Research Paper

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Recurrent Admission: Perspectives of Patients From A Major Caribbean Psychiatric Hospital

Medical Science

KEYWORDS :Caribbean, Psychiatry, Readmission, Developing countries.

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ABSTRACT

Background: The aim of this study was to determine the perspectives of the patients about the factors responsible for their readmission into the local hospital. This is predicated on the high level of readmission termed revolving door at the local hospital. The implications of the high readmission rate have been documented as well as the factors associated with it. There has not been any local study on the subject. Methods: A cross-sectional study was undertaken with 60 volunteer-patients conveniently but proportionally selected from all the admission wards of the local hospital using a pre-tested questionnaire. Data was analysed using the SPSS. Result: Results show that most of the readmitted patients were single, and unemployed. It also shows strong significant relationships between patients' agreement to some of the factors with some of their demographic characteristics. Discussion: The findings were discussed based on literature as well as their implications. Conclusion: Demographic characteristics of the patients play a major role in their readmission. The demographics also play major role in their responses to the items on factors associated with their readmission

Introduction

Mental Health problems are of major importance to all societies and are significant contributors to the burden of disease and the loss of quality of life with huge economic and social costs (Impey & Milner, 2012).

Current trend in care for the mentally ill has been to encompass community care setting. Deinstitutionalisation has led to progressively shorter hospital stays and has raised concern for patient welfare and discharge. With patient discharged from psychiatric facilities now expected to be maintained in the community, readmission has become one of many outcome indicators used to assess the effectiveness of psychiatric services (Thornicroft & Tansella, 2004). Being both costly to health services and disruptive to the patient, readmission is usually interpreted as a failure in the mental health system. As a result, research on readmission has frequently taken the form of discharge follow-up investigations (Rosenblatt & Mayer, 1974, Heslin & Weiss, 2015).

The provision of adequate, fair, just and equitable care for patients in developing countries is one of challenges faced by policy makers in the 21st century. The burden of psychiatric disorders and other chronic diseases continues to develop unchecked. These concerns are compounded by un-moderated population growth, continuing economic constraints and unparalleled socio-economic and geo-political changes. Instituting psychiatric care into primary care has remained inadequate and psychiatric services have remained centralised in the larger and more developed towns and cities (Jaramillo-Gonzalez, Sanchez-Padraza & Herazo, 2014).

Mary, Bob, Carlos, Kelly and Kevin (2008), posited that proper discharge planning can curb the increased incidence of the revolving door syndrome. While Alghzawi (2012), adds that collaborative effort between hospital staff, the patient, family and community aftercare agencies can provide vital linkages needed for effective aftercare.

Zhang, Harvey & Andrew (2011), indicated that some of the reasons for readmission are: inadequate education to client and care givers (disease process and treatment); poor–medication compliance; poor individual insight (motivation, self-esteem issues, cognition); type and duration of psychotherapy (individual, group, music, art, dance, physical etc.); improper discharge planning; lack of multidisciplinary team; inadequate community services and inadequate family support. Studies have observed that readmission into psychiatric hospitals may be indicative of incomplete in-patient treatment during an earlier admission or poor follow-up after discharge, or reflect a breakdown in the service delivery system (Yussuf, et al. 2007; Romansky, Lyons, Lehner & West 2003).

Rehospitalisation has been influenced by many factors and is assessed within the context of each health care system. It is used as an indicator of whether social networks will accept mentally ill patients, and in more recent times the quality of health care available (Jaramillo-Gonzalez, Sanchez-Padraza & Herazo, 2014). The recurrent admission (revolving door phenomenon), has considerable economic burden ranging from decreased productivity to increased financial costs in both developed and undeveloped nations. Admission wards experience a high rate of readmission of psychiatric patients. Patients whose mental health have improved (to a functional level) are granted discharge and home leave (Impay & Milner, 2012).

Neto and da Silva (2008), alluded that a significant number of studies have been seeking to understand the high readmission rates of psychiatric patients, a phenomenon popularized under the name "revolving door". The association between the utilization of services and treatment outcome is very complex and may depend upon many factors other than the clinical variables. The readmission rate has been found to be associated with severe mental disorder, longer duration of illness, earlier onset of mental illness, worse condition at discharge, co-morbid alcohol or drug problems, present heavy use of inpatient psychiatric resources or frequent previous hospitalization, and poor adherence to medication. Social and demographic factors, such as being unmarried, unemployed, inadequately housed, poorly integrated in the community, involved in the criminal justice system, involuntarily hospitalized at first admission and being unable to gain access to adequate aftercare resources have also been identified as being associated with frequent use of inpatient psychiatric services. Institutional aspects, such as bed availability, also seem to be relevant to the readmission phenomenon.

In Trinidad, all patients who are discharged or granted home leave are released from hospital under the care of relatives or care givers to their respective sector clinics. Before patients leave for their homes with their families, they receive health talks (education) about referral letters to continue treatment at home via sector clinics and are advised to go for follow-up appointments in their sector clinics every 1 to 3 months (discharge plan). Within a short space of time (1 to 3 months) the patients more often than not, are returned to the hospital's admission ward by family, with one or more of the following: the patients are aggressive, depressed, non-compliant to medication, while some other psychiatric symptom may be displayed. Others are brought to the institution by district mental health officers or policemen. These form major handicap to the health care system with its numerous implications (Helsin & Weiss, 2015; Schumette, Dunn & Sledge 2010).

The present study investigated readmission to a psychiatric hospital in Trinidad and Tobago that was opened in 1900 and now serves a larger population than was originally intended. According to the year-end annual census report of the Caribbean Psychiatric Hospital, it was noted that in 2013 a total of 1904 patients were admitted. The number of admissions for that same year was 1369 patients (72%). In the year 2014 there was 1913 admissions while 1381 patients ((72.19%) were re-admitted. This report showed that more than 70% of the patients admitted to the institution, for both years, were patients who were readmitted to the institution at least three times before (Annual Census Report; SAPH, 2013-14).

We have observed that there is no Caribbean perspective in any of the studies reviewed in this subject. This is an attempt to study the factors that influence the recurrent admission (revolving door phenomenon) at a Caribbean Psychiatric Hospital, in lieu of the trends observed. As a result, the investigators are determined to ascertain the factors affecting the multi-admissions of the patients to this local psychiatric hospital. It is envisaged that the finding will assist the policy makers on issues related to mental health services in Trinidad and Tobago.

Research Objectives

To determine the readmitted patients at the selected mental health institutions in Trinidad and Tobago.

To explore the contribution of (a) family, (b) hospital and (c) social/environmental factors on the patients' readmission to the mental health institution.

To ascertain if the patients' demographic characteristics (gender, ethnicity, marital status, educational level and occupation) are associated with (a) family, (b) hospital and (c) social/environmental factors at the selected psychiatric hospital.

Research Questions

What are the demographic, clinical (hospital) and social and environmental characteristics of patients readmitted to a selected Psychiatric Hospital?

Do (a) Family, (b) hospital and (c) Social and environmental factor contribute to the readmission of patients at the mental health institution in Trinidad and Tobago?

Are there any association between the patients' responses to the factors associated with their readmission to the mental health institutions and their demographic characteristic?

Methodology

Design

This is a descriptive quantitative study aimed at exploring readmission of psychiatric patients at the hospital using a questionnaire. A cross-sectional survey was used because it provided information about what the investigators intended to find out at a point in time (Abramson and Abramson, 1999). Also, an ex-post facto research design was undertaken as the study attempted to find out if there are significant relationships among the independent variables (age, gender, marital status, ethnicity, occupation, residence etc.) and the dependent variables (hospital factors, social and environment factors, and family factors), in determining the readmissions at the Caribbean Psychiatric Hospital (Wiersma, 1991).

Population of Study

Sixty (60) warded patients were conveniently but proportionally selected from the admission wards (wards 1,2,3,4,5,8,9 & 16 & 27) of the selected psychiatric hospital to constitute the study sample. Thus five (5) patients were selected from wards 1, 2, 3, and 4, which have a capacity of 10 patients each, and ten (10) patients were selected from each of wards 5, 6, 9/16, and 27. These wards have a bed capacity of 40 each. All selected patients must have been admitted at least 3 times, between ages 18 and 65 years, and must have the capacity to and have provided an informed consent to participate in the study. The location is St Ann's Psychiatric Hospital in Trinidad and Tobago. The study was conducted for the admission wards of this Caribbean Psychiatric Hospital with wards:1, 2,3,4,5, 6, 9/16 and 27.

Ethical consideration

Permission was obtained from the University of the West Indies Ethics Committee, the local governing medical body (NWRHA) and from developers of the questionnaire, the Caribbean Psychiatric Hospital's administration, the medical records department of the said Caribbean Psychiatric Hospital. Informed consents were solicited and obtained from all participants. Interviews were conducted using a survey tool at the participants' respective psychiatric follow up clinics for participant who has been discharged from hospital. No names were placed on the forms, a code was placed on each copy of the questionnaire and confidentiality was maintained all through.

The Instrument

The data collection instrument/questionnaire was investigators'-designed to include four sections, namely: section A: 15 socio-demographic statement items; section B: factors influencing readmission namely Hospital factors, Social/Environmental factors and Family factors items. Each is made up of 10 item each.). The main socio-demographic variables were age, gender, ethnicity, nationality, accommodation, employment status, religion, marital status, occupation, educational background and sector. The Hospital factors variables included among others discharge planning, attitude of staff, medication compliance, education of illness and medication, psychotherapy (group, individual and alternative). Social/Environmental factors included among others: medication compliance, multidisciplinary team input, psychotherapy (group, individual, alternative), length of time medication collected, case management and support after discharge, employment status, housing status, financial status. Family factors variables included: family support, education to family members by staff, family responsibility, services offered to help family members cope, family assistance in transport to treatment, home visits by multidisciplinary team, family's education to symptoms of patient's escalation, family including plan of care, self-help was developed by family, family providing emotional financial support (Zhang, Harvey & Andrew, 2011). The instrument was pilot-tested with six (6) psychiatric patients admitted at another psychiatric ward of a local general hospital (San Fernando General Hospital). With the result of the pre-test, and after minor adjustments, including a Cronbach's alpha score of 0.67, the instrument was deemed reliable and valid. The data collected by the questionnaire was analysed using the Statistical Package for Social Sciences (SPSS) software version 18.0.

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Results

Table 1 illustrates the frequency distributions of the demographic characteristics of the respondents. Majority (65%) are males, with age ranges 26-33 constituting the highest frequency (33.3). The respondents are mostly of African ethnicity ((50%), single (81.7%) and of Christian religion (71.7%). Majority (55%) of them have Secondary school as their highest education level followed by Primary school with 33.3% and with regard to their occupation, "unemployment" (56.7%) and "unskilled" (25%) were the most prevalent occupation.

Table 1: Socio Demographic Data N=60

Characteristics		*Number*	*Percentage*
Male		*39*	*65*
Female		*21*	*35*
Age in years	*18-25*	*10*	*16.7*
	26-33	*20*	*33.3*
	34-41	*14*	*23.3*
	42-49	*4*	*6.7*
	50-57	*11*	*18.3*
	58-65	*1*	*1.7*
Ethnicity	*East Indian*	*9*	*15*
	African	*30*	*50*
	Mixed	*20*	*33.3*
	Other	*10*	*16.7*
Marital Status	*Single*	*49*	*81.7*
	Married	*3*	*5.0*
	Divorced	*3*	*5.0*
	Other	*5*	*8.3*
Religion	*Christianity*	*43*	*71.7*
	Hinduism	*6*	*10.0*
	Islam	*5*	*8.3*
	Other	*6*	*10.0*
Educational level	*Primary*	*20*	*33.3*
	Secondary	*33*	*55*
	Graduate	*5*	*8.3*
	Post Graduate	*2*	*3.3*
Occupation	*Skilled worker*	*7*	*11.7*
	Unskilled worker	*15*	*25.0*
	Professional	*4*	*6.7*
	Unemployed	*34*	*56.7*

Table 2: Mean responses on the factors warranting Readmission (N=60)

Factors	Mean	SD
Family Factors	3.45	0.87
Hospital. Factors	4.05	0.699
Social/Environmental factors	3.78	0.761

Table 2 aggregated the means of the respondents' responses to factors associated with their re-admission among the three main factors namely: family, hospital and social /environmental factors. With a minimum of 1 and maximum of 5, hospital factors was scored highest among the three factors with a mean of 4.05 with a standard deviation of 0.699, followed by Social/Environmental factor with 3.78 with a standard deviation of 0.761. Family factors scored a mean of 3.45 with a standard deviation of 0.87.

Table 3: Relationship between responses on Readmission factors and Respondents' selected Dependent Variable. N= 60.

	Gender	Ethnicity	Marital Status	Education	Occupation
Hospital Factors	0.98	0.6	0.3	.000**	.014*
Soc/Env. Factors	0.9	0.6	0.3	.000**	.18
Family Factors	0.9	0.2	0.3	.000**	.014*

**** p>0.05. **p>0.000***

On the relationship between the factors responsible for the respondents' readmission and their selected independent variables, table 3 provides the information. The three dependent variables were compared with the respondents' independent variables namely, gender, ethnicity, marital status, education and occupation. Table 3 shows that the respondents' responses to hospital factors, social/environmental factors and family factors were associated with the respondents' highest educational level attained (p=0.000). There was association observed between (a) the hospital factors and (b) family factors with the respondents' occupations (p=0.014) respectively. No other relationships were found to be statistically significant.

Discussion:

The main findings of this study are that: (a) 81.7% of the readmission patients at the hospitals single, (b) 81.6% of the readmitted patients are in their most reproductive age bracket (26-57 years) and (c) 81.7% of the readmitted patients are either unskilled or unemployed.

The mean of means responses is 3.76. In all, we can say that the respondents did not quite agree to the generality of the factors being associated with their readmission. However, on the individual factor basis, the respondents positively affirmed with a mean of 4.05 that hospital factors play a positive part in their readmission. Further, their responses to Family, and hospital factors are associated with their (a) education and (b) Occupation (p> 0.000 and p>0.014) respectively while also patients' education is related to their responses on social/environmental factors (P>0.000).

These findings that greater percentage of the patients are not married, are of middle aged, than very young and older, and are unemployed conform with findings from many authors who indicated that patients who are readmitted in psychiatric hospitals are less likely to be married, and living in high poverty neighbourhood, (Garrison, Mansukhani & Bohn (2013) in the USA, Hu, Gonsahn and Nerenz (2014) in an urban hospital; and Jaramillo-Gonzalez, Sanchez-Pedraza & Herazo (2014) in Columbia.

As majority of the respondents are within the middle age range, a period of high productivity, a period that one would expect them to have found and be living with their companions/ spouses etc. Instead, the result showed that 81.7% of them are still single indicates hence they have less number of significant persons to assist them as they go through with their conditions. This finding is in contrast with Yussuf, Kuranga, Balogaun, Issa, Adegunloye and Parakoyi (2008) in Nigeria who found that being young at first admission was a predictor of multiple admission in a psychiatric institution.

We find of strong significant associations between patients' response to hospital and family factors, and the patients' education and occupation as well as the patients' responses about social/environmental factors and education. This is an indication that perhaps as most of them are unemployed and unskilled, with less significant persons to assist, we envisage that they will be more inclined to being dependent on the hospital for their

care. It would have been otherwise for those who are educated, as they would been in employment, are probably more in marriage, and will likely be able to find spouses/ significant persons to assist them with their condition and therefore less likely to have multiple admissions. While we can argue that being unskilled will make employment difficult, it is still important to occupy the hands and minds of the young ones. Zhang, Harvey & Andrew, (2011) had argued on the importance of significance others in the management of conditions such as mental health situations.

Conclusion:

This study is a first attempt to explore the socio-demographic factors that contribute to readmissions among patients while education was associated with the key dependent variables, this may have been able to account for the level of unemployment or underemployment among respondents. This could have implications for enhancing discharge planning support interventions**.**

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