

# MENTAL EMOTIONAL DISORDERS IN INTERSTITIAL CYSTITIS PATIENTS

Fajar Gemilang Ramadani<sup>1</sup>, Noor Riza Perdana<sup>2</sup>, Anidiah Novy Hasdi<sup>3</sup>, Dina Aulia Fakhrina<sup>4</sup>

<sup>1</sup>General Practitioner, Dr. H. Moch. Ansari Saleh Hospital, Banjarmasin City

<sup>2</sup>Urology Division, Department of Surgery, Dr. H. Moch. Ansari Saleh Hospital, Banjarmasin City

<sup>3</sup>Department of Psychiatry, Dr. H. Moch. Ansari Saleh Hospital, Banjarmasin City

<sup>4</sup>General Practitioner, Gemilang Persada Clinic, Barito Kuala Regency

Coresspondence Author: fajar.geer@gmail.com

## Abstract:

Interstitial cystitis is a chronic pain condition with unclear underlying etiology. Interstitial cystitis has a relation with psychological disorders. There has been an increase in visit patients diagnosed with interstitial cystitis at the urology clinic at Dr. H. Moch. Ansari Saleh Hospital since October 2020. The objectives of this study are to compare mental emotional disorder events in interstitial cystitis patients and control subjects and to determine the relationship between interstitial cystitis and the incidence of mental emotional disorders. included 62 subjects, classified into 2 groups, namely: patients diagnosed with interstitial cystitis based on medical records data at the Urology Clinic, Dr. H. Moch. Ansari Saleh Hospital, and control subjects who had never been diagnosed with interstitial cystitis and had no symptoms and complaints of interstitial cystitis. Both groups completed the Self Reporting Questionnaire SRQ-20 to assess the presence of mental emotional disorders. The incidence of mental emotional disorders in interstitial cystitis patients and controls were compared, and the odds ratios (OR) for the presence of a mental emotional disorder were determined. A total of 32 patients with interstitial cystitis and 30 controls were included in this study. There were 14 interstitial cystitis patients and 4 control subjects who had mental emotional disorders, respectively, and the difference was significant ( $p = 0.008$ ). Patients with interstitial cystitis were 5 times more at risk of experiencing mental emotional disorders than the control group ( $OR = 5,056$ ). Patients with interstitial cystitis have a significantly higher risk of experiencing mental emotional disorders compared to those without interstitial cystitis. Screening might be beneficial to assess their mental emotional health. It may be necessary to collaborate with a psychiatrist to treat these patients holistically.

**Keywords:** Interstitial cystitis; Mental emosional disorder

## Introduction

Interstitial cystitis (IC) is often described as a urothelium disease, and impaired epithelial integrity and epithelial disorders have been proposed for the possible pathophysiologic explanation. The aetiology of interstitial cystitis remains unclear.<sup>1</sup> Interstitial cystitis is a syndrome characterized by urgency, frequency, nocturia, and pelvic pain that worsens with bladder filling and improves with bladder emptying.<sup>2</sup>

Previous studies have demonstrated a higher rate of mental health disorders in patients with interstitial cystitis.<sup>3</sup> Women more often have interstitial cystitis compared with men.<sup>2</sup> Current studies estimate that 2.7% to 6.5% of women in the United States have symptoms consistent with a diagnosis of interstitial cystitis/bladder pain syndrome. Interstitial cystitis causes considerable morbidity, impairment at work and home, and is particularly associated with an increased risk of depression and suicidal ideation.<sup>4</sup> Interstitial cystitis patients are more at risk of depression, chronic fatigue symptoms, and panic attacks.<sup>2</sup>

In Indonesia, in 2013 a study of mental emotional disorders was conducted through the SRQ-20 (Self-Reporting Questionnaire 20) instrument. The prevalence was found to be 6% nationally (37,728 of the subjects analyzed).<sup>5</sup> However, direct comparison of mental-emotional state between interstitial cystitis patients and controls has not been performed.

Evidence suggests that psychosocial factors, such as anxiety, depression, decreased quality of life, and trauma, accompany and exacerbate interstitial cystitis.<sup>6</sup>

At the Urology Clinic Dr. H. Moch. Ansari Saleh Hospital there were 187 visits to interstitial cystitis patients from April 2020 to June 2021. There was an increase in visits to interstitial cystitis patients since October 2020 by 2-3 times. Patients who come to the urology clinic with interstitial cystitis often show psychological symptoms such as anxiety and depression.

The objectives of this study are to compare mental-emotional disorder events in interstitial cystitis patients and control subjects and to determine the relationship between interstitial cystitis and the incidence of mental-emotional disorders.

## Research Method

This research is an analytic cross-sectional study. The data used are data on patients diagnosed with interstitial cystitis at the Urology Polyclinic of RSUD Ansari Saleh Banjarmasin and people aged >18 years who have never been diagnosed with interstitial cystitis. The sampling technique used is the purposive sampling method.

We divided the sample into two groups. First, the group of interstitial cystitis patients based on medical records at the Urology Clinic Dr. H Moch Ansari Saleh Hospital from April 2020 to June 2021. Second, the control group, namely respondents who have no symptoms of interstitial cystitis and have never been diagnosed with interstitial cystitis.

Based on medical records at the Urology Clinic Dr. H. Moch Ansari Saleh Hospital, there were 187 visits to interstitial cystitis patients. Interstitial cystitis patients were contacted by telephone and some were met in person during a visit to the urology clinic and asked for their consent to be study respondents.

Then respondents were asked to complete the SRQ 20.

Self-Reporting Questionnaire (SRQ) 20 is a measuring tool used to assess mental status or mental health problems in person. SRQ 20 consists of 20 questions. The SRQ measuring instrument is easy to use because it only requires a “yes” or “no” answer. The sample in the study was indicated to have mental health problems if they answered "yes" to at least 6 questions.<sup>5</sup>

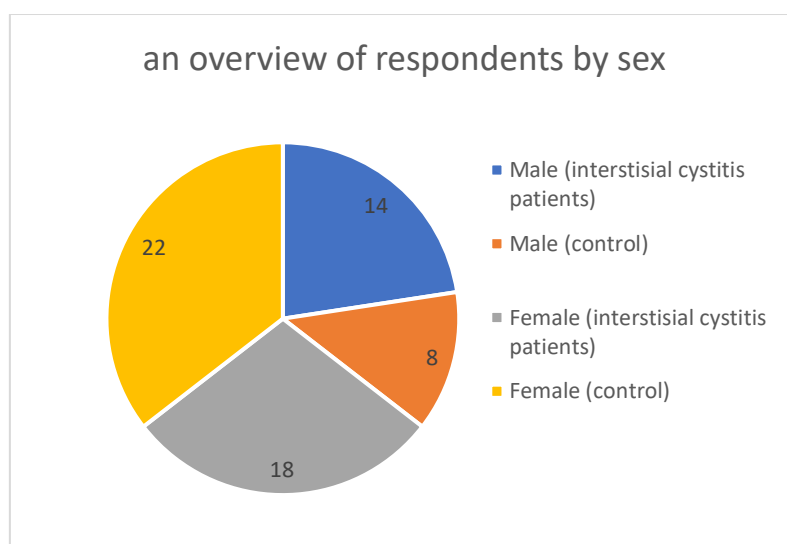
The control group was obtained by randomly selecting people who had no symptoms of interstitial cystitis and had never been diagnosed with interstitial cystitis. Then asked to complete the SRQ 20 questionnaire.

The data have been collected and verified, processed using software SPSS version 20.0 for Windows. Descriptive data are presented in frequency tables or graphs. Descriptive categorical data will be presented in numbers and percentages. Then performed bivariate analysis on both categorical

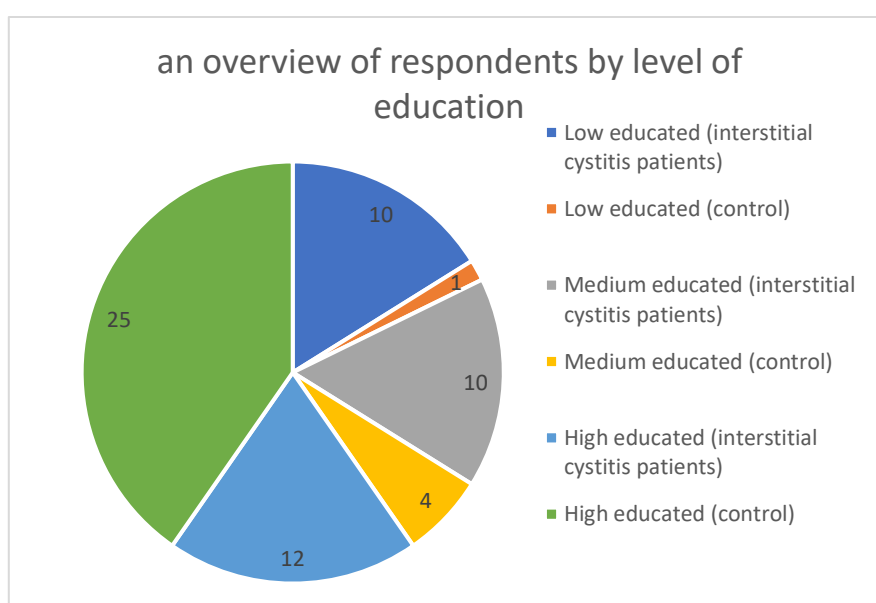
variables using Chi Square test. The relationship between interstitial cystitis and the incidence of mental-emotional disorders was seen based on the p-value where the p-value which was considered statistically significant was  $<0.05$ .

## Results

There have been 32 patients with interstitial cystitis and 30 respondents in the control group. In the group of patients with interstitial cystitis, there were 18 female respondents and 14 male respondents. The age range is 26 – 75 years and the average age is 47.9 years. In this group, there are 10 low-educated respondents, 10 medium-educated respondents, and 12 high-educated respondents. In the control group, there were 22 female respondents and 8 male respondents. The age range is 21 – 71 years and the average age is 34.4 years. There is 1 low-educated respondent, 4 medium-educated respondents and 25 high-educated respondents.



(a)



(b)

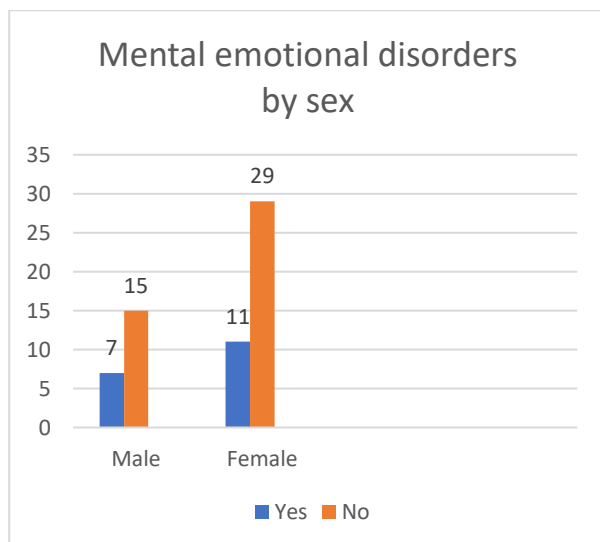
Figure 1 An overview of respondents: (a) by sex; and (b) by level of education

There are 18 respondents who have mental-emotional disorders. By sex, there are 7 male respondents and 7 female respondents in interstitial cystitis patients, and 4 female respondents in the control group. By level of

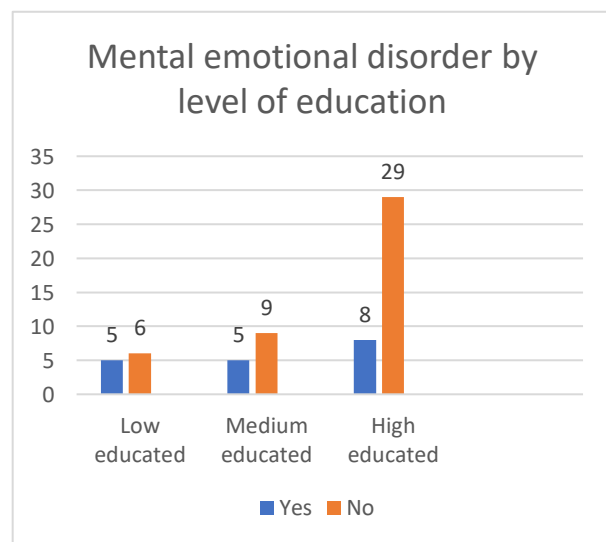
education, there are 5 low-educated respondents, 5 medium-educated respondents, and 8 high-educated respondents who experience mental-emotional disorders.

Table 1 Result of the respondent answers to the questionnaire questions

	Interstitial cystitis patients		Control	
	Yes	No	Yes	No
Do you often have headaches?	6	26	13	17
Is your appetite poor?	13	19	1	29
Do you sleep badly?	12	20	4	26
Are you easily frightened?	18	14	5	25
Do you feel nervous, tense, or worried?	6	26	9	21
Do your hands shake?	9	23	1	29
Is your digestion poor?	12	20	8	22
Do you have trouble thinking clearly?	5	27	3	27
Do you feel unhappy?	3	29	2	28
Do you cry more than usual?	10	22	3	27
Do you find it difficult to enjoy your daily activities?	9	23	3	27
Do you find it difficult to make decisions?	11	21	4	26
Is your daily work suffering?	7	25	1	29
Are you unable to play a useful part in life?	4	28	1	29
Have you lost interest in things?	3	29	2	28
Do you feel that you are a worthless person?	1	31	2	28
Has the thought of ending your life been on your mind?	10	22	0	30
Do you feel tired all the time?	14	18	4	26
Do you have uncomfortable feelings in your stomach?	20	12	4	26
Are you easily tired?	29	3	14	16



(a)



(b)

Figure 2 Number of respondents with and without symptoms of mental emotional disorders: (a) by sex; and (b) by level of education

The data were then performed bivariate analysis using chi-square test and p-value = 0.008 ( $p < 0.05$ ) so that it can be concluded that there is a relationship between interstitial cystitis with the incidence of the mental-

emotional disorder. Patients with interstitial cystitis were 5 times more at risk of experiencing mental-emotional disorders than the control group (OR = 5,056).

Table 2 Mental emotional disorder questionnaire result

		Mental emotional disorder		<i>p-value</i>	OR
		Yes	No		
Interstitial cystitis patients	Male	7 (50%)	7 (50%)	0,008	5,056
	Female	7 (39%)	11 (61%)		
	subtotal	14	18		
Control	Male	0	8 (100%)		
	Female	4 (18%)	18 (82%)		
	subtotal	4	26		

## Discussion

Our results support the findings of previous studies that showed the level of mental health diagnoses was higher associated with interstitial cystitis. Novi et al provide PHQ (Patient Health Questionnaire) in 46 women with interstitial cystitis and 46 controls of similar age, the results identified a higher rate of depression (OR 4.0) in the case of interstitial cystitis.<sup>7</sup>

Clemens et al study using the PHQ mention in men 13% of cases met the criteria for a diagnosis of mental health (depression, panic disorder, or other depression), compared with 4% of controls (OR 2.0,  $p = 0.04$ ). While in women, 23% of cases had evidence of a mental health disorder compared with 3% of controls (OR 8.2,  $p < 0.0001$ ).<sup>3</sup> However, these results differed slightly in the comparison between male and female interstitial cystitis patients with the disorder. mentally. In this study, male respondents with interstitial cystitis had mental health disorders (50%), slightly more than female respondents with interstitial

cystitis (39%). These findings suggest that the association between mental health disorders and urological pain conditions is quantitatively similar for men and women.

There are several limitations to this study. Patients with interstitial cystitis average older and less educated than the control group, so that comparisons can be adjusted between the groups affected by these differences. Second, our identification of mental health disorders depends entirely on the SRQ 20, which is less accurate than a structured diagnostic interview. However, we expect these limitations to apply equally to interstitial cystitis patients and controls and therefore should have limited potential to bias our results. Third, this study did not identify the mental-emotional treatment received by the respondents, so it cannot be known with certainty the effect of treatment on mental-emotional symptoms and the difference in the effect of mental treatment between interstitial cystitis patients and controls. These results reinforce the relevance of a multidisciplinary approach to treating patients with interstitial cystitis.

## Conclusions

Patients with interstitial cystitis have a significantly higher risk of experiencing mental-emotional disorders compared to those without interstitial cystitis. Screening might be beneficial to assess their mental-emotional health. It may be necessary to collaborate with a psychiatrist to treat these patients holistically.

### Acknowledgements

We thank Alfi Yasmina, MD, M.Kes, PhD for her assistance and gratefully acknowledge supporting provided by Dr. H. Moch. Ansari Saleh Hospital.

### References

1. Cepeda, M.S., Reps, J., Sena, A.G., et al, 2019. Risk Factors for Interstitial Cystitis in the General Population and in Individuals with Depression. *Int Neurourol J*, volume 23(1), pp. 40-45.
2. Chelimsky, G., Heller, E., Buffington, C.A.T., et al, 2012. Co-morbidities of interstitial cystitis. *Frontiers in Neuroscience*, volume 6 (114), pp. 1-6.
3. Clemens, J.Q., Brown, S.O., Calhoun, E.A., 2008. Mental Health Diagnoses in Patients with Interstitial Cystitis/Painful Bladder Syndrome and Chronic Prostatitis/Chronic Pelvic Pain Syndrome: A Case/Control Study. *J Urol.*, volume 180(4), pp. 1378–1382.
4. Kanter, G., Volpe, K., Dunivan, G.C., et al, 2017. The important role of physicians in addressing the psychological aspects of Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS): A qualitative analysis. *Int Urogynecol J.*, volume 28(2), pp. 249–256.
5. Kemenkes RI, 2013. *Riset Kesehatan Dasar/RISKESDAS*. Jakarta: Balitbang Kemenkes RI.
6. McKernan, L.C., Walsh, C.G., Reynolds, W.S., Crofford L.J., Dmochowski R.R., Williams D.A., 2018. Psychosocial co-morbidities in Interstitial Cystitis/Bladder Pain syndrome (IC/BPS): A systematic review. *Neurourol Urodyn.*, volume 37(3), pp. 926–941.
7. Novi, J.M., Jeronis, S., Srinivas, S., Srinivasan, R., Morgan, M.A., Arya, L.A., 2005. Risk of irritable bowel syndrome and depression in women with interstitial cystitis: a case-control study. *J Urol.*, volume 174, pp. 937.