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BRIEF REPORTS

The Flip-Side To Readmission:
Focussed After-Care

Instructions for Authors

Manuscripts submitted for publication should not exceed 4000 words and follow the style of the Canadian Journal of Psychiatry. The manuscript should be arranged in the following order:

(1) Title Page; (2) Structured Abstract including the following sub-headings: Objective, Method, Results, and Conclusions, Clinical Implications and Limitations, and up to 10 Key Words; (3) Body Text (4) Funding Support and Acknowledgements; (5) References; (6) Tables and Figures.

Brief Report manuscripts may be submitted for publication and should not exceed 1500 words. The *Brief Report* manuscript should include the following:

(1) Title Page; (2) Succinct Abstract (with no sub-headings); (3) Background Highlights (with a clear 'purpose' statement); (4) Method; (5) Results (using a maximum of 1 table or figure if necessary); (6) Conclusions (a concise outline of clinical implications and/or expected outcomes).

The Canadian Journal of Psychiatry guidelines should be observed in all other respects.

The Editor may be approached for any unique manuscript stylistic variations required by the subject matter.

Brief Reports

THE FLIP-SIDE TO READMISSION: FOCUSSED AFTER-CARE

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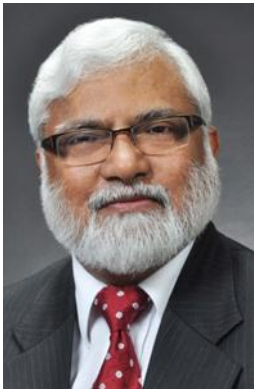
Suicidality in hospitalized early psychosis patients at time of discharge

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Key words

Suicidal Risk, Hospital Admission, Early Psychosis**,** Follow-up Care, SIS-MAP

ABSTRACT

The purpose of this study was to investigate the presence and nature of suicidal risk among early psychosis patients at the time of <u>discharge</u> from hospital. Is it only related to the involvement of a suicidal attempt at admission? Thirty such patients, who were admitted after a suicide attempt were compared with 30 patients similarly diagnosed, but admitted for clinical reasons not involving a suicide attempt. Dependent measures of psychopathology, adjustment and suicidality were used. It was found that the two groups did not differ in suicidality, which was measured by the Scale of Impact of Suicidality - Management, Assessment and Planning of Care (SIS-MAP). We also compared low and high SIS-MAP scorers in the entire sample. It was found that male gender, older age of onset of illness, alcoholism, cannabis abuse and acuity of the clinical state were predictive of higher suicidality scores. This highlights the need to attend to suicide prevention during follow-up care of these patients on leaving hospital, whether or not a suicidal attempt was present in the index episode.

Abbreviations

BPRS	Brief Psychiatric Rating Scale
DSM IV	Diagnostic and Statistical Manual of Mental Disorders (4th version)
GAF	Global Assessment of Functioning Scale
HDRS	Hamilton Depression Rating Scale
SIS-MAP	Scale of Impact of Suicidality - Management, Assessment and Planning of Care

Background Highlights

The decision for selecting patients for aftercare programs, particularly from a perspective of preventing post-discharge suicide is a critical one. This is because the risk for post-hospitalization suicide is high for almost all the patients being discharged, and especially so for persons suffering through the early phase of schizophrenia[1, 2]. However, in clinical practice, it is generally believed that certain patients being discharged have a higher risk, particularly those admitted after making an attempt; therefore, patients with a suicide attempt as a key 'admitting feature' are preferred for aftercare programs. The question then arises whether those admitted without any suicide attempt are at low risk for future suicide.

Previous suicide attempts are a well-recognised risk factor for repeated suicide attempts particularly during hospitalization and after discharge[3]. However, a number of patients presenting without a precipitating suicide attempt may harbour serious suicidal ideas and are then equally at risk. In an acute psychiatric ward, approximately 60-70% patients are admitted either due to a suicide attempt or a suicidal crisis[1]. Recently, a study showed that

52.2% of all patients admitted had suicidal ideas at admission and 19.7% had attempted suicide[3].

Are those whose admission was *not* triggered by a suicide attempt judged as carrying a low risk for suicide after discharge? It is possible that the risk level of these patients has not been examined comprehensively. This assumption needs to be tested, at least for patients in the early stage of schizophrenia. Our hypothesis is that irrespective of the nature of the precipitating event, patients in this group carry a risk of developing suicidal inclinations in the follow-up period.

Methods

This 'open label', comparative cross-sectional cohort study took place in a naturalistic set up of an acute psychiatric ward of Regional Mental Health Care, St. Thomas[A], which received referrals from the Emergency Room of the general hospital in the same city. The sample of this study consisted of 60 hospitalized patients suffering from early psychosis, 30 admitted after attempting suicide and 30 for an acute state not involving a suicide attempt. Only

[A] Regional Mental Health Care St. Thomas closed in June 2013 with the opening of the Southwest Centre of Forensic Mental Health Care.

patients diagnosed with schizophrenia as per DSM IV were included in the study.

We assessed these patients prior to discharge for psychopathology and suicidality. Psychopathology was assessed using the Brief Psychiatric Rating Scale (BPRS)[4], and the Hamilton Depression Rating Scale (HDRS)[5]. Current level of stress / functioning was assessed by the presence (or not) of an adjustment disorder and standing on the Global Assessment of Functioning Scale (GAF). Level of suicidality was assessed by the Scale of Impact of Suicidality - Management, Assessment and Planning of Care (SIS-MAP)[6].

Results and Discussion

SIS-MAP scores indicating level of suicide risk had a mean of 28.5 (SD = 10.2) indicating a high level of suicidality in the full sample. Consistent with our hypothesis, the results showed no significant difference in SIS-MAP risk scores between patients admitted with a suicide attempt versus those without, suggesting that suicide attempts at time of admission are not a good indicator of level of risk in psychiatric

inpatients at the time of discharge. Those admitted with a previous attempt (M = 29.5, SD = 12.0) did not differ significantly in suicide risk from those admitted without a previous attempt [M = 27.5, SD = 12.5), t (58) = 0.63, $p <$, .53]. It seems that a number of patients admitted without a suicide attempt may remain at equally high risk of suicide, particularly during the post-discharge period.

We also compared patients who scored low versus high in suicidality according to the SIS-MAP to determine those factors that were predictive of risk (see Table 1). We found that male gender, older age of onset, alcoholism, cannabis use, and clinical symptoms were all associated with higher suicide risk scores. Thus, our results suggest that these factors should be taken into consideration at the time of discharge for determining those patients most in need of post-discharge aftercare. Risk of suicide at the time of discharge does not only depend upon whether or not the patient was admitted due to an attempt.

Table 1: Psychopathology at the time of discharge among low and high scorers (all patients with early psychosis) on the SIS-MAP suicidality scale [a]

	Overall Sample n = 60	SISMAP > 30 n = 25	SISMAP < 30 n = 35	Statistics for SISMAP group comparisons
Age (years)	26.5 (4.6)	28.3 (5.8)	24.7 (4.3)	t=2.76 **
Illness deviation (months)	32.5 (9.4)	30 (10.4)	35 (5.0)	t = 2.48 *
Age of onset of illness (years)	21.5 (2.5)	24.5 (2.3)	18.5 (2.1)	t = 10.19 ***
Sex - male	31.5 (51%)	19 (76%)	12 (34.4)	χ^2=8.56 **
Suicide attempt (pre-admission)	27 (45%)	19 (76%)	12 (34.4)	χ^2=8.56 **
HDRS	21.2 (2.5)	24.6 (3.7)	17.8 (7.9)	t = 4.00 ***
BPRS	82.5 (12.4)	95 (8.5)	70 (6.7)	t = 12.73 ***
GAF	59.2 (17.5)	67.6 (7.0)	50.8 (8.3)	t = 8.23 ****
Adjustment Disorder (co-morbid)	21 (35%)	5 (20%)	16 (45.7%)	χ^2=3.18
Substance Abuse (co-morbid)	40 (66.6%)	21 (84%)	13 (37.1%)	χ^2=11.2 ***
Alcoholism (co-morbid)	35 (58.3%)	25 (100%)	10 (28.5%)	χ^2=27.7 ****
Cannabis Abuse (co-morbid)	47 (78.3%)	24 (96%)	23 (65.7%)	χ^2=6.24 **
SISMAP	28.5 (10.2%)	38.5 (3.2%)	18.5 (2.1%)	χ^2=29.24 ****

[a] mean and (standard deviation) are given for continuous variables

* *p* < .02; ** *p* < .01; *** *p* < .001; **** *p* < .0001

This study shows that persistent suicide risk among those who were *not* admitted after an attempt should be a serious clinical concern. About 50 to 60% of hospitalized psychiatric patients have suicidal ideations, which are reliable markers of suicide. We would contend that such patients remain at high-risk, and depending upon a number of psychosocial and environmental factors, these patients do attempt suicide. Severity of suicidal ideation also fluctuates from time to time and predicting suicide among these patients is difficult. This is probably one of the reasons contributing to high post-discharge suicide rates.

Conclusion

We conclude that a large number of patients suffering from early psychosis remain at high risk at the time of discharge and a significant number of patients admitted without a suicide attempt carry equivalent risk to those admitted with an attempt. Early intervention programs for management of schizophrenia can play a key role in suicide prevention by providing easy access to care for vulnerable young people with mental health services[7]. We believe that care plans need to be guided by considerations of the risk of suicide. Assessment of risk should include established risk factors, as well as the current mental state and there should be clear follow-up procedures for those who have self-discharged.

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Resilience, psychopathology and hospitalization:

Findings from the pilot phase of a study

of re-hospitalization in a tertiary psychiatric facility

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ABSTRACT

In order to investigate whether lower resilience contributes to re-hospitalization, we compared 12 first admissions with 22 re-admissions with measures of resilience, psychopathology, suicidality and life stress. The two groups only differed significantly on higher clinician–rated depression among first admissions. Within the entire group (n=32), there were highly significant correlations of resilience with life events in the past year (r=.41, p<.01) and suicidality (r=.42, p<.001). The individual response to stress is implicated in the latter two variables. Hence, a preventive strategy for repeated hospitalization needs to address specific areas of vulnerability on a case by case basis with the overall objective of bolstering resilience.

Abbreviations

BPRS	Brief Psychiatric Rating Scale
CD-RISC	Connor-Davidson Resilience Scale
HDRS	Hamilton Depression Rating Scale
HRSS	Holmes and Rahe Life Events Scale
SISMAP-bcn	Scale for Impact of Suicidality – Management, Assessment and Planning of Care–brief screener

Background Highlights

Resilience is a Psychobiological Construct

The measurement of treatment outcomes of mental disorders is constantly evolving and the concept of recovery has undergone a revolutionary change. Of late, 'recovery' achieved in areas of positive mental health has received attention. It has been suggested that a patient's treatment should be gauged by how much the patient can reach a state of 'wellness' from a state of 'illness'. There is growing evidence that resilience is a key driver involved in developing positive psychological traits, such as optimism, social engagement and achievement[1]. Hence, an individual's ability to adapt and recover from adversity leads to better health and wellbeing.

Resilience is a dynamic process enabling an individual to successfully adapt to severe adversities. It entails personal traits and characteristics that can aid in such adaptation. After experiencing an adverse life event, resilience helps a person "bounce back" to normal[2]. Resilience comprises the ability to cope with stress and other protective factors that inhibit the development of psychopathology[3].

Resilience also has a strong neurobiological basis. There are genetic and environmental factors, which contribute to a sustained pathophysiological process. From a genetic perspective, resilience is defined as the quality that prevents individuals who are at genetic risk for maladaptation and psychopathology from being affected by these problems[4].

Resilience, Psychopathology and Re-hospitalization

Past studies have found that repeated hospitalizations leads to economic drain, disability, poor outcome, stigma and discrimination[5]. Repeated hospitalizations are one of the main causes of disability and dysfunction amongst the mentally ill, as well as an inefficient use of the mental health budget. A negative correlation has been cited in the literature between patient length of stay and the number of treatment staff employed by institutions[6].

Identifying the potential risk factors for repeated hospitalization and interrelationships between risk factors and vulnerability will help us take the appropriate measures to prevent hospitalization and promote care in the community[6]. If resilience is deficient, the resulting pathology and management may become more complex. In this study, we are

presenting preliminary findings as to whether resilience should be an area of therapeutic focus.

Objectives

The goal of the present study was to determine the role of psychopathology and resilience in repeated hospitalizations.

Methods

We recruited a convenience sample of 34 consenting patients from the inpatient and outpatient programs between the age ranges of 18 to 60 years. Differences in age, gender and diagnostic distributions between the Admission=1 and Admission>1 sub-groups were found to be not significant statistically (see Table 1).

Table 1:   Demographic Characteristics [a]

	1 Admission Only (n=12)	>1 Admission (n=22)	Statistic
Age – M (SD)	37.9 (16.4) years	42.6 (18.2) years	$t = .74$
Gender – Male	8 (66.7%)	15 (68.2%)	$\chi^2 = .008$
Psychiatric Diagnoses:			
Developmental Handicap	2 (20.0%)	0 (0.0%)	$\chi^2 = 1.46$, Fisher's P=.12
Childhood Disorder	0 (0.0%)	1 (5.0%)	$\chi^2 = .56$, Fisher's P=1
Substance-related	1 (10.0%)	3 (15.0%)	$\chi^2 = .21$, Fisher's P=1
Schizophrenia	1 (10.0%)	3 (15.0%)	$\chi^2 = .21$ -.08, Fisher's P=1
Mood Disorder	3 (30.0%)	10 (50.0%)	$\chi^2 = .65$, Fisher's P=.29
Anxiety Disorder	4 (40.0%)	5 (25.0%)	$\chi^2 = .07$, Fisher's P=.69
Sleep Disorder	3 (30.0%)	2 (10.0%)	$\chi^2 = .73$, Fisher's P=.32
Personality Disorder	0 (0.0%)	3 (15.0%)	$\chi^2 = .50$, Fisher's P=.29
Other	4 (40.0%)	3 (15.0%)	$\chi^2 = .84$ Fisher's P=.21

[a] This table contains primarily descriptive information. None of the statistics were significant using 2-tailed values of probability. The Fisher Exact Test (Fisher) was also used with nominal variables. Still, statistical inferences should be made with caution where cell sizes are small.

These patients were assessed for clinical and psychopathological parameters. A semi-structured format was used for collecting clinical details. Standard psychometric tools were used for measuring

psychopathology of psychosis, depression, life events, current psychosocial stress and resilience. These were: the Brief Psychiatric Rating Scale (BPRS)[7], Hamilton Depression Rating Scale (HDRS)[8], Holmes and Rahe Life Events Scale (HRSS)[9], and Connor-Davidson Resilience Scale (CD-RISC)[10] and Scale for Impact of Suicidality – Management, Assessment and Planning of Care – brief screener (SISMAP-bcn)[11]. We investigated group differences between Admission=1 and Admission>1 groups and examined correlations among the clinical parameters given above. Data was analyzed using the Statistical Analysis Software System. We also studied group differences on the CD-RISC scale using as cut-offs scale scores at 40, 50 and 60.

Results

As shown in Table 2, the 'admission' groups differed symptomatically only with respect to depression, with higher HDRS scores favouring the 1- admission group. The two groups did not differ in their resilience scores.

Table 2: Differences between one, and more than one admission groups [a]			
	1 Admission Only (n=12)	>1 Admission (n=22)	Statistic
Suicide attempt	4 (36.4%)	15 (68.2%)	χ^2 = 3.825
Suicidal ideation	10 (90.9%)	19 (86.4%)	χ^2 = .05
BPRS	75.3 (23.3)	64.6 (24.6)	t =1.25
CD-RISC	49.1 (13.0)	51.7 (17.6)	t = .46
CD-RISC>40	10 (83.3%)	17 (77.3%)	χ^2 = .17
CD-RISC>50	6 (50.0%)	12 (54.6%)	χ^2 = .06
CD-RISC>60	3 (25.0%)	5 (22.7%)	χ^2 = .02
HRSS	425.5 (270.8)	434.6 (238.1)	t = .097
# Life events in past year	4.5 (3.0)	3.5 (3.2)	t = .91
HDRS	22.6 (8.2)	16.5 (7.5)	t = 2.13 *

[a] mean and (standard deviation) are given for continuous variables; * p<.05

Correlations within the total sample of admitted patients given in Table 3 show the following significant associations. Resilience is positively correlated with overall exposure to stressful life events (r =.41, p<. 036), life events in previous one year (r=.41, p<. 017) and negatively correlated with suicidality as measured by SIS-MAP (r=-.42, p<.012).

Table 3: Correlations between psychosis, depression, psychosocial stress and resilience variables					
	CD-RISC	HRSS	Life events past year	HDRS	SISMAP-bcn
BPRS	-0.20	-.14	.05	.66***	.29
CD-RISC		.41*	.41**	-.24	-.42**
HRSS			.61***	-.01	-.01
#Life events in past year				.15	.04
HDRS					0.16

* p < .05, **p < .01, ***p < .001

Discussion

The results show that there are significant patient-related factors e.g. experience of life events/trauma, chronic suicidality and unremitted symptoms, which are the primary cause of hospitalization. The nature of the illness, the nature of treatment and systemic issues may not be significantly involved in re-hospitalization.

Results of the pilot phase of this study show that levels of resilience are negatively associated with the level of stress and suicidality. These are key factors contributing to hospitalization in general. It is well documented that acute stress levels can precipitate an illness eventually resulting in a hospital admission[12] and suicidality leads to a 30-60 % increase in hospitalization admissions[13].

In the present pilot study, we found no clear association of resilience with repeated hospitalizations. Our sample entirely consisted of admissions to one tertiary care hospital. Ours is a catchment area based service, so that most of the patients are admitted in the same hospital. Hence, patients do provide information about hospital

admissions which have taken place in areas around the city.

Individual characteristics of adaptation to stressful events or their cumulative effect play an important role in psychopathology. From our preliminary data, it would appear that resilience is important for re-hospitalization because it affects response to stress and suicidality. It is not well understood if resilience is a modifiable or non-modifiable characteristic and whether developing any strategy to deal with resilience can help in preventing hospitalization. It is, however, an interesting area for future research.

Conclusions

We conclude that stressful life events and suicidality are some of the factors related to resilience. A preventive strategy for repeated hospitalizations needs to address such specific areas of vulnerability on a case by case basis. Completion of our study is expected to provide a broad range of information.

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