CHAPTER 2
REVIEW OF LITERATURE

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REVIEW OF LITERATURE

2.1 Introduction

Over the past decades, researchers have documented the range of needs and devised new methods for increasing the understanding of the homeless severely mentally ill population. Persons diagnosed with severe mental illness present a variety of individual, social, and political challenges to planning and implementing effective rehabilitative treatment programs. With advances in treatments for severe mental illness, particularly in psychiatric rehabilitation, evaluating outcomes has become increasingly important. Given the complex and multidimensional nature of severe mental illness, outcome evaluation of psychiatric rehabilitation is particularly difficult. This study addresses issues in evaluating psychiatric rehabilitation outcomes of homeless mentally ill persons through voluntary organizations in Kerala.

This chapter discusses various research studies performed in this area collected through a thorough literature search in journals, books and internet. The chapter is organized in different sections of studies related to variables of this study. The different sections include studies related to impact of severe mental illness, homelessness and severe mental illness, psychosocial rehabilitation, rehabilitation of homeless mentally ill, and rehabilitation outcomes. Global and Indian studies are given in each of the subsections.
2.2 Impact of Severe Mental Illnesses

This section covers various Global and Indian studies on the impact of severe mental illness on individuals and families.

2.2.1 Global Scenario:

Grand and Sainbury, (1963)\(^1\) reported that 81\% of the rejecting and negative relatives had practical difficulties whereas only 62\% of the accepting group were having such difficulties too.

Hoenig and Hamilton (1966)\(^2\) found that families experienced an objective burden of adverse effects on the household, such as financial loss; effects on health; effects on children; and general disruption.

The problems faced by family members and caregivers included difficulties regarding the social withdrawal, bizarre behaviour, and unpredictability of the relative; the presence of such persistent negative emotions as anxiety, guilt, depression, and anger; difficulties in family relationships and for individual family members and difficulties in the wider community concerning employment, leisure time, and stigma. These ranges of emotions have resultant effects on their own health or well-being (Creer and Wing, 1974)\(^3\).

Kint (1978)\(^4\) reported that over three-fourths of families experienced difficulty finding effective treatment, anxiety about the client, and disruption of family life. Respondents also expressed concern about client social life, employment, self-care and living arrangements, finances, diagnosis and treatment, and stigma.
An Investigation by Arey and Warheit (1980)\(^5\) on the psychosocial costs of living with family members with psychological disturbance, found that respondents who had a child with mental illness in the home had the highest scores on measures of depression and anxiety, and that those living with a parent with mental illness experienced the highest levels of psychosocial dysfunction. Mothers and fathers whose children had serious mental health problems reported levels of depression, anxiety, and psychosocial dysfunction that were twice as high as those of parents whose children did not have such problems.

Willis, M. J. (1982)\(^6\) studied the practical consequences of deinstitutionalization on the families of the mentally ill. Not only has an adequate care frequently lacking for the ill family member, but the families often found themselves alone in their caretaking roles. The growing importance of consumer-advocacy groups may be a harbinger of increasing cooperation among those concerned with the impact of schizophrenic on both affecting individuals and their families.

E. A. Anderson and Lynch (1984)\(^7\) surveyed families about their current living and care arrangements, as well as about related stress factors. They found that the frequency of involvement between the families and their relatives with mental illness was directly related to the amount and type of stress that the families experienced. They observed that such interaction strains family coping capacities and emphasized the importance of cohesiveness and support within
the family, as well as supportive and educational services outside of the family.

Lefley (1987, 1989) concluded based on reviews of the literature on family burden strong and consistent evidence of significant burden as a consequence of the mental illness of a family member. Subjective burden pertains to the personal suffering of family members as a result of the mental illness of a relative; objective burden refers to the reality demands that confront the family. In subjective burden families generally experience a range of negative emotions, including stress, worry, anxiety, resentment, guilt, depression, anger, fear, frustration, and bitterness. Some families may go through a mourning process for the loss of their mentally healthy family member. (Hartfield, 1987)

The families confront with the objective burden of inadequate community care; difficulties of primary care giving of family member who exhibits bizarre or unusual behaviour, such as delusions and hallucinations, depression, aggressiveness, poor motivation and self-care, confusion, social withdrawal, unpredictability, and impulsiveness; adverse impact on personal and family functioning, including household disruption, financial difficulties, employment problems, strained marital and family relationships, harmful consequences for children and adolescents, and impaired physical health and social life. (Rosenson, Kasten, & Kennedy, 1988)
Families are often isolated and alienated from the larger society, which enshrouds the experience of mental illness in pervasive stigmatization (Lefley, 1989)\textsuperscript{12}.

The mental health system also contributes to the burden as often it is reported that family members find their interactions with the mental health system frustrating, confusing, and humiliating; that they receive insufficient information; that they find professionals inaccessible and insensitive to the family burden; and that they receive insufficient assistance in negotiating crisis situations, in locating and accessing appropriate community resources, in assuring continuity of care, and in dealing with legal barriers (Marsh, D, T, 1992)\textsuperscript{13}.

Winefield, Helen, Harvey, Eileen, (1993)\textsuperscript{14} describes the psychological state and experienced needs of 134 family members caring for a person with schizophrenia. Samples psychological distress was high compared with test norms, and the level of behavioural disturbance in the sufferer was found to contribute to samples distress after controlling for age, sex, and social supports. Results showed that samples needed attention, information, and support. Socially disruptive and antisocial behaviour by the sufferer added significantly to samples distress and burden. Samples who care for female sufferers reported greater distress than samples caring for male sufferers.

Horwitz, Allan, (1994)\textsuperscript{15} examined how obligation, reciprocity, and the quality of personal relationships affect the siblings to provide
social support to their seriously mentally ill brothers or sisters. Out of 108 siblings, siblings of 85 participants in a treatment programme for the seriously mentally ill were interviewed to examine the factors that predict several aspects of help provision (i.e. reported help, willingness to help, hypothetical help, obligation, reciprocity and affection). Reciprocity was the only independent variable that significantly predicted help. The more the help respondent siblings received from ill siblings, the more willingness to help them was showed in return. The availability of parental and other sibling caregivers was also associated with reported help from ill siblings. Neither norms of family obligation nor relations quality were highly correlated with support.

Winefield, Helen, Harvey, Eileen, (1994) studied 121 family caregivers of samples with chronic schizophrenia by administering standardized questionnaires to determine the nature and demands of the caring work and to gain information about caregiver’s perceptions of their needs. Caregivers had provided service at an average of 14 years. Burden (interference in caregivers daily lives) was most marked for caregivers in high contact with patients. Patients regarded by caregivers as enjoyable to live with had greater self-care and communication skills. Caregivers preferred that patients low in these skills or high in disruptive behaviour line in supervised settings. Caregivers supported earlier professional intervention in episodes of illness, information about how to lobby politicians for resources, and information about schizophrenia.
Karanci, (1995)\textsuperscript{17} studied 60 male and female caregivers \textit{casual attributions}, difficulties, perceived and expected help behaviour of health care professionals and hope for future well-being of caregivers of Turkish schizophrenics. The results showed that caregivers attributed schizophrenia mainly to psychosocial causes, including stressful events, family conflicts and patient characteristics. The most frequently reported difficulties were family conflicts and disruptions of family life, subjective burden, and the financial cost of illness. The number of difficulties reported was related to the duration of illness. Caregivers perceived pharmacological treatment, interest and support given to caregivers and hospitalization of patients as helpful. About half the caregivers were optimistic about the future well-being of the patients.

Mannion, (1996)\textsuperscript{18} estimated that 35-40\% of people \textit{hospitalized} for psychiatric disabilities are discharged to live with spouses. This article reviewed the literature on spouse burden and examined the responses of 18 spouses (aged 20-81 years) to a larger national survey of resilience in close relatives of people with mental illness. Personal resilience, particularly personal contributions of spouses, was more evident than consumer resilience. 83\% of spouses altered to a process of adaptation and with personal qualities most often cited as factors in positive changes.

Marsh, Daine et al (1996)\textsuperscript{19} have done a \textit{national survey} to explore the potential for resilience among family members of people with mental illness (including 'schizophrenia, schizoaffective disorder, major depression, bipolar disorder, personality disorder and other mental
disorders). The sample included 131 family members: mothers, fathers, wives, husbands, sisters, brothers, daughters, sons and extended family members. Responding to open ended questions, participants were asked to describe any family, personal, or consumer strengths that had developed as a result of the mental illness. Family resilience was reported by 87.8% of participants, Personal resilience by 99.2% of the participants; and consumer resilience by 75.6% of participants.

Mueser, Kim, et al., (1996) compared the burden that specific problem behaviours of patients with schizophrenia or bipolar disorder placed on relatives and evaluated the accuracy of mental health professional’s judgment of the burden. 48 relatives and 39 mental health professionals were given separate questionnaires. Results showed that relatives of patients with bipolar disorder rated manic symptoms as more burden some than did relatives of patients with schizophrenia, but relatives of patients in both groups did not differ in their ratings of burden associated with positive or negative symptoms. The mental health professionals perceptions of the burden associated with manic symptoms were relatively accurate, but they tended to underestimate the burden of positive and negative symptoms experienced by relatives of patients with bipolar disorder.

Scazuflca, Marcia and Kuipers, Elizabeth (1996) studied 50 patients recently hospitalized and diagnosed by having schizophrenia or schizophrenic form disorder were assessed for positive and negative symptoms. 50 relatives who were living or were in close contact with patients were assessed for expressed emotion (EE), burden of care,
patient’s social role performance and social and behaviour problems. High-EE relatives had considerably higher mean scores for burden of care than low-EE relatives and perceived more deficits in patients social functioning than low-EE relatives. The employment status of relatives was the only socio-demographic characteristic of relatives and patients associated with EE levels, those who were working being less likely to be high EE. Patient's psychopathology was not associated with EE levels and burden of care.

Greenberg, Jan Steven, et al., (1997) analyzed experiences of subjective burden in a sample of 164 siblings (mean age 45 years) of persons with serious mental illness. Participants completed the Wisconsin Family Burden and services questionnaire. Subjective burden was measured by a global measure and by measuring of stigma, fears, and worries about the future. Findings indicated that the well sibling’s experiences of burden were consistently related to the symptomatology of the ill sibling. In addition those who viewed the ill sibling’s behaviours as outside his or her control exhibited lower levels of subjective burden and did those who viewed the behaviour as within the sibling’s control. Overall findings suggested that the experiences of siblings of persons with mental illness are quite similar to those experiences by parents and other family numbers.

Provencher, Helene, and Mueser, Kim, (1997) investigated the relationships of perceived severity and responsibility attribution for positive and negative symptom behaviours to caregiver burden.
Magliano, et al, (1998) evaluated the relationships of family burden with patient's clinical characteristics, family socio-demographic variables, relative’s attitudes toward the patient, professional and social support received by the family, and also differences in the levels of burden, attitudes and support received by the family with respect to geographical area and population density. Data on 144 patients and their key-relatives were collected from 8 Italian Mental Health Services (MHS). The results showed that the higher levels of burden were found among relatives referred to Southern MHS. The burden was found positively correlated with the levels of patients BPRS positive and manic/hostility symptoms and disability, and with the number of daily hours spent by the relative in contact with the patient, and negatively correlated with the levels of professional support received by the family. The results of this study highlighted the need to provide rehabilitative programmes for patients with schizophrenia as well as informative and psychoeducational interventions for their families.

2.2.2 Indian Scenario

Bhaskaran, (1970) observed that the patient with severe and chronic mental illness is ‘unwanted’ by the family. Almost 93% of the patients in the hospital at the time of his study did not needed active psychiatric help, and 75% had no visits at all from family and friends. This neglect is not due to a negative attitude towards the patient, but because of financial difficulties, fear and stigma. In the absence of viable alternatives, families that are both financially and socially
marginalized, may be left with no choice but to abandon their mentally ill relative.

Sathyavathi, Golam and Murthy, (1971)26 studied social need of discharge patients with the help of in depth interviews with family members. They found that 48% had a fairly good understanding of the illness, while 29% had moderate understanding. The remaining 19% were indifferent, hostile or expressed doubts about the illness.

Kshama and Channabasavanna, (1974)27 studied the attitudes of relatives towards mental illness. Their study reported differences in attitudes of the relatives as a function of demographic variables. Male relatives were more benevolent than the female relatives; however they were also significantly more restrictive than the female relatives. Rural families were significantly more authoritarian and restrictive than the urban families. The higher socio-economic groups were more authoritarian than the lower socio-economic groups.

Boral, Bagchi and Nandi, (1980)28 conducted a comparative study of the opinions of relatives of psychiatric patients with those of non-psychiatric patients. Relatives of psychiatric patients attributed mental illness to hereditary factors more than relatives of medical patients. Surprisingly, more relatives of medical patients were in favour of psychotherapy as a mode of treatment for mental disorders. Both groups, reported marriage as a cure for mental illness and youth showed a reluctance to arrange alliance with former patients. Both groups were willing to offer jobs to these patients, which served to
emphasize that mental patients have greater acceptance in personal situations.

Studies have compared the burden experienced by families of chronic schizophrenic patients living in urban and rural settings. Mubarak Ali and Bhatti, (1981) found that families in both areas perceived equal burden and also received equal social support system. They found no relationship between family burden and social support system.

Trivedi, Chaturvedi, Sethi and Saxena, (1983) studied the attitudes of key relatives of schizophrenic patients. The sample consisted of 45 key relatives of patients attended psychiatry department at K.G. Medical College, Lucknow. The study proved that although the findings were not statistically significant, there is a trend towards the relatives of the relapsed or chronically ill patients expressing more critical comments, hostility, dissatisfaction, warmth and emotional over involvement in comparison with the relatives of symptom free patients. It provided evidence that the way the parents treat the offspring with known vulnerability to schizophrenia might affect their likelihood of developing a further schizophrenic breakdown.

As part of the WHO collaborative study on strategies for extending mental health care, 259 families from developing countries (Columbia, India, Sudan and Philippines) were screened with regard to the social burden caused by mental illness on the families (Giel
DeArango, Babilur, Bganifacia, Climent, Harding, Ibrahim, Ladrido-Ignacio, Murthy and Wig, 1983). The results indicated that psychosis caused economic burden more frequently compared to other diagnostic categories. Social acceptance of patients also posed difficulties. The social burden was greatest in the urban areas.

Gautam and Nijhawan, (1984) with the aim of comparing the burden on families of schizophrenics and patients with chronic lung disease, and to study the areas of burden on families of two groups of patients, randomly selected samples of relatives of 25 patients in each group using a structured interview schedule. Results revealed more burden on families of schizophrenic patients in the financial area, effects on family leisure, family routine, family interaction and mental health of other family members. Among the schizophrenic families more burden was seen where male member had the illness.

Varghese, (1984) studied 60 patients with diagnosis of schizophrenia, affective disorder, using the family evaluation. The study concluded that the most severe burden was perceived by families of manic who also had the most disruptive psychopathology among the three clinical groups. Burden was perceived specifically with regard to subjective distress, social isolation, household functioning, financial and community problems. Burden was least perceived in families of depressed patients. The study also highlighted a significant positive correlation between the distress experienced by the families and the severity of illness in the patients.
Gautham & Nijhawan, (1984)\textsuperscript{34} reported that Caring for a person with chronic and severe mental illness affects several areas of the family’s functioning, especially financial burden (cost of treatment and loss of wage earner), family leisure, routine and interaction.

Kala, (1985)\textsuperscript{35} in a study of coping in families of psychotics prior to psychiatric consultation among 60 families found that all the families reported disruption in functioning. Elementary families experienced major role reversals. Families were found coping techniques like alternate planning, seeing positive aspects, sharing with others, accepting limitations, seeking expert advice, and praying excessively. Some family members reported resorting to drinking, losing temper and punishing themselves. Schizophrenics' families were reportedly withdrawing, avoided thinking about problems, ignored past experiences, resisted instructions, and discounted themselves. There were differences in coping between nuclear and other families.

Nagaswami et al, (1985)\textsuperscript{36} discussed Patient’s suggestions on the need for family members to be educated so that caregivers can have a better understanding and develop a more positive attitude towards mental illness.

Ali & Bhatti (1988)\textsuperscript{37} in their study among rural and urban caregivers concluded that both rural and urban patients perceive low social support from the family and the care giver’s experience similar burden.
Murthy, Chatterjee, Ranga Rao, (1989)\textsuperscript{38} found that urban families reported significantly higher levels of burden particularly in the areas of routine family activities and interactions. Burden was significantly associated with extent of disability in the patients. The authors concluded that families had greater tolerance as a consequence of lowered expectations, mutual sharing and acceptance and attribution of external causes.

Gopinath and Chaturvedi, (1992)\textsuperscript{39} interviewed relatives of 62 schizophrenic patients regarding the behaviour of the patient that was perceived to be distressful. Their study revealed that the aggressive and assaultive behaviour was not perceived to be very distressful. It was the inactivity of the individual and of not participating in household chores, slowness and poor personal hygiene were perceived as more distressful.

Chakrabarti, Kulhara and Varma, (1992)\textsuperscript{40} evaluated burden of care experienced by family members of 90 patients with major affective disorder; The burden was significantly more among families of bipolar patients than those of major depression. Prolonged illness and high levels of dysfunction among patients, correlated consistently with severity of burden. Severity of illness, higher age of the patient and number of episodes of the illness also influenced the extent of burden. Demographic variables however did not influence the extent of burden significantly.
Sovani (1993)\textsuperscript{41} reported caregivers’ need for education and guidance about the illness and its management.

John Johnson, (1994)\textsuperscript{42}in a study of coping patterns in the families of schizophrenics conducted among 110 families found that less preferred strategies such as escapism, optimism and interpersonal coping strategies had main effects only on family burden which is an effect due to the presence of the mental patient. More preferred strategies such as fatalism, control and action strategies of coping demonstrated effects on the broader experience of family strains which also includes increased difficulty in care giving to dependent or sick members. But, the crisis oriented coping behaviours and patient system together demonstrated highly significant effects on duration of patients illness, current status of patient, family burden, family strains, family hardiness, and family cohesiveness and adaptability.

Roychaudhuri et al, (1995)\textsuperscript{43} found that burden is more in low-income families and when the patient is male, younger in age and not employed.

Padmavathi, Joseph & Joseph (1997)\textsuperscript{44} reported that most caregivers would like to see their patient engaged in some gainful employment and leisure time activities are not seen as that important. For older caregivers it is the question of ‘what after us?’ Residential care is a concern expressed by about one third of the caregivers, especially those with poor financial and social supports.
Neog, Bhagabati, (1998) measured the frequency and severity of burden on the families of schizophrenic patients, and the relationship of burden on the family with socio-demographic factors, to measure social dysfunction of schizophrenic patients and to evaluate the correlation between social dysfunction and burden on the family of schizophrenic patients. 100 consecutive schizophrenic patients were studied from the psychiatric OPD of Guwahati Medical College for the study. Burden on the family and social functioning were assessed using appropriate scales. Out of 100 families 78 reported burden on the household. Analysis of data showed that duration of illness has a statistically significant positive correlation with burden on the family. Maximum burden is perceived in patients below 35 years of age, though the finding is not statistically significant. Analysis of socio-demographic variables does not reveal any significant pattern. Analysis of correlation between burden and social dysfunction indicates that a positive correlation exists between burden on the family and Social dysfunction due to casual effect of the patients.

Muralidhar, D., Narayana Reddy, G.N., Sharif, I, A. (2000) in a study of rehabilitative potentials in the families of mentally ill conducted among 90 families found that ventilation by way of crying, smoking or drinking and resigning to one's own fate were linked to family's constitution. Compromise' and involving in other works' were related to the birth patient. 'Acquiring help' was related to the area of residence, 'positive action' to the gender of the patient, and hopefulness to the level of education of the patient.
Rammohan, Rao & Subbakrishna, (2002)\textsuperscript{47} reported high levels of distress, anxiety and depression in caregivers but, paradoxically, they also report high levels of well being and commented that greater attention needs to be paid to understand and strengthen the coping strategies used by caregivers.

A. Kuruvilla & K.S. Jacob (2007)\textsuperscript{48} reported that the presence of mental health problems results in an enormous financial burden on individuals, their families and society as a whole, in addition to the emotional toll they carry. The treatment of mental illness involves significant expenditure secondary to the utilization of health resources. Many mental disorders are chronic and require long-term medication. In countries such as India where most people do not have health insurance and have to pay for treatment, this places a huge burden on the family. Side-effects associated with the medication result in additional costs, for example, elevated blood sugars and lipids secondary to the use of the atypical anti-psychotics agents are associated with extra costs related to the monitoring for these metabolic side effects, as well as their treatment.

\textbf{2.3 Homelessness and Severe Mental illness}

This section discusses studies in global and Indian scenario related to severe mental illness and homelessness. The studies unravel various factors in severe mental illness that leads to homelessness and illness characteristics among homeless persons.
2.3.1 Global Scenario:

Goldfinger, Hopkin, Surber, (1984) reported that the reasons for non-help-seeking and low mental-health-service utilization among homeless mentally ill individuals are complex. Homeless mentally ill persons who are not in treatment may not recognize their mental health needs or give higher priority to other basic needs such as procuring food and shelter on a daily basis. They may also have had negative experiences with mental health services in the past and therefore be unwilling to commit themselves without an initial (and sometimes prolonged) show of faith on a service provider's part.

Morse, G., & Calsyn, R. (1986) quoting previous studies explained that homeless mentally ill people are frequently described as treatment resistant and discussed although these individuals often reject conventional inpatient, outpatient, and psychotropic medication, prior research has shown that they are willing to accept less traditional treatments, such as day treatment, case management, and housing assistance.

Axleroad, S. F., & Toff, G. E. (1987) reported that housing scarcity, coupled with neighbourhood resistance to the development of new housing for mentally ill individuals, as evidenced by restrictive zoning ordinances and reflected in attitudinal surveys has increased the competition for low-cost housing among the nation's most disadvantaged citizens.
Rog, D. J. (1988)\textsuperscript{52} commented that the implementation of deinstitutionalization without the corresponding provision of a sufficient number and range of community services clearly contributed to homelessness among people with severe mental illnesses. The reluctance of existing mental health service providers to work with this population (for reasons that include a lack of fiscal incentives) is a continuing service system barrier that deters homeless mentally ill persons from connecting to mental health treatment services in any meaningful way.

Although the majority of the homeless population is not mentally ill, the prevalence of mental illness among homeless persons is much higher than that found in domiciled populations. In Los Angeles, a randomly selected sample of homeless adults was compared with a probability sample of a general population sample in the same locale. Comparing six-month prevalence rates, homeless individuals were 38 times more likely to have a diagnosis of schizophrenia, 5 times more likely to be diagnosed as having a major depressive disorder, and 3 times more likely to have a primary diagnosis of alcoholism (Koegel, Burnam, & Farr, 1988)\textsuperscript{53}.

Tessler & Dennis, (1989)\textsuperscript{54} reported that 1. Approximately one third of the homeless population has severe mental illnesses such as schizophrenia, schizoaffective disorders, and mood disorders. 2. The homeless mentally ill population is a multi-need population; in some studies as much as 50\% of homeless mentally ill individuals also have a current alcohol or other substance abuse problem. 3. A sizeable
number of homeless mentally ill people have had involvements with the criminal justice system; these arrests were often associated with such offenses as theft and loitering. 4. Many homeless mentally ill persons have never received mental health treatment, and many homeless mentally ill persons formerly in treatment are no longer disabled by mental illness. 5. A significant proportion of the population is interested in receiving help, but their perceptions of their own service needs often differ from the perceptions of service providers. Not surprisingly, homeless mentally ill persons tend to place a high priority on meeting their basic subsistence needs first, before addressing their mental health needs, whereas mental health professionals often place a higher priority on providing traditional mental health treatment.

Levine, I. S., & Haggard, L. K. (1990) defined severe mental illness as a serious and persistent mental or emotional disorder (e.g., Schizophrenia, mood disorders, schizoaffective disorder) that disrupts functional capacities for primary aspects of daily life such as self-care, interpersonal relationships, and employment or school. They further stated, although many factors contribute to the problem of homelessness among severely mentally ill persons, clearly, it is the absence of housing that differentiates homeless mentally ill persons from their domiciled peers.

Levine, Irene S, Rog, Debra J (1990) reported that homeless mentally ill persons are disenfranchised from their families, service providers, and communities. They are frequently excluded from
programs designed to serve the general homeless population; they also are often screened out from receiving services designed for long-term severely mentally ill persons.

National Law Center on Homelessness and Poverty, (1990) commented that the cyclical and long-term nature of their illnesses, results into difficulty for persons with a severe mental illness to gain or sustain employment. Without a regular income, many depend on a patchwork of federal, state, and local government benefit programs for disabled persons. Yet, entitlement programs, designed to provide assistance to meet basic needs, are often inadequate. Moreover, mentally ill individuals often experience difficulty gaining access to and establishing eligibility for these well-intentioned programs.

Calsyn & Morse, (1990) have shown the impact of stressful life events on the psychiatric symptoms experienced by the homeless. For example, lower numbers of significant life events and having a "happy childhood" are variables that predict fewer psychiatric symptoms among homeless population.

Hamid et al (1993) argued that homelessness is due to the lack of housing provisions to the poorest sectors of society and that there is an overestimation of their level of psychiatric morbidity. Today, there is a tendency to avoid hospitalization whenever possible by considering the rights and autonomy of the mentally ill even as far as accepting their right to refuse treatment. Progress in dealing with this problem is essential in the setting of the homeless. A meeting
should be arranged between the homeless person and the psychiatrist in order to establish contact and eventually offer treatment.

Deborah Bybee, Carol T. Mowbray, Evan Cohen (1994) commented that providing housing alone is not sufficient. Supportive assistance to maintain housing is a necessity -- persons with severe mental illness who have experienced homelessness are likely to again become unhoused unless there is continuity of needed services, because of the unpredictability and variability of their illness. However, due to the heterogeneity and diversity of this population and the multiplicity of their problems, a range of interventions and a variety of service providers are required, tailored to individual needs.

Tom Craig & Philip Timms (2000) based on an analysis of the special problems of the homeless psychiatrically ill and how services have developed to meet their needs. For reasons that are far from clear these problems are increasing and, despite the development of specific teams focused on the care of the homeless with mental illness, a great deal more needs to be done. Although the formation of outreach teams and related services have succeeded in improving care for this group their long-term outcome is uncertain and much more needs to be known.

John S. Brekke, Cathy Prindle, Sung Woo Bae and Jeffrey D. Long (2001) examined the incidence and predictors of police contact, criminal charges, and victimization among noninstitutionalized individuals with schizophrenia living in the community. A total of
172 individuals with schizophrenia or schizoaffective disorder were recruited from community-based programs in urban Los Angeles between 1989 and 1991 and were monitored for three years. At baseline, all participants were housed and did not have co-occurring substance use disorders. Face-to-face interviews were conducted every six months. Eighty-three individuals (48 percent) had contact with the police during the study period. A small percentage of the contacts involved aggressive behaviour against property or persons. Being younger, having had more address changes at baseline, and having a history of arrest and assault were significant predictors of police contact. Thirty-seven individuals (22 percent) reported that charges had been filed against them. Poorer social functioning, more address changes, fewer days of taking medication at baseline, and a history of arrest and assault were significant predictors of criminal charges. Sixty-five participants (38 percent of the sample) reported having been the victim of a crime during the three years, 91 percent of which was violent. Having more severe clinical symptoms and more substance use at baseline were significant predictors of victimization. Individuals in this sample were at least 14 times more likely to be victims of a violent crime than to be arrested for one. In general, the risk associated with being in the community was higher than the risk these individuals posed to the community.

Larry A. Nuttbrock, Andrew Rosenblum, Stephen Magura and Hunter L. McQuistion (2002)\textsuperscript{63} compared changes in receipt of government entitlements by homeless persons with and without
psychotic ideation in New York City between January 1997 and July 1998, a period characterized by changing state government policies and greater bureaucratic monitoring of eligibility. In conjunction with an experimental study of the efficacy of social work services provided to homeless persons in Manhattan by a mobile medical van, 25 persons who were assessed as having experienced psychotic ideation in the previous year and 134 non-psychotic persons were followed up after four months to identify changes in their receipt of Medicaid benefits, Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI), food stamps, and home relief (state welfare for single persons). The social work intervention was designed to help eligible clients gain access to entitlements and substance abuse treatment. The proportion of clients with psychotic ideation who received Medicaid, food stamps, or home relief decreased during the study period, while the proportion of nonpsychotic clients who received these entitlements increased. Little change was observed in receipt of SSI or SSDI by either group.

Psychotic ideation among homeless persons may be a significant factor in access to and maintenance of government entitlements. In the context of an increasingly restrictive and bureaucratic welfare system, providing assistance to homeless persons who have severe psychopathology presents new challenges to service providers.

Metro Atlanta Tri-Jurisdictional Collaborative Homeless Census and Survey report (2003) explored reasons for homelessness. 38% of respondents stated the reason as alcohol or drug use. Other
leading responses included unemployment (29%) and inability to pay rent or mortgage (12%). Many respondents indicated that their homelessness had been caused by an illness or medical problem (12%) or an argument with family or friends (11%). Some respondents identified mental illness (6%) or family violence (5%) as causes of their homelessness.”

Hunter L. McQuistion, Molly Finnerty, Jack Hirschowitz, and Ezra S. Susser (2003)\textsuperscript{65} examined current challenges confronting psychiatry in caring for homeless people with psychiatric disorders. After reviewing how psychiatry has historically addressed homelessness and mental illness, the authors discuss the roles that the profession has developed in working with homeless populations. These roles, which encompass clinical, administrative, academic, and advocacy functions, have evolved as a result of trends both in homelessness services and within the profession of psychiatry. Challenges implicit in this evolution are discussed, including recent trends in homelessness, particularly an increase in prevalence, especially among families and children and some clinical subpopulations. The authors propose that these epidemiological trends are affecting the mental health care needs of homeless people. To be effective and credible in continuing to help solve the problems of homeless people with psychiatric disorders, psychiatry must adapt to these new challenges, using the roles it has developed.

Fazel S, Khosla V, Doll H, Geddes J (2008)\textsuperscript{66} searched for surveys of the prevalence of psychotic illness, major depression,
alcohol and drug dependence, and personality disorder that were based on interviews of samples of unselected homeless people. Twenty-nine eligible surveys provided estimates obtained from 5,684 homeless individuals from seven countries. Substantial heterogeneity was observed in prevalence estimates for mental disorders among the studies. The most common mental disorders were alcohol dependence, which ranged from 8.1% to 58.5%, and drug dependence, which ranged from 4.5% to 54.2%. For psychotic illness, the prevalence ranged from 2.8% to 42.3%, with similar findings for major depression. The prevalence of alcohol dependence was found to have increased over recent decades.

2.3.2 Indian Scenario

National Workshop on Mental Illness and Homelessness, Chennai, (2004)\textsuperscript{67} reported Mentally ill people are often rendered homeless due to their illness. They have wandered away from their home and families or have been abandoned as the sheer pressure of providing care overwhelms the families. Global statistics indicate that one in four families will have a family member suffering of mental illness. Homeless people are considered amongst the most vulnerable members of any society. The lack of secure housing, regular sources of income and therefore low levels nutrition, no access to health care and education are highly prevalent amongst the homeless. No or limited access to government facilities and entitlements as well constant threats of eviction further aggravate already precarious living conditions. Mental illness, alcohol abuse and substance abuse
are found to be 3 to 5 times as high among the homeless as compared to the general population. The homeless persons go through extreme forms of abuse and also neglect caused by their inability to protect and care for themselves.

Medical care for people with mental illness is not available at the government sponsored primary health care level. Even if medication is available at the taluk or district level government facilities, rarely there are psychiatrists needed to prescribe the appropriate treatment. In the entire country there are around 3000 psychiatrists, of whom the majority works in the larger urban centers. Even under the District Mental Health Programme launched by Government of India, the accessibility to care and medication at the community level remains elusive. Faith healers and traditional centers of faith healing such as Erwadi in Tamil Nadu become the only place for families to turn to for support. This lack of medical support at early stages of mental illness leads to a serious decline in mental health, which in turn often, results in people wandering away from their homes.

Santhosh J and Anish K.R. (2006) illustrated an innovative community based rehabilitation model for homeless mentally ill in India. The voluntary effort in rehabilitation and care giving and the rehabilitation regime is discussed. The rehabilitation programme was initiated by taking a wandering mentally person to foster care by an individual and is developed into a full fledged rehabilitation center with 221 residents. 90% of the residents are homeless mentally ill. The
rehabilitation programme is manned by the family members of the chief functionary and 13 volunteers. The volunteers included recovered patients from the program itself along with the voluntary consultancy from eminent psychiatrists, psychiatric social workers and psychologists. The rehabilitation programs are run by contribution of well wishers and not from any funding sources. The mainstay of the rehabilitation programme offered at Mariasadan trust is the involvement of the residents in cultural, spiritual and agricultural activities. The center proved the effectiveness of music therapy as an important intervention for improving the quality of life as well as social functioning. The rehabilitation outcome was measured from the measurement of quality of life and social functioning of the residents.

This section discussed studies on homelessness in global and Indian scenario. The studies covered prevalence of homelessness, reasons for homelessness among mentally ill and factors leading to reluctance in help seeking among homeless mentally ill. The global studies reported prevalence of severe mental illness among one third of homeless population. The studies also discussed high prevalence of substance abuse among the homeless. The major reasons for homelessness in the global scenario were: scarcity of housing, deinstitutionalization without proper planning, long term nature of the illness, dual diagnoses, rejection from families, and lack of services for homeless. The Indian studies, however, emphasized causes like untreated illness, abandoned by families due to burden
and lack of resources, poor economic conditions, lack of secure housing, no or limited access to public health care facilities, and inability to provide care due absence of caregivers more than the reasons cited by global studies. The studies also explored the reasons for poor help seeking among homeless mentally ill. The reasons cited were: lack of insight leading to realizing the need for treatment, primacy of meeting basic needs rather than psychiatric treatment, negative experiences from mental health facilities, and treatment resistant disease conditions.

### 2.4 Psychosocial Rehabilitation

This section throws light into various studies on psychosocial rehabilitation.

#### 2.4.1 Global Scenario

A review of past literature shows that psychiatric/psychosocial rehabilitation can include a variety of strategies to address multiple issues in the lives of consumers. These strategies include (but are not limited to) social skills training, psychosocial rehabilitation centers, family education, case management, behavioural interventions, vocational rehabilitation, and cognitive remediation as well as individual and group counseling methods. A number of skills training modules and methods developed over the past 25 years have shown significant improvement in the social and coping skills of recipients (Liberman & Corrigan, 1993).
2.4.1.1 Rehabilitation Models

Personal Effectiveness Training (PET) (Liberman et al, 1975)\textsuperscript{70} teaches clients appropriate and effective methods of self expression and interpersonal communication. This is performed best in groups though role plays and feedback. Emphasis is given on behaviour and actions rather than on cognitions and feelings. The model has flexibility of material in meeting individual needs of clients. This also requires in-vivo exercises and home work practices.

Intensive Psychiatric Rehabilitation Training (IPRT)(Anthony et al, 1990)\textsuperscript{71} assist clients in pursuing self developed goals in living, learning, work of social environments by stressing client choice and assessing/developing necessary skills and resources. The model uses a client centered approach and develops person specific plans of intervention. This encourages client strengths and focus on areas of improvement.

UCLA Social & Instrument Skills training modules (Heinssen, Liberman, Kopelwicz, 2000)\textsuperscript{72} aimed at teaching clients skills necessary for community integration and adaptation (eg. Basic conversation skills, interpersonal problem solving, workplace fundamentals etc). This intervention could be implemented by staff with diverse backgrounds and training. The programme has an empirically supported effectiveness. The effectiveness of the training could be limited in the context of severe cognitive impairments.
2.4.1.2 Rehabilitation Studies

Murray R. L. E & Baier M. (1995)\textsuperscript{73} reports a successful transitional programme in the USA. The research programme evaluation covered 5.5 years and 228 severely and persistently mentally ill homeless clients who lived in a transitional residential center. Forty-eight per cent of the residents achieved the programme's goals of obtaining and maintaining permanent housing and a disability pension or a job. Achievement of client goals was positively related to length of stay of 3 months or more, to five or more previous psychiatric hospitalizations, and to participation in two or more ongoing activities whilst in the programme. Psychiatric diagnosis was not directly related to goal attainment in this programme.

Blankertz L, Robinson S. (1996)\textsuperscript{74} examined the effect of adding two employment specialists to the staff of a community mental health center; their sole responsibility was to develop the skills and positive work attitudes that clients with severe mental illness need to enter the state vocational rehabilitation system or to seek employment. A total of 122 clients were randomly assigned to a program with an employment specialist or to a control group with no specialized vocational services. Clients in the program were taught work skills and attitudes in group and individual sessions and through a trial work experience. A schedule of rewards reinforced positive changes. Outcomes measured were skill gains, changes in work attitudes, attainment of employment, and entry into the state vocational rehabilitation system. At nine months, 34 of the 61 clients in the
program achieved positive changes in vocational status that included competitive employment, participation in training and evaluation programs operated by the state vocational system, and formal referral to the system. Only one client in the control group was linked to the state system. Skill gains and positive changes in work attitudes were found for all program clients. Logistical regression suggested that program participation, rather than client characteristics, was an important predictor of a positive outcome. Over a relatively short time period, targeted vocational programs can help clients with severe mental illness develop the skills and attitudes necessary to attain employment or entry into the vocational rehabilitation system. Vocational rehabilitation can be an integral part of the rehabilitation process for all mental health clients.

Mueser, Drake and Bond (1997) highlighted progress in several areas that have been the focus of extensive research, including case management, social skills training, supported employment, family intervention, and integrated treatment for comorbid substance use disorders. The characteristics of successful psychiatric rehabilitation programs identified were: (1) effective interventions tend to be direct and behavioural; (2) rehabilitation programs have specific effects on related outcomes, with limited generalization to other domains; (3) short-term interventions are less effective than long-term ones; (4) interventions need to be delivered close to patients' natural environments; and (5) effective programs often combine skills training and environmental support.
Corry & Jewell (2002)\textsuperscript{76} described the implementation of psychiatric rehabilitation technologies in a variety of routine mental health settings in Rochester, New York. The literature review on specific psychiatric rehabilitation strategies revealed the diversity of the strategies and explained that all share a common goal to minimize the disability associated severe mental illness. The challenges involved in implementing novel treatments in pre-existing mental health programs were also emphasized. Descriptions of barriers encountered during the implementation process in six different settings illustrate how these evidence-based treatment strategies can successfully be offered to consumers at various stages of recovery.

Dickerson, Sommerville and Origoni (2002)\textsuperscript{77} interviewed 100 persons with serious mental illness receiving community services to determine their experiences of mental illness stigma. The most frequently cited sources of stigma were employers and supervisors, family members, mental health caregivers, and persons in the community at large. The most common types of stigma responses which respondents reported receiving from others were a view of the person as incompetent and a lack of acceptance or understanding about mental illness. Offensive comments about mental illness and a fear of the person's potential danger were also cited. Results are discussed in the context of psychiatric rehabilitation practice. Specific anti-stigma interventions are needed to facilitate rehabilitation goals of skill development, community integration, and recovery.
Davidson (2004) \(^7\) identified the factors hindering rehabilitation process through a survey among the persons with mental illness. The major hindrances identified were being the object of stigma and discrimination, Experiencing repeated failures and losses, Losing control of one’s life, having others make important decisions about client’s life, the constriction of possibilities, expectations, and roles open to the clients, being confined to a passive, patient role in which I have nothing to offer others, negative and paternalistic attitudes, accentuating deficits and problems and the lingering presence of institutional culture in community settings.

Joseph Harkness, Sandra J. Newman, David Salkever (2004) \(^9\) interviewed 670 persons with chronic mental illness to determine the effects of housing and neighbourhood features on residential instability and the costs of mental health services for individuals with chronic mental illness. The results revealed that participants living in newer and properly maintained buildings had lower mental health care costs and residential instability. Buildings with a richer set of amenity features, neighbourhoods with no outward signs of physical deterioration, and neighbourhoods with newer housing stock were also associated with reduced mental health care costs. Study participants were more residentially stable in buildings with fewer units and where a greater proportion of tenants were other individuals with CMI. Mental health care costs and residential instability tend to be reduced in neighbourhoods with many nonresidential land uses and a higher proportion of renters. Mixed-
race neighbourhoods are associated with reduced probability of mental health hospitalization, but they also are associated with much higher hospitalization costs if hospitalized.

Tania Kyle, James R. Dunn Barts (2008) made a systematic review of studies that investigated the relationship between housing-related independent variables and health-related dependent variables viz. quality of life and healthcare use. Ten online databases were searched for studies published since 1980 that had study populations of adults with Severe and Persistent Mental Illness, analyzed primary or secondary empirical data, and measured housing-related independent variables and health-related dependent variables. Clearly defined epidemiological criteria were used to assess the strength of evidence of the selected studies. Twenty-nine studies met the suitability criteria, of which 14 reported healthcare utilisation outcomes; 12 examined mental status outcomes; and 9 reported quality-of-life outcomes. The findings of the review suggest that there is good evidence that housing interventions benefit the homeless population; however more research is needed about housing solutions for individuals with SPMI who are housed, but in precarious or inappropriate housing situations.

2.5 Rehabilitation of Homeless Mentally Ill

2.5.1 Global Scenario

Schutt, R. K., Goldfinger, S.M.(1996) examined the relationship between the types of residential arrangements preferred
by homeless mentally ill persons and their demographic and clinical characteristics and perceptions of their health and functional status. The study sample consisted of 118 homeless mentally ill persons living in publicly funded shelters in Boston who were enrolled in a research demonstration project that would provide them with housing. Before random assignment to housing, study participants were interviewed about their interest in moving, in staff support, and in living with others. Their clinical status and functional strengths and impairments were assessed using a variety of objective and subjective measures. Study participants reported a marked preference for independent living but expressed substantial interest in staff support. The desire for independent living was associated with a perceived ability to manage independent living, but was also associated with current substance abuse. Most indicators of clinical status and functional ability were not associated with housing preferences. Self-perceived functional ability may not be an influence on housing preferences, except when that ability is perceived as making independent living more difficult. Symptoms of mental illness did not appear to interfere with study participants' rational decision making about where to live. However, the study finding that substance abusers expressed a desire for independent living suggests the need for caution in adhering to homeless mentally ill persons' housing preferences, given the problems posed by substance abuse for their ability to maintain stable community housing.
Calloway, M.O., Morrissey, J. P. (1998) depicted the ACCESS programme to help homeless persons with comorbid psychiatric and substance use disorders gain access to community services. The study examined the extent of linkages between agencies in the 15 demonstration cities of ACCESS program. One respondent from each of the 1,060 community-based programs in the 15 cities rated the extent to which his or her agency was linked with each of the other agencies in the local community in 1994 and again in 1996. Overall, there were 20,801 potential pairwise linkages. Linkages were classified into four types: a mutual tie, in which both agencies send and receive clients; a unidirectional tie, in which one agency sends and the other receives; an attempted tie, in which one agency sends but the other agency does not confirm receiving; and an unattempted tie. In 1994 and 1996, of the 20,801 pairs of potential service linkages, about a third were in place, while the remaining two-thirds were absent. Overall, linkages showed a slight but significant increase between 1994 and 1996. More than half of the linkages changed in type, indicating fluid service systems. They concluded that linkages between community agencies serving homeless persons with comorbid psychiatric and substance use disorders are not extensive. However, they increased slightly under the first two years of the ACCESS program, and there are good reasons to anticipate greater improvements in the future.

Nuttbrock et al. (1998) studied the feasibility and effectiveness of treating homeless mentally ill chemical abusers in
community residences compared with a therapeutic community. A total of 694 homeless mentally ill chemical abusers were randomly referred to two community residences or a therapeutic community. All programs were enhanced to treat persons with dual diagnoses. Subjects' attrition, substance use, and psychopathology were measured at two, six, and 12 months. The results show that forty-two percent of the 694 referred subjects were admitted to their assigned program and showed up for treatment, and 13 percent completed 12 months or more. Clients retained at both types of program showed reductions in substance use and psychopathology, but reductions were greater at the therapeutic community. Compared with subjects in the community residences, those in the therapeutic community were more likely to be drug free, as measured by urine analysis and self-reports, and showed greater improvement in psychiatric symptoms, as measured by the Center for Epidemiological Studies—Depression Scale and the Brief Psychiatric Rating Scale. Their functioning also improved, as measured by the Global Assessment of Functioning scale. The study concluded that Homeless mentally ill chemical abusers who are retained in community-based residential programs, especially in therapeutic communities, can be successfully treated.

Goldfinger et al. (1999) examined the influence of group or individual housing placement and consumer characteristics on the number of days subsequently homeless among formerly homeless mentally ill persons. The results indicate that the number of days homeless was greater for individuals assigned to independent
apartments than for those placed in staffed group homes, but only for members of minority groups. Substance abuse was the strongest individual-level predictor of days homeless. Individuals whom clinicians identified as needing group living experienced more days homeless, irrespective of the type of housing they received. Consumers who stated a strong preference for independent living had more days homeless than those who were amenable to staffed group homes. Although consumers more frequently prefer independent living, placement in staffed group housing resulted in somewhat fewer days homeless for some groups of consumers. Further experience of homelessness by formerly homeless mentally ill individuals may be reduced by providing effective substance abuse treatment and by paying special attention to consumers identified by clinicians to be at particular risk for housing loss.

Dickey, B (2000) reviewed the literature evaluating prevention services and specialized outreach, treatment, and housing programs designed to reduce homelessness for individuals who are mentally ill. Although these interventions have been helpful in addressing the complex needs of the homeless mentally ill, it is difficult to measure how they have improved outcomes. It is even more challenging to determine whether the programs are cost-effective. Since public resources are used to maintain services for the homeless mentally ill, policy-makers must be informed about whether the best outcomes are achieved at the lowest possible cost. Following a discussion of the successes of the individual programs
and the challenges they confront, several important questions are identified related to improving the efficiency of these programs. Although the establishment of such programs indicates that progress has been made toward alleviating the burdens facing people who are homeless and mentally ill, collaboration among all stakeholders—especially between the mental health community and consumer advocates—needs to be further enhanced.

Pollio, D.E., et al. (2000) explored service use among clients of a multiservice agency serving homeless persons with severe mental illness was examined to determine whether patterns of service use reflected two stages in an adaptation of the transtheoretical model of change. In the adapted model, change occurs in five stages—pre-engagement, contemplation, engagement, the strategic moment, and consolidation. It was hypothesized that rates of service use would be highest immediately after clients obtained housing (the strategic moment) and would decrease in the months afterward (consolidation stage), with the greatest decreases occurring immediately after housing was obtained. Service use data were collected for two groups: a housed group of 58 clients who had obtained and sustained stable housing for at least 24 consecutive months at the time of sampling and an unhoused group of 55 clients who were matched with the housed clients on month of service entry. Total service use and use of three service types—a drop-in center, counseling, and health services—were examined to test the hypotheses. It was hypothesized that use of services by the unhoused group would show a consistent
linear decline rather than a two-stage decline. Linear spline regression using bootstrap sampling methods was used to fit service use data for both groups. The two-stage solution significantly modeled the patterns of service use by the housed but not the unhoused clients, supporting the hypotheses. For the housed group, use of the drop-in center and counseling fit the model, and use of health services did not.

Lipton, F.R., et al. (2000) examined the long-term effectiveness of approaches to housing homeless persons with serious mental illness. A total of 2,937 persons placed in high-, moderate, - and low-intensity housing were followed for up to five years. Intensity reflected on the amount of structure and degree of clients' independence. The outcome variable was tenure in housing. Cox stepwise regression was used to calculate risk ratios of becoming discontinuously housed. Thirty percent of the samples were initially placed in high-intensity settings, 18 percent in moderate-intensity settings, and 52 percent in low-intensity settings. Those in high-intensity settings tended to be younger, to be referred from hospitals, and to have a history or diagnosis of substance abuse. Individuals in moderate-intensity settings were more likely to be female and were least likely to have substance abuse problems. Individuals in low-intensity settings were more likely to be referred by municipal shelters and to have lived in municipal shelters for four or more months. After one, two, and five years, 75 percent, 64 percent, and 50 percent, respectively, of the sample were continuously housed. Older age was associated with longer tenure, and having a history of
substance abuse was associated with shorter tenure. Individuals referred from a state psychiatric center had a greater risk of shorter tenure than other types of referrals. Results show that homeless persons with serious mental illness can remain in stable housing for periods of up to five years, supporting the premise that long-term residential stability can be enhanced by providing access to safe and affordable supportive housing.

Chinman, M. J., Rosenheck, R., and Lam J. A. (2000) examined the effect of the case management relationship on clinical outcomes among homeless persons with serious mental illness. The sample consisted of the first two cohorts that entered the Access to Community Care and Effective Services and Supports (ACCESS) program, a five-year demonstration program for mentally ill homeless persons funded by the Center for Mental Health Services in 1994. At baseline, three months, and 12 months, clients were characterized as not having a relationship with their case manager or as having a low or high therapeutic alliance with their case manager. Analyses were conducted to test the association between the case manager relationship at baseline, three months, and 12 months and clinical outcomes at 12 months. Multivariate analyses of covariance were conducted for 2,798 clients who had outcome data at 12 months. No significant associations were found between the relationship with the case manager at baseline and outcomes at 12 months. At three months, clients who had formed an alliance with their case manager had significantly fewer days of homelessness at 12 months. Clients
who reported a high alliance with their case manager at 12 months had significantly fewer days of homelessness at 12 months than those with a low alliance, and those with a low alliance at 12 months had fewer days of homelessness than clients who reported no relationship with their case manager. Clients with a higher alliance at both three and 12 months reported greater general life satisfaction at 12 months. The study found that clients' relationship with their case manager was significantly associated with homelessness and modestly associated with general life satisfaction.

Tsemberis, S., and Eisenberg, R.F., (2000) examined the effectiveness of the Pathways to Housing supported housing program over a five-year period. Unlike most housing programs that offer services in a linear, step-by-step continuum, the Pathways program in New York City provides immediate access to independent scatter-site apartments for individuals with psychiatric disabilities who are homeless and living on the street. Support services are provided by a team that uses a modified assertive community treatment model. After five years, 88 percent of the program's tenants remained housed, whereas only 47 percent of the residents in the city's residential treatment system remained housed. When the analysis controlled for the effects of client characteristics, it showed that the supported housing program achieved better housing tenure than did the comparison group. The Pathways supported housing program provides a model for effectively housing individuals who are homeless and living on the streets. The program's housing retention
rate over a five-year period challenges many widely held clinical assumptions about the relationship between the symptoms and the functional ability of an individual. Clients with severe psychiatric disabilities and addictions are capable of obtaining and maintaining independent housing when provided with the opportunity and necessary supports.

Power, C., Attenborough J., (2003) identified the characteristics of homeless clients who were 'lost' after referral on to statutory health and social services departments. A retrospective case note review of a consecutive series of a hundred homeless people with mental health problems referred to a specialist team. Follow-up was 4 years after initial contact. Their last known address or caseworker was used to gain information regarding their housing status, and whether they were in contact with mental health services. The results revealed, there was no evidence that loss of contact with mental health services related to age, forensic history or substance misuse. Clients referred to the team on more than one occasion were marginally more likely to remain in contact with services. Ten percent of the sample had returned to the homeless circuit, 49% were resettled to more permanent accommodation. Forty-three percent were not in contact with services while 55% were still in contact 4 years later. This study supports the suggestion that with specialist intervention and support, people with mental health problems who are homeless can live a more settled existence.
Jones, K et al (2003) investigated the cost-effectiveness of the critical time intervention program, a time-limited adaptation of intensive case management, which has been shown to significantly reduce recurrent homelessness among men with severe mental illness. Ninety-six study participants recruited from a psychiatric program in a men's public shelter from 1991 to 1993 were randomly assigned to the critical time intervention program or to usual services. Costs and housing outcomes for the two groups were examined over 18 months. Over the study period, the critical time intervention group and the usual services group incurred mean costs of $52,374 and $51,649, respectively, for acute care services, outpatient services, housing and shelter services, criminal justice services, and transfer income. During the same period, the critical time intervention group experienced significantly fewer homeless nights than the usual care group (32 nights versus 90 nights). For each willingness-to-pay value—the additional price society is willing to spend for an additional non-homeless night—greater than $152, the critical time intervention group exhibited a significantly greater net housing stability benefit, indicating cost-effectiveness, compared with usual care. The authors concluded that, although difficult to conduct, studies of the cost-effectiveness of community mental health programs can yield rich information for policy makers and program planners. The critical time intervention program is not only an effective method to reduce recurrent homelessness among persons with severe mental illness but also represents a cost-effective
alternative to the status quo. Cost-effective programs are needed to assist homeless persons with severe mental illness in their transition from shelters to community living.

Killaspy, H, Ritchie, C. W., Greer, E., Robertson, M. (2004) reported that homeless mentally ill people are more likely to return to the streets after psychiatric inpatient treatment if discharged to unstable accommodation and if they disengage from aftercare. Inpatient treatment alone may improve housing stability, especially for street homeless people suffering from psychoses. Designated inpatient services for this group could therefore provide well co-ordinated discharge planning.

Drury, L.J. (2008) conducted an ethnographic study to determine what homeless people experience during the transition from street life into community housing. Data were gathered through participant observation at a program designed to secure housing and support services for homeless people upon discharge from a psychiatric hospital. Sixty homeless, mentally ill adults were followed from hospital discharge through their first 2 years in community housing. Homeless people interact with health care providers across a cultural divide produced by vast differences in their lived experiences. This cultural distance limits access to the services that these individuals require to achieve residential stability.
2.5.2 Indian Scenario

N. Arunkumar et al (2007) commented that homelessness among patients with severe mental illness as one of the most challenging problems faced by providers of psychiatric services. The risk of becoming homeless for persons with schizophrenia is ten times that in general population, and these patients are at increased risk of abuse—both physical and sexual, nutrition deficiency and life threatening infectious disease. This study aims to look at the nature of mental illness in wandering homeless patients, the psychopathology, disability and the treatment outcome. Patients brought to TRUST Shantivanam were admitted after the legal procedures, clinical diagnosis made using DSM IV criteria, treated with necessary drugs and ECT if required. Illness pattern was collected using BPRS scale, the functioning was assessed using GAF scale, and disability was noted by IDEAS scale. Patient was followed up for progress and a reassessment for symptoms and disability was carried out at the end of 1st month and 3rd month of admission.

2.6 Rehabilitation Outcomes

This section deals with studies related to different rehabilitation outcomes and effectiveness different models of rehabilitation.

Iyer, Rothmann, Vogler, and Spaulding (2005) discussed the need for comprehensive assessment of outcomes in rehabilitation with advances in treatments for severe mental illness. The article
addressed issues in evaluating psychiatric rehabilitation outcomes, including key outcome domains, selection of methods and measures, and meaningful use of results. The outcome measures identified were symptoms, cognitive measures, functional measures, quality of life, goal attainment, patient satisfaction etc. The main use of outcome evaluation in psychiatric rehabilitation has been to demonstrate the effectiveness of programs and specific treatment interventions. A range of measures has been used to test multiple interventions in terms of their effects on multiple outcome domains. Outcome evaluations have also been used to test hypotheses about predictors of rehabilitation outcomes. Quality of life measures have enjoyed increasing popularity in psychiatric rehabilitation because they go beyond the limitations of global scales and the circumscribed scope of measures of specific domains. Quality of life measures typically address a range of functional areas, including but not limited to role functioning, life satisfaction, and material well-being. Assessments of patient satisfaction have variously been called client satisfaction and consumer satisfaction. The criterion of patient satisfaction with treatment and other services is increasingly being used as a measure of outcomes. Social and personal functioning includes social role performance (work, leisure, family roles, and basic self-care) and interpersonal functioning (friendship, social relations, and family relations). Functional measures vary widely with respect to the range of specific areas of functioning they address. Probably the most widely used global function scale is the Global Assessment of
Functioning (GAF) scale, which is incorporated into the DSM-IV TR. The GAF rates overall personal and social functioning during a specified time period on a scale ranging from 0 to 100.

2.6.1 Outcome Studies

Ross, G., Menapace, R.H., Teitelman, E. (1981) devised an instrument for identifying reliable predictors of the outcome for clients in psychiatric rehabilitation programs as a step to overcome limitations of traditional measures. An instrument called the Client Adjustment Rating Scales attempt to develop a reliable indicator; it consists of nine subscales on which client's attitudes and behaviours in such psychosocial areas as motivation, self-concept, and family functioning to be rated by clinicians. Analysis of the ratings of 89 clients from Horizon House, a community-based psychiatric rehabilitation program in Philadelphia, shows that those who successfully complete rehabilitation programs have higher (more positive) scores on the scales, while program dropouts have lower scores. The authors conclude that after further testing the CARS may be used both as a reliable predictor of client outcome and as a tool for planning rehabilitation programs.

Morse, G. A., Calsyn, R. J., Allen, G., Tempelhoff, B., & Smith, R. (1992) compared the effectiveness of the continuous treatment team against two other approaches (day treatment and outpatient therapy) in assisting homeless mentally ill individuals. Clients in all three conditions improved on the following outcome measures:
income, psychiatric symptoms, self-esteem, and interpersonal adjustment. More important, there were significant treatment-group differences in favour of the continuous treatment team (CTT) on two important outcome variables: days stably housed in the community and client satisfaction with their treatment program.

Deborah Bybee, Carol T. Mowbray, Evan Cohen (1994) compared the short and longer term outcomes observed in an outreach and intervention project targeted to individuals who were homeless and mentally ill. It encompassed two sites and multiple recruitment sources to produce results with greater potential for generalizability than other studies at 4-month follow-up, 57% of service recipients were in permanent-type independent settings, 23% were in supervised dependent settings, 9% were in treatment facilities, and 11% were homeless or in corrections facilities. Three significant multivariate predictors of follow-up residential status were found: (a) recruitment source -- those from shelters were more likely to be in independent setting alone or in temporary treatment or homeless settings, while those from hospitals were more likely to be in independent settings alone and those from CMH caseloads were more likely to be in supervised dependent care; (b) baseline functioning -- those whose ratings assigned them to the "hostile psychotic" cluster were more likely than those in the "best functioning" cluster to be in supervised dependent or temporary treatment or homeless settings and less likely to be in independent settings alone; and (c) amount of homeless project service -- those receiving more
hours of service were more likely to be in independent settings alone and less likely to be in temporary treatment or homeless settings. Additionally, while project site, race and substance-abuse problem showed marginally significant relationships, no aspect of baseline residential history or mental health service use predicted residential status at 4-month follow-up.

Rosenheck, R., Frisman, L., and Gallup, P. (1995) examined relationships between specific treatment elements and their costs and ten outcome measures using data from a longitudinal outcome study of a Veterans Affairs program for homeless mentally ill veterans. Baseline and outcome data over an eight-month period were analyzed for 406 homeless veterans with psychiatric and substance use disorders who were treated in VA's Homeless Chronically Mentally Ill Veterans Program. Multivariate techniques were used to examine the relationship between ten measures of outcome and six treatment elements: program entry via community outreach, the number of contacts with program clinicians, the number of referrals for other services, duration of program involvement, number of days of residential treatment, and increased public support payments. Each of the six treatment elements was significantly related to improvement on at least one of the ten outcome measures. The number of clinical contacts with program staff and the number of days in residential treatment were associated with improvement in the greatest number of outcome domains. However, improvement associated with residential treatment was far more costly than
improvement related to other treatment elements. This study provides evidence of the effectiveness of a multimodal approach to the treatment of homeless mentally ill persons. However, results indicate that special attention should be paid to differences in the cost of improvement associated with various treatment elements.

Anthony, W., Brown, M. A., Rogers, E. S. & Derringer, S. (1999) investigated the program cost and community functioning of individuals discharged to an innovative transition project that was sponsored and funded jointly by the Division of Vocational Rehabilitation and the Department of Mental Health. In the original study, twenty-six people were discharged to a supported living/supported employment program. This paper reports on a follow-up study conducted one year after the original formal evaluation of the project was completed. Similar to the original study, the follow-up study assessed residential and vocational status; data on ongoing need for program support, and program costs were collected. Results indicated that individuals were able to maintain most of the residential and vocational gains made during their initial year of their transition to the community. In addition, hospital days remained low, and the ongoing costs of the program per year; while still substantial, were significantly less than the costs for the first year of their transition into the community.

severe mental illness were randomly assigned to the experimental program (called Choices) or to standard treatment in New York City. The study participants were assessed at baseline and at 6-month intervals over 24 months, using measures of service use, quality of life, health, mental health, and social psychological status. The average deviation from baseline summary statistic was employed to assess change. Compared with persons in standard treatment (n=77), members of the experimental group (n = 91) were more likely to attend a day program (53% vs 27%), had less difficulty in meeting their basic needs, spent less time on the streets (55% vs 28% reduction), and spent more time in community housing (21% vs 9% increase). They showed greater improvement in life satisfaction and experienced a greater reduction in psychiatric symptoms. The study commented that with an appropriate service model, it is possible to engage disaffiliated populations, expand their use of human services, and improve their housing conditions, quality of life, and mental health status.

Accordino, M. P., Herbert, J. T. (2000) reviewed the literature concerning outcome-based research and treatment interventions of persons with SMI has used a variety of criteria to determine program effectiveness. Certain outcome criteria such as subjective quality of life, consumer satisfaction, and psychiatric rehospitalization have witnessed a great deal of interest while other promising outcome measures using empowerment and mastery indicators are limited. They also investigated the differential impact of participating in one
of four rehabilitation interventions (clubhouse model program, consumer self-help group, social-skills training, and vocational-skills training) among persons with serious and persistent mental illness. When controlling for demographic variables, analysis of covariance revealed no differences among the four programs with respect to subjective quality of life, empowerment, mastery, satisfaction, and psychiatric hospitalization frequency.

Ziguras, S.J., and Stuart, G.W. (2000) used meta-analytical methods to investigate the effectiveness of case management and to compare outcomes for assertive community treatment and clinical case management. Controlled studies of case management published between 1980 and 1998 were identified from reviews and through database searches. The results were quantitatively combined and compared with results of studies of mental health services without case management. Combined effect sizes and significance levels for 12 outcome domains were calculated. Analysis of homogeneity was used to explore differences between models. Forty-four studies were analyzed; 35 compared assertive community treatment or clinical case management with usual treatment, and nine directly compared assertive community treatment with clinical case management. Both types of case management were more effective than usual treatment in three outcome domains: family burden, family satisfaction with services, and cost of care. The total number of admissions and the proportion of clients hospitalized were reduced in assertive community treatment programs and increased in clinical case
management programs. In both programs the number of hospital days used was reduced, but assertive community treatment was significantly more effective. Although clients in clinical case management had more admissions than those in usual treatment, the admissions were shorter, which reduced the total number of hospital days. The two types of case management were equally effective in reducing symptoms, increasing clients' contacts with services, reducing dropout rates, improving social functioning, and increasing clients' satisfaction. Both types of case management led to small to moderate improvements in the effectiveness of mental health services. Assertive community treatment had some demonstrable advantages over clinical case management in reducing hospitalization.

Cook, J. A., et al (2001) examined the vocational outcomes of 4,778 formerly homeless individuals with severe mental illness who were enrolled in the Access to Community Care and Effective Services and Support (ACCESS) program, a multisite demonstration project designed to provide services to this population. Participants were interviewed at the time of enrollment and again three months and 12 months later by trained researchers who were not part of the treatment team to determine their employment status. At 12 months, participants were also asked about the types of services they had received during the past 60 days. Multiple logistic regression analysis was used to predict employment at 12 months. ACCESS participants reported receiving relatively few job-related services. Nonetheless, modest but significant increases occurred between baseline and three
months and between three months and 12 months in the total proportion of participants who were employed and who were employed full-time and in hourly earnings and estimated monthly earnings. The number of hours worked per week increased significantly between three months and 12 months. When the analysis controlled for site, study condition (whether the ACCESS site received or did not receive extra funds to improve service integration), minority status, addiction treatment, and mental health treatment, participants who were employed at 12 months were more likely to have received job training and job placement services. Programs that work with homeless mentally ill persons may better serve their clients by placing as great an emphasis on providing employment services as on providing housing and clinical treatment.

Gonzalez, G. and Rosenheck, R. A. (2002) compared baseline characteristics and clinical improvement after 12 months among homeless persons with a diagnosis of serious mental illness with and without a comorbid substance use disorder. The study subjects were 5,432 homeless persons with mental illness who were participating in the Center for Mental Health Services' Access to Community Care and Effective Services and Supports (ACCESS) program. Analysis of covariance was used to compare clients who had dual diagnoses and those who did not and to identify any association between service use and clinical improvement. Follow-up data were available for 4,415 clients (81 percent). At baseline, clients with dual diagnoses were worse off than those without dual diagnoses on most clinical and
social adjustment measures. Clients with dual diagnoses also had poorer outcomes at follow-up on 15 (62 percent) of 24 outcome measures. However, among clients with dual diagnoses, those who reported extensive participation in substance abuse treatment showed clinical improvement comparable to or better than that of clients without dual diagnoses. On measures of alcohol problems, clients with dual diagnoses who had a high rate of participation in self-help groups had outcomes superior to those of other clients with dual diagnoses. Clients with dual diagnoses who received high levels of professional services also had superior outcomes in terms of social support and involvement in the criminal justice system. Homeless persons with dual diagnoses had poorer adjustment on most baseline measures and experienced significantly less clinical improvement than those without dual diagnoses. However, those with dual diagnoses who received extensive substance abuse treatment showed improvement similar to those without at 12 months.

Killaspy, H, Ritchie, C.W., Greer, E., Robertson, M. (2004) assessed the relationship between admission to a designated ward for the homeless mentally ill and improvement outcome 12 months after discharge in terms of housing stability and engagement with services. They concluded that designated ward for the homeless mentally ill encourages admission of street homeless clients and those who are most mobile. At discharge, stable housing can be arranged and sustained as successfully as for those with less entrenched homelessness. Other benefits include improvement in engagement
with services and reduction in factors influencing medication non-compliance.

O’Connell, M., et al. (2006) examined the types of housing features considered important to a sample of homeless persons diagnosed with a mental illness and/or substance use disorder and the relationship between the degree to which important features were obtained in subsequent housing and subjective quality of life, clinical and housing outcomes at 3-month and 1-year follow-up periods. After controlling for significant clinical and sociodemographic covariates, results from regression analyses indicate that the degree to which a client’s individual housing preferences were realized in dwellings is significantly associated with greater quality of life in the future, but not clinical outcomes or housing tenure.

Indian Scenario:

Pai and Kapur, (1983), evaluated home care treatment for schizophrenic patients. This revealed that home treatment through a visiting nurse gives better clinical outcome; better social functioning of the patient and greatly reduces the burden on the patient family.

Gopinath, et al., (1985) report the performance of 129 schizophrenics attending the occupation therapy center at NIMHANS, Bangalore, as day boarders has been assessed on a five point scale by Griffith’s work Behaviour Assessment scale and correlated with various demographic and clinical variables. Those unemployed early had significantly lower work performance, poor
social support and presence of residual symptoms were also significantly related to poor work performance. Other demographic characteristics, subtype of schizophrenia, duration of illness and age of onset did not influence work performance significantly.

2.6.2 Quality of Life

Shepherd, Fleoff, Muijen, et al., (1996)\textsuperscript{110} compared the quality of care and quality of life from residents in 5 long-stay mental hospitals and 20 community residential homes in the London area, measures included the quality of the physical environment, staff and resident characteristics, resident satisfaction and staff stress, and staff resident interaction. In general, the most disabled residents were living in hospitals in the worst conditions and receiving the poorest quality of care. Hospital residents also seemed most dissatisfied with their living situation. Quality of care in the community homes seemed to be much more determined by the personality and orientation of project leaders.

Eklund, M., Hansson, L (1998)\textsuperscript{111} investigated the properties of the quality of life measures used and to relate to some of the methodological problems that have been raised in connection with the use of subjective quality of life as an outcome measure. An instrument with one self-report and one interview-based version was used. Both versions were sensitive to change among the patients from admission to a 1-year follow-up. There was a linear relationship between the perspectives, even though the patients generally
reported a better quality of life than the independent judgement made from the interview. The interview-based version was more closely related to other outcome measures used than the self-report version, whereas self-reported quality of life was more closely related to consumption of care. Neither perspective showed any manifest relationship to objective indicators of quality of life. Both versions seemed to be valid and sensitive measures for the present patient population. In particular, it might be stressed that the self-report version of quality of life performed as well in the focused respects.

Cibanal, et al., (2000)\textsuperscript{112} studied quality of life factors in 14 male and female adults, age 30 years, low socio-economic status with schizophrenia, attending a \textit{day-care Center}. The data were obtained on socio-demographic variables, psychiatric symptoms, personal and social relationships, occupational roles and performance and participation in communal activities using the quality of life scale. In results, the lowest scores were noted on the occupational roles subscale and the highest on the intrapsychic functioning subscale.

Lam, J.A. and Rosenheck, R. (2000)\textsuperscript{113} examined the correlates of improvement in quality of life among homeless persons with serious mental illness. Longitudinal data from 4,331 homeless mentally ill clients at 18 sites participating in the Access to Community Care and Effective Services and Supports program were used to assess participants' quality of life over a one-year period. At baseline higher quality of life was associated with less severe depressive and psychotic symptoms, less use of alcohol and drugs,
and more social support. At 12 months improved quality of life was associated with decreased psychotic and depressive symptoms, reduced substance abuse, fewer days of homelessness, and increased social support, income, employment, and service use.

Sullivan, G., et al. (2000)\textsuperscript{114} compared the quality of life of homeless persons with mental illness with that of homeless persons without mental illness. Subjective and objective quality-of-life ratings were obtained in face-to-face interviews with 1,533 homeless adults in Los Angeles, who were identified using probability sampling of people on the streets and at shelters and meal facilities; 520 subjects were tracked for 15 months. Ratings of homeless persons with and without mental illness were compared using chi square tests and regression analyses. The results indicate that mentally ill homeless persons were significantly more likely than those without mental illness to receive Supplemental Security Income, Social Security Disability Insurance, Veterans Affairs disability benefits, or Medicaid. However, those with mental illness still fared significantly worse in terms of physical health, level of subsistence needs met, victimization, and subjective quality of life. Differences between groups in the subjective quality-of-life ratings were accounted for by modifiable factors such as income and symptoms rather than by non-modifiable demographic characteristics. They concluded that interventions most likely to improve the quality of life of homeless persons with mental illness include those that stress maintenance of stable housing and provision of food and clothing and that address physical health
problems and train individuals to minimize their risk of victimization. Interventions that decrease depressive symptoms might also improve subjective quality of life.

Ruggeri, M., et al. (2001) discussed the merits of Quality of life in the measurement of outcome in chronic mental illnesses. It can be used to measure the incremental improvement rather than cure; it takes account of a wide range of aspects of daily living. The QOL measures have shown success in comparing different circumstances and treatment conditions.

Rubin, S.E. Chan, F., Thomas, D.L. (2003) discussed the relevance of addressing both life skills and quality of life when attempting to assess the effects of rehabilitation services. The purpose of such measures is to provide the service provider with (a) a clear over-all pre vs post picture of the level of functioning of the individual, (b) clear evidence of the effects of services on the sense of well being of the consumer and, (c) a means with which to monitor his or her own effectiveness.

Mubarak, A.R., et al (2003) studied the quality of life (QOL) of 174 community-based chronic schizophrenia patients in Penang, Malaysia. The study samples were selected from the Out Patient Department, Department of Psychiatry, Penang General Hospital, Malaysia. The data was collected through personal interviews with the respondents. A questionnaire prepared by the research team was used to collect data on background characteristics. Lehman's (1988)
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Quality of Life Interview was used to collect data on patients' QOL. Equal number of males and females participated in the study. The interviews on QOL indicated problems in the areas of life in general, place of living, daily activities, social relations, finance, work and general health. The results also revealed that community-based schizophrenia patients had acute poverty and experienced social isolation, discrimination and exploitation in the workplace.

Becker, T., et al. (2005) investigated relationships of functioning level, subjective Quality of Life (QOL) and unmet needs in a cross-sectional study of 404 patients with schizophrenia spectrum disorders in five European centers with a focus on the patient group with low function scores. Patient groups with low, medium and high function scores were compared with regard to subjective QOL and unmet needs. QOL variability was assessed in subgroups according to function scores. Regression analyses were used to examine the impact of illness-related and other unmet patient needs on QOL. The influence of individual needs in the low and medium/high function score subgroup was compared. QOL increased and unmet needs decreased from the low to high function score subgroup. There was greater QOL variability in patients with low function scores compared to those with medium and high function scores, with some low-function score patients having relatively high QOL. In the low function score subgroup, both illness-related and other needs had an impact on QOL, whereas non-illness needs influenced QOL in medium and high function score patients. The study concluded that scores of functioning
level, in people with schizophrenia spectrum disorders, are related to QOL in a complex way, and types of unmet need impinge on the relationship. In order to improve QOL in people with low function scores, both illness-related and other needs should be met.

Murphy, H. and Murphy, E.K. (2006) compared quality of life in individuals with severe mental illness against a sample of the general population and to investigate the role of self-esteem, self-efficacy and social functioning. The World Health Organization Quality of Life measure (WHOQOL-100) along with the Rosenberg Self-Esteem Scale (RSE) and the Generalized Self Efficacy Scale (GSES) were administered to 104 individuals, 52 of whom were mental health service users with the remaining 52 participants sampled from the general population. Significant differences were found between clinical and non-clinical groups in four domains of the WHOQOL-100 and in a majority of the facets within domains. Two domains, Level of Independence and Social Relationships, were important differentiating aspects of QoL between the clinical and non-clinical sample as the highest significant differences were recorded there \( t = 12.150, \ p < 0.001 \) and \( t = 7.252, \ p < 0.001 \) respectively). Lower self-esteem and self-efficacy scores were recorded for the clinical sample compared to the non-clinical sample. The negative repercussions of mental illness encompassed almost all aspects of QoL that individuals had ascertained to be important for satisfaction and wellbeing in everyday life. Findings also indicated that individuals with mental illness have similar needs to a “normal”
population in terms of social support and social networks and that inter-personal issues were probably more pervasive than intra-psychic events with regard to QoL.

Jeanette Hewitt (2007)\textsuperscript{120} evaluated the effectiveness of two widely used instruments: The Medical Outcomes Study Short Form Health Survey (SF-36) and The Lancashire Quality of Life Profile (LQoLP) in terms of reliability and validity in measuring the quality of life of people with schizophrenia. The LQoLP appeared to be best suited for evaluation of care programmes, whereas the SF-36 was more appropriate for medical trials, comparisons between patient groups, and assessment of the direct consequences of treatment on health and function. Subjective quality of life should, however, be considered to be distinct from clinical status and quality of life assessment should include the broadest range of indicators, to reflect the holistic ethos of mental health nursing.

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Anish K.R. (2006)\textsuperscript{121} explored the quality of life and level of functioning of chronic mentally ill admitted to a rehabilitation programme. The self rated quality of life and observed level of functioning was taken as measure of outcome of the community based rehabilitation programme. A single system design was utilized to assess the outcome of the rehabilitation program. 120 chronic mentally ill admitted to a rehabilitation were interviewed to assess the quality of life using the WHO Quality of Life scale (WHO
QoL) and the level of functioning using the Global Assessment of functioning Scale. A comparison was made with the baseline assessment made at the time of admission. The study revealed statistically significant improvement in quality of life and functioning since admission. The Mean QoL score improved from $27 \pm 2.67$ to $44 \pm 6.57$ and global functioning score improved from $21 \pm 9.85$ to $71 \pm 14.23$ at the time the post assessment after an average stay of 10 months in the rehabilitation center. Significant positive correlation was found between the functioning and QoL of the residents.

2.6.3 Level of Functioning & Disability

Chaves, et al., (1993)\textsuperscript{122} conducted a cross sectional survey of 69 Brazilian schizophrenic patients by means of the positive and negative syndrome scale and the Disability Assessment Schedule (DAS). Males presented an earlier onset of the illness and were less likely to have ever married. With respect to social disabilities, males were worse than females on self-care, under-activity and work performance on DAS items. Variables of sex, age at examination, and negative syndrome total score explained 45% of the variance of overall behaviour. The higher the negative syndrome score, the greater the disabilities for both sexes. Variables of sex, negative symptoms, and an interaction between sex and positive symptoms explained 38% of variance of social role performance (SRP). The higher the negative syndrome score, the grater the SRP impairment, regardless of sex. In women it was found that, the higher the positive syndrome score, the greater the impairment in SRP.
Van, der, Does, et al., (1993)\textsuperscript{123} investigated the relationships among symptoms, cognitive functioning, and social functioning in 60 patients with recent onset schizophrenia. Positive symptoms were unrelated to cognitive measures. Disorganization and depressive symptoms were correlated significantly with performance on a modified Wisconsin Card Sorting Test. Furthermore, only negative symptoms were correlated significantly with social functioning.

Bailer, J, et al., (1994)\textsuperscript{124} studied the relationship between the patient rejection scale (PRS) scores, positive and negative symptoms, social disability, and number of re-hospitalizations in a longitudinal study of first admitted schizophrenics. The PRS, developed to assess rejecting attitudes and feelings of relatives toward mental patients, was administered to 44 family members or significant others living with first admitted schizophrenics. Patients and their relatives were interviewed at index admission, and at 6 months, 12 months, and 24 months later. Schizophrenics with relatives who tended toward rejection of the patient ran a higher risk of psychiatric re-hospitalization and showed more social disability, positive symptoms and negative symptoms over a 2 years follow-up period. The relation between rejecting attitudes toward the patient and the risk hospitalization during the following 2 years seemed to be partly mediated by symptoms level or social disability.

Mihaljevic, et al., (1994)\textsuperscript{125} assessed social functioning of 45 schizophrenic patients using WHO-Psychiatric Disability Assessment Schedule. Samples showed dysfunction in all items of their over all
Review of Literature

behaviour and their social role performance. The most intensive *dysfunction* in overall behaviour was social withdrawal, followed by under activity, slowness, and self-care. The most intensive dysfunction in social role performance was in the sexual relationship, followed by the parental role and the occupational role.

Pakaslahti, Antti, (1994)\textsuperscript{126} studied predictors of working disability among 125, first admission schizophrenic patients (mean age 28.3 years) in Helsinki, Finland. On average, 40.8% schizophrenic samples had been disabled and unable to work. During a follow-up period of 5.5 years 11.1% have been hospitalized. The results confirmed the major *prognostic role* of premorbid psychosocial development and adaptation for work function. Samples with poor performance were characterized by a poorer heterosexual adaptation, lack of psychosocial autonomy, social withdrawal, an insidious onset of psychosis, and negative symptoms. Florid psychotic symptoms were associated with good outcome; depressive symptoms were prognostically neutral.

Pirfo, Elvezio, Albera, Cristina, et al., (1994)\textsuperscript{127} studied 40 schizophrenic patients under age 45 years attending to 2 *vocational training workshops* by assessing social disability upon placement in the programme and upon completion of the first year of 2 years training course. At the follow-up assessment, marked improvement was seen in self-care and moderate improvement was seen in work role and independence of daily life. The findings shows that clinical variables influence social ones and that social factors in turn, influence the
more strictly clinical aspects of illness in a clearly reciprocal relationship.

Andia, Ana, Maria, et al., (1995) evaluated 85 outpatients and 53 men and 32 women aged between 18-45 with schizophrenia for illness history, symptom severity, IQ, neurocognitive status, cerebral volume loss and cortical asymmetry to assess gender differences in schizophrenia. *Social functioning* was assessed using marital status, independent living skills and employment status. Significant gender differences were found, as women were on lower doses of neuroleptic medications and more frequently met criteria for paranoid and disorganized subtypes of schizophrenia than men. Women also were better educated and more often married, living independently, and employed. Findings suggested than women may experience less of the adverse interpersonal and psychosocial consequences of schizophrenia than men, even when symptom and neurocognitive status is equivalent between groups.

Goering, Paula, Lin, et al., (1996) described the disability associated with psychiatric disorder in a *community sample* in order to refine estimates of service need and identify subgroups with greater priority for intervention. Disability is conceptualized broadly as performance difficulties, troubled relationships, and dissatisfaction in various life domains. Data from the 9,953 respondents (age 15-64 years) of the mental health supplement of the Ontario Health Survey were used to compare disability between those with and without disorder and among various subtypes of disorder. Although the
majority of those with disorder did not report disability, their difficulties with functioning were far greater than for the rest of the population. Those with comorbid or affective disorders typically showed more disability than those with anxiety or substance abuse disorders.

Klapow, et al., (1997) assessed the functional capacity of psychiatric patients, especially older ones. The subjects were 55 outpatients with schizophrenia and 72 normal persons ranging in age from 45 to 86 years. The subjects were administered with Direct Assessment of Functional Status Scale, which assess behaviour during (stimulated) daily activity tasks in the areas of time orientation, communication, transportation, finance, shopping, grooming and eating. The results showed that the patients with schizophrenia had significantly greater disability than the normal subjects according to total scale scores as well as the communication, transportation, finance and shopping sub scale scores.

Rahman and Indran, (1997) studied the prevalence and severity of psychiatric disabilities in patients with chronic schizophrenia compared with that in patients with chronic mood disorders. A total of 128 patients, 80 with chronic schizophrenia and 48 with chronic mood disorders as confirmed by DSM-III-R, were examined using the World Health Organization Psychiatric Disability Assessment Schedule (WHO/DAS). There were no significant differences in the prevalence and severity of disability between the two disorders. Two-thirds of the patients with chronic schizophrenia and over half the
patients with chronic mood disorders had dysfunctional behaviour and experienced significant disabilities.

O'Donnell, et al., (1999)\textsuperscript{132} studied the clients \textit{referred} for care management were randomly allocated to one of the three groups: Standard care management (n=35), client focused care management (n=39), or Client focused care management plus consumer advocacy (n=45). Measures of functioning, disability, quality of life, burden of care and service satisfaction were measured at baseline and 12 months. Outcome data were collected concerning number and duration of hospital readmission, crisis intervention and compliance with treatment and services. The \textit{results} showed that there were no differences between the groups on quantitative measures of functioning, disability, quality of life; service satisfaction and burden of care, there were significant differences between-groups on qualitative measures of satisfaction with services.

Walkup and Gallagher (1999)\textsuperscript{133} compared functional limitations, service utilization and social integration among younger, middle aged, and older age groups. \textit{Compared} to those with manic depression, individuals with schizophrenia are more disabled, and are more socially disadvantaged. These data confirm the generally held view of schizophrenia as the most disabling mental illness; point to the very high levels of need associated with it, and emphasized the need for general health care. Contrary to expectations based on new findings in the literature on course and outcome in schizophrenia disability (both service utilization and functional limitations) was
greater among older and middle aged adults than among their younger counterparts.

Moos R.H., et al. (2002) examined the value of the Global Assessment of Functioning as part of a system wide program for monitoring the allocation and outcomes of mental health care services. Clinicians used the GAF to assess global functioning among 9,854 patients with psychiatric or substance use disorders, or both, who were already participating in an outcomes monitoring program of the Department of Veterans Affairs. A longitudinal prospective follow-up design was used. Patients' clinical diagnoses and symptoms were stronger predictors of GAF ratings than was their social or occupational functioning. GAF-rated impairment was associated with the provision of inpatient or residential care and outpatient psychiatric care, but patients with greater levels of impairment did not receive more treatment. GAF ratings were only minimally associated with treatment outcomes. No robust associations were found between GAF ratings and outcomes as assessed by clinician interview or by patients' self-report at follow-up. Including GAF ratings in a program for predicting the allocation and outcomes of mental health care is of questionable value. Research is needed to determine whether systematic training and ongoing validity checks would enhance the contribution of the GAF in monitoring service use and outcomes.
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Sharma and Tripathi, (1986) followed up 29 manic depressives and 39 schizophrenics 3-5 years after onset of their illness and assessed for the presence of disability as measured by WHO-Disability Assessment Schedule-II Version. They found that schizophrenics have greater liability in all areas and an earlier onset of illness with a longer duration of psychosis as compared to manic depressives. Some manic depressive’s experience disability but they differ from the schizophrenics in that they do not suffer as widespread a disability in specific roles and have almost no disability in certain roles.

In an ICMR study (ICMR, 1988) the scores of disability correlated well with clinical outcome as assessed in terms of percentage of time spent in psychotic state, patterns of course and relapse episodes. Among the hypothesized predictors only economic difficulties and treatment compliance were well correlated with disability and no predictors were well correlated.

Ali, M, Sekar, K. and Shariff, I. A. (1989) studied 60 chronic schizophrenic patients and their significant family members by administering the Katz social adjustment scale. The study identified a wide difference between patients' assessment of their own performance of social functioning and their expectations. There was a significant difference between the relative’s assessment of the patients' performance of social functioning and their own expectations.
Thara and Rajkumar, (1991)\textsuperscript{138} studied the relationship between drug compliance and disability in patients diagnosed as schizophrenia (n=68) based on Feighner's criteria were evaluated, using schedule for assessment of psychiatric disability (SAPD) at the end of 5 years. Drug compliance was recorded systematically every month and it was found that compliance with medication was significantly associated with lower disability.

Thara and Rajkumar, (1993)\textsuperscript{139} prospectively followed up 68 patients who fulfilled Feighner's criteria for schizophrenia. Disability was assessed using the schedule for Assessment of Psychiatric Disability (SAPD) at 4, 5 and 6 years of follow-up. The authors report that patients had mild to moderate disability and that the course tended to be stable over three years of follow-up. Occupational disability was the most common form of disability and relapses were not related to disability.

2.7 Summary

The studies related to impact on the family unraveled the factors leading to burden and poor resilience among the care givers and families. The factors attributed by the above studies were personal factors Viz: presence of disruptive behaviours, extent of disability, inactivity, poor personal hygiene, social dysfunction, prolonged illness, unemployment and social factors like poor social support. Some studies also examined the impact of burden on the families and resilience. Indian studies have consistently reported high
burden and poor resources for patient care. One study identified patient as unwanted to families due to higher burden and poor resources. The resource poor conditions often lead to homelessness among the patients.

The second section on rehabilitation discussed various models rehabilitation such as Personal Effectiveness Training (PET) (Liberman et al, 1975), Intensive Psychiatric Rehabilitation Training (IPRT), (Anthony et al, 1990), and UCLA Social & Instrument Skills training modules (Heinssen, Liberman, Kopelwicz, 2000). The section discussed different strategies for rehabilitation of severely mentally ill, characteristics of successful rehabilitation (Mueser, Drake and Bond, 1997). The studies further explored the hindrances in psychiatric rehabilitation. Stigma from families, communities and professionals were the most cited barrier (Davidson (2004); Davidson (2004). The second part discussed the programmes for rehabilitation of homeless mentally ill. Functional status, housing status, dual diagnosis and substance abuse, preventive interventions were the common themes delineated. Indian studies explored certain rehabilitation models for rehabilitation of homeless mentally ill.

The sections on outcome measures identified the most common and popular outcome measures of rehabilitation of severely mentally ill. The outcome measures identified were symptoms, functional measures, quality of life, and patient satisfaction. The studies on outcome measures of rehabilitation discussed instruments for measuring rehabilitation outcomes, comparisons of different
modalities of treatment and their outcomes, short and long term outcomes, and different treatment elements and outcomes. This section further explored studies specifically on quality of life and social functioning, two outcome measures used in this study. The correlates of quality of life in the rehabilitation of mentally ill were discussed in the context of homeless. Indian studies also documented various treatment modalities and their outcomes.

The western literature has discussed effectiveness of various models of rehabilitation and their outcomes. Attitudes of care providers, training needs, etc. not much explored in Indian context. There was not much emphasis in this line in India. This study is one such attempt to document one such innovative community based model of homeless mentally ill in India. The outcome measures used in the study were carefully chosen from the literature review. This study uses patient satisfaction, quality of life and level of functioning as the outcome measures.
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