

CHAPTER 4: DISCUSSION.

The most common outcome of schizophrenia is a remitting course with one or multiple relapses (Sadock BJ, et al., 2003). Relapse rates in general vary from 50% to 92% (Suzuki Y et al., 2003; Ohmori T, et al., 1999) with patients on medication having a relapse rate of 40%, whilst those who discontinued their treatment have a relapse rate of 65% at 1 year and over 80% at 2 years (Hogarty GE et al., 1998). In this study about two thirds of the patients experienced at least one relapse with the majority having two or more relapses. These patients were discharged from psychiatric hospitals to follow up at community mental health clinics. Most of these clinics focus mainly on pharmacotherapy with no or poor rehabilitation programme and psycho-social support services due to a lack of human and material resources (Joubert PM, 2002) which could be the primary reasons for the relapses.

Psychosocial approaches in the management of schizophrenia which include community program approaches (case management, assertive community treatment, foster home care, day treatment centres and psychosocial rehabilitation centres) and individual or family psychotherapeutic approaches (social skills training, personal therapy, psycho-education) when added to antipsychotic drug therapy result in reduction of relapses compared to antipsychotic treatment only (Hogarty GE et al., 1998). However, it is also important to note that effective implementation of a community-based outreach team integrating modalities is difficult even when the appropriate range of services is available (Carpenter WT, 1996).

Although significant, the relatively lower relapse rate (61.8%) observed in this study could be explained as follows: some data might be missing due to the retrospective

nature of the study; some patients who relapse are managed by traditional healers or by their families at home as long as their behaviour is tolerable, which are not reported to the clinics.

Non-compliance leading to relapses among patients with schizophrenia remains a therapeutic challenge and an entity that is difficult to quantify. The compliance rate of medications for non psychiatric illnesses is 76%; whilst for psychiatric illnesses it is 58% with anti-psychotics and 65% with anti-depressants (Marder SR., 2003). We observed a non-compliance rate of 64.2% in this study population. These findings are congruent with other reported non compliance rates from 55% to 75% (Sadock BJ, et al., 2003; Thieda P, et al., 2003; Fenton SW, et al., 1997). It is possible that we could be under-estimating the non-compliance rate in this study population. Factors including the retrospective nature of the study, the tendency to hide the extent of the non-compliance by patient for fear of disappointing the therapist, the poor reliability of self-reports as measure of compliance (Marder SR, et al., 2003) and the poor association between poor compliance and re-hospitalisation (Suzuki Y et al., 2003) could explain this.

The factor most likely to contribute to non-compliance amongst our patients was poor insight. This contributed to a 5.2 fold increase in the risk of a relapse. These observations are consistent with previous studies (Sullivan G, et al., 1995; Fenton SW, et al., 1997). However, the relationship between insight and compliance is not always straightforward (Olfson M, et al., 2000). There isn't always a direct relationship between non compliance and absence of insight (Heinrichs DW, et al., 1985). Compliance among inpatients is more the immediate reflection of the socialisation to

the expected behaviour, whilst in an outpatient setting (where there were less environmental pressures for compliance) taking medication was more related to insight into a need for treatment (McEvoy JP, et al., 1989). It is possible that the poor insight observed may be a result of severe psychopathology, cultural beliefs and poorly understood concepts of mental illness in the African community. Therefore, psycho-education for patients and their families needs to be promoted and may address this problem.

The other factor significantly associated with non-compliance was side-effects of the medication. It was responsible for a 3 fold increase in the risk of a relapse. Published studies report that 25 to 66% of defaulters cite treatment side-effects as the main reason for poor compliance (Perkins DO, et al., 2002; Fenton SW, et al., 1997; Buchanan A et al., 1992;). Yet, other studies (Fleischhacker WW, et al., 1994), state that the association between side-effects and drug refusal is not established and it remains unclear whether a history of side-effects can predict future medication adherence (Olfson M, et al., 2000). It is also important to note that there are patients who are compliant despite treatment side-effects and despite the fact that they deny being ill (Fenton SW et al., 1997). There is also an association between the complexity of regimen and compliance (Razali MS, et al., 1995). Majority of patients in this study were on typical antipsychotic drugs and on a complex regimen of treatment with its associated side-effects (extra-pyramidal side-effects and impotence). The use of second generation anti-psychotics has the potential to improve compliance by decreasing side-effects.

One in four patients in this study developed mood features during the study period.

The risk of a relapse is 5.3 fold increased if co-morbid mood features are present. Similar findings have been reported in other studies (DuPreez RR, et al., 2005; Siris SG, et al., 2002; Toffelson GD, et al., 1998; Roy A, et al., 1983; Knights A, et al., 1981). Depressive symptoms may appear anytime during the course of schizophrenia and contribute to a decrease in quality of life and to relapses (Birchwood M, et al., 1993; Hirsch SR, et al., 1989; Johnson DAW, et al., 1988). However, Robinson D, et al. (Robinson D, et al., 1999) reported that despite a possible relationship between affective symptoms and relapse, neither the severity of baseline depressive symptoms nor the presence of affective symptoms was related to relapse in their study sample. Similarly, Gift TE, et al. (Gift TE, et al., 1980) report that depressive symptoms had no prognostic value in schizophrenia. However, early detection and management of depressive symptoms may decrease the risk of psychotic relapse and therefore it is important that mental health providers learn to identify depressive features in schizophrenia and differentiate them from negative features of schizophrenia.

Substance use / abuse was very common among our study population however there was no significant association between substance abuse and relapse. These findings differ from previous which have shown that substance use/ abuse is strongly associated with relapse (Gupta S, et al., 1996; Swofford CD, et al., 1996; Linszen DH, et al., 1994; Drake R, et al., 1989) and a greater risk of re-hospitalisation (Sullivan G, et al., 1995). However, Dixon L et al. (Dixon L, et al., 1990) point out that although substance abuse may exacerbate psychotic symptoms, abused drugs may also lead to transient symptom reduction. Yet other studies report no association between substance abuse and poor compliance among psychiatric patients (Warner R, et al.,

1994).

The lack of an association in this study could be due to the under-reporting of substance use / abuse by our patients. This may be due to the following reasons: denial; a fear to alter their personal relationship with their therapist; poor insight and inability to establish the correlation between substance and their condition; and acceptance of its use as part of cultural beliefs. In addition, because alcohol use is socially accepted and tolerated in our society, the reporting of its use is minimized by relatives or by patients themselves. Further, most of the patients are reviewed on a monthly basis and since alcohol is metabolised at about 15 mg/dl per hour (range of 10 to 34 mg/dl per hour) (Sadock BJ, et al., 2000), blood or urine screening for drugs and alcohol is difficult and inaccurate.

Cannabis was the mostly commonly abused substance. The use of cannabis is associated with severe psychotic symptoms (Negrette JC, et al., 1986) and exacerbation of psychosis (Kovanasky B, et al., 1997; Knudson P, et al., 1984). Factors such as easy supply, lower price, popularity, easy availability and attenuation of negative symptoms might be the reasons for this preference (Peralta V, et al., 1992).

It must be emphasised that although it is not clear that co-morbid substance use/ abuse in patients with schizophrenia results in treatment non compliance, it does lead to increased psychosocial problems, infections, hostile and disorganised behaviour. In the context of poverty, insufficient food, poor housing, lack of adequate finances, substance use / abuse may result in severe health problems.

More than half of the study population had achieved a secondary level of education, similar to a previous study in this population (Brauteseth LT., 1992). The relatively small number of patients with a tertiary level of education could be a reflection of the onset of schizophrenia during adolescence when patients have not yet completed their secondary education (Sadock BJ, et al., 2000). Significantly more patients in the non relapse group had achieved a secondary or higher level of education. Further, significantly more patients who had achieved a less than a secondary level of education experienced relapses. This suggests that the level of education achieved by a patient with schizophrenia would either predispose the individual to relapse or serve as a protective factor against relapses. This is similar to the findings of Suzuki Y et al (Suzuki Y, et al., 2003).

Weiden P (Weiden P, et al., 1997) reports that a high rate of co-morbid medical disorders exacerbates the relapse process. However, this study found low occurrence of co-morbid medical conditions in the group of patients with relapses. This could be due to the fact that because of the huge demands on limited resources in a community setting, psychiatrists may not be paying adequate attention to detecting co-morbid medical disorders. Patients are referred to general medical services for management of their medical conditions and in most cases there is no communication between practitioners. The situation is exacerbated by the fact that mental health services remain marginalized and poorly integrated with general health services in the primary health care system (Robertson B, et al, 2001; Joubert PM, 2002). We recommend that health authorities need to work on integrating these services and mental health users need to have a single medical file.

Solombela PW, et al. (Solombela PW, et al., 1994) found that distance from the clinic

was associated with relapses. However, in this study this was not an issue as numerous out-patient clinics exist in within easy access to the patients in the districts studied. This may very well pose a problem in other districts.

It is difficult to elucidate a causal relationship between life events and relapse in a retrospective study and thus we were unable to show any significant association between stressful life events and a relapse. Bebbington P, et al. (Bebbington P, et al., 1993) reported increased rates of stressful events during the 6 months prior to a relapse, however other studies (Suzuki Y, et al., 2003; Hirsch S, et al., 1996) do not support these findings.

Other reported factors that are associated with relapse include a younger age, male gender (Robinson D et al., 1999), being unmarried and having no source of income. However, this and other studies (Almond et al., 2004; Suzuki Y, et al., 2003; Weiden P, et al., 1997; Malla AK, et al., 1990) did not support these findings.

Relapses tended to occur in the age group less than 50 years and although this variable lacked statistical predictive power of relapse, there was a trend towards younger patients being more likely to relapse.

Our study failed to determine to what extent factors such as cultural beliefs are associated with non compliance and to the relapse. Cultural beliefs and social attitudes have been strongly associated with relapse in a study by Gillis LS (Gillis LS, et al., 1989). Despite the fact some of our patients have been taken to a traditional healer prior to or whilst attending a mental health centers (Robertson B, et al. 2001) it was difficult to establish such correlation. We cannot overlook this reality in our

society and therefore a prospective design is suggested for further study.

The study also failed to show the correlation between therapeutic alliance and non compliance. This factor is important in a context where mental health providers are changing every six months as occurs in community psychiatry. Chronic schizophrenic patients might have difficulty establishing a solid therapeutic alliance with their psychiatrists and might easily tend to be poor compliers.