



A Comparative Study on the Sexual Functioning among Men with and without Severe Mental Illness

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2020/v32i1230575

Editor(s):

(1) Prof. John Yahya I. Elshimali, UCLA School of Medicine, Charles R. Drew University of Medicine and Science, USA.

Reviewers:

(1) Egbe B. Besong, University of Buea, Cameroon.

(2) Nwondah Chigozie, University of Port Harcourt, Nigeria.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/54159>

Original Research Article

Received 15 May 2020

Accepted 22 July 2020

Published 31 July 2020

ABSTRACT

Objective: The aim of the study is to compare the sexual functioning among men with and without severe mental illness.

Materials and Methods: The study was conducted in Psychiatry Department, Sree Balaji Medical College and hospital, Chromepet, Chennai Tamilnadu, India from the period of August 2016 to February 2018 (18 months). Cross sectional analytical study: 1. Semi structured questionnaire to capture demographic variables, illness variable, type of sexual practice and their expectations from MHPs. 2. General health questionnaire (12) tamil and English, 3. CAGE screening tool for alcohol. 4. The Brief Male Sexual Function Inventory (BMSF) for males (70).

Results: The study population covered 50% of men with severe mental illness and 50% of men without severe mental illness. Among the study population regarding the educational status it was inferred that 70% were literate and only 30% were illiterate. An attempt to identify the mental illness of the study population was made and it was found that among the total cases, the prevailing mental illness was Schizophrenia (27%). Bipolar affective disorder (17%) was ranked as second highest. Delusional disorder, major depressive disorder covered up to 4% and 1% respectively. The comparisons of quantitative variable between the groups were given in Table 7. The median (range) of the age in case was 40 (29, 58) and in controls was 39 (25, 55), which shows that the median value of age between the groups was not found to be statistically significant ($P > 0.05$). The median value of general health questionnaire among the patients with severe mental illness was 26

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(18, 34) and in controls it was 1 (0, 4) which shows that this median difference was highly significant ($P < 0.0001$). The median value of CAGE among the cases was 1 (0, 4) and in normal males was 19 (15, 29) which shows that the median difference between the groups were found to be highly significant ($P < 0.0001$). Similarly, the median difference of variables such as BSFI sexual drive, ejection score, ejaculation score, overall satisfaction score, problem assessment score and total score was found to highly significant ($P < 0.0001$). This implies that the sexual function of men with severe mental illness differs significantly from the normal males.

Conclusion: Sexual dysfunction is common among men with severe mental illness than persons without severe mental illness. The male patients with severe mental illness such as Schizophrenia, delusional disorders, BPAD, major depressive disorder have impaired sexual function compared with the persons without severe mental illness study group which is evident from the BSFI score (17 in persons with severe mental illness vs 34 in persons without severe mental illness) which is clinically significant. In our study, sexual dysfunction among the men with severe mental illness is not proportional to the duration of the illness & the age of the patients. Recommendations based on gender identity development, attachment, non-sexual and sexual abuse, puberty/adolescence.

Keywords: Sexual functioning; mental status; illness; BSFI.

1. INTRODUCTION

According to World Health Organization Sexual health is defined as “The integration of the physical, emotional, intellectual and social aspects of sexual being in ways that are positively enriching and that enhance personality, communication, and love”.

It is mentioned that every person has a right to receive sexual information. Sexual relationships is identified for pleasure as well as for procreation as per WHO Technical Report, Series 572. Along with the positive aspects of human sexuality, however, illnesses can also affect an individual's sexual health [1].

Attachment, autonomy, sexual identity, and self-esteem are the fundamental psychological needs of an individual represented by four psychodynamic factors. The 4 structures show a strong interdependence and a stable and mutual relationship. Anyway, the dynamics among them can become dysfunctional. It is noteworthy that a consequence of a problem in a particular area affects the other areas. An individual's physical and emotional health is being affected by disorders of any of such factors. As a consequence the interpersonal relationships and self-image is affected.

The common sexual disorders in the general population were listed as desire, arousal, orgasmic, and pain disorders.

Sexual functioning has been impacted by chronic illness and its treatments. The mechanism of interference may be neurologic, vascular, endocrinology, musculoskeletal, or psychological.

Sexual dysfunction is any physical or psychological problem that prevents either of the partner from getting sexual satisfaction. Male sexual dysfunction is a generic problem affecting men of various ages, but is more common with advanced age. Treatment can often help men suffering from sexual dysfunction [2].

The main types of male sexual dysfunction are:

- Reaching orgasm too quickly also known as Premature ejaculation.
- Difficulty getting/keeping an erection also known as Erectile dysfunction.
- Reduced interest in sex also known as Low libido.
- Reaching orgasm too slowly or not at all also known as Delayed or inhibited ejaculation.

Physical causes of overall sexual dysfunction may be:

- Drugs like antidepressants, high blood pressure medicine.
- Blood vessel disorders such as atherosclerosis and elevated blood pressure.
- Substance abuse
- Stroke or due to nerve damage from diabetes.
- Low testosterone levels.

Psychological causes might include:

- Issues about sexual performance.
- Marital problems.
- Depression, disorders related to guilt or ill feelings.

- Past sexual trauma.
- Occupational-related stress and anxiety.

The most common problems men face with sexual dysfunction are troubles with erection, ejaculation, and reduced sexual desire.

2. OBJECTIVES OF THE STUDY

- To assess the sexual functions of men with and without severe mental illness.
- To compare sexual functions of men with and without severe mental illness.
- To assess the sexual functions of the men with severe mental illness and their duration of illness and duration of treatment.

3. MATERIALS AND METHODS

3.1 Methodology

Study Design: Cross sectional design Sample size: 70 (Group I – SMI, Group II – persons (males) without severe mental illness) the minimum number of sample required for this study was determined by using single population proportion formula.

Duration of the study: 6 months.

Study setting: OPD, Department of Psychiatry, Sree Balaji Medical College and hospital, Chennai, Tamilnadu, India.

Inclusion Criteria:

1. Diagnosis of severe mental illness as per icd 10.
2. Duration of illness- 6 months and more.
3. Married male and living with the partner.
4. Age between 18 – 60 years.
5. Patients seeking out patient care.

Exclusion Criteria:

- i. Diagnosis other than schizophrenia, schizo affective disorder, bipolar disorder, delusional disorder and severe depression.
- ii. Unmarried/ Single
- iii. Age below 18 years and the patients in exacerbation phase were excluded from the study.

Sampling technique: Convenient sampling technique.

Instrument:

1. Semi structured questionnaire to capture demographic variables, illness variable, type of sexual practice and their expectations from MHPs.
2. General health questionnaire (12) Tamil and English.
3. CAGE screening tool for alcohol.
4. The Brief Male Sexual Function Inventory (BMSF) for males.

GHQ: It is a screening instrument for assessing psychological wellbeing of individuals.

Goldberg developed the 60 item original version in 1972.

Currently GHQ 12 is in vogue.

The 12 version is a very popular screening method in primary care and

Community setting. Each item is noted in a two point scale.

A score of 2 or less indicates the subject is free from any psychiatric illness.

It has good reliability and validity.

It has been widely used as a screening tool for the detection of the possible

Presence of psychiatric morbidity.

CAGE: The CAGE questionnaire was developed in 1968 at North Carolina Memorial Hospital to combat the paucity of screening measures to detect problem drinking behaviours CAGE is derived from four questions of the tool: Cut down, Annoyed, Guilty and Eye opener. It is a widely used screening test for problem drinking and potential alcohol problems [3].

Scoring: Item responses on the CAGE questions are scored 0 for “no” and 1 for “yes” answers, with a higher score being an indication of alcohol problems. A total score of two or greater is considered clinically significant. Data was coded and entered to Epi data and transferred to Statistical Package for Social Sciences version 20 (SPSS-20). Descriptive

statistical analysis was used to estimate the frequencies and percentages of the variables.

Brief Male Sexual Function Inventory: The Brief Male Sexual Function Inventory (BSFI is the self-administered questionnaire to assess male sexuality, and it was used in USA). It examines the psychometric properties and explore the impact of sexual function and other variables on overall sexual satisfaction [4].

Sexual function concerning:

- Drive
- Erection
- ejaculation
- problem assessment
- Overall sexual satisfaction.

The BSFI is a short and discrete screening tool for sexual function, and for most clinical and research purposes we recommend using the BSFI as a one-dimensional scale.

4. RESULTS

The study population covered 50% of men with severe mental illness and 50% of men without severe mental illness.

Among the study population regarding the educational status it was inferred that 70% were literate and only 30% were illiterate.

An attempt to identify the mental illness of the study population was made and it was found that among the total cases, the prevailing mental illness was Schizophrenia (27%). Bipolar affective disorder (17%) was ranked as second highest. Delusional disorder, major depressive disorder covered up to 4% and 1% respectively.

Table 1. Distribution of the study group

| Study group | No of cases | Frequency |
|--------------------------------|-------------|-----------|
| Men with severe mental illness | 35 | 50 |
| Men without mental illness | 35 | 50 |
| Total | 70 | 100 |

Table 2. Educational status of the study population

| Educational status | No of cases | Percentage |
|--------------------|-------------|------------|
| Literate | 49 | 70 |
| Illiterate | 21 | 30 |
| Total | 70 | 100 |

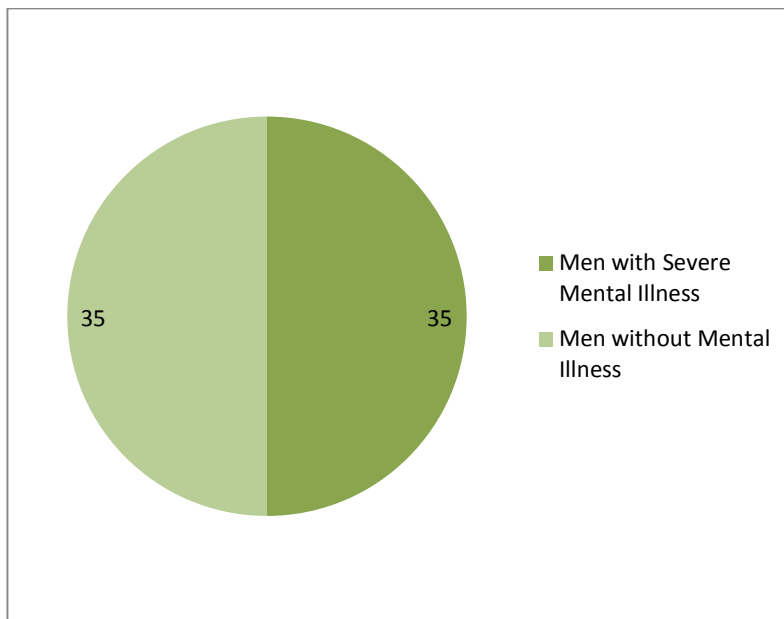


Fig. 1. Distribution of study groups (N=70)

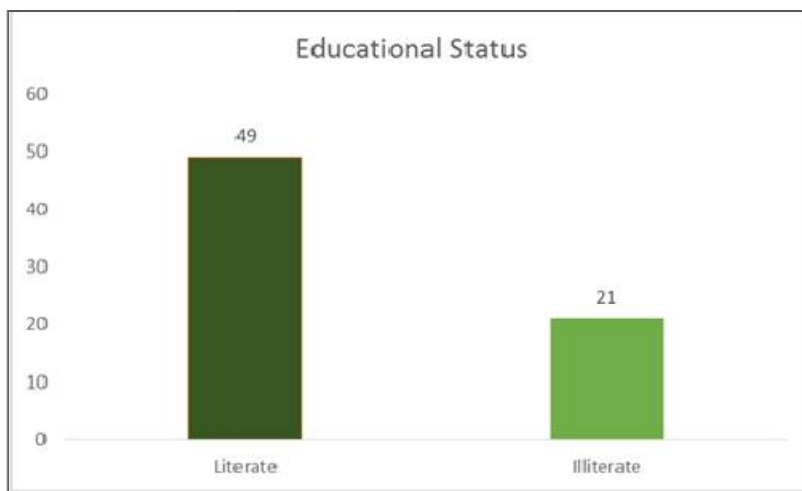


Fig. 2. Educational status of the study population

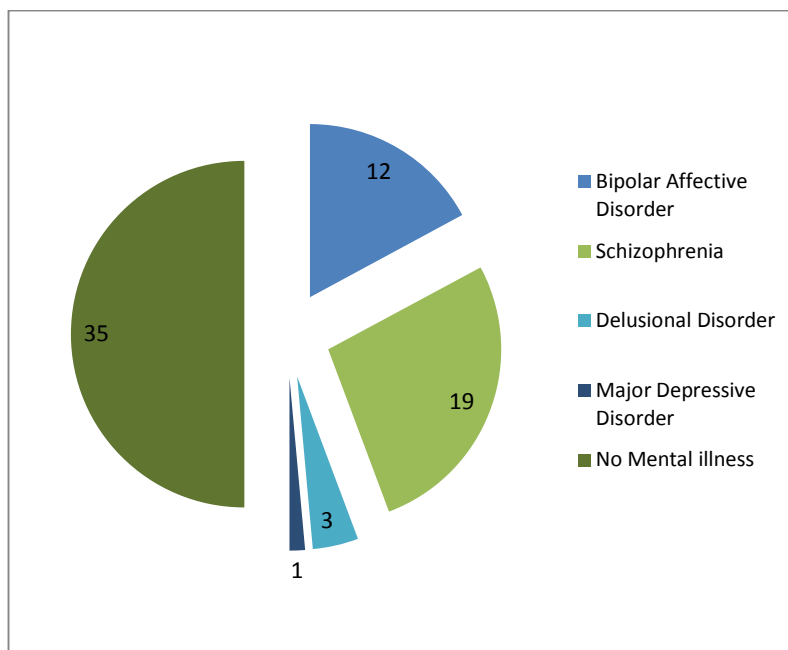


Fig. 3. Diagnosis distribution of the study population (N=70)

An attempt to identify the mental illness of the study population was made and it was found that among the total cases, the prevailing mental illness was Schizophrenia (27%). Bipolar affective disorder (17 %) was ranked as second highest. Delusional disorder, major depressive disorder covered up to 4 % and 1 % respectively.

Since the quantitative variables of this study were not found to be normally distributed (skewed), so the presentations of these data's

were done by using median with range (minimum, maximum).

The comparisons of quantitative variable between the groups were given in Table 7. The median (range) of the age in case was 40 (29, 58) and in controls was 39 (25, 55) which shows that the median value of age between the groups was not found to be statistically significant ($P>0.05$). The median value of general health questionnaire among the patients with

severe mental illness was 26 (18, 34) and in controls it was 1 (0, 4) which shows that this median difference was highly significant (P<0.0001). The median value of CAGE among the cases was 1 (0, 4) and in normal males was 19 (15, 29) which shows that the median difference between the groups were found to highly significant (P<0.0001). Similarly the

median difference of variables such BSFI sexual drive, ejaculation score, ejaculation score, overall satisfaction score, problem assessment score and total score was found to be highly significant (P<0.0001). This implies that the sexual function of men with severe mental illness differs significantly from the normal males.

Table 3. Diagnosis distribution of the study population

| Diagnosis | No of cases | Percentage |
|----------------------------|-------------|------------|
| Bipolar Affective Disorder | 12 | 17.1 |
| Schizophrenia | 19 | 27.1 |
| Delusional Disorder | 3 | 4.3 |
| Major Depressive Disorder | 1 | 1.4 |
| No Disease | 35 | 50 |
| Total | 70 | 100 |

Table 4. Descriptive statistics

| Variable | Median (N=70) | (Minimum, Maximum) |
|---------------------------------|---------------|--------------------|
| Age | 39 | (25, 58) |
| Duration of Illness | 1 | (0, 35) |
| Duration of Marriage | 9.5 | (1, 34) |
| General Health Questionnaire | 11 | (0, 34) |
| CAGE | 9.50 | (0, 29) |
| BSFI Sexual Drive | 4.50 | (2, 9) |
| BSFI Erection Score | 6 | (1, 12) |
| BSFI Ejaculation Score | 6 | (1, 11) |
| BSFI Problem Assessment Score | 7 | (1, 11) |
| BSFI Overall Satisfaction Score | 3 | (1, 4) |
| BSFI Score | 26.50 | (7, 40) |

Median with range

Table 5. Comparison of the variables between the groups (n=70)

| Variable | Median (Range) | | Statistical Significance |
|---------------------------------|--------------------------------|----------------------------|--------------------------|
| | Men with severe mental illness | Men without mental illness | |
| Age | 40 (29, 58) | 39 (25, 55) | P>0.05 |
| Duration of Illness | 12 (2, 35) | 0 (0) | P>0.05 |
| Duration of Marriage | 9 (2, 32) | 10 (1, 34) | P>0.05 |
| General Health Questionnaire | 26 (18, 34) | 1 (0, 4) | P<0.0001* |
| CAGE | 1 (0, 4) | 19 (15, 29) | P<0.0001* |
| BSFI Sexual Drive | 3 (2, 9) | 5 (4, 9) | P<0.0001* |
| BSFI Erection Score | 4 (1, 7) | 9 (5, 12) | P<0.0001* |
| BSFI Ejaculation Score | 3 (1, 8) | 7 (3, 11) | P<0.0001* |
| BSFI Problem Assessment Score | 4 (1, 9) | 8 (3, 11) | P<0.0001* |
| BSFI Overall Satisfaction Score | 2 (1, 4) | 3 (2, 4) | P<0.0001* |
| BSFI Score | 17 (7, 35) | 34 (20, 40) | P<0.0001* |

Mann Whitney U test

* Significant at 1% level of significance

Table 6. Sexual functions of men with severe mental illness (n = 35)

| Variable | Median | Range |
|---------------------------------|--------|---------|
| BSFI Sexual Drive | 3 | (2, 9) |
| BSFI Erection Score | 4 | (1, 7) |
| BSFI Ejaculation Score | 3 | (1, 8) |
| BSFI Problem Assessment Score | 4 | (1, 9) |
| BSFI Overall Satisfaction Score | 2 | (1, 4) |
| BSFI Score | 17 | (7, 35) |

Median with range

Table 7. Sexual functions men without mental illness (n=35)

| Variable | Median | Range |
|---------------------------------|--------|----------|
| BSFI Sexual Drive | 5 | (4, 9) |
| BSFI Erection Score | 9 | (5, 12) |
| BSFI Ejaculation Score | 7 | (3, 11) |
| BSFI Problem Assessment Score | 8 | (3, 11) |
| BSFI Overall Satisfaction Score | 3 | (2, 4) |
| BSFI Score | 34 | (20, 40) |

These median values of the BSFI domains nearer to 1 show that the impairment of sexual functioning was higher in the men with severe mental illness.

The assessment of the sexual functions of men without mental illness was given in Table 5. These median values of the BSFI domains far to 1 show that the impairment of sexual functioning was lower in the men without severe mental illness.

5. DISCUSSION

This descriptive study was done to assess the sexual functioning of men with severe mental illness and without mental illness. The median age of participants in this study is 39. All of them were married. Forty nine percent (49%) of the participants had formal education. Among the men with severe mental illness 19% were diagnosed with schizophrenia and 12% were diagnosed with bipolar affective disorder. There was a major nicotine usage by 20% of the study participants and 19% consumed both alcohol and nicotine. Eighteen percent (18%) of the participants were hypertensives and 12% were diabetic and had both diabetes and hypertension [5].

The comparison of age among the participants is not significant in our study which is contrary to the study conducted [6] who reported increasingly reduced sexual function concerning

drive, erection, ejaculation, and problem assessment with age and most of the age-effect started at >50 years old.

The previous report found that sexual problems in schizophrenia were under estimated [7]. The study revealed that the SMI created negative impact on the sexual satisfaction of the patients which is also proved with our study which reveals that the comparison of median score of general health questionnaire among the patients with severe mental illness was 26 (18, 34) and in men without mental illness was 1 (0, 4) which shows that this median difference was highly significant ($P < 0.0001$). Similarly the median difference of variables such BSFI sexual drive, ejection score, ejaculation score, overall satisfaction score, problem assessment score and total score was found to highly significant ($P < 0.0001$). This implies that the sexual functioning of men with severe mental illness differs significantly from the men without mental illness [8].

The earlier reports found that the group of non-sexually distressed patients scores high compared with the sexually distressed group which was also proven in our study with the GHQ which revealed that men with SMI had significance sexual dysfunctioning [9].

The earlier recognition of sexual dysfunctions in major depressive disorder can prevent prognosis from mild to moderate which was proven in our study [10].

6. CONCLUSION

Sexual dysfunction is common among men with severe mental illness such as Schizophrenia, delusional disorders, BPAD, major depressive disorder have impaired sexual function compared with the persons without severe mental illness study group which is evident from the BFSI score (17 in persons with severe mental illness vs 34 in persons without severe mental illness) which is clinically significant. In our study, sexual dysfunction among the men with severe mental illness is not proportional to the duration of the illness & the age of the patients.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Ethical clearance was obtained from Sree Balaji Medical College and Hospital Ethical Review Committee.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:

The peer review history for this paper can be accessed here:
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