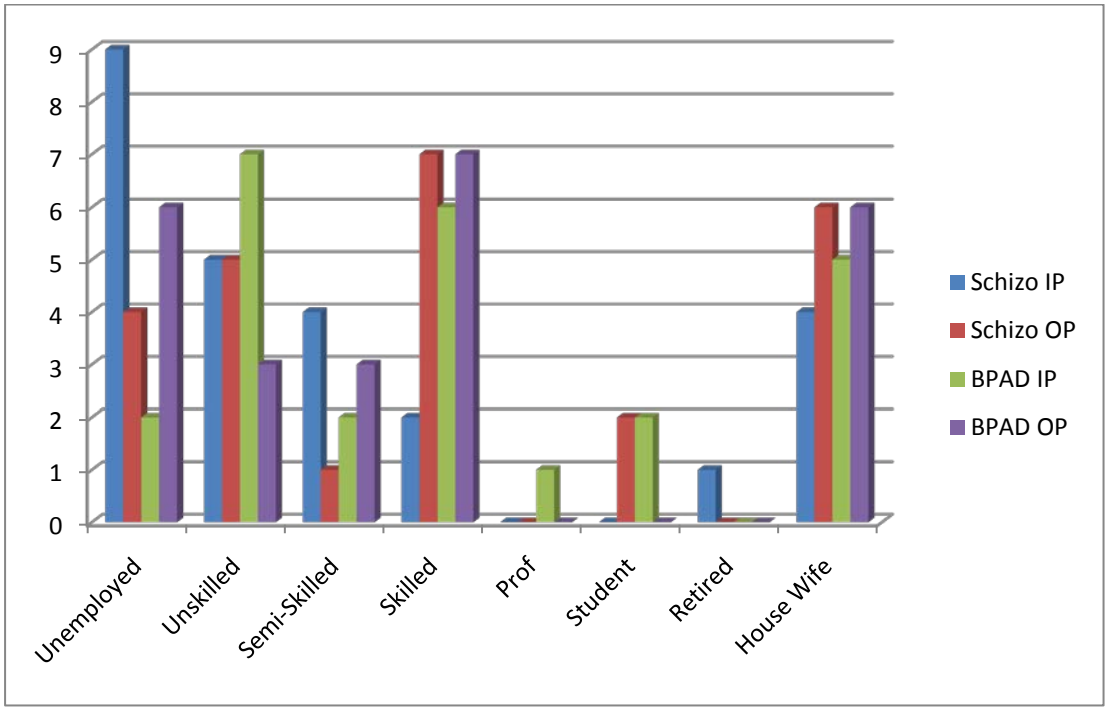
Education:

Only 3% subjects were Illiterate and that also in BPAD OP group. 2 subjects had completed post-graduation and they belonged to BPAD IP group. The distribution of subjects educated up to Middle school, High school and Higher Secondary School was more or less similar in all groups and total of 66% subjects had education including these three education categories. (Table 4; Figure 4)

Table 5: Subject group * Occupation Cross-Tabulation

			Occupation								
			Unemployed	**Unskilled**	**Semi-Skilled**	**Skilled**	**Prof**	**Student**	**Retired**	**House Wife**	**Total**
Subject Group	**Schizo IP**	Count	9	5	4	2	0	0	1	4	25
		%	36.0%	20.0%	16.0%	8.0%	0.0%	0.0%	4.0%	16.0%	100.0%
	Schizo OP	Count	4	5	1	7	0	2	0	6	25
		%	16.0%	20.0%	4.0%	28.0%	0.0%	8.0%	0.0%	24.0%	100.0%
	BPAD IP	Count	2	7	2	6	1	2	0	5	25
		%	8.0%	28.0%	8.0%	24.0%	4.0%	8.0%	0.0%	20.0%	100.0%
	BPAD OP	Count	6	3	3	7	0	0	0	6	25
		%	24.0%	12.0%	12.0%	28.0%	0.0%	0.0%	0.0%	24.0%	100.0%
Total		Count	21	20	10	22	1	4	1	21	100
		%	21.0%	20.0%	10.0%	22.0%	1.0%	4.0%	1.0%	21.0%	100.0%

Figure 5: Occupation Distribution in Subject Groups



Occupation:

In the Schizophrenia IP group 36% subjects were unemployed, 20% were unskilled workers. In the BPAD IP group only 8% were unemployed but 28% were unskilled workers (Schizophrenia OP:- 16% unemployed, 20% unskilled; BPAD OP:- 24% unemployed, 12% unskilled). Only 8% subjects were Skilled workers in Schizophrenia IP group but 28%, 24% and 28% in the Schizophrenia OP, BPAD IP and BPAD OP groups respectively. Only 1 subject was Professional and belonged to the BPAD IP group. 21% of the total subjects were housewives. (Table 5; Figure 5)

Table 6: Subject Group * Marital Status Cross-Tabulation							
			Marital Status				Total
			Married	Separated	Unmarried	Widow	
Subject Group	Schizophrenia IP	Count	13	2	9	1	25
		%	52.0%	8.0%	36.0%	4.0%	100.0%
	Schizophrenia OP	Count	14	2	8	1	25
		%	56.0%	8.0%	32.0%	4.0%	100.0%
	BPAD IP	Count	17	2	5	1	25
		%	68.0%	8.0%	20.0%	4.0%	100.0%
	BPAD OP	Count	13	4	7	1	25
		%	52.0%	16.0%	28.0%	4.0%	100.0%
Total		Count	57	10	29	4	100
		%	57.0%	10.0%	29.0%	4.0%	100.0%

Marital Status:

In Schizophrenia IP group 36% were unmarried and 8% were separated. Even in Schizophrenia OP group 32% were unmarried and 8% separated. 16% were separated and 28% unmarried in BPAD OP group. (Table 6; Figure 6)

Table 7: Subject Group * Religion Cross-Tabulation						
			Religion			Total
			Christian	Hindu	Muslim	
Subject Group	Schizophrenia IP	Count	2	22	1	25
		%	8.0%	88.0%	4.0%	100.0%
	Schizophrenia OP	Count	4	18	3	25
		%	16.0%	72.0%	12.0%	100.0%
	BPAD IP	Count	3	22	0	25
		%	12.0%	88.0%	0.0%	100.0%
	BPAD OP	Count	5	19	1	25
		%	20.0%	76.0%	4.0%	100.0%
Total		Count	14	81	5	100
		%	14.0%	81.0%	5.0%	100.0%

Figure 6: Marital Status in Subject Groups

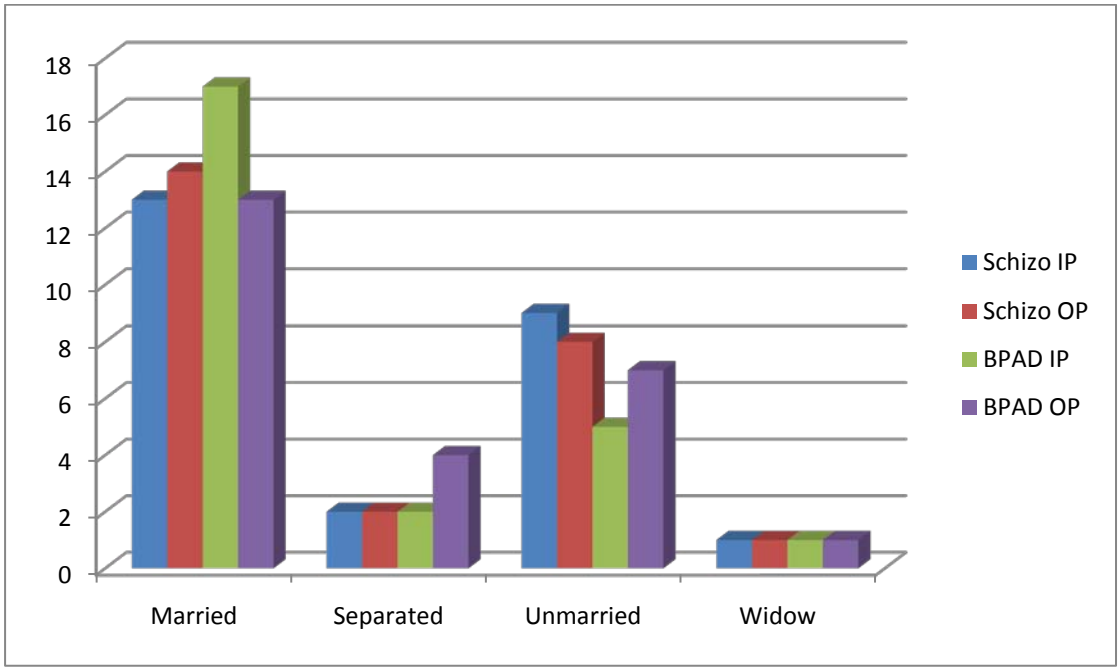
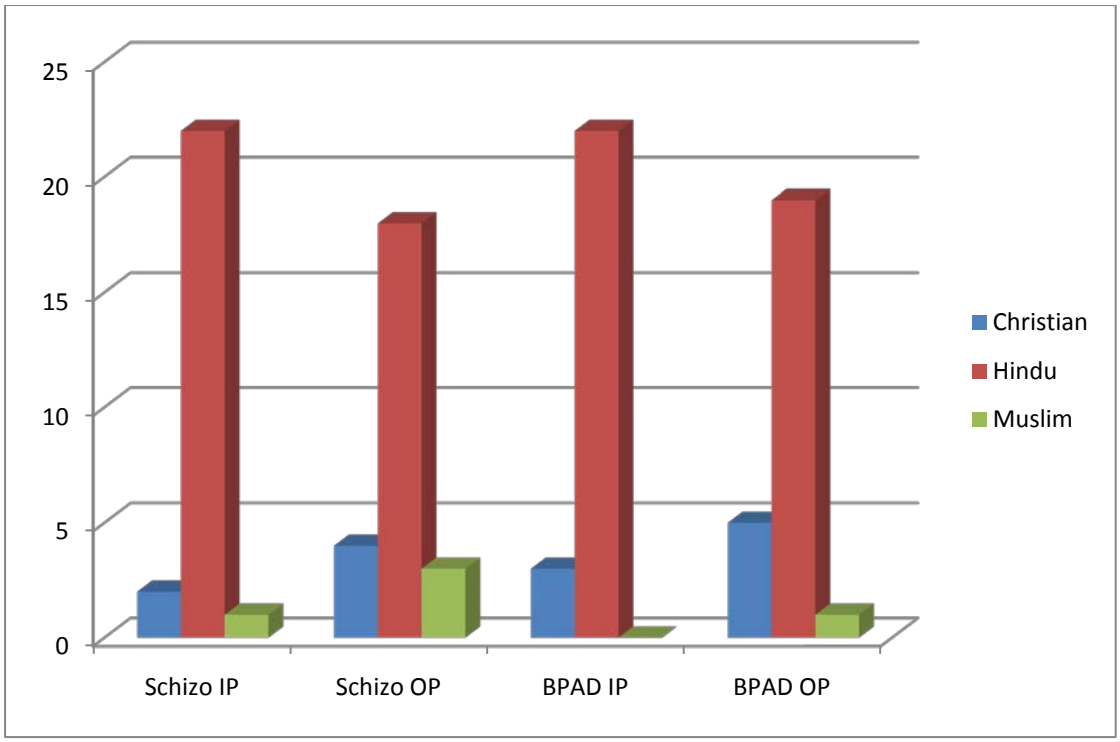


Figure 7: Religion in Subject Groups



Religion:

81% of the subjects were Hindus and 14% followed Christianity. (Table 7; Figure 7)

Table 8: Subject Group * SES Cross-tabulation

			SES				Total
			Lower	Upper Lower	Lower Middle	Upper Middle	
Subject Group	Schizophrenia IP	Count	1	22	1	1	25
		%	4.0%	88.0%	4.0%	4.0%	100.0%
	Schizophrenia OP	Count	0	13	12	0	25
		%	0.0%	52.0%	48.0%	0.0%	100.0%
	BPAD IP	Count	0	18	5	2	25
		%	0.0%	72.0%	20.0%	8.0%	100.0%
	BPAD OP	Count	2	14	9	0	25
		%	8.0%	56.0%	36.0%	0.0%	100.0%
Total		Count	3	67	27	3	100
		%	3.0%	67.0%	27.0%	3.0%	100.0%

Socio-Economic Status:

67% of subjects belonged to the Upper Lower Socio-Economic Status (SES) overall which was as high as 88% in the Schizophrenia IP group. (Table 8)

Figure 8: Socio-Economic Distribution in Subject Groups

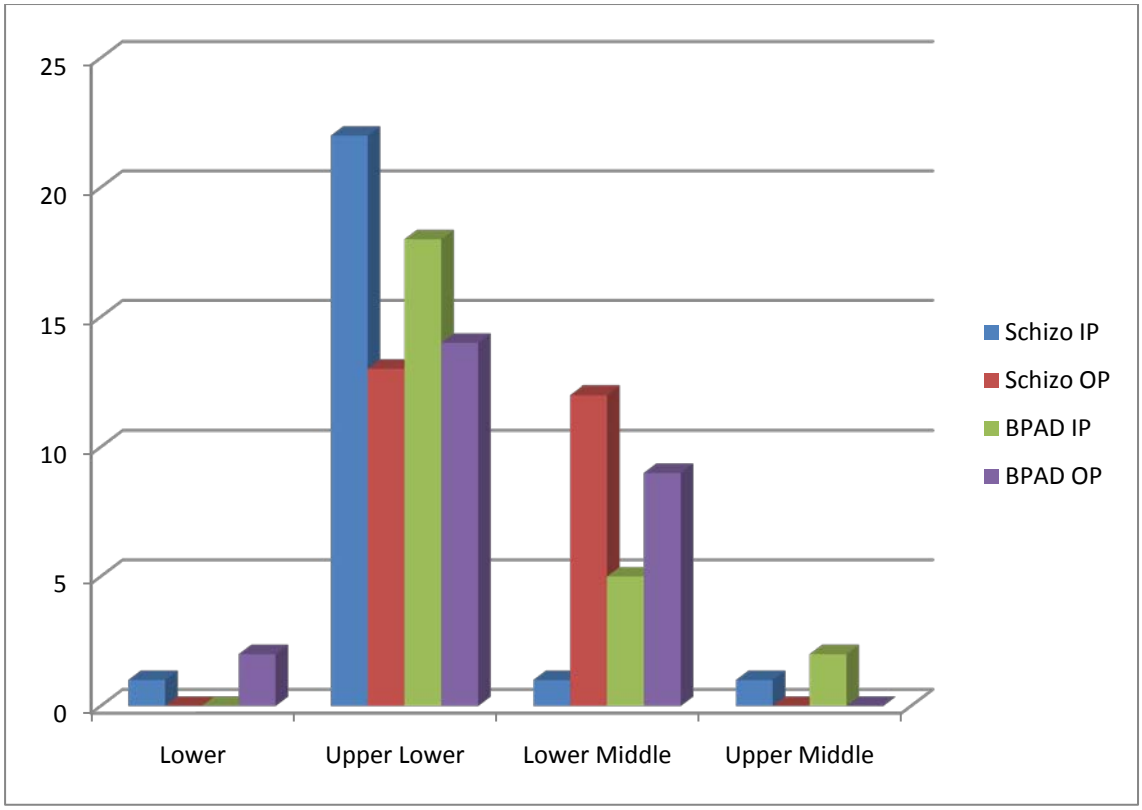


Table 9: Compiled Comparison of Socio-demographic Details

		Subject Group							
		Schizo IP		Schizo OP		BPAD IP		BPAD OP	
		Count	%	Count	%	Count	%	Count	%
AGE GROUP	UP TO 20 YEARS	0	0%	1	4.0%	1	4.0%	2	8.0%
	21-40 YEARS	21	84%	16	64.0%	18	72.0%	18	72.0%
	41-60 YEARS	3	12%	8	32.0%	6	24.0%	5	20.0%
	ABOVE 60 YEARS	1	4%	0	0.0%	0	0.0%	0	0.0%
Sex	F	8	32%	11	44%	8	32%	15	60%
	M	17	68%	14	56%	17	68%	10	40%
Rural/Urban	R	9	36%	6	24%	11	44%	8	32%
	U	16	64%	19	76%	14	56%	17	68%
Education	G	2	8%	3	12%	2	8%	3	12%
	HS	6	24%	7	28%	4	16%	4	16%
	HSS	5	20%	9	36%	4	16%	7	28%
	Illiterate	0	0%	0	0%	0	0%	3	12%
	Lit	3	12%	1	4%	10	40%	3	12%
	MS	9	36%	5	20%	3	12%	5	20%
	PG	0	0%	0	0%	2	8%	0	0%

Occupation	**House Wife**	4	16%	6	24%	5	20%	6	24%
	Prof	0	0%	0	0%	1	4%	0	0%
	Retired	1	4%	0	0%	0	0%	0	0%
	Semi-Skilled	4	16%	1	4%	2	8%	3	12%
	Skilled	2	8%	7	28%	6	24%	7	28%
	Student	0	0%	2	8%	2	8%	0	0%
	Unemployed	9	36%	4	16%	2	8%	6	24%
	Unskilled	5	20%	5	20%	7	28%	3	12%
Marital Status	**Married**	13	52%	14	56%	17	68%	13	52%
	Separated	2	8%	2	8%	2	8%	4	16%
	Unmarried	9	36%	8	32%	5	20%	7	28%
	Widow	1	4%	1	4%	1	4%	1	4%
Religion	**Christian**	2	8%	4	16%	3	12%	5	20%
	Hindu	22	88%	18	72%	22	88%	19	76%
	Muslim	1	4%	3	12%	0	0%	1	4%
SES	**Lower**	1	4%	0	0%	0	0%	2	8%
	Lower Middle	1	4%	12	48%	5	20%	9	36%
	Upper Lower	22	88%	13	52%	18	72%	14	56%
	Upper Middle	1	4%	0	0%	2	8%	0	0%

Table 10: IDEAS Global Disability and Components in subject groups

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
IDEAS	Schizo IP	25	11.28	3.17	0.63	9.97	12.59	3	15
	Schizo OP	25	9.36	2.33	0.47	8.40	10.32	4	12
	BPAD IP	25	9.48	1.50	0.30	8.86	10.10	5	12
	BPAD OP	25	6.68	2.30	0.46	5.73	7.63	4	12
	Total	100	9.2	2.88	0.29	8.63	9.77	3	15
S	Schizo IP	25	1.48	0.71	0.14	1.19	1.77	0	2
	Schizo OP	25	1.44	0.68	0.12	1.08	1.60	0	2
	BPAD IP	25	1.04	0.35	0.07	0.90	1.19	0	2
	BPAD OP	25	0.36	0.49	0.10	0.16	0.56	0	1
	Total	100	1.08	1.21	0.12	0.84	1.32	0	2

I	**Schizo IP**	25	2.04	0.73	0.15	1.74	2.34	0	3
	Schizo OP	25	1.6	0.50	0.10	1.39	1.81	1	2
	BPAD IP	25	2.04	0.45	0.09	1.85	2.23	1	3
	BPAD OP	25	1.44	0.65	0.13	1.17	1.71	1	3
	Total	100	1.78	0.64	0.06	1.65	1.91	0	3
C	**Schizo IP**	25	2.08	0.81	0.16	1.74	2.42	0	3
	Schizo OP	25	1.68	0.56	0.11	1.45	1.91	1	3
	BPAD IP	25	2.4	0.76	0.15	2.08	2.72	0	3
	BPAD OP	25	1.68	0.63	0.13	1.42	1.94	1	3
	Total	100	1.96	0.75	0.08	1.81	2.11	0	3
W	**Schizo IP**	25	3.2	0.91	0.18	2.82	3.58	1	4
	Schizo OP	25	2.68	1.03	0.21	2.26	3.11	1	4
	BPAD IP	25	2.68	0.56	0.11	2.45	2.91	1	3
	BPAD OP	25	1.96	0.79	0.16	1.63	2.29	1	3
	Total	100	2.63	0.94	0.09	2.44	2.82	1	4

Table 11: ANOVA of IDEAS and Components						
ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
IDEAS	**Between Groups**	269.520	3	89.840	15.611	.000
	Within Groups	552.480	96	5.755		
	Total	822.000	99			
S	**Between Groups**	20.240	3	6.747	5.176	.002
	Within Groups	125.120	96	1.303		
	Total	145.360	99			
I	**Between Groups**	7.080	3	2.360	6.648	.000
	Within Groups	34.080	96	.355		
	Total	41.160	99			
C	**Between Groups**	9.120	3	3.040	6.247	.001
	Within Groups	46.720	96	.487		
	Total	55.840	99			
W	**Between Groups**	19.470	3	6.490	9.184	.000
	Within Groups	67.840	96	.707		
	Total	87.310	99			

IDEAS characteristics:

I. Schizophrenia IP group:

Mean of the global IDEAS score was 11.28 with standard deviation of 3.17 with maximum score of 15 and minimum of 3.

a) Self care domain(S): Maximum score of 2 and minimum of 0 with a mean of 1.48 with SD of 0.71
b) Interpersonal Activities domain(I): Max of 3 and minimum of 0 with mean of 2.04 with SD of 0.73
c) Communication and understanding domain(C): Max of 3 and minimum of 0 with mean of 2.08 and SD of 0.81
d) Work domain(W): Max of 4 with minimum of 1 with a mean of 3.2 and SD of 0.91

II. Schizophrenia OP group:

Mean of Global ideas score was 9.36 and SD of 2.33. Max of 12 and minimum of 4

a) S domain: Mean of 1.44 with SD of 0.68 and maximum score was 2.
b) I domain: Mean of 1.6 with SD of 0.50 and maximum of 2 and minimum of 1
c) C domain: Mean of 1.68 with SD of 0.56 and max score of 3 and minimum 1
d) W domain: Mean of 2.68 with SD of 1.03 and max score of 4 and minimum of 1

III. BPAD IP group:

Mean of global IDEAS score was 9.48 with SD of 1.50. max score was 12 and minimum of 5

a) S domain: Mean of 1.04 with SD of 0.35 and max score of 2
b) I domain: Mean of 2.04 with SD of 0.45 and max score of 3 with minimum of 1
c) C domain: Mean of 2.4 with SD of 0.76. Max score of 3 and minimum of 0
d) W domain: Mean of 2.68 with SD of 0.56. Max score was 3 and minimum of 1

IV. BPAD OP group:

Mean of global IDEAS score was 6.68 with SD of 2.30 and max score of 12 with minimum of 4

a) S domain: Mean of 0.36 with SD of 0.49 and max score of 1
b) I domain: Mean of 1.44 with SD of 0.65. Max score of 3 and minimum of 1
c) C domain: Mean of 1.68 with SD of 0.63. Max score of 3 and minimum of 1
d) W domain: Mean of 1.96 with SD of 0.79. Max score of 3 and minimum of 1

ANOVA (Table 11) shows that difference among groups of Global Disability score and all component domains were highly significant.

Table 12 shows comparisons of IDEAS global score and component domains in between the groups. It shows that there were significant differences in many comparisons in between the groups.

Significant difference was noted between BPAD OP group and other groups in the global disability score (Mean difference of -4.60, -2.68 and -2.80 with Schizophrenia IP, Schizophrenia OP and BPAD IP groups respectively).

Significant differences noted between BPAD OP group and other groups, in the W domain scores (Mean difference of -1.24, -0.72 and -0.72 with Schizophrenia IP, Schizophrenia OP and BPAD IP groups respectively).

Table 12: Post –Hoc Test Bonferroni for Comparing Each Domain of IDEAS for all the four subject groups

Multiple Comparisons

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
IDEAS	Schizo IP	Schizo OP	1.92*	0.68	0.03	0.09	3.75
		BPAD IP	1.8	0.68	0.06	-0.03	3.63
		BPAD OP	4.60*	0.68	0.00	2.77	6.43
	Schizo OP	Schizo IP	-1.92*	0.68	0.03	-3.75	-0.09
		BPAD IP	-0.12	0.68	1.00	-1.95	1.71
		BPAD OP	2.68*	0.68	0.00	0.85	4.51
	BPAD IP	Schizo IP	-1.8	0.68	0.06	-3.63	0.03
		Schizo OP	0.12	0.68	1.00	-1.71	1.95
		BPAD OP	2.80*	0.68	0.00	0.97	4.63

	BPAD OP	**Schizo IP**	-4.60*	0.68	0.00	-6.43	-2.77
		Schizo OP	-2.68*	0.68	0.00	-4.51	-0.85
		BPAD IP	-2.80*	0.68	0.00	-4.63	-0.97
S	**Schizo IP**	**Schizo OP**	0.04	0.32	1.00	-0.83	0.91
		BPAD IP	0.44	0.32	1.00	-0.43	1.31
		BPAD OP	1.12*	0.32	0.01	0.25	1.99
	Schizo OP	**Schizo IP**	-0.04	0.32	1.00	-0.91	0.83
		BPAD IP	0.4	0.32	1.00	-0.47	1.27
		BPAD OP	1.08*	0.32	0.01	0.21	1.95
	BPAD IP	**Schizo IP**	-0.44	0.32	1.00	-1.31	0.43
		Schizo OP	-0.4	0.32	1.00	-1.27	0.47
		BPAD OP	0.68	0.32	0.23	-0.19	1.55
	BPAD OP	**Schizo IP**	-1.12*	0.32	0.01	-1.99	-0.25
		Schizo OP	-1.08*	0.32	0.01	-1.95	-0.21
		BPAD IP	-0.68	0.32	0.23	-1.55	0.19
I	**Schizo IP**	**Schizo OP**	0.44	0.17	0.06	-0.01	0.89
		BPAD IP	0	0.17	1.00	-0.45	0.45
		BPAD OP	.60*	0.17	0.00	0.15	1.05
	Schizo OP	**Schizo IP**	-0.44	0.17	0.06	-0.89	0.01
		BPAD IP	-0.44	0.17	0.06	-0.89	0.01
		BPAD OP	0.16	0.17	1.00	-0.29	0.61
	BPAD IP	**Schizo IP**	0	0.17	1.00	-0.45	0.45
		Schizo OP	0.44	0.17	0.06	-0.01	0.89
		BPAD OP	.60*	0.17	0.00	0.15	1.05
	BPAD OP	**Schizo IP**	-.60*	0.17	0.00	-1.05	-0.15
		Schizo OP	-0.16	0.17	1.00	-0.61	0.29
		BPAD IP	-.60*	0.17	0.00	-1.05	-0.15
C	**Schizo IP**	**Schizo OP**	0.4	0.20	0.27	-0.13	0.93
		BPAD IP	-0.32	0.20	0.65	-0.85	0.21

		BPAD OP	0.4	0.20	0.27	-0.13	0.93
	Schizo OP	**Schizo IP**	-0.4	0.20	0.27	-0.93	0.13
		BPAD IP	-.72*	0.20	0.00	-1.25	-0.19
		BPAD OP	0	0.20	1.00	-0.53	0.53
	BPAD IP	**Schizo IP**	0.32	0.20	0.65	-0.21	0.85
		Schizo OP	.72*	0.20	0.00	0.19	1.25
		BPAD OP	.72*	0.20	0.00	0.19	1.25
	BPAD OP	**Schizo IP**	-0.4	0.20	0.27	-0.93	0.13
		Schizo OP	0	0.20	1.00	-0.53	0.53
		BPAD IP	-.72*	0.20	0.00	-1.25	-0.19
W	**Schizo IP**	**Schizo OP**	0.52	0.24	0.19	-0.12	1.16
		BPAD IP	0.52	0.24	0.19	-0.12	1.16
		BPAD OP	1.24*	0.24	0.00	0.60	1.88
	Schizo OP	**Schizo IP**	-0.52	0.24	0.19	-1.16	0.12
		BPAD IP	0	0.24	1.00	-0.64	0.64
		BPAD OP	.72*	0.24	0.02	0.08	1.36
	BPAD IP	**Schizo IP**	-0.52	0.24	0.19	-1.16	0.12
		Schizo OP	0	0.24	1.00	-0.64	0.64
		BPAD OP	.72*	0.24	0.02	0.08	1.36
	BPAD OP	**Schizo IP**	-1.24*	0.24	0.00	-1.88	-0.60
		Schizo OP	-.72*	0.24	0.02	-1.36	-0.08
		BPAD IP	-.72*	0.24	0.02	-1.36	-0.08

Table 13: Comparison of the PANSS score in Schizophrenia in-patient and out-patient groups

Group Statistics							
	Subject Group	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**	**t VALUE**	**P VALUE**
PANSS_P	**Schizophrenia IP**	25	25.08	5.38	1.08	7.117**	P<0.001
	Schizophrenia OP	25	16.48	2.76	0.55		
PANSS_N	**Schizophrenia IP**	25	19.28	5.12	1.02	2.882**	0.006
	Schizophrenia OP	25	15.8	3.20	0.64		
PANSS_G	**Schizophrenia IP**	25	34.44	6.43	1.29	1.894	0.064 NS
	Schizophrenia OP	25	31.36	4.97	0.99		

** SIGNIFICANT

NS NON SIGNIFICANT

PANSS:

a. PANSS Positive scale: Mean of 25.08 in the Schizophrenia IP group and 16.48 in the Schizophrenia OP group and the difference was highly significant (t value of 7.117 with p value <0.001) (Table 13)

b. PANSS Negative scale : Mean of 19.28 in the schizophrenia IP group and 15.8 in Schizophrenia OP group and here also the difference was highly significant (t value= 2.882 ; p value= 0.006)

c. PANSS General psychopathology scale: Mean of 34.44 in the Schizophrenia IP group and 31.36 in the Schizophrenia OP group but the difference was not significant (t value=1.894; p value=0.064)

Correlations between PANSS and IDEAS:

a. Schizophrenia IP group:

As shown in Table 14 there were statistically significant correlations between IDEAS global score and PANSS-N (Pearson correlation coefficient (PCC) = 0.483; significance 2-tailed= 0.014) and PANSS-G (PCC = 0.464: significance 2-tailed= 0.019)

There was significant correlation between IDEAS-S scale and PANSS-N (PCC = 0.486; significance 2-tailed= 0.014)

There was highly significant correlation between IDEAS-I scale and PANSS-G (PCC = 0.525; significance 2-tailed= 0.007)

The correlations were not significant between the IDEAS-C and PANSS scales and between IDEAS-W and PANSS scales.

Table 14: Correlations between IDEAS and PANSS in Schizophrenia in-patients

		PANSS_P	PANSS_N	PANSS_G	IDEAS
IDEAS	**Pearson Correlation**	.165	.483*	.464*	1
	Sig. (2-tailed)	.431	.014	.019	
	N	25	25	25	25
S	**Pearson Correlation**	.163	.486*	.342	.803**
	Sig. (2-tailed)	.436	.014	.094	.000
	N	25	25	25	25
I	**Pearson Correlation**	.115	.351	.525**	.746**
	Sig. (2-tailed)	.584	.085	.007	.000
	N	25	25	25	25
C	**Pearson Correlation**	.199	.205	.089	.590**
	Sig. (2-tailed)	.341	.326	.673	.002
	N	25	25	25	25
W	**Pearson Correlation**	.158	.335	.283	.700**
	Sig. (2-tailed)	.451	.101	.171	.000
	N	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

b. Schizophrenia OP group:

Statistically significant correlations were seen between Global IDEAS score and PANSS scales as shown in Table 15. Correlation between Ideas and PANSS-P was highly significant (PCC = 0.674; significance 2-tailed= 0.000) and so was correlation between IDEAS and PANSS-G (PCC = 0.561; significance 2-tailed= 0.004). There was significant correlation between IDEAS and PANSS-N (PCC = 0.435; significance 2-tailed= 0.030).

There were highly significant correlations between IDEAS-I and PANSS-P (PCC = 0.599; significance 2-tailed= 0.002) and between IDEAS-I and PANSS-G (PCC = 0.529; significance 2-tailed= 0.006). Correlation was significant between IDEAS-I and PANSS-N (PCC = 0.442; significance 2-tailed= 0.027).

Highly significant correlation was seen between IDEAS-C and PANSS-P (PCC = 0.566; significance 2-tailed= 0.003).

Highly significant correlations were present between IDEAS-W and PANSS-P (PCC = 0.688; significance 2-tailed= 0.000) and between IDEAS-W and PANSS-G (PCC = 0.658; significance 2-tailed= 0.000). Correlation was significant between IDEAS-W and PANSS-N (PCC = 0.460; significance 2-tailed= 0.021).

IDEAS-C had highly significant correlation only with PANSS-P (PCC = 0.566; significance 2-tailed= 0.003).

Correlation was not significant between IDEAS-S and all PANSS scales.

Table 15: Correlations between IDEAS and PANSS in Schizophrenia out-patients					
		PANSS_P	**PANSS_N**	**PANSS_G**	**IDEAS**
IDEAS	**Pearson Correlation**	.674**	.435*	.561**	1
	Sig. (2-tailed)	.000	.030	.004	
	N	25	25	25	25
S	**Pearson Correlation**	-.300	.257	.020	-.180
	Sig. (2-tailed)	.146	.214	.923	.388
	N	25	25	25	25
I	**Pearson Correlation**	.599**	.442*	.529**	.774**
	Sig. (2-tailed)	.002	.027	.006	.000
	N	25	25	25	25
C	**Pearson Correlation**	.566**	.196	.374	.736**
	Sig. (2-tailed)	.003	.347	.065	.000
	N	25	25	25	25
W	**Pearson Correlation**	.688**	.460*	.658**	.903**
	Sig. (2-tailed)	.000	.021	.000	.000
	N	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 16: Comparison of the YMRS score in BPAD IP and OP groups						
Group Statistics						
	Group	N	Mean	Std. Deviation	Std. Error Mean	t value
YMRS	**BPAD IP**	25	36.88	6.307	1.261	9.329**
	BPAD OP	25	22.88	4.065	.813	

**P<0.001 SIGNIFICANT

YMRS:

The mean of YMRS in BPAD IP group was 36.88 with SD of 6.307 while mean of YMRS in BPAD OP group was 22.88 with SD of 4.065. The difference of YMRS scores in the two groups was highly significant (t value = 9.329; p value < 0.001). (Table 16)

Correlation of YMRS with IDEAS:

A. BPAD IP group:

No significant correlation was seen between YMRS and IDEAS global disability score or its component domains. (Table 17)

B. BPAD OP group:

A significant correlation was seen between YMRS and IDEAS global disability score (PCC = 0.427; significance 2-tailed= 0.033). (Table 18)

A highly significant correlation was seen between YMRS and IDEAS-W scale (PCC = 0.518; significance 2-tailed= 0.008).

Correlation was not significant between YMRS and other IDEAS component domains.

Table 17: Correlations between YMRS and IDEAS in BPAD IP cases

Correlations							
		IDEAS	**S**	**I**	**C**	**W**	**YMRS**
YMRS	**Pearson Correlation**	.050	.153	.234	.054	-.178	1
	Sig. (2-tailed)	.811	.466	.260	.799	.396	
	N	25	25	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

Table 18: Correlations between YMRS and IDEAS in BPAD OP cases							
Correlations							
		IDEAS	S	I	C	W	YMRS
YMRS	**Pearson Correlation**	**.427**[*]	.127	.367	.262	.518[**]	1
	Sig. (2-tailed)	**.033**	.545	.071	.206	.008	
	N	**25**	25	25	25	25	25
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

Table 19: Comparison of Domains of WHO QOL-BREF (D1,2,3,4) in 4 groups									
Descriptives									
		N	**Mean**	**SD**	**S. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
						Lower Bound	**Upper Bound**		
QOLD1 Physical Health	**Schizo IP**	25	54.44	13.13	2.63	49.02	59.86	38	81
	Schizo OP	25	47.92	6.86	1.37	45.09	50.75	38	63
	BPAD IP	25	59.00	11.59	2.32	54.22	63.78	31	81
	BPAD OP	25	60.24	10.07	2.01	56.08	64.40	38	75
	Total	100	55.40	11.57	1.16	53.10	57.70	31	81
QOLD2 Psychological Health	**Schizo IP**	25	46.72	16.68	3.34	39.84	53.60	19	81
	Schizo OP	25	44.48	7.13	1.43	41.54	47.42	25	63
	BPAD IP	25	53.60	11.28	2.26	48.94	58.26	31	81

	BPAD OP	25	57.56	7.74	1.55	54.37	60.75	44	75
	Total	100	50.59	12.36	1.24	48.14	53.04	19	81
QOLD3 Social Relationships	**Schizo IP**	25	26.80	15.56	3.11	20.38	33.22	6	69
	Schizo OP	25	34.36	11.12	2.22	29.77	38.95	0	50
	BPAD IP	25	48.92	12.39	2.48	43.80	54.04	25	75
	BPAD OP	25	49.20	13.06	2.61	43.81	54.59	25	75
	Total	100	39.82	16.15	1.61	36.62	43.02	0	75
QOLD4 Environment	**Schizo IP**	25	34.52	9.80	1.96	30.48	38.56	19	50
	Schizo OP	25	32.84	6.72	1.34	30.06	35.62	25	56
	BPAD IP	25	46.88	8.97	1.79	43.18	50.58	31	63
	BPAD OP	25	49.84	12.05	2.41	44.86	54.82	25	75
	Total	100	41.02	12.04	1.20	38.63	43.41	19	75

WHO QOL-BREF comparisons:

ANOVA shows that difference between groups for all the four domains of WHO QOL-BREF were highly significant as shown in Table 20.

Each of the WHO QOL-BREF domain scores were compared between individual subject groups as shown in Table 21.

a) QOL Domain 1 (Physical Health):

Domain1 score difference was significant between Schizophrenia OP and BPAD IP groups (Mean difference= -11.08; p = 0.002) and between Schizophrenia OP and BPAD OP groups (Mean difference= -12.32; p = 0.001).

Table 20: ANOVA of QOL domains

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
QOLD1	**Between Groups**	2331.440	3	777.147	6.829	.000
	Within Groups	10924.560	96	113.798		
	Total	13256.000	99			
QOLD2	**Between Groups**	2748.750	3	916.250	7.101	.000
	Within Groups	12387.440	96	129.036		
	Total	15136.190	99			
QOLD3	**Between Groups**	9253.160	3	3084.387	17.881	.000
	Within Groups	16559.600	96	172.496		
	Total	25812.760	99			
QOLD4	**Between Groups**	5532.360	3	1844.120	20.096	.000
	Within Groups	8809.600	96	91.767		
	Total	14341.960	99			

Table 21: Post –Hoc Test Bonferroni for Comparing Each Domain of WHO QOL-BREF in between all the four subject groups							
Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
QOLD 1	Schizo IP	Schizo OP	6.52	3.02	.199	-1.61	14.65
		BPAD IP	-4.56	3.02	.804	-12.69	3.57
		BPAD OP	-5.80	3.02	.345	-13.93	2.33
	Schizo OP	Schizo IP	-6.52	3.02	.199	-14.65	1.61
		BPAD IP	-11.08*	3.02	.002	-19.21	-2.95
		BPAD OP	-12.32*	3.02	.001	-20.45	-4.19
	BPAD IP	Schizo IP	4.56	3.02	.804	-3.57	12.69
		Schizo OP	11.08*	3.02	.002	2.95	19.21
		BPAD OP	-1.24	3.02	1.000	-9.37	6.89
	BPAD OP	Schizo IP	5.80	3.02	.345	-2.33	13.93
		Schizo OP	12.32*	3.02	.001	4.19	20.45
		BPAD IP	1.24	3.02	1.000	-6.89	9.37
QOLD 2	Schizo IP	Schizo OP	2.24	3.21	1.000	-6.42	10.90
		BPAD IP	-6.88	3.21	.209	-15.54	1.78
		BPAD OP	-10.84*	3.21	.006	-19.50	-2.18
	Schizo OP	Schizo IP	-2.24	3.21	1.000	-10.90	6.42
		BPAD IP	-9.12*	3.21	.033	-17.78	-0.46
		BPAD OP	-13.08*	3.21	.001	-21.74	-4.42
	BPAD IP	Schizo IP	6.88	3.21	.209	-1.78	15.54
		Schizo OP	9.12*	3.21	.033	0.46	17.78
		BPAD OP	-3.96	3.21	1.000	-12.62	4.70
	BPAD OP	Schizo IP	10.84*	3.21	.006	2.18	19.50
		Schizo OP	13.08*	3.21	.001	4.42	21.74

		BPAD IP	3.96	3.21	1.000	-4.70	12.62
QOLD 3	**Schizo IP**	**Schizo OP**	-7.56	3.71	.268	-17.57	2.45
		BPAD IP	-22.12*	3.71	.000	-32.13	-12.11
		BPAD OP	-22.40*	3.71	.000	-32.41	-12.39
	Schizo OP	**Schizo IP**	7.56	3.71	.268	-2.45	17.57
		BPAD IP	-14.56*	3.71	.001	-24.57	-4.55
		BPAD OP	-14.84*	3.71	.001	-24.85	-4.83
	BPAD IP	**Schizo IP**	22.12*	3.71	.000	12.11	32.13
		Schizo OP	14.56*	3.71	.001	4.55	24.57
		BPAD OP	-.28	3.71	1.000	-10.29	9.73
	BPAD OP	**Schizo IP**	22.40*	3.71	.000	12.39	32.41
		Schizo OP	14.84*	3.71	.001	4.83	24.85
		BPAD IP	.281	3.71	1.000	-9.73	10.29
QOLD 4	**Schizo IP**	**Schizo OP**	1.68	2.71	1.000	-5.62	8.98
		BPAD IP	-12.36*	2.71	.000	-19.66	-5.06
		BPAD OP	-15.32*	2.71	.000	-22.62	-8.02
	Schizo OP	**Schizo IP**	-1.68	2.71	1.000	-8.98	5.62
		BPAD IP	-14.04*	2.71	.000	-21.34	-6.74
		BPAD OP	-17.00*	2.71	.000	-24.30	-9.70
	BPAD IP	**Schizo IP**	12.36*	2.71	.000	5.06	19.66
		Schizo OP	14.04*	2.71	.000	6.74	21.34
		BPAD OP	-2.96	2.71	1.000	-10.26	4.34
	BPAD OP	**Schizo IP**	15.32*	2.71	.000	8.02	22.62
		Schizo OP	17.00*	2.71	.000	9.70	24.30
		BPAD IP	2.96	2.71	1.000	-4.34	10.26

b) QOL Domain 2 (Psychological Health):

Significant difference was noted between scores of Schizophrenia IP and BPAD OP groups (Mean difference= -10.84; p = 0.006). Between Schizophrenia OP and BPAD IP groups difference was significant (Mean difference= -9.12; p = 0.033). Difference was also significant between Schizophrenia OP and BPAD OP groups (Mean difference= -13.08; p = 0.001).

c) QOL Domain 3 (Social Relationships):

Score of Schizophrenia IP group was significantly different from scores of BPAD IP and BPAD OP groups (Mean difference= -22.12 and -22.40 respectively; p= <0. 001 for both).

Score of Schizophrenia OP group was also significantly different from scores of BPAD IP and BPAD OP groups (Mean difference= -14.56 and -14.84 respectively; p= 0. 001 for both).

Difference was not significant in between Schizophrenia IP and OP groups as well as in between BPAD IP and OP groups.

d) QOL Domain4 (Environment):

Significant difference was seen between scores of Schizophrenia IP and BPAD IP (Mean difference= -12.36; p = <0.001). Differences were also significant between the following subject groups:

- Schizophrenia IP and BPAD OP (Mean difference= -15.32; p = <0.001)
- Schizophrenia OP and BPAD IP (Mean difference= -14.04; p = <0.001)
- Schizophrenia OP and BPAD OP (Mean difference= -17.00; p =<0.001)

No significant difference was seen in between Schizophrenia groups and in between BPAD groups.

Correlations between the WHO QOL-BREF domains and IDEAS:

Correlation between QOL D3 score and IDEAS global disability score was significant (PCC = -0.270; significance 2-tailed= 0.007) and also in between QOL D4 scores and IDEAS (PCC = -0.312; significance 2-tailed= 0.002). (Table 22)

Correlation in between QOL D1 score and IDEAS and QOL D2 score and IDEAS was not significant.

Table 22: Correlations between the WHO QOL-BREF domains and IDEAS						
		QOLD1	**QOLD2**	**QOLD3**	**QOLD4**	**IDEAS**
QOLD1	**Pearson Correlation**	1	.686**	.470**	.611**	-.185
	Sig. (2-tailed)		.000	.000	.000	.066
	N	100	100	100	100	100
QOLD2	**Pearson Correlation**	.686**	1	.492**	.590**	-.134
	Sig. (2-tailed)	.000		.000	.000	.184
	N	100	100	100	100	100
QOLD3	**Pearson Correlation**	.470**	.492**	1	.538**	-.270**
	Sig. (2-tailed)	.000	.000		.000	.007
	N	100	100	100	100	100
QOLD4	**Pearson Correlation**	.611**	.590**	.538**	1	-.312**
	Sig. (2-tailed)	.000	.000	.000		.002
	N	100	100	100	100	100
IDEAS	**Pearson Correlation**	-.185	-.134	-.270**	-.312**	1
	Sig. (2-tailed)	.066	.184	.007	.002	
	N	100	100	100	100	100

DISCUSSION

This study aimed at studying disability using IDEAS in major mental illnesses (Schizophrenia and BPAD) which cause significant disability. As the study was done in a tertiary psychiatric hospital we had access to in-patients, and could compare the disability difference between in-patients and out-patients.

Findings in socio-demographic data:

The majority of the patients were in the 21-40 year age category in all the subject groups and the maximum percentage was seen in Schizophrenia in-patients which was expected as the onset of illness is at a young age in both schizophrenia and BPAD.

The majority of the subjects in all groups were from urban background contrary to studies which had subjects more from rural background.[8,47] This finding may be because of the location of the hospital in a metropolitan city and also due to less access to treatment of the rural population.

Considering the education of the subjects, mostly they were educated up to middle, high or higher secondary level. There were very few illiterates and very few studied up to graduate or post graduate level. Because these illnesses start at a young age, the impact on the education achieved is evident.

When we see the occupation only one subject was working as a professional and no subject doing work as a semi-professional, which again

indicates the disability caused by a major mental illness. 70% of the subjects were employed in the study done by Shruti et al [47].

When we see the marital status of the subjects, 43% subjects of the total sample were either separated, unmarried or widowed. The distribution in all the individual groups was more or less similar. Again it is evident that these illnesses hamper family functioning. A high percentage of subjects were unmarried which may be due to various reasons. The onset of both Schizophrenia and BPAD is at a young age and stigma associated with illness is high, so it is difficult to get married and also because of the disability caused by these illnesses.

The majority of subjects were Hindus followed by Christians which maybe because of major Hindu population in Tamil Nadu. The maximum number of patients belonged to the Upper Lower socio-economic class according to the Modified Kuppuswamy's classification of socio-economic status.

Disability characteristics:

The mean of the IDEAS global disability score was maximum in the Schizophrenia IP group (Mean = 11.28) and minimum in the BPAD OP group (Mean = 6.68). IDEAS Self Care score was maximum in Schizophrenia IP group followed by Schizophrenia OP group and least in BPAD group. This shows that self care is affected more in schizophrenia compared to BPAD and was more in IP subjects due to greater disease severity. Previous studies [48,49]

had found that patients of male gender had higher disability in self care but which couldn't be established in our study.

IDEAS Interpersonal activities domain score was equivalent in both IP groups and comparatively lesser in OP groups showing that interpersonal relations were equally affected by both diseases.

IDEAS Communication and understanding domain was interestingly more affected in BPAD IP group and the domain scores in the OP groups were comparable. The disability caused in BPAD IP was significantly different from the both OP groups.

The IDEAS Work domain score was maximally affected in Schizophrenia IP group and least in BPAD OP group and the score was comparable in Schizophrenia OP and BPAD IP group. The score obtained in BPAD OP group was significantly less compared to other groups, showing that the ability to continue work was relatively preserved in BPAD OP patients.

The overall results showed that the disability overall is least in BPAD OP patients.

Disease severity:

PANSS Positive and Negative scales were significantly higher in the Schizophrenia IP group compared to the OP group showing more severity in the IP group and justifying the need for IP treatment in this group. The scores of PANSS General psycho-pathology scale were not significantly different

between the in-patients and out-patients showing that this scale is comparable in in-patients and out-patients.

Considering the BPAD patients YMRS was significantly higher in in-patients compared to out-patients showing that disease was more severe in in-patients.

Severity of the disease and disability in schizophrenia:

IDEAS global disability score had significant correlation with PANSS Negative scale (PANSS-N) and PANSS General Psychopathology (PANSS-G) scale in in-patients and with all PANSS scales in out-patient groups which shows that, more disability is associated with the severity of the disease in schizophrenia.

Significant correlation of the IDEAS-S (Self Care) domain score with PANSS-N in in-patients showed that self care is affected more with negative symptoms of the disease which is true.

IDEAS-I (Interpersonal activities) domain scores had significant correlation to the PANSS-G scale in both in-patients and out-patients showing that features of general psycho-pathology like anxiety tension, uncooperativeness, preoccupation and active social avoidance tend to hamper interpersonal activities.

IDEAS-C (Communication and Understanding) domain scores were significantly correlated to positive symptoms in out-patients but not in in-patients which shows that the positive symptoms like delusions, conceptual

disorganisation, suspiciousness, hostility affect communication and understanding, but factors which cause insignificant correlation in in-patients needs further evaluation. This is in contrast to study by Grover et al [48] which had found significant correlation of IDEAS-C with negative sub-scale of PANSS. But in that study residual schizophrenia patients were taken who predominantly had negative symptoms.

IDEAS-W (Work) domain score was significantly correlated to all PANSS scales in out-patients but not in in-patients even though the mean of the scores was greatest in schizophrenia in-patients. Rationalization for this can be that disability in the work is already severely hampered in these patients so that the variation was less with the disease severity measured through PANSS. Studies have also shown that informants give stress on occupational functioning as it is strikingly evident to them.[21]

Thus in our study there is correlation of disability with severity of the disease and varying correlation of different aspects of disability, which has been seen in some other studies. [8,50]

Severity of the disease and disability in BPAD:

YMRS score in the BPAD IP group was not significantly correlated to the IDEAS global disability score and the IDEAS component scores. But YMRS in the BPAD OP group was significantly correlated to the IDEAS global disability score and the work domain of IDEAS. This finding suggests that there are other factors affecting the disability in BPAD patients who need IP management. Patients managed as out-patients had significant correlation

between severity measured by YMRS and disability measured using IDEAS. Disruption of work performance had correlation to the disease severity. Choudhry et al had also seen correlation between severity of BPAD and disability using IDEAS.[8]

Quality of Life:

QOL was assessed using WHO QOL-BREF scale in four domains. ANOVA shows that there was significant difference between the subject groups in all four domains of QOL.

When correlations seen between individual groups, it suggested that quality of life had significant difference depending on the disease type. Difference between IP and OP groups of a particular disease was not significant.

When correlation between WHOQOL-BREF domain scores and IDEAS global disability score was seen, it suggests significant correlation between QOL domain 3 (Social Relationships) and disability and also between QOL domain 4 (Environment) scores and disability. Thus social and environmental quality of life has direct negative correlation to disability but physical and psychological quality of life was not significantly related to disability. Grover et al [48] had found maximum correlation of psychological domain of WHO QOL 100 scale to IDEAS. Previous studies [51,52] have also showed that patients' and providers' judgement on social and occupational aspects of quality of life vary and our study shows that these areas are more affected by disability.

CONCLUSION

Patients of Schizophrenia and BPAD are mostly young and Disability due to the disease restricts the patients to attain good education and employment. The global disability due to Schizophrenia is more than in BPAD and more so in in-patients. Work is least affected in BPAD patients who are managed in out-patient basis.

IDEAS is a reliable scale to measure disability as it correlates with disease severity measured by validated disease severity scales. Disability in Self care is more when negative symptoms are prominent in schizophrenia. In BPAD disability has relationship with disease severity but some other factors also come in to play as disease severity increases.

WHO QOL-BREF scale for quality of life is sensitive. Social and environmental quality of life is affected more with increasing disability due to mental illnesses. The results of this study reject null hypothesis.

The social and clinical implications of this study are positive. The assessment of disability in patients can be helpful in understanding the impact of the disease because disease symptoms may have reduced but diseases like schizophrenia and BPAD are significantly disabling. The knowledge about specific areas of disability will be useful in treatment plan and psychological management of the patients with goal do provide overall benefit.

LIMITATIONS

1. Sample size of the study could have been more to get refined results.
2. QOL of life answers given by the patient can vary with prevailing mood, especially in BPAD patients.
3. Disabilities due to specific drug side effects and sexual life not included as not a part of IDEAS scale
4. The study was done in a Government Hospital setting where patients usually come from a low socio-economic background which can not be generalised to all severely ill patients of the community.

FUTURE DIRECTIONS

1. Future studies should aim at multi-centric studies with larger sample sizes.

2. A longitudinal study can be done using the same cohort.

3. Studies can be done for disability caused due to other psychiatric illnesses as IDEAS is a reliable tool to measure disability and it can provide inputs for increasing the psychiatric diseases covered under disability benefit act.

4. Further studies are needed on disability assessment along with quality of life so that improvement can be done in the currently used IDEAS scale.

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Information to The Participants

Title	A Study of Disability in Major Mental Illness in in-patients and out-patients in a Psychiatric Hospital
Principal Investigator	Dr Nishant Kumar Sahu II Year, MD Psychiatry Post Graduate Madras Medical College, Chennai
Co-Investigator (if any)	
Name of the Participant	
Site	IMH, Chennai

You are invited to take part in this research. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

What is the purpose of research?

Mental Illnesses are one of the major causes of disability and purpose of this study is to find out the disability in major types of mental illness, their association with disease severity and Quality of Life.

We have obtained permission from the Institutional Ethics Committee.

Study procedures

The study involves evaluation of Disability using IDEAS and some well known scales for disease severity for which we will be interviewing you with various questionnaires. You will be required to spare roughly half an hour for a one-time interview during your stay/visit in the hospital.

Possible benefits to you

This will help assess disability and quality of life and can help to take steps for improvement to you subjectively or change in pharmaco-therapy if needed.

Possible benefits to other people

The results of the research may provide benefits to the society in terms of advancement of medical knowledge and / or therapeutic benefit to future patients.

Confidentially of the information obtained from you

You have the right to confidentially regarding the privacy of your medical information (personal details, results of physical examinations, investigations, and your medical history). By signing this document, you will be allowing the research team investigations, other study personnel and the

Institutional Ethics Committee, to view your data, if required.

The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

How will your decision to not participate in the study affect you?

Your decision not to participate in this research study will not affect your medical care or your relationship with the investigator or the institution. You will be taken care of and you will not lose any benefits to which you are entitled.

Can you decide to stop participating in the study once you start?

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during the course of the study without giving any reasons. However, it is advisable that you talk to the research team prior to stopping the treatment / discontinuing of procedures etc.

Signature of Investigator

Date :

Signature of Participant

Date :

INFORMED CONSENT FORM

Title : A Study of Disability in Major Mental Illness in in-patients and out-patients in a Psychiatric Hospital

Name of the Participant :

Name of Principal/Co-Investigator : Dr. Nishant Kumar Sahu

Name of Institution : Institute of Mental Health, Chennai.

Name and address of the sponsor / agency(ies), if any: _____

I _____(name of participant), have read the information in this form (or it has been read to me). I was free to ask any questions and they have been answered. I am exercising my free power of choice, hereby give my consent to be included as a participant in "A Study of Disability in Major Mental Illness in in-patients and out-patients in a Psychiatric Hospital".

1) I have read and understood this consent form and the information provided to me.
2) I have had the consent document explained to me.
3) I have been explained about the nature of the study.
4) I have been explained about my rights and responsibilities by the investigator.
5) I have informed the investigator of all the treatments I am taking or have taken in the past, including any native (alternative) treatments.
6) I am aware of the fact that I can opt out of the study at any time without having to give any reason and this will not affect my future treatment in the hospital.
7) I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, Government agencies, and ethics committee. I understand that they may inspect my original records.
8) I understand that my identity will be kept confidential if my data are publicly presented.
9) I have had my questions answered to my satisfaction.
10) I consent voluntarily to participate as a participant in the research study.

I am aware, that I can opt out of the study, I should contact the investigators. By signing this consent from, I attest that the information given in this document has been clearly explained to me and understood by me. I will be given a copy of this consent document.

For adult participants

Name and signature / thumb impression of the participant (or legal representative if participant is incompetent):

(Name)_____ (Signature) _____Date:_____

Name and signature of impartial witness (required for illiterate patients):

(Name)_____ (Signature) _____Date:_____

Address and contact number of the impartial witness:_____

Name and signature of the investigator or his representative obtaining consent:

(Name)_____ (Signature) _____Date:_____

ஆராய்ச்சி தகவல் தாள்

ஆராய்ச்சி தலைப்பு : மனநல மருத்துவமனையில் முக்கிய மன நோய்களினால் பாதிக்கப்பட்டு அனுமதிக்கப்பட்ட உள்நோயாளிகள் மற்றும் புற நோயாளிகளாக மருத்துவம் பெறுபவர்களுக்கும் உள்ள இயலாமை பற்றிய ஒரு ஆய்வு

ஆராய்ச்சி செய்பவரின் பெயர் : மரு.நிஷாந்த்குமார் சாகு

பங்கு கொள்பவரின் பெயர் :

மருத்துவ நிலையம் : அரசு மனநல காப்பகம், சென்னை.

மனநல மருத்துவமனையில் முக்கிய மனநோய்களினால் பாதிக்கப்பட்டு அனுமதிக்கப்பட்டுள்ள உள்நோயாளிகள் மற்றும் புறநோயாளிகளாக மருத்துவம் பெறுபவர்களுக்கும் உள்ள இயலாமை பற்றிய ஆராய்ச்சி செய்தல்.

இதன் முடிவுகளை மற்றும் கருத்துக்களை வெளியிடும் போதோ அல்லது ஆராய்ச்சியின் போதோ தங்களது பெயரையோ, அடையாளங்களையோ வெளியிடமாட்டோம் என்பதையும் தெரிவித்துக்கொள்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்பது தங்களுடைய விருப்பத்தின் பேரில் தான். மேலும் நீங்கள் எந்நேரமும் இந்த ஆராய்ச்சியிருந்து பின்வாங்கலாம் என்பதையும் தெரிவித்துக்கொள்கிறேன்.

ஆராய்ச்சியாளரின் கையொப்பம் பங்கேற்பாளர் கையொப்பம்

நாள் : நாள் :

ஆராய்ச்சி ஒப்புதல் படிவம்

ஆராய்ச்சி தலைப்பு : மனநல மருத்துவமனையில் முக்கிய மன நோய்களினால் பாதிக்கப்பட்டு அனுமதிக்கப்பட்ட உள்நோயாளிகள் மற்றும் புற நோயாளிகளாக மருத்துவம் பெறுபவர்களுக்கும் உள்ள இயலாமை பற்றிய ஒரு ஆய்வு

ஆராய்ச்சி செய்பவரின் பெயர் : மரு.நிஷாந்த்குமார் சாகு

பங்கு கொள்பவரின் பெயர் :

மருத்துவ நிலையம் : அரசு மனநல காப்பகம், சென்னை.

_____எனும் நான் எனக்கு கொடுக்கப்பட்ட தகவல் தாளினை படித்து புரிந்துகொண்டேன். நான் 18 வயதை கடந்திருப்பதால் என்னுடைய சுய நினைவுடனும் மற்றும் முழு சுதந்திரத்துடனும் இந்த ஆராய்ச்சியில் என்னைச் சேர்த்துக்கொள்ள சம்மதிக்கிறேன்.

நான் எனக்கு கொடுக்கப்பட்ட தகவல் தாளினை படித்து புரிந்துகொண்டேன்.

எனக்கு இந்த ஆராய்ச்சியின் ஒப்புதல் படிவம் விளக்கப்பட்டது.

எனக்கு இந்த ஆராய்ச்சியின் நோக்கமும், விவரங்களும் விளக்கப்பட்டது.

எனக்கு என்னுடைய உரிமைகளை பற்றி விளக்கப்பட்டது.

நான் இதற்கு முன்பு எடுத்துக்கொண்ட அனைத்து மருத்துவ முறைகளைப் பற்றி தெரிவித்திருக்கிறேன்.

இந்த ஆராய்ச்சியில் இருந்து நான் எந்நேரமும் பின் வாங்கலாம் என்பதையும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் நான் புரிந்துகொண்டேன்.

என்னை பற்றிய எந்த தகவல்களும் அடையாளமும் வெளியிடப்படமாட்டாது என்பதை நான் புரிந்துகொண்டேன்

என்னுடைய முழு சுதந்திரத்துடன் இந்த ஆராய்ச்சியில் என்னைச் சேர்த்துக்கொள்ள சம்மதிக்கிறேன்.

பங்கேற்பாளர் பெயர் மற்றும் கையொப்பம் ..... தேதி.....

பாதுகாவலர் பெயர் மற்றும் கையொப்பம் ..... தேதி.....

ஆராய்ச்சியாளரின் பெயர் மற்றும் கையொப்பம் ..... தேதி.....

PRO FORMA

(In-Patient/Out-Patient)

Name:	

Age:		Up to 20 Yrs	21-40 Yrs	41-60 Yrs	> 60 Yrs

Sex:	Male	Female

From:		Rural	Urban

Education:	

Iliterate	Literate	Middle School	High School	Higher Secondary	Graduate	Post Graduate

Occupation:	

Unemployed	Unskilled	Semi-Skilled	Skilled	Semi-Prof	Prof	Student	Retired	House wife

Marital Status:	Married	Separated	Unmarried	Widow

Religion:	Christian	Hindu	Muslim

SES:	Lower	Upper Lower	Lower Middle	Upper Middle	Upper

Chief complaints/ Reason for admission

Past psychiatric H/o

Past Medical H/o

Family H/o

Personal H/o

Physical Examination

MSE

Diagnosis

IDEAS Score

PANSS/YMRS

WHOQOL-BREF

IDEAS

Items	**0**	**1**	**2**	**3**	**4**
Self Care					
Interpersonal activities					
Communication and Understanding					
Work					
A. Total Score					
B. MI2Y Score					
Global Score(A+B)					

Name

Age

Sex

POSITIVE AND NEGATIVE SYNDROME SCALE (PANSS) RATING CRITERIA

GENERAL RATING INSTRUCTIONS

Data gathered from this assessment procedure are applied to the PANSS ratings. Each of the 30 items is accompanied by a specific definition as well as detailed anchoring criteria for all seven rating points. These seven points represent increasing levels of psychopathology, as follows:

1- absent

2- minimal

3- mild

4- moderate

5- moderate severe

6- severe

7- extreme

In assigning ratings, one first considers whether an item is at all present, as judging by its definition. If the item is absent, it is scored 1, whereas if it is present one must determine its severity by reference to the particular criteria from the anchoring points. The highest applicable rating point is always assigned, even if the patient meets criteria for lower points as well. In judging the level of severity, the rater must utilise a holistic perspective in deciding which anchoring point best characterises the patient's functioning and rate accordingly, whether or not all elements of the description are observed.

The rating points of 2 to 7 correspond to incremental levels of symptom severity:

- A rating of 2 (minimal) denotes questionable or subtle or suspected pathology, or it also may allude to the extreme end of the normal range.
- A rating of 3 (mild) is indicative of a symptom whose presence is clearly established but not pronounced and interferes little in day-to-day functioning.
- A rating of 4 (moderate) characterises a symptom which, though representing a serious problem, either occurs only occasionally or intrudes on daily life only to a moderate extent.
- A rating of 5 (moderate severe) indicates marked manifestations that distinctly impact on one's functioning but are not all-consuming and usually can be contained at will.
- A rating of 6 (severe) represents gross pathology that is present very frequently, proves highly disruptive to one's life, and often calls for direct supervision.
- A rating of 7 (extreme) refers to the most serious level of psychopathology, whereby the manifestations drastically interfere in most or all major life functions, typically necessitating close supervision and assistance in many areas.

Each item is rated in consultation with the definitions and criteria provided in this manual. The ratings are rendered on the PANSS rating form overleaf by encircling the appropriate number following each dimension.

PANSS RATING FORM

		absent	minimal	mild	moderate	moderate severe	severe	extreme
P1	Delusions	1	2	3	4	5	6	7
P2	Conceptual disorganisation	1	2	3	4	5	6	7
P3	Hallucinatory behaviour	1	2	3	4	5	6	7
P4	Excitement	1	2	3	4	5	6	7
P5	Grandiosity	1	2	3	4	5	6	7
P6	Suspiciousness/persecution	1	2	3	4	5	6	7
P7	Hostility	1	2	3	4	5	6	7
N1	Blunted affect	1	2	3	4	5	6	7
N2	Emotional withdrawal	1	2	3	4	5	6	7
N3	Poor rapport	1	2	3	4	5	6	7
N4	Passive/apathetic social withdrawal	1	2	3	4	5	6	7
N5	Difficulty in abstract thinking	1	2	3	4	5	6	7
N6	Lack of spontaneity & flow of conversation	1	2	3	4	5	6	7
N7	Stereotyped thinking	1	2	3	4	5	6	7
G1	Somatic concern	1	2	3	4	5	6	7
G2	Anxiety	1	2	3	4	5	6	7
G3	Guilt feelings	1	2	3	4	5	6	7
G4	Tension	1	2	3	4	5	6	7
G5	Mannerisms & posturing	1	2	3	4	5	6	7
G6	Depression	1	2	3	4	5	6	7
G7	Motor retardation	1	2	3	4	5	6	7
G8	Uncooperativeness	1	2	3	4	5	6	7
G9	Unusual thought content	1	2	3	4	5	6	7
G10	Disorientation	1	2	3	4	5	6	7
G11	Poor attention	1	2	3	4	5	6	7
G12	Lack of judgement & insight	1	2	3	4	5	6	7
G13	Disturbance of volition	1	2	3	4	5	6	7
G14	Poor impulse control	1	2	3	4	5	6	7
G15	Preoccupation	1	2	3	4	5	6	7
G16	Active social avoidance	1	2	3	4	5	6	7

SCORING INSTRUCTIONS

Of the 30 items included in the PANSS, 7 constitute a **Positive Scale**, 7 a **Negative Scale**, and the remaining 16 a **General Psychopathology Scale**. The scores for these scales are arrived at by summation of ratings across component items. Therefore, the potential ranges are 7 to 49 for the Positive and Negative Scales, and 16 to 112 for the General Psychopathology Scale. In addition to these measures, a Composite Scale is scored by subtracting the negative score from the positive score. This yields a bipolar index that ranges from –42 to +42, which is essentially a difference score reflecting the degree of predominance of one syndrome in relation to the other.

YOUNG MANIA RATING SCALE (YMRS)

GUIDE FOR SCORING ITEMS

The purpose of each item is to rate the severity of that abnormality in the patient. When several keys are given for a particular grade of severity, the presence of only one is required to qualify for that rating.

The keys provided are guides. One can ignore the keys if that is necessary to indicate severity, although this should be the exception rather than the rule.

Scoring between the points given (whole or half points) is possible and encouraged after experience with the scale is acquired. This is particularly useful when severity of a particular item in a patient does not follow the progression indicated by the keys.

Specify **one** of the reasons listed below by putting the appropriate number in adjacent box.

1. ELEVATED MOOD

☐

0 - Absent
1 - Mildly or possibly increased on questioning
2 - Definite subjective elevation; optimistic, self-confident; cheerful; appropriate to content
3 - Elevated, inappropriate to content; humorous
4 - Euphoric; inappropriate laughter; singing

2. INCREASED MOTOR ACTIVITY ENERGY

☐

0 - Absent
1 - Subjectively increased
2 - Animated; gestures increased
3 - Excessive energy; hyperactive at times; restless (can be calmed)
4 - Motor excitement; continuous hyperactivity (cannot be calmed)

3. SEXUAL INTEREST

☐

0 - Normal; not increased
1 - Mildly or possibly increased
2 - Definite subjective increase on questioning
3 - Spontaneous sexual content; elaborates on sexual matters; hypersexual by self-report
4 - Overt sexual acts (toward patients, staff, or interviewer)

4. SLEEP

☐

0 - Reports no decrease in sleep
1 - Sleeping less than normal amount by up to one hour
2 - Sleeping less than normal by more than one hour
3 - Reports decreased need for sleep
4 - Denies need for sleep

5. IRRITABILITY

☐

0 - Absent
2 - Subjectively increased
4 - Irritable at times during interview; recent episodes of anger or annoyance on ward
6 - Frequently irritable during interview; short, curt throughout
8 - Hostile, uncooperative; interview impossible

6. SPEECH (Rate and Amount)

☐

0 - No increase
2 - Feels talkative
4 - Increased rate or amount at times, verbose at times
6 - Push; consistently increased rate and amount; difficult to interrupt
8 - Pressured; uninterruptible, continuous speech

7. LANGUAGE - THOUGHT DISORDER

☐

0 - Absent
1 - Circumstantial; mild distractibility; quick thoughts
2 - Distractible; loses goal of thought; change topics frequently; racing thoughts
3 - Flight of ideas; tangentiality; difficult to follow; rhyming, echolalia
4 - Incoherent; communication impossible

8. CONTENT

☐

0 – Normal
2 - Questionable plans, new interests
4 - Special project(s); hyperreligious
6 - Grandiose or paranoid ideas; ideas of reference
8 - Delusions; hallucinations

9. DISRUPTIVE - AGGRESSIVE BEHAVIOR

☐

0 - Absent, cooperative
2 - Sarcastic; loud at times, guarded
4 - Demanding; threats on ward
6 - Threatens interviewer; shouting; interview difficult
8 - Assaultive; destructive; interview impossible

10. APPEARANCE

☐

0 - Appropriate dress and grooming
1 - Minimally unkempt
2 - Poorly groomed; moderately dishevelled; overdressed
3 - Dishevelled; partly clothed; garish make-up
4 - Completely unkempt; decorated; bizarre garb

11. INSIGHT

☐

0 - Present; admits illness; agrees with need for treatment
1 - Possibly ill
2 - Admits behavior change, but denies illness
3 - Admits possible change in behavior, but denies illness
4 - Denies any behavior change

WHO/MSA/MNH/PSF/97.4
English only
Distr.: Limited

WHOQOL-BREF

PROGRAMME ON MENTAL HEALTH
WORLD HEALTH ORGANIZATION
GENEVA

For office use only

	Equations for computing domain scores	Raw score	Transformed scores*	
			4-20	**0-100**
Domain 1	(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 2	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 3	Q20 + Q21 + Q22 ☐ + ☐ + ☐	=		
Domain 4	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		

* Please see Table 4 on page 10 of the manual, for converting raw scores to transformed scores.

I.D. number

ABOUT YOU

Before you begin we would like to ask you to answer a few general questions about yourself: by circling the correct answer or by filling in the space provided.

What is your **gender**? Male Female

What is you **date of birth**? _____ / _____ / _____
Day / Month / Year

What is the highest **education** you received?
None at all
Primary school
Secondary school
Tertiary

What is your **marital status**?
Single Separated
Married Divorced
Living as married Widowed

Are you currently **ill**? Yes No

If something is wrong with your health what do you think it is?_____illness/ problem

Instructions

This assessment asks how you feel about your quality of life, health, or other areas of your life. **Please answer all the questions.** If you are unsure about which response to give to a question, **please choose the one** that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life **in the last two weeks.** For example, thinking about the last two weeks, a question might ask:

		Not at all	Not much	Moderately	A great deal	Completely
	Do you get the kind of support from others that you need?	1	2	3	4	5

You should circle the number that best fits how much support you got from others over the last two weeks. So you would circle the number 4 if you got a great deal of support from others as follows.

		Not at all	Not much	Moderately	A great deal	Completely
	Do you get the kind of support from others that you need?	1	2	3	4	5

You would circle number 1 if you did not get any of the support that you needed from others in the last two weeks.

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very poor	Poor	Neither poor nor good	Good	Very good
1(G1)	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2 (G4)	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3 (F1.4)	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4(F11.3)	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5(F4.1)	How much do you enjoy life?	1	2	3	4	5
6(F24.2)	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7(F5.3)	How well are you able to concentrate?	1	2	3	4	5
8 (F16.1)	How safe do you feel in your daily life?	1	2	3	4	5
9 (F22.1)	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		Not at all	A little	Moderately	Mostly	Completely
10 (F2.1)	Do you have enough energy for everyday life?	1	2	3	4	5
11 (F7.1)	Are you able to accept your bodily appearance?	1	2	3	4	5
12 (F18.1)	Have you enough money to meet your needs?	1	2	3	4	5
13 (F20.1)	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14 (F21.1)	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither	Good	Very good

				poor nor good		
15 (F9.1)	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16 (F3.3)	How satisfied are you with your sleep?	1	2	3	4	5
17 (F10.3)	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18(F12.4)	How satisfied are you with your capacity for work?	1	2	3	4	5
19 (F6.3)	How satisfied are you with yourself?	1	2	3	4	5
20(F13.3)	How satisfied are you with your personal relationships?	1	2	3	4	5
21(F15.3)	How satisfied are you with your sex life?	1	2	3	4	5
22(F14.4)	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23(F17.3)	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24(F19.3)	How satisfied are you with your access to health services?	1	2	3	4	5
25(F23.3)	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26 (F8.1)	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Did someone help you to fill out this form?.....

How long did it take to fill this form out?.....

Do you have any comments about the assessment?

.....

.....

THANK YOU FOR YOUR HELP

World Health Organization

உலக சுகாதார நிறுவனம்

உங்களைப் பற்றிய சுய விவரம்

உங்களிடம் கேள்விகளை கேட்கும் முன்பாக உங்களைப் பற்றி அறிய விரும்புகின்றேன்.

சரியான பதிலை கொடுக்கப்பட்டுள்ள விடைகளில் இருந்து வட்டமிட்டு சுட்டி காட்டுக.

பாலினம் : ஆண் / பெண்

வயது :

கல்வி தகுதி : பள்ளிக்கு சென்றதில்லை / தொடக்கப் பள்ளி / நடுநிலைப் பள்ளி / மேல்நிலைப் பள்ளி

திருமணம் : ஆகவில்லை / ஆகிவிட்டது / சேர்ந்து வாழ்கின்றேன் / திருமணத்திற்குபின் பிரிந்து வாழ்கிறேன் / விவாகரத்தானவரா

கீழ்வரும் கேள்விகள் உங்களுடைய வாழ்க்கை தரக், நலம் போன்றவற்றை எவ்வாறு உணர்கின்றீர்க்ள் என்பதை பற்றியவையாகும். நான் கேள்விகளை ஒவ்வொன்றாக அதுனுடய சில பதில்களுடன் உங்களை கேட்கிறேன் அதற்கு நீங்கள் சரியான பதிலை தேர்ந்தெடுக்கவும். இதில் சரியான விடையை பதிலை தேர்ந்தெடுக்க குழப்பழ்மென்றால் முதலில் சரி என்று உங்களுக்கு தோன்றியதே சரியாந விடையாகும்.

கடந்த 4 வாரங்களில் உங்களுடய வாழ்வின் மதிப்பு, எதிர்பார்ப்பு மற்றும் மனநிறைவு ஆகியவற்றை நினைவில் கொள்ளவும்.

		மிகவும் மோசம்	மோசம்	நன்றாக இல்லை மோசமாக இல்லை	நன்றாக உள்ளது	மிகவும் நன்றாக உள்ளது
1	உங்களுடைய வாழ்க்கையின் தரத்தை நிங்கள் எவ்வாறு மதிப்பிடுகிறீர்கள் ?	1	2	3	4	5

		மிகவும் மோசம்	மோசம்	நன்றாக இல்லை மோசமாக இல்லை	நன்றாக உள்ளது	மிகவும் நன்றாக உள்ளது
2	உங்களுடைய உடல் ஆரோக்கியம் எவ்வளவு திருப்திகரமாக உள்ளது?	1	2	3	4	5

கீழ்கண்ட வினாக்கள், நிங்கள் கடந்த 2 வாரங்களில், சில விஷயங்களில் அணுபவித்து வந்தீர்கள் (அணுபவம் உள்ளன) என்பதை பற்றி கேட்கின்றன.

		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
3	எந்தளவிற்கு உடல் வலி நிங்கள் செய்ய வேண்டியவைகளிலி ருந்து உங்களை தடுக்கிறது ?	1	2	3	4	5
4	அன்றாட வாழ்வில் செயல்பட உங்களுக்கு எந்தளவிற்கு மருத்துவ உதவி தேயைவப்படுகிறது ?	1	2	3	4	5
5	வாழ்க்கையில் எந்தளவிற்கு சந்தோஷமாக உள்ளீர்கள் ?	1	2	3	4	5
6	உங்கள் வாழ்க்கை எந்தளவிற்கு அர்த்தமுள்ளதாக உணர்கிறீர்கள் ?	1	2	3	4	5
		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
7	எந்தளவிற்கு நன்றாக உங்களால் கவனம் செலுத்த முடிகிறது?	1	2	3	4	5
8	உங்களுடைய அன்றாட வாழ்வில் எவ்வளவு பாதுகாப்பாக உணர்கிறீர்கள் ?	1	2	3	4	5
9	உங்கள் சுற்றுபுறம் எந்தளவு அரோக்கியமானதா க உள்ளது ?	1	2	3	4	5

கீழ்வரும் வினாக்கள், கடந்த இரண்டு வாரங்களில் நீங்கள் எவ்வளவு முழுமையாக அணுபவித்தீர்கள் அல்லது செய்ய முடிந்த சில காரியங்களை குறிப்பன.

		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
10	தினசரி வாழ்க்கையில் உங்களுக்கு போதுமான அளவு சக்தி இருக்கிறதா ?	1	2	3	4	5
11	உங்கள் உடல் தோட்றத்தை உங்களால் ஏற்றுக் கொள்ள முடிகிறதா ?	1	2	3	4	5
12	உங்கள் தேவைகளை பூர்த்தி செய்ய உங்களிடத்தில் போதுமானளவு பணம் உள்ளதா ?	1	2	3	4	5
13	தினசரி வாழ்வில் உங்களுக்கு தேவையனா தகவல்கள் எவ்வளவு தூரம் கிடைக்கிறது ?	1	2	3	4	5
14	பொதுபோக்குகளில் ஈடுபட எந்த அளவிற்கு உங்களுக்கு வாய்ப்பு கிடைக்கிறது ?	1	2	3	4	5
15	எவ்வளவு நன்றாக உங்களால் அக்கம் பக்கத்தில் போய்வரமுடிகிறது ?	1	2	3	4	5

		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
16	உங்கள் தூக்கம் எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5
17	தினசரி செயல்களில் உங்களால் எவ்வளவு திருப்திகரமாக செயல்பட முடிகிறது ?	1	2	3	4	5
18	உங்கள் வேலைத்திறன் எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5
19	உங்களைப்பற்றி நீங்கள் எவ்வளவு திருப்திகரமாக உள்ளீர்கள் ?	1	2	3	4	5

		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
20	உங்கள் தனிப்பட்ட உறவுகள் குறித்து திருப்திகரமாக உள்ளீர்களா ?	1	2	3	4	5
21	உங்கள் தாம்பத்ய வாழ்க்கை எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5
22	உங்கள் நண்பர்களிடம் இருந்து நீங்கள் பெறும் (உதவி) ஆதரவு எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5
23	நீங்கள் வசிக்கும் இடத்தின் நிலை உங்களுக்கு எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5
24	மருத்துவ வசதிகள் கிடைக்கபபெறுவதில் நிங்கள் திருப்திகரமாக உணர்கிறீர்களா ?	1	2	3	4	5
25	உங்கள் போக்குவரத்து வசதி எவ்வளவு திருப்திகரமாக உள்ளது ?	1	2	3	4	5

		இல்லவே இல்லை	கொஞ் மளவு	மிதமான அளவு	அதிகமான அளவு	மிகவும் அதிகமான அளவு
26	எவ்வளவு எளிதில் நீங்கள் சோகம், விரக்தி மற்றும் மன அழுத்தம் போன்ற எதிர்மறை எண்ணங்களுக்கு உளளாகிறீர்கள் ?	1	2	3	4	5
27	இந்தப் படிவத்தை பூர்த்தி செய்ய யாராவது தங்களுக்கு உதவி செய்தார்களா ?	1	2	3	4	5

SC-IP

S.No.	Name	Age	Sex	Rural/Urban	Education	Occupation	Marital Status	Religion	Socio-Economic Status (SES)	Diagnosis	Service	PANSS (P)	PANSS (N)	PANSS (G)	IDEAS	S	I	C	W	MI2Y	QOL-D1	QOL-D2	QOL-D3	QOL-D4
1	Annamalai	36	M	U	MS	Skilled	Married	Christian	Upper Lower	Schizophrenia	IP	26	17	33	9	2	2	1	2	2	38	31	19	25
2	Celina	32	F	R	HSS	Unskilled	Married	Christian	Upper Lower	Schizophrenia	IP	24	23	36	15	2	3	2	4	4	50	50	25	25
3	Devaki	40	F	U	MS	Unemployed	Separated	Hindu	Upper Lower	Schizophrenia	IP	28	21	36	13	2	2	2	4	3	63	53	6	44
4	Divya	26	F	U	HSS	House Wife	Married	Hindu	Lower Middle	Schizophrenia	IP	24	23	36	15	2	3	2	**4**	4	50	50	25	25
5	Ganesh	32	M	U	MS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	13	24	33	11	1	2	2	3	3	44	25	25	31
6	Kalaimani	38	F	R	MS	House Wife	Married	Hindu	Upper Lower	Schizophrenia	IP	32	17	43	14	2	2	3	3	4	69	69	69	50
7	Karuppusamy A	24	M	R	HSS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	23	21	35	10	2	2	0	4	2	75	69	19	31
8	Kathivel	38	M	U	MS	Semi-Skilled	Married	Hindu	Upper Lower	Schizophrenia	IP	21	10	23	3	0	0	1	1	1	69	56	19	44
9	Manikandan	25	M	R	Lit	Unemployed	Unmarried	Hindu	Lower	Schizophrenia	IP	24	24	23	11	1	2	3	4	2	44	44	25	31
10	Murugan	30	M	R	Lit	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	IP	13	24	33	11	1	2	2	3	3	44	19	25	31
11	Prithviraj	31	M	R	HSS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	32	11	48	9	0	3	1	4	2	81	81	31	50
12	Priya	33	F	U	HS	House Wife	Married	Hindu	Upper Lower	Schizophrenia	IP	20	17	33	13	2	3	2	3	3	56	50	44	38
13	Rahmath Nisha	35	F	U	HS	Unemployed	Separated	Muslim	Upper Lower	Schizophrenia	IP	20	17	33	13	2	3	2	3	3	56	50	44	38
14	Raja	30	M	U	HS	Unskilled	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	32	17	43	14	2	2	3	3	4	69	69	25	50

15	Ramesh Babu	39	M	R	G	Unemployed	Married	Hindu	Upper Lower	Schizophrenia	IP	27	14	38	11	1	2	3	4	2	56	31	25	19
16	Satish	23	M	U	HS	Semi-Skilled	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	28	21	36	13	2	2	2	4	3	63	53	25	44
17	Selvam	43	M	R	MS	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	IP	29	31	36	13	2	2	2	3	4	50	44	25	31
18	Selvamani	33	M	U	HS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	31	18	36	9	1	2	2	3	1	44	25	6	25
19	Selvi	32	F	R	Lit	House Wife	Married	Hindu	Upper Lower	Schizophrenia	IP	23	18	32	14	2	2	3	4	3	38	31	6	25
20	Sumathi	40	F	U	MS	Unemployed	Widow	Hindu	Upper Lower	Schizophrenia	IP	32	17	43	14	2	2	3	3	4	69	69	69	50
21	Surya Prakash	35	M	U	MS	Skilled	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	24	24	23	11	1	2	3	4	2	44	50	25	31
22	Thanigachalam	34	M	U	HSS	Semi-Skilled	Unmarried	Hindu	Upper Lower	Schizophrenia	IP	26	27	38	10	2	2	2	2	2	38	31	25	31
23	Vasanth Kumar	71	M	U	G	Retired	Married	Hindu	Upper Middle	Schizophrenia	IP	21	10	23	3	0	0	1	1	1	69	56	19	44
24	Vinayak	44	M	U	HS	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	IP	23	18	32	14	2	2	3	4	3	38	31	19	25
25	Vinoba	44	M	U	MS	Semi-Skilled	Married	Hindu	Upper Lower	Schizophrenia	IP	31	18	36	9	1	2	2	3	1	44	31	25	25

NOTE: - (1). **M**-Male, **F**-Female

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(4). **IP**-In-Patient

(5). **PANSS**-Positive and Negative Syndrome Scale, **PANSS(P)**-Positive and Negative Syndrome Scale (Positive), **PANSS(N)**-Positive and Negative Syndrome Scale (Negative), **PANSS(G)**-Positive and Negative Syndrome Scale (General Psycho Pathology)

(6). **IDEAS**- Indian Disability Assessment Scale, **S**-Self care, **I**-Interpersonal Activities, **C**-Communication & Understanding, **W**-Work, **MI2Y**-Months of Illness in last 2 Year.

(7).**QOL**-WHO Quality Of Life (BREF)

SC-OP

S.No.	Name	Age	Sex	Rural/Urban	Education	Occupation	Marital Status	Religion	Socio-Economic Status (SES)	Diagnosis	Service	PANSS (P)	PANSS (N)	PANSS (G)	IDEAS	S	I	C	W	MI2Y	QOL-D1	QOL-D2	QOL-D3	QOL-D4
1	Anand	34	M	U	MS	Skilled	Married	Hindu	Lower Middle	Schizophrenia	OP	23	24	42	12	2	2	2	4	2	63	63	31	38
2	Anbazhgan	41	M	U	HS	Skilled	Married	Hindu	Upper Lower	Schizophrenia	OP	15	12	26	7	1	1	1	2	2	38	38	31	25
3	Deepa	46	F	R	HS	House Wife	Married	Hindu	Upper Lower	Schizophrenia	OP	19	20	39	10	1	2	2	3	2	50	44	23	44
4	Dhananjay	34	M	U	G	Skilled	Married	Hindu	Lower Middle	Schizophrenia	OP	16	10	22	4	0	1	1	1	1	63	44	44	56
5	Hamidh	31	M	R	MS	Unskilled	Married	Muslim	Upper Lower	Schizophrenia	OP	15	14	34	9	0	1	2	3	3	50	38	25	31
6	Indumathi	25	F	U	HS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	OP	16	14	29	9	1	2	1	2	3	44	50	44	31
7	Jennifer	34	F	U	HSS	Skilled	Separated	Christian	Lower Middle	Schizophrenia	OP	17	14	28	11	1	2	2	3	3	44	44	44	31
8	Junaid	22	M	R	MS	Unemployed	Unmarried	Muslim	Upper Lower	Schizophrenia	OP	20	16	34	12	2	2	2	4	2	50	50	31	31
9	Maheshwari	38	F	U	HSS	House Wife	Married	Hindu	Lower Middle	Schizophrenia	OP	12	20	34	10	1	2	1	3	3	56	38	44	25
10	Manikandan	26	M	U	HSS	Skilled	Unmarried	Hindu	Lower Middle	Schizophrenia	OP	17	14	28	11	1	2	2	3	3	44	50	44	31
11	Merlin	45	F	U	HSS	House Wife	Married	Christian	Lower Middle	Schizophrenia	OP	15	18	33	8	1	1	1	2	3	44	44	44	31
12	Murugesan	50	M	R	HS	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	OP	15	14	34	9	0	1	2	3	3	44	38	25	31
13	Naresh	25	M	U	HS	Unskilled	Unmarried	Hindu	Upper Lower	Schizophrenia	OP	15	12	26	7	1	1	1	2	2	38	38	31	25
14	Prince	22	M	U	G	Student	Unmarried	Christian	Lower Middle	Schizophrenia	OP	20	16	34	12	2	2	2	4	2	50	44	31	31

15	Ramesh	37	M	R	MS	Semi-Skilled	Separated	Hindu	Upper Lower	Schizophrenia	OP	14	16	23	10	1	1	2	2	4	56	50	44	31
16	Rathika	31	F	U	HS	House Wife	Married	Hindu	Lower Middle	Schizophrenia	OP	16	13	28	8	1	1	2	1	3	44	50	44	31
17	Robert	32	M	U	HSS	Skilled	Unmarried	Christian	Lower Middle	Schizophrenia	OP	18	14	29	12	1	2	3	4	2	50	50	44	38
18	Saravanan	29	M	U	HSS	Unemployed	Unmarried	Hindu	Upper Lower	Schizophrenia	OP	10	18	29	5	1	1	1	1	1	44	38	31	31
19	Shabana	42	F	U	Lit	House Wife	Married	Muslim	Upper Lower	Schizophrenia	OP	19	20	39	10	1	2	2	3	2	50	44	23	44
20	Shuchitra	19	F	U	HSS	Student	Unmarried	Hindu	Lower Middle	Schizophrenia	OP	17	20	35	11	1	2	2	4	2	38	25	25	30
21	Sivabhagya	36	F	U	HS	House Wife	Married	Hindu	Upper Lower	Schizophrenia	Op	16	14	29	9	1	2	1	2	3	44	44	44	31
22	Sushmita	46	F	U	MS	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	OP	17	15	33	11	2	2	2	3	2	44	44	31	31
23	Tamilarsan	40	M	U	HSS	Skilled	Married	Hindu	Lower Middle	Schizophrenia	OP	14	14	27	5	0	1	1	1	2	56	50	50	31
24	Valarmathy	45	F	U	G	Unemployed	Widow	Hindu	Lower Middle	Schizophrenia	OP	20	16	34	12	2	2	2	4	2	50	50	0	31
25	Vijayan	48	M	R	HSS	Unskilled	Married	Hindu	Upper Lower	Schizophrenia	OP	16	17	35	10	1	2	2	3	2	44	44	31	31

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(7).**QOL**-WHO Quality Of Life (BREF)

BPAD-IP

S.No.	Name	Age	Sex	Rural/Urban	Education	Occupation	Marital Status	Religion	Socio-Economic Status (SES)	Diagnosis	Service	YMRS	IDEAS	S	I	C	W	MI2Y	QOL-D1	QOL-D2	QOL-D3	QOL-D4
1	Deepika	25	F	U	G	Student	Unmarried	Hindu	Upper Middle	BPAD	IP	31	8	1	2	1	2	2	63	63	50	63
2	Devi	42	F	U	Lit	House wife	Widow	Christian	Upper Lower	BPAD	IP	32	8	1	2	2	2	1	63	63	44	50
3	Gandhi Mathinathan	36	M	U	HSS	Semi-skilled	Unmarried	Hindu	Upper Lower	BPAD	IP	34	11	1	2	3	3	2	63	56	44	44
4	Gomathy	26	F	U	Lit	Semi-skilled	Separated	Hindu	Upper Lower	BPAD	IP	32	10	1	2	3	3	1	44	31	44	38
5	Imagavali	36	F	R	HS	Skilled	Married	Hindu	Upper Lower	BPAD	IP	37	11	1	2	3	3	2	63	44	56	50
6	Jagadheesan	45	M	U	MS	Unskilled	Married	Hindu	Upper Lower	BPAD	IP	39	10	1	2	2	3	2	56	56	50	38
7	Karapagam	44	F	R	Lit	House wife	Married	Hindu	Upper Lower	BPAD	IP	31	11	2	2	2	3	2	50	50	33	56
8	Karthika	31	F	U	Lit	House wife	Married	Hindu	Upper Lower	BPAD	IP	37	9	0	2	3	3	1	63	50	44	38
9	Kesavan	36	M	U	MS	Skilled	Married	Hindu	Upper Lower	BPAD	IP	35	10	1	2	3	3	1	63	44	50	50
10	Lingam	31	M	R	Lit	Unemployed	Married	Hindu	Upper Lower	BPAD	IP	37	9	1	2	3	2	1	56	69	44	44
11	Madhabalan	17	M	R	HSS	Student	Unmarried	Hindu	Upper Lower	BPAD	IP	50	11	1	3	3	3	1	50	69	44	38
12	Marimuthu	30	M	U	Lit	Unskilled	Married	Hindu	Upper Lower	BPAD	IP	47	10	1	2	3	2	2	69	56	25	31
13	Megala	28	F	U	HSS	House wife	Married	Hindu	Lower Middle	BPAD	IP	35	11	1	2	3	3	2	38	44	25	38
14	Rajan	30	M	U	Lit	Unskilled	Married	Hindu	Upper Lower	BPAD	IP	47	11	1	3	3	3	1	69	81	56	56

15	Ramakrishnan	38	M	R	HS	Skilled	Married	Hindu	Upper Lower	BPAD	IP	40	10	1	2	3	3	1	63	50	69	44
16	Ramamoorthy	44	M	R	Lit	Unemployed	Married	Hindu	Upper Lower	BPAD	IP	30	8	1	2	2	2	1	38	38	44	38
17	Ramu	35	M	R	Lit	Unskilled	Married	Hindu	Upper Lower	BPAD	IP	40	9	1	2	2	3	1	63	50	44	50
18	S. Arumugam	22	M	R	G	Unskilled	Unmarried	Hindu	Upper Lower	BPAD	IP	40	10	1	2	3	3	1	81	69	69	56
19	Sahayaraj	42	M	U	Lit	Unskilled	Married	Christian	Lower Middle	BPAD	IP	30	9	1	2	2	3	1	69	56	44	50
20	Saravanan	30	M	R	HSS	Skilled	Married	Hindu	Lower Middle	BPAD	IP	31	8	1	2	2	2	1	69	50	75	31
21	Seetha Raman	40	M	U	HS	Skilled	Separated	Hindu	Upper Lower	BPAD	IP	37	12	1	3	3	3	2	56	44	50	50
22	Selvaraj	44	M	U	PG	Skilled	Married	Hindu	Lower Middle	BPAD	IP	30	8	1	1	2	3	1	63	63	50	63
23	Shankar	33	M	R	HS	Unskilled	Married	Hindu	Upper Lower	BPAD	IP	38	9	1	2	2	3	1	63	44	56	50
24	Shanthi	40	F	U	MS	House wife	Married	Hindu	Lower Middle	BPAD	IP	31	9	1	2	2	3	1	31	50	44	56
25	Sudhakar	31	M	R	PG	Prof	Unmarried	Christian	Upper Middle	BPAD	IP	51	5	2	1	0	1	1	69	50	69	50

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(5). **YMRS**-Young Mania Rating Scale

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BPAD-OP

S.No.	Name	Age	Sex	Rural/Urban	Education	Occupation	Marital Status	Religion	Socio-Economic Status (SES)	Diagnosis	Service	YMRS	IDEAS	S	I	C	W	MI2Y	QOL-D1	QOL-D2	QOL-D3	QOL-D4
1	A. Ramesh	40	M	R	HS	Semi-Skilled	Separated	Hindu	Upper Lower	BPAD	OP	27	10	1	3	2	3	1	50	56	44	31
2	Adai Kalamany	18	F	U	Lit	Unemployed	Unmarried	Christian	Upper Lower	BPAD	OP	28	8	0	1	2	3	2	56	56	50	56
3	Amsa	40	F	U	Lit	Unemployed	Married	Hindu	Upper Lower	BPAD	OP	31	12	1	3	3	3	2	63	50	31	44
4	Anitha	30	F	U	HSS	House wife	Married	Christian	Lower Middle	BPAD	OP	21	7	1	1	2	2	1	63	69	56	44
5	B. Selvaradhi	35	F	U	HSS	Skilled	Separated	Hindu	Lower Middle	BPAD	OP	26	5	0	1	1	2	1	44	44	31	38
6	Elizabeth Rani	34	F	U	G	Unemployed	Married	Christian	Lower Middle	BPAD	OP	18	8	1	2	2	2	1	75	56	69	50
7	G.Velan	26	M	R	G	Skilled	Unmarried	Hindu	Lower Middle	BPAD	OP	17	4	0	1	1	1	1	69	56	50	44
8	Janakiraman	31	M	R	HSS	Semi-Skilled	Married	Hindu	Upper Lower	BPAD	OP	28	8	1	2	2	2	1	50	44	31	38
9	Jayapriya	19	F	U	HSS	Unskilled	Unmarried	Hindu	Upper Lower	BPAD	OP	18	5	0	2	1	1	1	69	56	56	63
10	Kalavathi	45	F	U	IL	Unemployed	Married	Hindu	Upper Lower	BPAD	OP	15	6	1	1	2	1	1	69	50	31	69
11	Kalyani	23	F	U	MS	House wife	Married	Hindu	Upper Lower	BPAD	OP	29	4	0	1	1	1	1	69	56	56	63
12	Manikandan	29	M	R	HS	Unskilled	Unmarried	Hindu	Upper Lower	BPAD	OP	22	4	0	1	1	1	1	69	63	56	56
13	Mohammed Yousuf	30	M	U	HSS	Skilled	Married	Muslim	Lower Middle	BPAD	OP	21	10	0	2	3	3	2	63	56	50	50
14	Murugan	37	M	R	HSS	Unskilled	Unmarried	Hindu	Upper Lower	BPAD	OP	19	4	0	1	1	1	1	63	56	44	50

15	Muthulakshmi	38	F	U	IL	Unemployed	Widow	Hindu	Lower	BPAD	OP	26	8	0	2	2	3	1	63	63	44	56
16	Palanivel	41	M	U	MS	Skilled	Separated	Hindu	Upper Lower	BPAD	OP	25	5	0	1	1	2	1	38	56	44	31
17	Raji	23	M	R	MS	Semi-Skilled	Unmarried	Hindu	Upper Lower	BPAD	OP	24	6	0	1	2	2	1	69	69	75	56
18	Renuka	43	F	U	HS	House wife	Married	Hindu	Lower Middle	BPAD	OP	21	5	0	1	1	2	1	63	56	50	50
19	Samuel Jayaraj	44	M	R	G	Skilled	Married	Christian	Lower Middle	BPAD	OP	23	9	1	2	2	3	1	56	63	75	56
20	Sivakumar	28	M	U	MS	Skilled	Married	Hindu	Upper Lower	BPAD	OP	25	10	1	2	2	3	2	69	63	56	75
21	Subha	23	F	U	HS	House wife	Married	Hindu	Upper Lower	BPAD	OP	21	5	0	1	2	1	1	63	63	56	44
22	Sulochana	39	F	U	MS	House wife	Married	Hindu	Lower Middle	BPAD	OP	23	4	0	1	1	1	1	44	56	44	63
23	Susheela	44	F	U	Lit	House wife	Separated	Hindu	Upper Lower	BPAD	OP	24	8	1	1	2	2	2	56	75	50	50
24	Tamilarasi	32	F	U	IL	Unemployed	Married	Hindu	Lower	BPAD	OP	21	6	0	1	2	2	2	44	44	25	25
25	Yesumariyal	24	F	R	HSS	Skilled	Unmarried	Christian	Lower Middle	BPAD	OP	19	6	0	1	1	2	2	69	63	56	44

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