THE SUBJECTIVE AND OBJECTIVE QUALITY OF LIFE
OF MENTALLY DISORDERED OFFENDERS:
A PRELIMINARY INVESTIGATION

by

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The Subjective and Objective Quality of Life of Mentally Disordered Offenders: A Preliminary Investigation

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ABSTRACT

Quality of life (QOL) was one of the reasons used to justify deinstitutionalization of the severely mentally ill. However, along with other concerns raised about deinstitutionalization (e.g., criminalization), QOL has become a concern. Quality of life (QOL) was examined in a sample of 30 male mentally disordered offenders (MDOs) and 30 non-MDO males. First, no significant differences between these groups were found on demographic variables, including criminal activities. Second, compared to a U.S. general population sample, subjects reported significantly lower satisfaction with living situation, family, social relations, finances, health, and global ratings of life, as expected. With the same comparison group, though, jailed subjects' ratings of leisure activities, work, and legal and safety issues were not significantly lower. Third, compared to a sample of U.S. chronically mentally ill persons living in boarding homes, MDOs were less satisfied in family relations and in global ratings of life in jail, as hypothesized. However, further comparisons showed that contrary to hypotheses, the MDOs reported comparable levels of satisfaction with living situation, leisure activities, social relations, finances, work, health, and life before jail, and they were noticeably more satisfied with their safety and legal issues. Fourth, MDOs tended to be less satisfied than non-MDOs across all domains as expected, but differences were not significant. Finally, correlations between objective conditions and subjective
satisfaction were not significantly different from published coefficients. Limitations of the study and suggestions for future research were discussed.
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INTRODUCTION

In recent decades, radical changes occurred in the treatment of persons with chronic mental illness. With these changes, the primary locus of care shifted from the traditional institutional setting to the community (Brozost, 1978). Institutional populations began to recede in the 1950s, and the number of patients treated for mental disorders in hospitals has been declining steadily since 1955 (Ashbaugh & Bradley, 1979; Test & Stein, 1978). Canada and the United States experienced the most pronounced reductions beginning in the 1960s (Engelsmann, Murphy, & Tcheng-Laroche, 1974; Okin, Dolnick, & Pearsall, 1983). From 1960 to 1971, the number of patients treated in public mental hospitals in Canada declined by 43%, from 59,308 to 34,181, and an additional 50% reduction occurred from 1970 to 1979 (Barnes & Toews, 1983). In Canada, the main reason for the decline is the decrease in mean length of stay for patients in institutions. For example, Saskatchewan's average hospitalization dropped from more than 90 days to less than 30 (Barnes & Toews, 1983).

The social movement governing the changes described has been called deinstitutionalization. The United States' National Institute of Mental Health (NIMH) defined it in the following manner (Hodgins & Gaston, 1987):
Deinstitutionalization consists of the prevention of inappropriate mental hospital admissions through the provision of community alternatives for treatment, the release to the community of all institutionalized patients who have been given adequate preparation for such a change, and the establishment and maintenance of community support systems for non-institutionalized people receiving mental health services in the community (p. 7).

From this definition, one can see that the deinstitutionalization movement involves several dimensions. First, it facilitates the release to the community of longer-term patients and chronically mentally ill who were unnecessarily institutionalized. Second, it prevents all but the most disabled from gaining readmission to institutions. Third, the movement attempts to prevent inappropriate or unneeded new patient admissions and long-term institutionalization in the future, except in cases of severe disorders where a threat to self or others is evident (Ashbaugh & Bradley, 1979; Corrado, Doherty, & Glackman, 1989). The expectations of the policy were to provide a bold new approach to mental health care, reducing inpatient populations in hospitals, reserving hospitals for the most severely impaired, and providing community-based systems as the centerpiece of care (Durham, 1989).

Numerous factors facilitated the policy of deinstitutionalization. Some of these factors were related to concerns with the abysmal and dehumanizing conditions of institutional treatment and the destructive effects on patients,
including patients' social regression, erosion of their ability to function in the community, the affront to their senses of self, and long-term damage to their well-being (Dietz & Dvoskin, 1980; Rosenfield, 1987). Other facilitating factors pertained to the civil rights movement and new opportunities and alternatives for treatment such as increasingly effective pharmacological treatments, a tolerant, libertarian social climate, the increased availability of mental health professionals, an influx of psychiatrists with new ideas, class action suits, changes to civil commitment laws, and economic motives to reduce or shift the cost of care for mental patients (Brozost, 1978; Durham, 1989; Roesch & Freeman, 1989; Sheerin & Gale, 1985; Test & Stein, 1978). Finally, the community mental health movement which was the banner for massive reforms in the 1960s, advocating the provision of services to patients in their home communities as a more beneficial and humane alternative to previous practices, was another central factor in deinstitutionalization (Bachrach, 1976; Bassuk & Gerson, 1978; Durham, 1989; Test & Stein, 1978).

A significant social problem facing Canada in the 1990s concerns how our society should deal with individuals who suffer with severe mental illnesses. The movement of deinstitutionalization has now been widely implemented, but contrary to its intentions abandonment, homelessness, and criminalization are descriptors alleged to capture its sequelae. To follow-up on the intentions of this movement and to
investigate information important for the advancement of policy-making, quality of life is a significant area warranting empirical study.

Quality of Life

The expression "quality of life" (QOL) is used to refer to the well-being of people in their present life circumstances, including physical, social, and material facets (Goodinson & Singleton, 1989; Zautra, Beier, & Cappel, 1977). Sufficient life quality provides people's sense that life is worth living, that they are experiencing more in life than just "getting by". Alternatively, insufficient life quality is central when individuals lose interest in living, and fail to pursue treatment for severe chronic or terminal illnesses, for example (Chubon, 1987).

Measures of QOL, also known as social indicators of well-being, are an index of the state of society. These indicators suggest the degree of success achieved by the government's social policies and programs that have the desired goal of improving life quality (Palys & Little, 1980). Also, these measures monitor the success of citizens in making their lives worth living (Schuessler & Fisher, 1985; Zautra et al., 1977). A primary reason for the existence of these indicators is to suggest sources of positive life experience, illuminate problem areas, and guide decision-making and planning in society for
future improvements (Allen, Bentler, & Gutek, 1985; Diener, 1984; Palys & Little, 1980).

Historical Issues

For centuries humans have considered the issue of life quality, contemplating factors or features which contribute to it or detract from it (Goodinson & Singleton, 1989). Empirical research on QOL, though, is a relatively recent phenomenon, with the construct only existing in our vocabulary since some time after World War II (Ferrans & Powers, 1985). Initial investigations focused on objective factors of existence, such as literacy rates, median family income, educational opportunities, and crime rates, since researchers thought that these factors alone could explain variations in life quality (Schuessler & Fisher, 1985). It was believed that these social and economic indicators were sufficiently representative of social progress to capture the essence of well-being (Palys & Little, 1980).

Through the 1960s and into the early 1970s, interest in this area of research was stimulated, as individuals like the U.S. President Lyndon B. Johnson spoke about the good life requiring more than just material affluence (Bech, 1987; Ferrans & Powers, 1985). As research expanded, the limitations of the objectivist approach were identified. Researchers found objective factors could only account for a modest amount of

During the two decades since that time, interest has grown in social indicators of life quality, research has exploded, and substantial progress has occurred in developing methods of assessment for well-being. Development has involved applying the measures to various populations, exploring how aspects of life quality interrelate, and examining the construct's validity (Abbey & Andrews, 1985; Andrews & Inglehart, 1979; Lehman, 1983b; Lehman, 1988; Lehman & Zastowny, 1983).

Operational Definitions

Defining the construct of QOL for the purposes of research has resulted in an array of opinions. Researchers agree that quality is synonymous with grade so that it ranges from high to low or better to worse. However, defining life meets with less agreement. There are numerous and varied definitions of life in terms of the domains included and the items used to operationalize the chosen domains (Schuessler & Fisher, 1985). As a result, there is no general agreement on the indicators which should be taken into account in measuring QOL. Furthermore, with any given indicator its operational definition
can be widely variant. For instance, one can operationalize the number of nurses in a hospital by dividing by the number of patient beds, the number of doctors, the days of care, or another denominator (Gehrmann, 1978). Difficulty and variability are also encountered in combining indicators into sets of life areas. Problems arise here in terms of the number of areas, the number of indicators for each area, and how to weight them (Wish, 1986). Readers therefore must be cautioned that there is no generally accepted definition or measure of QOL. What is measured is influenced to a large degree by the individual who developed the measure and the procedures she or he employed in development (Gehrmann, 1978).

Dimensions: 1) Objective and Subjective Indicators

As with an operational definition, a consensus on the nature of this construct does not exist. However authors do increasingly agree on some central features or dimensions on which to characterize it. First, the literature shows a general agreement that both objective indicators and subjective factors are relevant to life quality (Chubon, 1987). Objective indicators are observable environmental conditions such as crime rates, average daily temperature, income, work status, housing conditions, and health status (Lehman, 1983a; Schuessler & Fisher, 1985). These were the conventional indicators of life quality until recently (Andrews & Withey, 1974). Subjective indicators are affective responses related to attitudes, thus
they include expressions such as satisfaction, happiness, and joy. Subjective indicators are based on reports from an individual about experiences and characteristics in his or her own personal life, including physical, mental, and social aspects (Andrews & Withey, 1974; Thapa & Rowland, 1989).

Together, objective and subjective indicators are more successful in accounting for individual differences in QOL, as opposed to either individually (Franklin, Simmons, Solovitz, Clemons, & Miller, 1986), thus these need to be considered simultaneously (Wish, 1986). An example of one conceptualization of QOL comes from the author of the interview used in the present research. Based on seminal research by Campbell, Converse and Rodgers (1976) and Andrews and Withey (1976), Lehman (1983b, 1988) conceptualizes QOL or the experience of well-being as a product of one's personal characteristics (e.g., sex, age, race, social class; objective factors), one's objective life circumstances in various domains (e.g., family, leisure, income level), and one's satisfaction with these life conditions. In his protocol, satisfaction is measured on the 7-point scale from "delighted" to "terrible" developed by Andrews and Withey (1976).

It is important to note that some authors take issue with the labels for this dichotomy, subjective and objective, since they believe that the subjective reports are just as objective as the so-called objective indicators (Andrews & Withey, 1976).
Furthermore, use of the word objective seems to imply those indicators have inherently more value. These authors argue that in order to know about QOL one must go to the individual to obtain a description of his or her feelings (Goodinson & Singleton, 1989). The subjective indices are worthy of study in their own right and they are valuable in communicating directly about an individual's feelings (Shadish, Orwin, Silber, & Bootzin, 1985). A more moderate approach sees value and potential limitations in each approach (Palys & Little, 1980).

A further issue while discussing this initial dichotomy of the construct is that QOL is frequently confused with constructs like happiness and life satisfaction (Cheng, 1988). *Happiness* is defined as the balance of positive and negative affect one feels towards one's current state of affairs. *Life satisfaction* is defined as one's cognitive assessment of progress toward one's desired life goals, compared to others or as defined by one's own expectations (Lehman, 1983a; Staats & Stassen, 1987). These constructs, along with others such as joy and morale are all relevant to QOL in the realm of subjective well-being. In the same way that different objective indicators can be selected, subjective QOL envelopes different constructs, and these different constructs are utilized by different researchers, each giving a different, unequatable perspective to this aspect of QOL.
2) Global and Domain-Specific Indicators

The second general area of agreement pertaining to QOL is that researchers commonly distinguish between global and domain-specific indicators. A global indicator inquires about life as a whole, while domain-specific indicators examine distinct areas of life which are thought to contribute to overall QOL in some combination (Lehman, 1983a). Given the necessity of inquiring into specific domains for specific information, the validity and utility of a global construct balancing positive and negative components has been questioned. However, evidence suggests the global index is useful. For example, factor analyses of domain-specific measures do find a second order factor which accounts for substantial amounts of variance in the sub-scales. Thus, subjective well-being appears to be a multidimensional, hierarchical construct with one overarching construct and several partially independent sub-dimensions (Chamberlain, 1988). In addition to factor analytic evidence, another reason for measuring well-being both globally and through various domains is that, like subjective well-being itself, the relative importance of these domains is an individual difference variable (Goodinson & Singleton, 1989). Because of this variability, researchers in the area have found it unwise to index overall satisfaction by arbitrarily adding up ratings from the different domains surveyed. Instead, they opt to inquire specifically about both global and domain-specific facets.
3) Affective and Cognitive Components

Third, three components are frequently cited that may account for an individual's assessment of life quality: positive affect, negative affect, and cognitive assessments. In other words, positive feeling states, negative feeling states, and individuals' thoughts about those feelings along with evaluations which appraise the two distinct sets of oppositely valanced feelings against some implicit or explicit criteria are all thought to compose well-being (Abbey & Andrews, 1985; Zautra, 1983; Zautra et al., 1977).

Regarding the affective components first, research to date has confirmed the independence of positive and negative affect, demonstrating that they are related to different variables, and suggesting that they are experienced and stored separately (Abbey & Andrews, 1985; Chamberlain, 1988; Zautra et al., 1977). For example, some research has found negative but not positive affect related to reports of poor health and anxiety, while positive affect related to social participation when negative affect did not (Chamberlain, 1988). Because of results like these, it appears that those things which make people happy and unhappy are not the same things. Consequently, the absence of one does not seem to insure the other, and a good QOL requires factors eliciting positive feelings, and not merely the absence of those which bring negative feelings (Chamberlain, 1988; Hollandsworth, 1988; Rhoads & Raymond, 1981).
In the domain of affective well-being, another dimension has been proposed, involving the intensity of affect. Researchers, like Diener, Larsen, Levine, and Emmons (1985) believe that frequency of positive and negative affect covary inversely. Thus, while experiencing positive affect, for example, one cannot experience negative affect simultaneously. Conversely, though, the intensity of positive and negative affect may be positively correlated. Thus, when either positive or negative affect is experienced, they tend to be experienced to the same degree or level (intensity) in individuals, with some individuals tending to experience emotions very strongly, and others experiencing them rather weakly. The additional dimension of intensity is proposed to explain the paradoxical lack of relationship or independence of positive and negative emotions in research results, with frequency and intensity combining in additive ways to nullify outcomes. With intensity partialled out, results indicate frequency of positive and negative affect have a negative association (Cheng, 1988). Although research has confirmed this association, it is still debated as to whether intensity can be considered another dimension of subjective well-being or whether it is actually a temperament variable on a continuum from impassive to emotional (Chamberlain, 1988; Cheng, 1988).

Research attempting to distinguish the cognitive aspect from affective, unlike work on the two types of affect, has proven more challenging. Researchers have developed scales
attempting to emphasize the cognitive-judgmental process
(Diener, Emmons, Larsen, and Griffin, 1985), but reviewers
question the appropriateness and success of such attempts.
Research is still required, then, to confirm this assumption,
and to potentially extend the positive-negative dimension to
cognition, as has been demonstrated with affect (Chamberlain,
1988). However, some early research suggests that such evidence
will eventually be exposed. For example, different outcomes
arising with different constructs, such as the finding that
older people are less happy but more satisfied than younger
people, may be rooted in this dimension. It is thought that
some constructs such as "happiness" and "fun" are more loaded
with affective content, others like "satisfaction" and "success"
are more loaded with cognitive, while still others tap both
cognitive and affective content in nearly equal proportions
(Andrews & McKennell, 1980). Thus, apparently inconsistent
research results may stem from the degree that affective and
cognitive components each contribute to the different constructs
surveyed.

The response scale included in the Quality of Life
Interview (Lehman, 1988, 1991a, 1991b), the 7-point "delighted-
terrible" scale was designed to tap both affective and cognitive
elements when asking about life as a whole. In an analysis
which defined "cognitive" as the residual after positive and
negative affect were removed, researchers concluded that the
cognitive and affective were quite evenly balanced in this
scale, as were the positive and negative affective elements (Andrews & McKennell, 1980). On a broader basis, though, until further evidence is obtained, the usefulness of distinguishing cognitive aspects from positive and negative affect remains mostly conceptual (Chamberlain, 1988).

4) A Self Versus Society Dimension

A fourth emerging area which requires further empirical exploration focusses on the distinction between inner and outer experience or self versus other when examining subjective well-being. Some research has found two major factors, one pertaining to variables with an inner-directed focus such as self-esteem and anxiety, and the other with an outer-directed focus such as friends and residential satisfaction. Other researchers have noted that sources of well-being may stem from within the self or from the outside world (Chamberlain, 1988). In their analysis, Andrews and Inglehart (1979) noted that domains arrayed themselves along an axis of psychological immediacy ranging from those directly pertaining to the self such as family, through some more remote, such as job and community, to those most distant, such as government. Domains closest to people's personal lives were most closely associated with subjective well-being (Andrews & Withey, 1976). Rhoads and Raymond (1981) also found that QOL spanned a life space continuum ranging from intimate through social to community levels. Similarly, the constructs which some people feel are at
the heart of well-being can be dichotomized in this manner. That is, discussions of aspirations of what one desires internally have an inner-directed focus, while social comparison with what others have has an outer-directed focus (Chamberlain, 1988). Further empirical exploration is required, then, but evidence is diverse and suggestive at the present time in regards to this fourth potential dimension.

**Construct Validity**

Although numerous issues related to the measurement of life quality remain to be explored, validation research has been generally successful in confirming the utility of extant measures for their intended use. First, early research confirmed the validity of particular self-report questionnaire and interview methods. For example, social desirability effects were found to be low (Campbell, Converse, & Rodgers, 1976). Further, considering predictors of global well-being, Andrews and Withey (1974) found objective classification variables explained only 5% of the variance, while subjective, domain-specific self-reports explained 50%. Also, objective indicators could explain no additional variance above the subjective reports. Importantly, these findings held across various subgroups according to sex, age, socioeconomic status, income, education, and marital status (Andrews & Withey, 1974).
Response scales have also been validated. Andrews and Crandall (1976) showed that 7-point scales with terms from "delighted" to "terrible" and with stylized faces from delighted to terrible, as well as a series of nine circles with increasing numbers of plus signs and fewer minus signs were most valid. A nine rung ladder from the "Best life I could expect to have" to the "Worst life I could expect to have" was not quite as exemplary. Finally, methods using the reports of others for an individual and social comparisons to people the individual knows showed inadequate validity. For the best response scales, then, the authors estimated approximately 65% valid variance and only 8% method variance, whereas the ladder had approximately 50% valid variance and 5% method variance, and the others had only 15% valid variance and 25 to 30% method variance. These researchers concluded that estimates of the valid variance of the best measures may be slightly high and the estimates of the method variance slightly low, but results demonstrate that subjective well-being, using a variety of methods, exploring different domains of life, and under conditions of typical national surveys, can be measured with substantial validity (Andrews & Crandall, 1976).

Andrews (1991) demonstrated general stability in the structure of subjective well-being across time within the United States using results from samples taken in 1972 and 1988. The structure of well-being refers to the way that specific concerns and evaluations of them fit together in people's thinking. For
instance, evaluations of marriage and spouse are quite closely related, as are evaluations of politicians and government, but these two pairs are virtually unrelated to one another. Consequently, these concerns array themselves along an axis from issues which most directly affect an individual (e.g., family) through concerns which are more distant (e.g., government), and the more psychologically immediate issues are more highly correlated with subjective well-being (Andrews & Inglehart, 1979).

The structure of well-being has also been explored across cultures. Looking at nine Western societies, European countries showed the most similarities in the way that subjective well-being domains overlapped and intersected. However, differences were seen amongst their patterns, and the United States structure distinguished itself the most of all. Most importantly, a basic similarity was seen in the patterns of all countries studied (Andrews & Inglehart, 1979). Based on these results and others, there are some promising indications of cross-cultural construct stability but further research is needed (Chamberlain, 1988).

Research on the stability of particular subjects' responses has shown that momentary mood influences responses, but there is substantial temporal reliability in well-being measures (Diener, 1984). Stability is a desirable property, in so far as results are hoped to represent something deeper than momentary mood
fluctuations, however a certain amount of flexibility is also required. For instance, flexibility is important if well-being is to be used as an outcome measure. It is important to know if the results of measures are susceptible to change. Using subjects' reports of changes in their lives for the better or worse, research has shown well-being to be stable and yet sensitive to life changes (Chamberlain & Zika, 1992).

Chamberlain and Zika (1992) found the best predictor of current well-being is past well-being, evidencing stability of the construct. However, current life stressors also influence well-being, demonstrating the construct's sensitivity to life events.

Validation evidence has also been presented in terms of meaningful relationships of well-being to other variables. These relationships, such as depression, tension, and anxiety being negatively related to QOL and internal control and social support being positively associated, have been consistent. Thus, stressed or depressed people tend to feel worse about their lives than people who are not stressed or depressed, and people who feel in control of the events in their lives or who have the social support of others feel better about their lives than do individuals lacking these characteristics (Abbey & Andrews, 1985). Furthermore, in keeping with research on the independence of positive and negative affect, positive affect has related more strongly to social support and internal control than negative affect did, and negative affect related more
strongly to depression and anxiety than positive affect did (Abbey & Andrews, 1985; Grant, Sweetwood, Yager, & Gerst, 1981).

In addition to these favourable validation findings, some less favourable conclusions have been drawn. Regarding the minimal relationships found between objective indicators and subjective reports, researchers hypothesized the influence of random effects and systematic errors which were believed to be attenuating actual correlations. Moum (1988), for example, examined acquiescence bias (systematic error) and mood-of-the-day effects (random error). Acquiescence was found to be a problem. Consequently, based on previous research, Moum (1988) concluded one could expect to overestimate QOL in older persons and underestimate QOL in the well-educated. Regarding mood-of-the-day effects which were discovered, younger females reports were affected to the largest degree. Hence, if one were having a particularly good or bad day, subjective ratings of life would be influenced in a favourable or unfavourable direction accordingly. Other authors have also concluded that daily mood can be a problem, showing moderate correlations with subjective well-being (Cheng, 1988). For these influences, corrective measures can be taken. The most accepted approach involves avoiding cross-sectional designs in favour of repeated measure panel designs where effects like mood-of-the-day can be estimated (Cheng, 1988; Mastekaasa & Kaasa, 1989; Moum, 1988).
In summary, construct validation research has demonstrated the influence of random and systematic sources of error in existing measures, for which corrective factors can be implemented in the research design. Future research needs to demonstrate discriminant validity and attempt to establish theoretical models in the area (Cheng, 1988). With these reservations in mind, then, measures of life quality and the construct itself appear to be quite well validated and established for research purposes. Therefore, at this point in this discussion, it is important to consider the reasons that this construct should be applied in research with chronically mentally ill persons.

Quality of Life and the Chronically Mentally Ill

The concept of life quality is a relevant research issue and a concern in the discussion of the chronic mentally ill for several reasons. First, chronic disorders are intractable (Levine, 1979). Chronic mental illness may be either a lifelong disability (Test & Stein, 1978), or at the very least, it has a long term course and interferes with a person's ongoing adjustment and functioning (Toews & Barnes, 1986). It follows that in the case of chronic conditions where curative powers are limited or where side effects are induced, health care providers must ask not only whether treatments alleviate symptoms, but also about the treatments' qualitative effects on patients' lives (e.g., comfort) (Bech, 1987; Cheng, 1988; Goodinson &
Singleton, 1989). This is the question of how the treatments' effects, including those which are adverse or indirect, impact upon patients' QOL (Diamond, 1985; Lehman, Ward, & Linn, 1982; Tantam, 1988).

Second, with its multidimensional nature, the QOL construct is consistent with the holistic perspective and multiple objectives approach supported in current philosophies of health care which focus on well-being in addition to the absence of disease (Cheng, 1988; Jenkins, Jono, Stanton, & Stroup-Benham, 1990; Schipper, 1990). The biomedical model of health no longer operates alone, as interested researchers concern themselves with other factors like the socioecological (e.g., the social environment) (Kearns, 1990; Schalock, Keith, Hoffman, & Karan, 1989). Consequently, eliciting patient input, measuring consumer satisfaction, demonstrating concern for patients' well-being, and showing accountability to patients are increasingly important dimensions of research and program management in health care (Bergner, 1989; Cheng, 1988). Whereas such concerns were seen as unscientific in the past, these are now viewed as progressive (Bech, 1987; Schipper, 1990) and research has increased its use of subjective measures of well-being (Hollandsworth, 1988).

Another reason for the focus on QOL with the chronically mentally ill is that along with intentions for their improved clinical condition, QOL was a central justification for
reintegrating them in the community (Okin et al., 1983; Rosenfield, 1987; Shadish et al., 1985). Traditional variables such as recidivism were seen as overly simplistic, not wholly adequate, and were down-played, as proponents attempted to enhance emphasis on the issue of life quality (Carpenter, 1978; Diamond, 1985; Levitt, Hogan, & Bucosky, 1990). Advocates noted the deleterious effects of hospital environments, offering the community as a more humane alternative which could enhance patients' QOL given carefully designed and adequately supported programs (Anthony, Cohen, & Vitalo, 1978; Okin et al., 1983). Consequently, following the policy change, it was necessary to consider the QOL experienced in the community by those affected (Sheerin & Gale, 1985).

Numerous authors have emphasized the importance of QOL, including researchers on the National Institute of Mental Health's Community Support Program whose primary goal was to improve QOL for the chronic mentally ill (Lehman, 1988). They called QOL "the critical outcome variable for evaluating community support services for the chronically mentally ill" (Lehman, Possidente, & Hawker, 1986, p. 902), and promoted development of assessment tools toward that end (Lehman, 1988). For researchers working in the area, then, QOL is an attractive, useful, and necessary variable for understanding patients' needs, their preferences, the impact of services on their lives, and the relative importance of different services (Lehman, 1983b; Lehman, Reed, & Possidente, 1982; Rosenfield, 1987).
After three decades of deinstitutionalization, evaluating well-being is seen as necessary for adequate understanding to meet the task of revising plans for the treatment of the chronically mentally ill (Lehman, 1988).

A final reason for recent concerns in the realm of QOL of the chronically mentally ill is that beginning in the 1970s, concerns began to surface regarding the QOL experienced by chronic mentally ill persons in the community. It seemed that the individuals affected by the movement were falling between the cracks of available services and their needs were not being met (McCoin, 1988; Tessler, 1987). During this time of economic restraint and conservative backlash, there was neither sufficient transfer of resources to the community, nor adequate provision of basic needs such as affordable and appropriate housing, food, and clothing, and discharge planning was minimal, contrary to expectations raised by the movement (Baker & Douglas, 1990; Barnes & Toews, 1983; Bassuk & Gerson, 1978; Hodgins & Gaston, 1987; Hull, Keats, & Thompson, 1984; Rosenfield, 1987; Sheerin & Gale, 1985). Thus, patients received little or no aftercare treatment, and if they were connected but selected to drop out, they were not reconnected to services (Rosenfield, 1987). These outcomes are judged to be unfortunate and unnecessary because research indicates that in the absence of adequate service provision patients appear to be harmed by release (Braun et al., 1981; McCoin, 1988), while patients fare no worse and may fare better in the community.
given adequate support (Barnes & Toews, 1983; Test & Stein, 1978). They are at a disadvantage in terms of safety, finances, health, and relationships, but with special supports and adequately designed programs these individuals can improve their QOL (Okin et al., 1983; Roesch & Golding, 1985; Simpson, Hyde, & Faragher, 1989). Therefore, the resource lacuna is cited as a primary cause of ensuing problems such as these individuals' drift into poverty, unemployment, homelessness, and criminal victimization or incarceration (Freeman & Roesch, 1989) and their rapid, inappropriate, and costly cycling through various community health and social service agencies, known as the "revolving door syndrome" (Roesch & Freeman, 1989; Roesch & Golding, 1985; Toews & Barnes, 1986). If these undesirable sequelae of deinstitutionalization have evolved, then QOL research may be helpful in applying pressure and in suggesting avenues for future policy changes and priorities to reverse these trends (Murrell, Schulte, Hutchins, & Brockway, 1983).

From this discussion, one can see that QOL is a relevant issue when discussing the chronically mentally ill. Due to the community based resource lacuna and problems which have ensued with deinstitutionalization, though, the chronically mentally ill are not a homogeneous population. Instead, a number of distinct groups of chronically mentally ill can be singled out, such as the individuals who went into nursing homes, those who became and remain homeless, and those who ended up in jail.
This discussion will focus on the latter-most group.

**Mentally Disordered Offenders**

Criminal justice is one system which appears to have increasing contact with individuals in need of mental health intervention (Freeman & Roesch, 1989). For some observers it appears that persons who would have heretofore been treated within mental health are now appearing in the criminal justice system (Teplin, 1983). A process of "criminalization of the mentally ill" may be replacing institutionalization since criminal justice is a system which cannot refuse these individuals (Teplin, 1984).

In Canadian prisons and jails, epidemiological research indicates between 20 and 30% of inmates are mentally disordered (Bland, Newman, Dyck, & Orn, 1990; Correctional Service of Canada, 1990; Hodgins & Cote, 1990). When psychological assessments were conducted on a random sample of over 700 admissions to a pretrial jail in Vancouver, 23% of inmates were diagnosed with significant mental disorders that would qualify them as mentally disordered and 8% had symptoms of psychosis (Roesch, Corrado, & Cox, 1991).

Researchers have employed varied definitions for the purposes of identifying the target population in research.
discussed. Of concern to researchers are the severely and chronically disabling disorders. In some research, these mentally disordered individuals were defined as those with a mental disorder that (a) significantly impairs psychosocial functioning, and (b) requires immediate treatment or management (Steadman, Fabisiak, Dvoskin, & Holohean, 1987). Inmates with schizophrenia, major depression, or mental retardation fit the definition, but the definition was conservative since it excluded many less serious and/or chronic mental disorders (e.g., antisocial personal, anxiety disorders, substance abuse or dependence). In other work, chronicity was defined by the type of impairment. Schizophrenia, affective illness, mental retardation, and dementia were considered of this severity, while neurosis, personality disorder, and psychosomatic illness were seen as less disruptive across life experiences (Dietz & Dvoskin, 1980). Another group of researchers defined the "severely mentally ill" as "persons suffering from long-term and disabling illnesses such as schizophrenia, chronic depression, manic-depressive illness, severe personality disorders, and the like" (Lehman & Burns, 1990, p. 357). They emphasized the magnitude of the disorders chosen, all of which can have pervasive effects on people's lives (e.g., limiting their life experiences), while less disabling disorders like short term depression or anxiety reactions do not (Lehman & Burns, 1990).

The discussion above gives a background on the issues of deinstitutionalization, problems which appear to have ensued
Recent Research Developments

Early research on deinstitutionalization tended to focus on variables like avoidance of hospitalization, time in the community, and psychiatric symptomatology, but researchers now de-emphasize those traditional outcome variables in favour of other pivotal issues like QOL and patient satisfaction which were overlooked in the past. Research has provided valuable information about the general efforts related to deinstitutionalization, and some research on QOL has been initiated (Jones, Robinson, & Golightley, 1986). It is important to continue these trends, with more empirical research examining patients' experiences and opinions, and with enhanced exploration of the QOL issue in particular (Okin et al., 1983).

Anthony Lehman and his colleagues are one group of researchers that has focused on QOL in the severely mentally ill. Their publications examine various dimensions of the topic (see References section), including the finding that measurements with the seriously mentally ill can be reliable and valid (Sullivan, Wells, & Leake, 1992). One study they conducted found mental patients residing in community-based
board-and-care homes were "mostly satisfied" or better in five areas of life surveyed: living situation, family relations, social relations, leisure activities, health, and life in general (Lehman et al., 1982). Exceptions to this general level of satisfaction were in the areas of work, finances, and personal safety. Furthermore, compared to non-mentally ill persons in the general population, mental patients living in the community were similarly satisfied with leisure activities, job (for those employed), and health care. Remaining areas surveyed (i.e., living situation, social relations, work, and finances, but especially family relations and personal safety) showed significantly lower levels of satisfaction for the mentally ill subjects compared to the non-mentally ill. Further comparisons were drawn to other socially disadvantaged groups, such as unmarried parents, African Americans, and people in lower socioeconomic status (SES) groups. In no areas were the mental patients significantly more satisfied, but they were equally satisfied with living situation, leisure activities, job, and health. African Americans and persons in the low SES group had greater satisfaction, most notably in family and social relations, compared to the chronic mentally ill subjects. The mentally ill subjects were most similar to unmarried parents who were under substantial psychological, domestic, and financial stress. These investigators also found that reported life quality showed meaningful relationships with reported life circumstances. For example, higher satisfaction with living conditions correlated with higher levels of experienced privacy.
People with more family contact reported more satisfaction with family relations \( r = .22 \). More frequent social contacts was significantly related to satisfaction with social relations \( r = .27 \). Greater satisfaction with work was reported for individuals who worked more hours \( r = .50 \) and earned more money \( r = .57 \). Personal safety was rated lower for individuals who reported criminal victimization (e.g., assault and robbery; \( r = -.19 \)), and higher for individuals who had higher expectations of access to legal aid \( r = .15 \). Satisfaction with health was associated with a number of objective factors: number of illnesses \( r = -.17 \), total use of health care \( r = -.22 \), use of acute psychiatric services \( r = -.19 \), use of general medical services \( r = -.19 \), and perceived access to medical care \( r = .24 \) (Lehman et al., 1982).

In another study, Lehman, Possidente, and Hawker (1986) conducted QOL interviews with chronic mentally ill persons in a supervised community residence and a state hospital, dividing groups into those residing for less than or equal to six months and those residing for more than six months. Inpatients expressed less satisfaction in all life areas compared to community residents, most notably in living situation. Persons who lived for more than six months in either residence were more satisfied with finances than those residing in either location for less than six months. The latter group showed a level of satisfaction similar to the residents of community homes survey in 1982 (Lehman et al., 1982). Also, family relations was the
area with the most relative dissatisfaction for the chronic mentally ill in the 1982 survey and average reported satisfaction in the 1986 survey was at a similar level. Reported satisfaction with social relations and life in general paralleled the 1982 results for all state hospital patients and community residents of less than or equal to six months in the 1986 survey, but not for community residents of more than six months.

Given that more research on QOL with chronically mentally ill persons needs to be conducted, it appears that Lehman and his colleagues have conducted useful research. They have established a valid and reliable interview, and they have provided data which can be used for the purposes of comparison in other research.

Summary

The deinstitutionalization movement has been active for more than three decades. Contrary to promises and expectations raised by it, community-based mental health resources have been inadequate and it appears that the chronically mentally ill are falling between the cracks of the health care system to other agencies such as criminal justice. QOL has been identified as a significant research issue in discussing the chronically mentally ill. Some research has been conducted measuring their QOL, such as the work of Lehman and his colleagues, on which
further research can be built. A population apparently created out of the unwanted sequelae of deinstitutionalization is the criminalized, chronically mentally ill, but research on their QOL has yet to be conducted.

To address this research lacuna, the present study surveyed QOL among mentally disordered persons in jail. It is the type of research which will be welcomed by corrections agencies who recognize their ethical and legal responsibility to provide appropriate services, and who realize the social and economic benefits of appropriate community-based programs, but who first desire this type of additional information (Corrado et al., 1989; Vantour, 1991). The research may also assist policymakers in health care who need directions for future policy priorities in the community-based treatment of the chronically mentally ill.

Hypotheses

Quality of Life

First, due to the unfavourable nature of these individuals' circumstances (i.e., ending up in jail), lower ratings of life quality for all subjects in this study (MDOs and non-MDOs) were anticipated compared to normative data from non-jailed, average (not disadvantaged) members of society (Andrews & Withey, 1976).
Second, compared to data from chronic mentally ill persons residing in community-based board-and-care homes (Lehman et al., 1982), lower life quality in all domains was anticipated in the jailed, mentally disordered offenders, since they have been arrested and uprooted from the community and since the presumed nature of their existence prior to that experience was probably unstable and unsatisfying.

Third, within the jail, lower reported QOL was expected in all areas for the mentally disordered offenders compared to the non-mentally disordered group. Differences were expected to be most pronounced in the areas of living situation, social relations, leisure, finances, health, and life in general, while it was thought that family relations, work, and personal safety might not be significantly different.

Fourth, some variability in QOL was anticipated within the group of mentally disordered offenders since some of these individuals would have more severe mental disorders and would have experienced more frequent and/or lengthier periods of treatment for mental disorders in institutions. More severely disordered individuals and individuals with more frequent and lengthier periods in hospital were expected to have lower QOL in all areas surveyed.

Finally, relationships between ratings of life satisfaction and life conditions discussed above (Lehman et al., 1982) were
expected to be similar in this study since they seemed to be meaningful relationships which would hold for this new population (e.g., friendships correlate positively with satisfaction with social relations).

Criminal Activity

A related issue of interest was possible relationships between criminality and subject grouping. Based on the criminalization hypothesis, one would expect to find that mentally disordered offenders experienced insufficient provision of services in the community and therefore, turned to crime in frustration (e.g., to feed themselves). Consequently, it was thought that all mentally disordered offenders might have committed mainly banal offences in comparison to the non-mentally disordered offenders (Freeman & Roesch, 1989).

An alternative hypothesis was also proposed that might account for the presence of the mentally disordered persons in jail. This alternative argued that MDOs might be just like other criminals except that they happen to have a mental disorder. Therefore, if this hypothesis was true, mental disorder grouping would not be associated with the criminal activity and no differences in the types of crimes would be seen across the mentally disordered and non-mentally disordered subjects.
A third potential finding was a combination of the first two hypotheses. In this case, it was hypothesized that the chronically mentally ill would have mainly committed non-serious offences and thus would fit the "criminalization" hypothesis. Meanwhile, it might be that the mentally disordered offenders without such a chronic treatment history were primarily in jail because they are "criminals". Thus, the latter subjects would not be any different from non-mentally disordered offenders in terms of the reasons they committed crimes. Their behaviour was not so tied to the problem of inadequate community support, as was assumed for the group of mentally disordered with treatment history. Therefore, according to this hypothesis the non-chronic mentally disordered group would generally show the same types of offences as the non-mentally disordered group of inmates, while the chronic treatment history group would show significantly less serious offences.
METHOD

Subjects

Subjects were 60 males detained in a pretrial remand centre in Vancouver who gave their informed consent to participate. Thirty subjects per group were sampled for the mentally disordered and non-mentally disordered groups based on power analyses using effect sizes shown in previous research (Lehman et al., 1982) and a probability level of less than .01. Throughout the study, a total of 98 men were invited to participate. However, 33 declined to do so and another five were judged unreliable at the completion of their interviews.

The planned procedure for eliciting subjects called for a random sample of individuals from daily intakes to the jail. Subjects were going to be classified mentally disordered or not mentally disordered subsequent to research interviews, using independent information from senior clinical psychology graduate students who were going to be hired to complete mental health screenings for all jail admissions. Unfortunately, placement of these new staff was delayed, so research was begun by sampling subjects randomly from a special unit for mentally disordered offenders operating within the jail. Since this group would ultimately compose half of the entire mentally disordered group, comparisons were planned within the mentally disordered group to ensure that the two subsets were comparable.
Subsequent to the initial procedural deviation, a random sample of individuals entering the jail was taken. Randomness was operationalized in two ways. First, on week days, subjects were selected according to the time of day that they were booked in (i.e., the first intake of the day being taken first) which was deemed not to be systematically biased by any factors at all. Second, on weekends when there were no intakes being admitted, a list was composed of the most recent intakes (i.e., one or two days before), and a random number table was used to choose subjects from the list. It is important to note that two of the special unit subjects were deemed unreliable and another two demonstrated no mental disorder. Therefore, in the random intake sample, 19 mentally disordered individuals were chosen, along 28 non-mentally disordered individuals to fill out each group of 30 subjects.

The age of the final 60 subjects ranged from 18 to 66 years, with a mean age of 31.5 years (SD = 10.2). The mean and modal education level was grade 10 (SD = 2.6), and 18 subjects graduated from grade 12 (see Table 1). Most of the subjects (70%) were Caucasian with English as their first language. While most of the subjects were separated, divorced, or widowed (43.3%), many were married or living with an intimate partner. In terms of living accommodations prior to jail, most subjects rented or owned a private apartment or house. Regarding criminal activities, subjects reported 0 to 15 current charges, with one or two being most common (M = 2.7, SD = 2.8) and they
reported a total number of past convictions ranging from 0 to 60 ($M = 15.3$, $SD = 16.1$).

Table 1

Selected Demographic Variable Frequencies and Percentages for
the Total Sample of MDOs and Non-MDOs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of Subjects</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Education (Completed)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 2 - 9</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>10 - 11</td>
<td>22</td>
<td>36.7</td>
</tr>
<tr>
<td>12 - 16</td>
<td>18</td>
<td>30.0</td>
</tr>
<tr>
<td><strong>B. Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>Married/Common Law</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>Separated/Divorced/Widowed</td>
<td>26</td>
<td>43.3</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>C. Ethnic Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian, English 1st Language</td>
<td>42</td>
<td>70.0</td>
</tr>
<tr>
<td>Caucasian, English 2nd Language</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>Native</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>Indian</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Oriental</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>D. Living Situation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apartment or house</td>
<td>40</td>
<td>66.7</td>
</tr>
<tr>
<td>Hotel or rooming house</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td>Homeless</td>
<td>5</td>
<td>8.3</td>
</tr>
</tbody>
</table>
Measures

The Quality of Life Interview

The Quality of Life Interview (QLI) was developed by Lehman and colleagues (Lehman, 1988, 1991a, 1991b; Lehman et al., 1982) based on research with chronically mentally disordered individuals. The interview inquires about an individual's general life satisfaction, as well as objective experiences and subjective satisfaction in eight life areas (see Table 2).

Table 2  
Domains Surveyed in the Quality of Life Interview

<table>
<thead>
<tr>
<th>A. Domain-Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) living situation</td>
</tr>
<tr>
<td>2) family relations</td>
</tr>
<tr>
<td>3) social relations</td>
</tr>
<tr>
<td>4) leisure activities</td>
</tr>
<tr>
<td>5) employment &amp; education</td>
</tr>
<tr>
<td>6) finances</td>
</tr>
<tr>
<td>7) personal safety and legal issues</td>
</tr>
<tr>
<td>8) health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) general life satisfaction - beginning of interview</td>
</tr>
<tr>
<td>2) general life satisfaction - end of interview</td>
</tr>
</tbody>
</table>

Respondents report their subjective satisfaction on a response scale developed by Andrews and Withey (1976) which ranges from delighted through pleased, mostly satisfied, mixed, mostly
dissatisfied, unhappy, and terrible. In scoring, responses are coded from 1 for terrible to 7 for delighted, and items in each domain are averaged to give a representative score (between 1 and 7) for each of the eight domains. The QLI is psychometrically reliable and was validated using more than 500 subjects in the United States, from whom normative data are available (Lehman, 1988). However, although it has been used in research with chronic mentally ill persons residing in various community-based settings and in institutions, it has not been used with a criminal population.

Self-Rating Anxiety Scale and Self-Rating Depression Scale

Subjects were also asked to report on recent feelings of depression and anxiety using the Self-Rating Anxiety Scale (Zung, 1971) and Self-Rating Depression Scale (Zung, 1965). These measures have 20 items per scale with Likert-type responses. For example, "I feel down-hearted, blue, and sad" (depression) and "I feel afraid for no reason at all" (anxiety) are scored on the scale "Most or all of the time", "A good part of the time", "Some of the time", or "A little of the time". In scoring, items are recoded to the symptomatically negative direction, then totaled and divided by 80 to give an index of symptomatology from 0.25 to 1.0 (highest degree of symptoms). Reliability data are unavailable for these scales, however they appear to be well validated, with both having fair to good concurrent validity with other measures of depression or anxiety.
and good known groups validity for distinguishing patients with a diagnosis of depression and anxiety disorder respectively from other psychiatric patients (Corcoran & Fischer, 1987).

**Brief Psychiatric Rating Scale**

The Brief Psychiatric Rating Scale (BPRS), developed by Overall and Gorman (1962) has been updated and revised by Lukoff, Liberman, and Nuckterlein (1986). It was administered by the research interviewer subsequent to interviews with subjects, as an indicator of subjects' levels of psychiatric symptomatology. Subjects are rated on 24 items on a scale from 0 for very mild to 6 for extremely severe. Ratings are totaled to yield a score from 0 to 144. This "high quality" scale has good reliability and validity (Lukoff et al., 1986).

**Procedure**

After being selected for the study by one of the procedures described above, inmates were called to an office in the health care unit of the jail. At that time, the research project was explained as an enquiry about jailed persons' lives and satisfaction with various aspects of their lives. Issues such as anonymity, confidentiality, voluntariness, independence of the research from institutional and other correctional dispositions, freedom to terminate the protocol, and reimbursement (i.e., gourmet cookies) were explained. Next,
given a subject's informed consent (see Appendix A), the Quality of Life Interview and the Self-Rating Anxiety and Depression Scales were administered. Collateral information such as sex, age, race, education level, marital status, criminal history, medical diagnoses, current medications, psychiatric treatment history, and psychiatric diagnoses were included in the interview. At the end of the interview, subjects were invited to accept a gourmet cookie as reimbursement and to ask any questions they had about the interview and research. After exhausting their inquiries, they were thanked for their time and returned to their units in the jail. The BPRS was completed after the subjects' departure and reliability of the subjects' reports were investigated by checking file information on criminal history and medical and psychological information.
RESULTS

For the following analyses, a probability level between .05 and .10 was chosen, with individual test levels reduced in cases of multiple comparisons to retain family-wise error rates at a modest level. For t-tests, separate variance estimates, rather than pooled estimates, were employed when results indicated group variances were significantly different and also when the statistical significance of variance differences was not known.

Scoring

Measures were scored as described above (see "Measures"), and the means and standard deviations for all subjects (N = 60) are reported in Table 3 for the Self-Rating Anxiety and Depression Scales, the BPRS, and the subjective QOL scales. One can see from this table that work and education were estimated separately. The reason for this separation was the limited number of subjects involved in education in the past year, the time frame queried. Regarding subjective QOL, an overview of the table demonstrates that, on average, these subjects were the most dissatisfied with their current life situations (i.e., the global rating of life in jail) which was rated between mixed and mostly dissatisfied on the delighted-terrible response scale. Family and finances were the next areas of least satisfaction, rated "mixed" on averaged. The global rating of life before jail was rated between mixed and mostly satisfied. In remaining
areas, health, living situation, work, education, and safety, subjects tended towards feeling mostly satisfied or better.

Table 3
Means and Standard Deviations for Subjects on SRAS, SRDS, BPRS and QLI

<table>
<thead>
<tr>
<th>Scale</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Rating Anxiety Scale (.25 - 1.0)</td>
<td>0.45</td>
<td>0.15</td>
<td>60</td>
</tr>
<tr>
<td>Self-Rating Depression Scale (.25 - 1.0)</td>
<td>0.52</td>
<td>0.13</td>
<td>60</td>
</tr>
<tr>
<td>Brief Psychiatric Rating Scale (0 - 144)</td>
<td>12.20</td>
<td>7.56</td>
<td>60</td>
</tr>
<tr>
<td>Quality of Life Interview (1-7):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Situation</td>
<td>4.85</td>
<td>1.12</td>
<td>60</td>
</tr>
<tr>
<td>Leisure</td>
<td>4.94</td>
<td>1.24</td>
<td>60</td>
</tr>
<tr>
<td>Family</td>
<td>4.10</td>
<td>1.48</td>
<td>60</td>
</tr>
<tr>
<td>Social</td>
<td>4.95</td>
<td>1.11</td>
<td>59</td>
</tr>
<tr>
<td>Finances</td>
<td>4.03</td>
<td>1.67</td>
<td>60</td>
</tr>
<tr>
<td>Work</td>
<td>5.14</td>
<td>1.08</td>
<td>60</td>
</tr>
<tr>
<td>Education</td>
<td>5.23</td>
<td>1.54</td>
<td>10</td>
</tr>
<tr>
<td>Safety</td>
<td>5.12</td>
<td>0.92</td>
<td>60</td>
</tr>
<tr>
<td>Health</td>
<td>4.80</td>
<td>1.00</td>
<td>60</td>
</tr>
<tr>
<td>Global: In jail</td>
<td>3.64</td>
<td>1.35</td>
<td>59</td>
</tr>
<tr>
<td>Before jail</td>
<td>4.60</td>
<td>1.45</td>
<td>60</td>
</tr>
</tbody>
</table>

Analyses Concerning Possible Sub-Group Differences

Prior to undertaking the planned analyses, it was necessary to consider three preliminary issues. The first issue was the comparability of individuals who were contacted during the course of the research, but who were not included in the final
sample of sixty subjects. Using t-tests and chi-square analyses, their demographic information and criminal records were compared to the final sample of sixty subjects. On variables such as age, ethnic status, education level, number of past convictions, incidence of violence in current offences, and past psychological treatment, no differences emerged. The only difference found between groups was the number of current charges which was significantly higher for subjects who participated in the research and whose responses were judged reliable (M = 2.73), compared to the excluded subjects (M = 1.58), t(88) = 2.82, p < .05, two-tailed. On the basis of chance one would expect such a difference to emerge with this many comparisons (n = 18), and with a Bonferroni correction to protect the family-wise error rate for the number of tests performed, p < .05/18 = p < .003, this result was no longer significant. Based on this information, then, noticeable differences did not appear between individuals who refused to participate or were judged unreliable. Consequently, they do not present as an obviously biased sample, although other unmeasured differences could be present.

A second important issue to consider was the comparability of mentally disordered subjects sampled from the special handling unit and from daily intakes to the jail respectively. These sub-groups were compared on demographic information (e.g., age, education level, marital status, ethnic status, living situation prior to jail, work status), on psychological
variables (e.g., BPRS total, and current levels of anxiety and depression), on criminal activities (e.g., incidence of past arrests and convictions), and on their subjective QOL reports (e.g., global, family, work) using t-tests and chi-square analyses. Three significant differences were found, including a higher reported satisfaction with leisure life outside of jail for the inmates in the special handling unit ($M = 5.1$) compared to those chosen randomly at intake ($M = 3.9$), $t(17) = -2.25$, $p < .05$, two-tailed. The same individuals also had a significantly higher incidence of violence in their current offences (81.8%) compared to the randomly sampled MDOs (26.3%), $\chi^2 (1, n = 30) = 8.62$, $p < .05$ and they were significantly less likely to have had treatment for psychological problems in the past (54.5%) compared to individuals chosen randomly from the daily intakes (89.5%), $\chi^2 (1, n = 30) = 4.75$, $p < .05$. These differences may provide some interesting incites into jail decision-making in terms of which MDOs are assigned to the special handling unit. However, once again, these differences are not extremely impactful given the number of comparisons performed ($n = 32$) since they disappear with a Bonferroni correction. Most importantly, based on the minor differences and overall pattern of similarity, the subjects were considered homogeneous enough to be treated as a single group for the purposes of subsequent comparisons with non-MDOs.

A third important issue to address prior to investigation of the hypotheses concerned the comparability of the two major
groups in the study, the mentally disordered offenders and the non-mentally disordered offenders, to address the issues of potentially confounding factors within the data. Comparing 10 demographic variables, including age, education, living situation prior to jail, and marital status, only ethnic status was significantly different between the two groups, $\chi^2 (1, N = 60) = 5.08, p < .05$, with a higher proportion of Caucasians (English as their first language) in the MDO group (83.3%) compared to the non-MDOs (56.7%). With a Bonferroni correction for this number of unplanned comparisons, this finding was not statistically significant. Further differences were found, though, on psychological variables which confirmed the appropriateness of group classifications (see Table 4).

Table 4
Statistics on BPRS, SRAS and SRDS for MDOs and Non-MDOs

<table>
<thead>
<tr>
<th></th>
<th>MDOs</th>
<th>Non-MDOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>BPRS</td>
<td>17.30</td>
<td>7.2</td>
</tr>
<tr>
<td>SRAS</td>
<td>.51</td>
<td>0.16</td>
</tr>
<tr>
<td>SRDS</td>
<td>.57</td>
<td>0.15</td>
</tr>
</tbody>
</table>

*p < .05

Compared to the non-MDOs, MDOs had significantly higher BPRS total scores, $t(41) = -7.07, p < .05$, higher anxiety ratings,
\( t(46) = -3.69, p < .05, \) higher depression reports, \( t(43) = -3.55, p < .05 \) (all two-tailed tests), and a significantly higher proportion of individuals with prior psychological treatment (76.7%, compared to 3.3%), \( \chi^2 (1, N = 60) = 33.6, p < .05 \).

These analyses indicate, then, that except for variables of relevance to group classification, psychological indicators, the groups appear comparable. Consequently, controls for the influence of potentially confounding variables in subsequent analyses were not relevant.

The Criminalization Hypothesis

Having established the fundamental equivalency of subject groups in the research, it was possible to proceed with investigation of the primary hypotheses. The criminalization hypothesis which predicted less serious criminal activities on the part of MDOs was investigated first with the major subject groupings of MDOs and non-MDOs. Considering 15 variables, including number of current charges, number of past arrests, number of past convictions, and time spent in jail this year, no significant differences were found between the groups in \( t \)-tests and chi-square analyses of the variables.

An alternate criminalization hypothesis suggested only chronically mentally ill MDOs would have less serious criminal activities, while MDOs who are newly and/or acutely ill might be more similar to non-MDOs. Defining "chronic" as having a
current mental health problem, at least five years since their first psychological treatment, and a diagnosis of psychotic disorder, depression, or personality disorder, significant differences were still not found between the non-MDOs, acute MDOs, and chronic MDOs in one-way analyses of variance and chi-square analyses of the same 15 variables considered above. These data, then, did not support two interpretations of the criminalization hypothesis.

Quality of Life Hypotheses

Quality of life data were first analyzed to examine the 60 jailed subjects' subjective QOL in comparison to a normative sample from the general population of the United States. \( t \) tests were performed using the critical value of \( t(59) > 2.33 \) (one-tailed) to control the family-wise error rate for the group of directional hypotheses at a level of \( p < .10 \). The somewhat more liberal rate was selected here since these were all planned comparisons. As expected, satisfaction levels were significantly lower for the jail detainees compared to a sample from the general population of the U.S. in the areas of living situation, family, social relationships, finances, health, and their global ratings of their lives both before jail and in jail (see Table 5). In fact, these differences exceeded the more stringent critical value for a family-wise error rate of \( p < .05, t(59) > 2.66 \). In the cases of satisfaction with safety and work results were in the hypothesized direction, but not
Finally, contrary to expectations, reports for satisfaction with leisure (outside of jail) was slightly higher for jail detainees in comparison to the normative group.

Table 5
Statistics on Subjective QOL Comparisons for MDOs and Non-MDOs and a General Population Sample from the U.S.

<table>
<thead>
<tr>
<th>Domain</th>
<th>General Population</th>
<th>MDOs &amp; Non-MDOs</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Situation</td>
<td></td>
<td></td>
<td>5.3</td>
<td>1.14</td>
<td>1297</td>
<td>4.9</td>
<td>1.12</td>
<td>60</td>
<td>2.98**</td>
</tr>
<tr>
<td>Leisure</td>
<td></td>
<td></td>
<td>4.7</td>
<td>1.11</td>
<td>1297</td>
<td>4.9</td>
<td>1.24</td>
<td>60</td>
<td>-1.47</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td>5.8</td>
<td>1.39</td>
<td>1297</td>
<td>4.1</td>
<td>1.48</td>
<td>60</td>
<td>8.72**</td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td>5.5</td>
<td>1.09</td>
<td>1297</td>
<td>5.0</td>
<td>1.11</td>
<td>59</td>
<td>3.73**</td>
</tr>
<tr>
<td>Finances</td>
<td></td>
<td></td>
<td>4.8</td>
<td>1.48</td>
<td>1297</td>
<td>4.0</td>
<td>1.67</td>
<td>60</td>
<td>3.51**</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
<td>5.3</td>
<td>1.16</td>
<td>1297</td>
<td>5.1</td>
<td>1.08</td>
<td>60</td>
<td>1.12</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td></td>
<td>5.2</td>
<td>1.14</td>
<td>1297</td>
<td>5.1</td>
<td>0.92</td>
<td>60</td>
<td>0.65</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td>5.2</td>
<td>1.11</td>
<td>1297</td>
<td>4.8</td>
<td>1.00</td>
<td>60</td>
<td>3.03**</td>
</tr>
<tr>
<td>Global</td>
<td></td>
<td></td>
<td>5.4</td>
<td>1.48</td>
<td>1297</td>
<td>3.6</td>
<td>1.35</td>
<td>59</td>
<td>9.76**</td>
</tr>
<tr>
<td>In Jail</td>
<td></td>
<td></td>
<td>4.6</td>
<td>1.45</td>
<td>60</td>
<td>4.6</td>
<td>1.45</td>
<td>60</td>
<td>4.18**</td>
</tr>
</tbody>
</table>

*_{t}(59) > 2.33, p < .01, p(FW) < .10

**_{t}(59) > 2.66, p < .005, p(FW) < .05

The next set of analyses involved examining the data of the MDOs in comparison to reports from a group of chronically mentally ill persons living in boarding homes in the U.S. For these t-tests the critical value of _t_(29) > 2.46 (one-tailed)
was employed to control the family wise error rate at a level of $p < .10$ for these planned comparisons. Again, lower ratings were expected in all areas for the MDOs, but that was true only in the areas of satisfaction with family and the MDOs' global rating of life overall in jail compared to the boarding home residents' rating of life in general (see Table 6). Other results tended to be in the appropriate direction, but were non-significant. One exception to the general trend was

Table 6

Statistics on Subjective QOL Comparisons for MDOs and a Sample of CMI from Boarding Homes in the U.S.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Boarding Home Residents</th>
<th>MDOs</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Living Situation</td>
<td>4.60</td>
<td>1.06</td>
<td>278</td>
</tr>
<tr>
<td>Leisure</td>
<td>4.82</td>
<td>0.99</td>
<td>278</td>
</tr>
<tr>
<td>Family</td>
<td>4.64</td>
<td>1.37</td>
<td>278</td>
</tr>
<tr>
<td>Social</td>
<td>4.75</td>
<td>1.07</td>
<td>278</td>
</tr>
<tr>
<td>Finances</td>
<td>3.90</td>
<td>2.07</td>
<td>278</td>
</tr>
<tr>
<td>Work</td>
<td>5.10</td>
<td>0.99</td>
<td>61</td>
</tr>
<tr>
<td>Safety</td>
<td>4.49</td>
<td>1.08</td>
<td>278</td>
</tr>
<tr>
<td>Health</td>
<td>4.77</td>
<td>1.09</td>
<td>278</td>
</tr>
<tr>
<td>Global:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In jail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before jail</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*$t(29) > 2.46, p < .01, p(FW) < .10$

**$t(29) > 2.75, p < .005, p(FW) < .05$
satisfaction with safety where MDOs were more satisfied than were the boarding home residents, to a degree paralleling the significant findings above. The finding was not statistically significant because tests were one-tailed for the directional hypotheses.

Three items for past, present, and future life, rated on Cantril's Ladder, from a low of 1 for the "worst life I could expect to have" to 9 for the "best life I could expect to have" were included in the Quality of Life Interview. In these comparisons, the critical value of $t > 2.05$ (one-tailed) was used to control the family-wise error rate at $p < .075$. No significant differences for ratings of life a year ago (past) or life a year from now (future) were found, although differences were in the hypothesized direction (see Table 7). However,

Table 7
Statistics on Cantril's Ladder for MDOs and a Sample of CMI from Boarding Homes in the U.S.

<table>
<thead>
<tr>
<th>Domain</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td>5.25</td>
<td>2.69</td>
<td>278</td>
<td>4.77</td>
<td>2.40</td>
<td>30</td>
<td>1.03</td>
</tr>
<tr>
<td>Present</td>
<td>5.94</td>
<td>2.30</td>
<td>278</td>
<td>2.97</td>
<td>2.51</td>
<td>30</td>
<td>6.21*</td>
</tr>
<tr>
<td>Future</td>
<td>7.04</td>
<td>2.03</td>
<td>278</td>
<td>6.27</td>
<td>2.73</td>
<td>22</td>
<td>1.30</td>
</tr>
</tbody>
</table>

$t(29) > 2.05, p < .025, p(FW) < .075$
ratings were significantly lower for MDOs on their present lives compared to the boarding home residents' ratings.

The third group of QOL analyses compared MDOs to the non-MDO comparison group sampled in this research. The critical value for these t-tests was $t(29) > 2.46$ (one-tailed) for a family-wise error rate of $p < .10$ for these planned comparisons. At this level, none of the differences were statistically significant (see Table 8). The domains most different for the

Table 8
Statistics on Subjective QOL Comparisons for MDOs and Non-MDOs

<table>
<thead>
<tr>
<th>Domain</th>
<th>Non-MDOs M</th>
<th>SD</th>
<th>n</th>
<th>MDOs M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Situation</td>
<td>5.09</td>
<td>0.96</td>
<td>30</td>
<td>4.62</td>
<td>1.24</td>
<td>30</td>
<td>1.64</td>
</tr>
<tr>
<td>Leisure</td>
<td>4.62</td>
<td>1.19</td>
<td>30</td>
<td>4.37</td>
<td>1.29</td>
<td>30</td>
<td>0.76</td>
</tr>
<tr>
<td>Family</td>
<td>4.48</td>
<td>1.18</td>
<td>30</td>
<td>3.73</td>
<td>1.67</td>
<td>30</td>
<td>2.03</td>
</tr>
<tr>
<td>Social</td>
<td>5.22</td>
<td>0.68</td>
<td>30</td>
<td>4.68</td>
<td>1.39</td>
<td>29</td>
<td>1.88</td>
</tr>
<tr>
<td>Finances</td>
<td>4.23</td>
<td>1.51</td>
<td>30</td>
<td>3.83</td>
<td>1.82</td>
<td>30</td>
<td>0.93</td>
</tr>
<tr>
<td>Work</td>
<td>5.34</td>
<td>0.69</td>
<td>30</td>
<td>4.92</td>
<td>1.35</td>
<td>29</td>
<td>1.48</td>
</tr>
<tr>
<td>Safety</td>
<td>5.10</td>
<td>0.75</td>
<td>30</td>
<td>5.15</td>
<td>1.07</td>
<td>30</td>
<td>-0.20</td>
</tr>
<tr>
<td>Health</td>
<td>5.06</td>
<td>0.61</td>
<td>30</td>
<td>4.55</td>
<td>1.23</td>
<td>30</td>
<td>2.02</td>
</tr>
<tr>
<td>Global:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In jail</td>
<td>3.87</td>
<td>1.14</td>
<td>30</td>
<td>3.41</td>
<td>1.52</td>
<td>29</td>
<td>1.29</td>
</tr>
<tr>
<td>Before jail</td>
<td>4.97</td>
<td>1.10</td>
<td>30</td>
<td>4.23</td>
<td>1.67</td>
<td>30</td>
<td>2.01</td>
</tr>
</tbody>
</table>

*$t(29) > 2.46$, $p < .01$, $p(FW) < .10$

**$t(29) > 2.75$, $p < .005$, $p(FW) < .05$**
two groups were family, health, and global ratings of life before jail which all had individual t-test levels of p < .05. Findings for group differences in ratings of past, present, and future life on Cantril's ladder also failed to pass the critical value for significance (see Table 9).

Table 9

Statistics on Cantril's Ladder for MDOs and Non-MDOs

<table>
<thead>
<tr>
<th>Domain</th>
<th>Non-MDOs</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td></td>
<td>4.96</td>
<td>2.60</td>
<td>28</td>
<td>4.77</td>
<td>2.40</td>
<td>30</td>
<td>0.30</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td>4.18</td>
<td>2.31</td>
<td>28</td>
<td>2.97</td>
<td>2.51</td>
<td>30</td>
<td>1.91</td>
</tr>
<tr>
<td>Future</td>
<td></td>
<td>6.17</td>
<td>2.57</td>
<td>23</td>
<td>6.27</td>
<td>2.73</td>
<td>22</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

*t(29) > 2.05, p < .025, p(FW) < .075

The final area of research interest concerned the relationship between objective factors of life and subjective satisfaction with life domains. It was expected that the magnitude of relationships for the MDO group would be similar to those reported for the boarding home residents discussed earlier. Table 10 shows correlation coefficients from the boarding home residents' reports, correlation coefficients for MDOs' reports, and transformations of r necessary for performing the statistical test of correlation coefficient comparability. For these statistical tests, a Bonferroni correction was not
adopted, since such a conservative procedure would impede uncovering any differences present. Still, with the liberal value, only one correlation coefficient approached being significantly different ($z_{\text{two-tailed}} > 1.96$).

Table 10
Statistics on Correlations Between Subjective QOL and Objective Life Conditions

<table>
<thead>
<tr>
<th>Objective</th>
<th>Subjective</th>
<th>Boarding Home (N = 278)</th>
<th>MDOs (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$r$</td>
<td>$r(z)$</td>
</tr>
<tr>
<td>Room to be alone</td>
<td>Home</td>
<td>.19</td>
<td>.16</td>
</tr>
<tr>
<td>In person contact</td>
<td>Family</td>
<td>.22</td>
<td>.48</td>
</tr>
<tr>
<td>Telephone contact</td>
<td>Family</td>
<td>.22</td>
<td>.29</td>
</tr>
<tr>
<td>In person contact</td>
<td>Social</td>
<td>.27</td>
<td>.28</td>
</tr>
<tr>
<td>Telephone contact</td>
<td>Social</td>
<td>.27</td>
<td>.20</td>
</tr>
<tr>
<td>Hours worked</td>
<td>Work</td>
<td>.50</td>
<td>.55</td>
</tr>
<tr>
<td>Wages earned</td>
<td>Work</td>
<td>.57</td>
<td>.65</td>
</tr>
<tr>
<td>Spending money</td>
<td>Finances</td>
<td>.12</td>
<td>.33</td>
</tr>
<tr>
<td>Victim of violence</td>
<td>Safety</td>
<td>-.19</td>
<td>.16</td>
</tr>
<tr>
<td>Victim other crime</td>
<td>Safety</td>
<td>-.19</td>
<td>-.07</td>
</tr>
<tr>
<td>Total victimization</td>
<td>Safety</td>
<td>-.19</td>
<td>.04</td>
</tr>
<tr>
<td>Times to doctor</td>
<td>Health</td>
<td>-.22</td>
<td>-.01</td>
</tr>
<tr>
<td>Inpatient psychological</td>
<td>Health</td>
<td>-.19</td>
<td>.20</td>
</tr>
</tbody>
</table>

*$_z > 1.96$, $p < .05$
DISCUSSION

Quality of life has been a construct much discussed in the era of community-based treatment of the chronically mentally ill (CMI) and deinstitutionalization. Research on the issue has been conducted with the CMI population in various settings including hospitals, boarding homes, and apartments, but not with mentally disordered persons in jail. The present study was undertaken to address this research lacuna. It was expected that both mentally disordered offenders (MDOs) and offenders without mental disorder would report lower life satisfaction when compared with a general population sample from the U.S. Similarly, it was hypothesized that the MDOs would report lower life satisfaction compared with a sample of mentally disordered individuals living in boarding homes. Also, in comparison to persons without mental disorders in the jail, MDOs were expected to generally have lower life satisfaction. Additionally, the correlations between objective conditions and subjective satisfaction were expected to be of a similar magnitude to those found in past research. A final issue, discussed in the context of the "criminalization hypothesis" which suggests MDOs are inappropriately in jail with minor offences due to a lack of community resources, was also investigated with the expectation that the MDOs would have less severe criminal histories than the non-MDO sample.
Prior to embarking on the discussion of results, possible limitations of the present research must be considered. The first area of concern pertains to procedures for subject assignment in the study and the validity of mental disorder classifications. The planned procedure to have patients classified by a senior graduate clinician failed to proceed on schedule. Because of this fact and because there was a lack of comprehensive medical records available, needed mental health information was unavailable and the researcher had to rely on her own judgment. That judgment might have been problematic because she lacked the experience and supervision which was available to the other screening clinicians used later in the project. Although the majority of the subjects are probably appropriately classified, there were "borderline" cases where it was difficult to place the individuals with as much certainty. Therefore, although the majority of subject groups are probably placed correctly, the failure of procedures to proceed as planned, and the subsequent absence of recorded information, may have compromised group validity to some small degree.

The first limitation with subject classification was compounded by a second limitation in the area of data collection. Although the research protocol was carefully designed to be brief yet obtain necessary information concerning psychological treatment history, the information proved to be
inadequate in the end. The problem presented itself in attempts to classify subjects into chronic and acute groups. It might have been, as was the researcher's opinion, that few "chronically" disordered individuals actually participated. By chronic one means ongoing adjustment problems with severe psychosocial impairments. Whereas research in the literature sometimes spoke of entire samples of schizophrenic patients, it was the researcher's impression that schizophrenics usually declined to participate, and that most of the chronically disordered individuals encountered were a few persons with bipolar affective disorder. The point of this discussion, though, is that because of inadequacies in the research protocol and the absence of corroborating information (from records or a senior clinician) insufficient information was available to judge the issues of diagnoses and chronicity, in order to make very strong conclusions about the nature of the mentally disordered group sampled.

A third limitation of the study which may have been operating was experimenter bias. Again because of the problem that clinical screening interviewers were not available, the clinical decisions fell to the person who was also conducting the research interviews. Exercising both roles, whereas she was supposed to be blind, might have systematically biased results.

The final identified limitation of the study related to the design employed which was cross-sectional. In the literature,
one of the major criticisms of QOL research is the failure to protect against response biases from subjects, such as acquiescence and mood-of-the-day effects. Some people argue that these difficulties can be controlled through measurement and covariation of the variables at the analysis stage. Those procedures were undertaken in the present design. Of concern were mood effects on QOL ratings because subjects had just entered jail. Unfortunately, as some authors have warned in the literature, this approach is of limited value. In the case of this particular research, the limitation is seen when one wants to control for mood (state) in a design utilizing a group of subjects with psychological disorders (traits). One does not want to remove the effects for traits, which are a central research issue, but the state which one does wish to covary is highly confounded with the traits. Consequently, one is left in a position of doing nothing to control for mood, or removing the effects of mood and wiping out differences witnessed because while removing mood one also removed the major hypothesized independent variable. In the present results, this is exactly what happened. Some differences between the MDOs and non-MDOs tended to be in the hypothesized direction, but when anxiety and depression were covaried with mental health status and QOL ratings, these tendencies disappeared. Therefore, it seems that the inability to control for such subject response biases are a limitation of the design employed and the study as it was completed.
Given these limitations, the following caveats must be placed on any conclusions which follow. First, although the subject groups are generally cohesive in terms of being a group of individuals with a general absence of mental disorder, and a group of individuals with at least some difficulties with mental disorder, the exact nature of groups, the mentally disordered group in particular, is uncertain because of the inadequacies of classification discussed. Second, some degree of experimenter bias may have been operating, as the same individual conducted mental health classification and research interviews. Third, the cross-sectional design employed was limited so that the influence of subject biases like mood are contaminated with results reported and are indistinguishable from them. Given the exploratory nature of this research and the caveats discussed, then, the following discussion and conclusions must be seen as tentative in nature and of limited generalizability without further research and replication.

Findings

At the outset of data analysis, a number of preliminary issues had to be addressed concerning the comparability of subjects along several dimensions. First, information on subjects who refused to participate and subjects who were judged unreliable was compared to the 60 subjects who completed the interview and were judged reliable. No significant differences were found between these groups. Differences in demographic
information were not a problem in checking the comparability of MDO and non-MDO groups either.

Information on the subsets of mentally disordered offenders who had been sampled differently was also checked for comparability. A couple of differences emerged including the incidence of less previous psychological treatment and more violence in current charges for the subjects from a special handling unit compared to the MDOs sampled randomly from daily intakes. Such differences were not deemed of a magnitude to warrant separate analyses for the sub-groups on subsequent tests because groups were more similar than different on demographics and in terms of both groups having psychological difficulties. However, the differences are interesting to consider at this point, since they seem to suggest that there is a two-tier system of treatment for MDOs operating within the jail, and that the special handling unit may be employed with greater frequency for "acute" disorder and high risk cases. The acute offenders seemed to have committed more heinous crimes and have no prior history of psychological treatment. In these cases it seemed that present emotional difficulties were precipitated by an act of grave violence (e.g., several subjects had killed their wives) in individuals who probably had inadequate psychological functioning previously, but never sufficient stress to cause them such acute adjustment problems. In other cases, it seemed that there were individuals on the unit who were in less acute distress, but were selected for handling there so that acute
difficulties would not be precipitated by the stress of life on a regular unit. For example, there seemed to be several individuals with schizophrenia and bipolar affective disorder who were on medications and relatively stable, but were never the less treated on the special unit to avoid the onset of major difficulties. On the other hand, individuals either without such heinous crimes, or with ongoing psychological adjustment problems of a more stable nature, seemed to be treated by jail classification officers as able to cope satisfactorily in the general population of the jail and as not requiring special treatment on the MDO handling unit.

The Criminalization Hypothesis

The present research was unsuccessful in uncovering any criminal activity and history differences which would suggest these MDOs had less serious activities than the non-MDOs. One is lead to conclude that, in these data, there is no support for the criminalization hypothesis which assumes the CMI commit minor crimes to support themselves because there are inadequate resources for them in the community. While it may well be that there are inadequate resources, these data suggest that the hypothesized precipitation of crime is not necessarily of a lesser nature than is committed by other criminals.

At this point, it is important to consider possible reasons for the lack of differences seen. First, it may be that lack of
community resources which are alleged to cause crime in the MDOs are similar in the group of non-MDOs. In this hypothesis, it is suggested that these two groups might commit crimes for the same reasons. Consequently, there is no difference on average between the severity of their crimes. This reason is potentially operating but this research cannot answer whether this is the case. However, another possible explanation emerged from impressions of the subject groups. The second potential explanation for the lack of differences in criminal activity between the MDO and non-MDO group pertains to the issue of chronicity. There were two hypotheses pertaining to MDOs having less serious criminal records than non-MDOs. One hypothesis predicted that all MDOs would have less serious crimes compared to non-MDOs, while another expected that only "chronic" MDOs (i.e., of a level of severity similar to CMI discussed in the literature) would have less serious records, while non-chronic MDOs would be more like other criminals. These results definitely disconfirm the first hypothesis because there is clearly a group of MDOs who have criminal records just like regular non-MDO criminals. With respect to the second hypothesis, though, the question cannot be answered because the issue appeared to not be adequately addressed in this study. As discussed above, it was the impression of the researcher that few individuals with psychological difficulties on a level with the CMI discussed in the literature completed the interview. Some such individuals did participate, such as individuals with histories of hospitalization for bipolar affective disorder and
major depression. However, others, such as some chronic schizophrenics contacted, for example, either declined to participate when asked or refused to even come up to the health care unit to have the research explained, and of course these issues cannot be forced on them against their will. Consequently, it is the major suspicion of the researcher that differences between MDOs and non-MDOs were not found because there probably are no differences with a certain subset of the MDO population (non-chronic). However, other differences with the chronically mentally ill discussed in the literature were probably not given an adequate test because there was a minority of such persons present in the sample and information collected was insufficient to parcel them out from other MDOs. Therefore, this question remains to be explored in future research.

Quality of Life Hypotheses

In first studying the differences between all of the jailed subjects, MDOs and non-MDOs, in comparison to a general population sample from the U.S., results turned out generally as expected, with the jailed persons generally less satisfied with their lives. The largest differences were seen for global ratings of satisfaction with life in jail, but even life before entering jail was significantly less satisfying when compared with the general populations' feelings about their lives on the whole. Satisfaction with family was also a source of lower relative satisfaction. Most recent living circumstances before
jail, social situations, finances, and health were also significantly less satisfying for the criminal subjects. Considering the last job that they worked on and their recent leisure activities, jailed persons were comparably satisfied to the general population sample. Perhaps they are similarly satisfied rather than being more dissatisfied in these domains, because they like the free time that a criminal lifestyle affords them, and if they do find employment it tends to be personally satisfying for them since they choose to give up crime for long hours on a job. Alternatively, it is important to note that these are two areas which have not been significantly different in past research (Lehman et al., 1982), so perhaps they simply show little variance in general. Satisfaction with legal and safety issues also did not show a difference, which is interesting given the jailed persons' criminal histories and legal status. Perhaps although the offenders tend to be involved in more personally hazardous activities than a member of the general population, they also tend to be accustomed to their activities, know how to protect themselves, and have allies where needed. Also, differences between Canada and the United States in crime rates and likelihood of victimization might also have contributed to the lack of difference here. That is, all Canadians including offenders might feel more satisfied in the domain of legal and safety issues compared to American citizens because they feel less vulnerable to victimization, for example. Thus, although a criminal might be more prone to victimization and hence less
satisfaction in this domain of life, that effect may be counterbalanced by the fact of living in a country with significantly less likelihood of victimization. Therefore, if either of these factors were operating then, it might explain why the Canadian offenders appear to be comparably satisfied to the American public in their respective legal and safety situations. On the whole, though, there were a few areas of comparable satisfaction and the criminals tended to be less satisfied than the general population sample in the majority of domains.

Compared to chronically mentally ill people living in boarding homes, the MDOs were expected to be less satisfied in all domains. However, they were only significantly less satisfied with their families and with life in general in jail. The latter was evidenced both on global ratings on the delighted-terrible scale and on Cantril's ladder of present life. Dissatisfaction with leisure was in the appropriate direction but not significant. Interestingly, satisfaction with safety and legal issues was substantially higher for the jailed group. Given their criminal histories, they may feel more safe and less prone to victimization compared to the boarding home people. Otherwise, satisfaction with living situation, social relations, finances, work, health, and life as a whole before jail were very similar. Therefore, contrary to expectations, on the whole this group is generally comparable to a sample of CMI who live in boarding homes in the U.S., with the exceptions that
the jailed persons were substantially more satisfied with their safety, and more dissatisfied with life overall in jail and with their families.

Comparing the MDOs to the non-MDOs within the jail, results appeared contrary to expectations. Whereas MDOs were generally expected to be less satisfied, differences were not statistically significant, and only the relative dissatisfaction with family relations, social life, health, and life overall before jail approached significance. Results on Cantril's ladder were also not significantly different, with ratings for present life tending to be the most different. Jailed group differences in QOL were not significantly different, then, however MDOs tended to be less satisfied than non-MDOs, mean differences were comparable to earlier significant results, and more power would have borne out these differences. Also, given a larger proportion of CMI in the sample, differences might have been more pronounced.

A comparison of the correlations between objective conditions and subjective QOL for the MDOs and the CMI persons in boarding homes found no significant differences, in spite of the fact that the magnitude of coefficients appeared quite different. Coefficients were mostly the same in so far as directions of relationships were consistent across items.
In conclusion, a number of limitations were experienced in conducting this research, but it was useful in so far as it has information to offer in several domains. Most importantly, it demonstrated that there is a large group of men in jail in need of psychological assistance, apparently in addition to those the literature defines as chronically mentally disordered. This group of mentally disordered individuals is not very different from the other jail detainees in terms of criminal activities. However, this group is generally less satisfied with their lives than a general population sample from the U.S. Also, the mentally disordered individuals in particular are equally satisfied or less satisfied with their lives compared to individuals living in large boarding homes in the U.S. and the relationships between their objective life conditions and their subjective satisfaction are not significantly different.

**Suggestions for Future Research**

In future research, it would be desirable to see larger group sizes and some methodological improvements. First, group sizes should be closer to 65 for these moderate effect sizes. Second, the QOL interviewer should be as blind as possible to mental health information to avoid concerns with interviewer bias. Third, use of experienced clinical judgments or comprehensive medical and psychological files would be desirable for subject classification. Finally, it would seem that invoking a repeated measures/panel design which has been
strongly recommended by several researchers would be appropriate for the consideration of subject response biases and other confounding variables.

Given these methodological improvements it would be interesting to compare that group of MDOs to the present results. One wonders if the present results would replicate or not. Furthermore, it would be interesting to select a group of MDOs typical of chronically mentally ill persons discussed in the literature for the purposes of comparison with the present results and for comparison with normative information examined here.

The current research was seen to have some limitations. However, it has been valuable since it was the first QOL research conducted within a jail setting. Therefore, it offers some insights into the QOL of jailed persons, mentally disordered and not, and provides direction for future investigations.
APPENDIX A: CONSENT FORM

CONSENT FORM

LIFE CIRCUMSTANCES & SATISFACTION STUDY

INVITATION TO PARTICIPATE: You are invited to participate in a study to learn about the lives of people in jails and how satisfied they are with life.

PURPOSE OF THE STUDY: The study will help us learn more about people in jail and characteristics about their living circumstances.

EXPLANATION OF PROCEDURES: If you choose to participate in this study, you will be interviewed and will be asked to answer a number of questions about yourself and your life. We would also like to examine your files here at the pretrial centre.

POTENTIAL RISKS AND DISCOMFORTS: There are no risks associated with participating. We will use the information we collect in statistical reports to provide general characteristics of jailed persons. None of your personal, identifying information will be made available to any person at the pretrial centre, or anywhere else in the criminal justice system.

POTENTIAL BENEFITS: Should you decide to participate, you will be offered some material reimbursement such as cookies for your time. Also, you will know that you are helping us learn more about people in jails and their needs. Your decision to participate in the study -- or not to participate in the study -- will have no affect on your stay at the Vancouver Pretrial Centre.

CONFIDENTIALITY OF DATA: Any information that is obtained during the study will remain strictly confidential. No one will be writing your name or any other identifying information on the research material. None of the information that we collect about you personally will be made available to any person at the Vancouver Pretrial Centre, or anywhere else in the criminal justice system.

WITHDRAWAL FROM THE STUDY: Participation is voluntary. Your decision whether or not to participate will not affect your current or future relationship with the Vancouver Pretrial Centre or with any other branch of the criminal justice system.

OFFER TO ANSWER QUESTIONS: If you have any questions, please feel free to ask the interviewers. If you have any questions later you may call the investigators listed on the next page. Thank you for your time and interest.
The university and those conducting this project subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of our subjects. This form and the information it contains are given to you for your own protection and full understanding of the procedures, risks, and benefits involved. Your signature on this form will signify that you have been informed of the procedures in the study, and that you have had an adequate opportunity to consider the information, and that you voluntarily agree to participate in the project. Please read the following paragraph, and if it all of it is to your satisfaction, sign at the bottom of the page.

"I have volunteered to participate in a research project under the direction of Ronald Roesch, a professor in the Psychology Department at Simon Fraser University. I have been informed of the basic procedures of the study by the researchers, and by reading the first page of this informed consent form. I take part in this study with the understanding that I may withdraw my participation in the experiment at any time, and that I may register any complaint with the primary researcher, her supervisors, or with the Chair of the Psychology Department, Dr. Roger Blackman. I am aware that my participation will involve the tasks described in the section entitled, "EXPLANATION OF PROCEDURES" on the first page of this form. I take part in this study with the assurance from the researchers that my responses will be completely anonymous and confidential (identified by number only). I understand that I may obtain a copy of the results of the study upon its completion from Laurene Wilson, Dr. Ronald Roesch, or Dr. James Ogloff (291-3354)."

SIGNATURE OF PARTICIPANT __________________________ DATE _____________

SIGNATURE OF WITNESS __________________________ DATE _____________

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