International Journal of Medical Science and Clinical Research
www.journalofmedical.com
Online-ISSN: 2664-7761, Print ISSN: 2664-7753
Received: 05-10-2021, Accepted: 20-10-2021, Published: 06-11-2021
Volume 3, Issue 4, 2021, Page No. 12-17

Factors associated with relapse in patients with schizophrenia; A hospital based experience

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Abstract
Background: Relapse in schizophrenia is broadly recognized as the re-emergence or the worsening of psychotic symptoms that might result in hospitalization, treatment resistance, cognitive impairment owing to progressive structural brain damage, personal distress, incarceration, and interference with rehabilitation efforts along with economic burden on health care systems [1, 2, 3].
Material and Methods: The present descriptive study was undertaken at the inpatient and outpatient departments of Post Graduate Institute of Behavioural & Medical Sciences (PGIBAMS), Raipur, Chattisgarh with a sample size of 60 subjects diagnosed as having schizophrenia according to ICD-10 diagnostic criteria in the age group of 18 - 65 years by using a self-made pre-tested reliable checklist to assess the factors associated with relapse.
Results: The findings of the study suggested Non-compliance due to poor communication between doctor-patient, Poor adherence, Societal stigma, inappropriate transport facilities and road conditions for travelling to mental health services, and poor expressed emotions by the caregiver as some of the prominent factors for relapse.
Conclusion: It was therefore concluded that relapse is a cumulative effect of many factors that could be responsible for increasing severity, chronicity & poor outcome of illness in the patients with schizophrenia.

Keywords: factor, relapse, association, patient and schizophrenia

Introduction

Schizophrenia could be defined as a chronic, disabling illness that is often characterized by frequent periods of psychotic exacerbation and relapse. On the other hand, relapse in schizophrenia could be associated with progressive functional deterioration, declining treatment response, worsening clinical outcome, escalating caregiver burden, and an increased economic burden for families and society. The problem of relapse to therapeutic regimen has been a matter of concern to the mental health professionals for years. Mental illnesses are usually chronic and disabling and are often accompanied by relapse even while on treatment. Schizophrenia is a chronic and disabling illness that affects approximately 1% of the world's population that is often accompanied by relapse even while on treatment [4]. Relapse rates vary from 50% to 92%, particularly in schizophrenia and are similar in developed and developing countries, despite the former having well-established mental health services. Relapse is broadly recognized as the reemergence or the worsening of symptoms. Relapse may result in hospitalization, treatment resistance, cognitive impairment owing to progressive structural brain damage, personal distress, incarceration, and interference with rehabilitation efforts. Relapse increases the economic burden on health care systems because of its associated morbidity and re-admissions to hospital. Prevention of relapses could have significant therapeutic and socio-economic implications. Internationally, the factors commonly associated with relapse include poor adherence to treatment, substance abuse, co-morbid psychiatric illness, a co-morbid medical and/or surgical condition, stressful life events, and the treatment setting. The present study examines reasons associated with relapse in major psychiatric disorders. Because relapse is multidimensional, not a single factor contributes to relapse. Factors include non-compliance due to poor communication between the doctor and patient, adherence, family role in caring for the client, family perception regarding the issue of access, societal stigma, each affect adherence and offer potential points of intervention to improve the likelihood of collaboration. So, this study would be useful to identify specific factors that cause relapse thereby helping in improvement of the well-being of patients in recovery and in making future intervention plan for management.

Material and Methods

The study was a hospital based study. The present descriptive study was conducted at Post Graduate Institute of Behavioural & Medical Sciences (PGIBAMS), Raipur, Chattisgarh. It is a teratiary referal center with bed strenght of 200, and a postgraduate teaching hospital. The hospital has wide cathment areas, which includes the state of Chhattisgarh, Madhya Pradesh, Odisha, Best Bengal, Jharkhand. Study population contains patiens with disorders attending outpatints department (OPD) and inpatients department (IPD) in hospital diagnosed as schizophrenia. Data were collected over the of 7

months from Augest 2012 to May 2013. The inclusion criteria for such patients were age (should be between 18 and 65), patients diagnosed as a case of schizophrenia according to ICD-10 (International Classification of Disease and Related Health Problems-10) with at least 2 years of duration of illness. Exclussion criteria for the patients were they should not be suffring from neurological disorders such as seizures, movement disorders, cerebral palsy, or any other co-morbid psychiatric disorders or chronic disorders or using any pharmacological interventions other than psychiatric drugs. Only those patients were enrolled in the study who met all the inclussion criteria and none of the exclussion criteria. All the patients were approched to participate in the study during the study period. Administrative approval for the study was obtained from the head of the departments of the hospital. After obtaining formal permission from participants, the investigator explained the aims and methods of the study to all participants. Questions regarding the study were invited from the participants and they were given freedom to leave the study whenever they desire. A total of 60 patients were consented for the study.

The data were collected using a self-administered pre-tested semi-structured questionnaire. A questionnaire booklet was developed covering the following domains: Socio-demographic profile, clinical data sheet, and a self-made checklist to assess the factors associated with relapse with interrater reliability found to be Kappa = 0.68.

Data were entered in an MS excel sheet. Descriptive analysis such as mean, Standerd deviation (SD), frequency and persentage were used for quantitative and categorical data respectively. Contengency table were made. Analysis were performed through Statistical Package for Social Sciences version 16.0 software (SPSS Inc., Chicago, IL, United Staets).

Results

Table 1: Showing non-compliance due to poor communication between doctor-patient relationship:

Variables		Agree		Uncertain		Disagree	
		F	%	F	%	F	%
Non-compliance due to poor communication between doctor patient relationship	Inadequate information by doctor	6	10.0	1	1.7	53	88.3
	Doctor was rude, careless and unconcerned	0	0	1	1.7	59	98.3
	Competence of doctor doubtful	0	0	0	0	60	100.0
	Doctor not accessible	28	46.7	0	0	32	53.3
	Inexperienced and low confident doctor	0	0	0	0	60	100.0
	Doctor shopping due to slow improvement	5	8.3	1	1.7	54	90.0
	Patient could not communicate problems effectively	42	70.0	0	0	18	30.0

Table 2: Showing the frequency and percentage related to adherence:

Variables		Agree		Uncertain		Disagree	
		F	%	F	%	F	%
Adherence	Substance use	22	36.7	1	1.7	37	61.7
	Side-effects	40	66.7	1	1.7	19	31.7
	Caregivers afraid of side-effects	12	20.0	1	1.7	47	78.3
	Patient refuses treatment due to side-effects	21	35.0	1	1.7	38	63.3
	Caregivers not prepared to tackle side-effects	27	45.0	1	1.7	32	53.3
	Patient refuses regular treatment	35	58.3	0	0	25	41.7
	Poor insight	38	63.3	0	0	22	36.7
	Caregivers forget to give medication	5	8.3	0	0	55	91.7
	Patient throws medicine	20	33.3	0	0	40	66.7
	Patient is responsible to take treatment	13	21.7	4	6.7	43	71.7
	Medication not accessible	35	58.3	2	3.3	23	38.3
	Costly Medical health services	29	48.3	4	6.7	27	45.0
	Patient refuses too many medication	38	63.3	0	0	22	36.7
	Caregivers manipulate treatment	7	11.7	2	3.3	51	85.0
	Poor Patient education	17	28.3	1	1.7	42	70.0
	Caregivers afraid of addiction to medication	18	30.0	1	1.7	41	68.3
	Patient doubts effectiveness of treatment	1	1.7	0	0	59	98.3
	Patient hopeless of cure	1	1.7	0	0	59	98.3
	Long duration of treatment	42	70.0	0	0	18	30.0
	Patient needs accompaniment to the clinic	53	88.3	0	0	7	11.7

Table 3: Showing the frequency and percentage of factors related to family role in caring for patients

Variables		Agree		Uncertain		Disagree	
		F	%	F	%	F	%
Family role in caring for the client	Patient discharged without adequate information.	49	81.7	1	1.7	10	16.7

	Caregivers lack skills to deal with Patient at home.	49	81.7	0	0	11	18.3
	Caregivers forget follow-up dates.	5	8.3	0	0	55	91.7
	Poor follow-up due to festival/workload in fields etc.	10	16.7	0	0	50	83.3
	Caregivers over-protective	27	45.0	0	0	33	55.0
	Caregivers don't recognize symptoms.	1	1.7	2	3.3	57	95.0
	Caregivers pass critical comments	35	58.3	0	0	25	41.7
	Caregivers physically punish patient	13	21.7	0	0	47	78.3
	Patient teased/ called insane.	15	25.0	0	0	45	75.0

Table 4: Showing frequency and the percentage of the factors related to family perception regarding issues of access:

Variables		Agree		Uncertain		Disagree	
		F	%	F	%	F	%
Family perception regarding issues of access	Distant clinics/hospitals	28	46.7	0	0	32	53.3
	Costly transport	22	36.7	1	1.7	37	61.7
	Hospitals should not be closed over holidays	53	88.3	0	0	7	11.7
	Poor road conditions	21	35.0	0	0	39	65.0
	Poor transport facility	20	33.3	0	0	40	66.7
	Lack of supporting hands to take patient to hospital.	53	88.3	0	0	7	11.7
	Mental health professionals not within reach.	28	46.7	0	0	32	53.3
	Life events	22	36.7	6	10.0	32	53.3

Table 5: Showing the frequency and the percentage of the factors related to the societal stigma

Variables		Agree		Uncertain		Disagree	
		F	%	F	%	F	%
Societal stigma	One shouldn't be related to mental ill person.	12	20.0	0	0	48	80.0
	Prefer institutionalization to keep them away.	3	5.0	1	1.7	56	93.3
	Community members do not associate with mentally ill.	43	71.7	1	1.7	16	26.7
	Community leisure activities not for mentally ill.	6	10.0	1	1.7	53	88.3
	Mentally ill can't learn.	50	83.3	0	0	10	16.7
	Not accepted by Community members	43	71.7	1	1.7	16	26.7
	Poor work facility in community for mentally ill.	57	95.0	2	3.3	1	1.7
	Mental illness are not medical problems	1	1.7	7	11.7	52	86.7
	Medicines deteriorate functionality & health.	1	1.7	4	6.7	55	91.7
	Marriage best solution.	28	46.7	10	16.7	22	36.7

Discussion

The present study was conducted to identify the factors associated with relapse of schizophrenic patients. For this purpose 60 schizophrenic patients, both male and female were included along with their caregivers. The socio-demographic details and clinical details of the study have been discussed in the previous paper [5].

Non-compliance due to poor communication between doctor-patient may be a factor for relapse.

In this study, majority of the persons agreed that the patients had difficulty in communicating their problems effectively (70.0%) leading to relapse. This result was supported by the study conducted by a similar study that indicated poor communication skills among the mentally ill [6]. In a study, it was found that the single best predictor of medication compliance among discharged schizophrenia patients was the patient's perception of the physician's interest in him or her as a person [7]. In a similar study it was found that, compared with patients who refused medications, schizophrenia inpatients who consented to neuroleptic treatment rated themselves as more satisfied with ward staff and their own physicians and felt that their physicians understood them, had their best interests in mind, and had explained the reasons for taking medications and their potential side effects [8].

Poor adherence is considered as a prominent factor for relapse. According to the results of this study (Table 2) most of the patients (66.7%) were having side effects. Similar findings were reported in a similar study in which they found that almost all patients mentioned side effects of various medications, such as, sleepy, weakness, powerless, dizziness as a deterrent to compliance [9]. A similar study concurs with these findings and describes drug side effects as dry mouth, tremors, and stiffness as well as increased salivation [10]. In present study 58.35% respondents agreed that medication was not accessible, which is similar to the findings suggested by similar study [11]. Many patients (36.7%) were abusing substance which is similar to the previous studies being conducted [12, 13, 14] with a greater risk of re-hospitalisation [15]. Majority of the participants (63.3%) agreed that patient refuses too many medication, 58.35% agree that patient refuses to take regular treatment, 33.3% patients were throwing away their medicines, 28.3% patients were poorly educated about treatment. In a similar study it was viewed that the inefficacy and poor tolerability of typical antipsychotic medication can be responsible for relapse [16]. Most of the participants (63.35%) had poor insight that is consistent with a similar study which shows that 27.6% patients having no insight is the most prevalent cause for non-compliance [17]. 88.3% respondents agreed that patient needs accompaniment to the clinic that is similar to the findings observed in a study [6]. 70.0 % respondents agree having difficulty with the long

duration of the treatment & 48.35% caregivers found Mental Health services to be very costly, this was supported by a similar study [18]. Moreover, poor drug compliance in turn again increases the cost of treatment. Studies consistently show an increase in psychiatric hospitalizations when patients are non-adherent to their medications [19, 20, 21, 22, 23]. 30% caregivers were afraid of addiction to medication while 11.7% caregivers manipulated the treatment causing relapse. A similar study showed the importance of family education about schizophrenia and treatment, as this helped the relatives to acquire skills to help patients and their families to cope more effectively with the disruptive results of their illness [24]. Adherence is encouraged by family caregivers through support in reminding clients with mental illness to take their medications regularly that is supported by a similar study findings [25].

Majority of respondents agreed that the patients were discharged with inadequate information about the medication and other related ideas (81.7%) & equal number of caregivers agreed that they lack skills to deal with the patient at home. In a study it was viewed that family members are frightened and confused by their family member's strange new beliefs or behaviors, decreased energy levels, loss of motivation, or cessation of usual activities [26]. 58.3% caregivers accepted passing critical comments & 15% respondents called the patient insane consistence with previous researches that has been shown to be predictive of relapse after discharge from hospital treatment over a period of 9 months to 2 years [27]. On the other hand, 45.0% caregivers overprotect the patient. Emotional over-involvement demonstrates a different side compared to hostile and critical attitudes but is still similar with the negative effect that causes a relapse [28]. 21.7% caregivers physically punish the patient. This finding is consistent with most studies that have found a relationship between negative family environments (attitude and level of support from people in the individual's life) and relapse [29, 30, 31]. 16.7% had poor follow-up due to festival or workload, 8.3% forget follow-up dates while 5.0% respondents didn't recognize symptoms. Awareness and insight, not just on the part of the patient but also on the part of the family, appear to have a beneficial impact on adherence [32].

Results regarding issues of access (Table 4) indicate that 88.3% caregivers agree that hospitals should not be closed on holidays 88.3% caregivers agree that they lack supporting hands to take patient to hospitals. 46.7% find clinics to be distant while 46.7% did not had mental health professionals within reach, 36.7% found transport to be very costly, 36.7% had life events such as marriage, birth of child, death, separation etc., 35.0% reported poor road conditions & 33.3% reported poor transport facility as probable reason for relapse. The findings of the study are consistent with a similar study [6]. These findings can be explained in the light of the fact that in India there is a huge lack of mental health professionals in proportion to their need followed by shortcoming of the services in rural areas thereby causing poor adherence and in turn relapse.

Regarding the factors associated with societal stigma results indicated that majority (95.0%) caregivers agree of poor work facility in community for mentally ill, for 86.7% caregivers disagree that mental illness are not medical problems, 83.3% of them feel that mentally ill can't learn, 71.7% respondents agree that the patient are not accepted by community members & equal number agree that community members do not associate with mentally ill persons, 46.7% respondents viewed marriage as the best solution, 20% respondents felt that they should not be related to the mentally ill person, 10% agreed that community leisure activities are not for mentally ill, 5% prefer institutionalization of the patient to keep them away, 1.7% viewed that medicines deteriorate functionality and health (Table 5). Findings that community members do not associate with mentally ill persons, is supported by a similar study [6]. In a similar study, it was also found that patients attributed relapse to lack of social support (20%) [25]. Many respondent's belief that marriage is the best solution may be because many of them belong to rural area so they have lack of awareness and proper education. In the same respect, the study conducted in Chicago demonstrated that family members experience stigma through their association with the person with mental illness [33]. In a similar study, it was found that the direct effects of hospitalization and the resulting psychosocial consequences place a huge burden on caregivers and relatives and may lead to difficulties in their relationship with the patient [34]. The impact of societal stigma (e.g. social avoidance and rejection, low expectations, prejudice, and discrimination directed at an individual or group) poses a challenge to the full social integration of persons with psychiatric disabilities, since it interferes with their efforts to develop friendships, find employment, or join organized groups and community activities [35].

Conclusion

The present study was an attempt to find out the factors associated with relapse in patients with schizophrenia and for this purpose samples were taken from inpatient and outpatient department of Post Graduate Institute of Behavioural and Medical Sciences.

Thus, it can be concluded that relapse is a cumulative effect of many factors. As frequent relapse are responsible for increasing severity, chronicity & poor outcome of illness despite of the fact that many patients of schizophrenia can maintain a symptom free life with proper treatment, prompt steps should be taken to tackle the problem of relapse. These include detailed and frequent psychoeducation to patient and family, emphasis on more outreach programmes, prescribing optimal number of drugs with less side-effects & developing & implementing programmes to deal with stigma towards mental illness and patients rehabilitation in community.

Thus, the important implication of this study is to provide us better psychoeducational skills for the early identifications, complications due to illness and mental health care in the family as well as in the community level. Also, it has an important role in counseling to the patient and their caregivers during the discharges from the hospital. Other implication such as making a proper management plan for the patients and their caregivers.

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