THE INFLUENCE OF SEVERE DIAGNOSIS ON PSYCHIATRIC HOSPITALIZATION

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The Influence of Severe Diagnosis on Psychiatric Hospitalization

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DEDICATION

This thesis is dedicated to my parents

Lt. Col William Davis and Sandra Davis

whose love, support, encouragement, and friendship

have been blessings from God that continue to sustain me.

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Abstract

The propensity for individuals to require a psychiatric emergency service is based on several indicators including racial characteristics, risk factors, and severity of diagnosis. Distinct correlations between mental health diagnosis and inpatient psychiatric hospitalization have been relatively scarce in previous literature. The information contained in the study was gathered using anonymous archival data from a mobile crisis team. Axis I diagnosis and outcomes of intervention were recorded in each evaluated case. This study fails to support that the frequency of inpatient psychiatric hospitalization is directly related to Axis I diagnoses. However, the results of this study serve to indicate where appropriate resources should be allocated in the treatment of diagnoses of mental illness.

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Introduction

In many instances, individuals suffering from severe and persistent mental illness may need to utilize crisis psychiatric services. Research has indicated that this source of assistance is gaining acceptance in the community. Elements that are contained within the literature suggest several factors associated with the use of crisis centers. These factors include racial and ethnic characteristics, diagnoses, situational emergencies, and available coping mechanisms. In order to promote the understanding of terms within the confines of this study, succinct definitions are provided. Risk factors "indicate an increased probability that a person will develop a particular type of problem or illness and are said to be especially vulnerable to a particular disorder" (Sarason & Sarason, 2002, p. 634). Examples of risk factors may include proneness to psychological distress, ability to cope, environmental situations, and demographic aspects. Decompensation is characterized as loss of ability to compensate in a physiological manner or an imbalance of a psychological nature, according to the Merriam-Webster dictionary (Webster, 2003). Decompensation involves the inability to maintain functionality and adaptability to one's environment as well as the incapacity to remain stable emotionally and or mentally. Diagnosis is the description of "the behavioral and personality correlates associated with a particular classification" (Sarason & Sarason, 2002, p. 625). Diagnoses are assignments of certain psychological disorders given to individuals who display certain characteristics that are associated with the disorders. Hospitalization of an inpatient, psychiatric nature, encompasses 24-hour care involving intervention through enriched programs such as intensive therapy, drug treatment, and socialization activities (Sarason

& Sarason, 2002, p.580). Examples of the need for inpatient psychiatric hospitalization include, but are not limited to, suicidal ideations, suicidal attempts, thoughts or intent to harm someone else, acuity of psychological illness, and inability to care for oneself without emergent intervention. Race or ethnicity pertains to "culture-specific behaviors and practices and culture-specific attitudes that include adherence to a culture's values and norms" (Kamphaus & Frick, 2002, p.71). A psychiatric emergency refers to "a situation that requires immediate attention to avert a serious outcome" (Ataken & Davies, 1997).

According to the literature, today's mental health services may be lacking in some respects. One report on the global burden of disease indicates that among non-infectious diseases, mental illness is the second cause (preceded only by cardiovascular disease) of disability in developed as well as developing countries (Herzig & Murphy, 1997). In a study by Wang, Demler, and Kessler (2002), it is estimated that 5.4% of the adult population is afflicted with severe mental illness with only half of those receiving some type of treatment in a given year. Although these estimates are low, the effectiveness of treatments offered is even less. Hughes (1999) indicated that the rates of inpatient psychiatric hospitalization are the most crucial directives for a community support program. Historically, community mental health services have been the primary resource for effectively decreasing hospital use. Hughes further related that hospitalization is the most expensive option for treatment and often occurs due to the collapse of effectiveness of any other treatment. Indications from Massachusetts, Iowa, and Colorado suggest that the implementation of mobile crisis teams, who provide 24-hour intervention and

placement services, has significantly reduced the cost of behavioral health care (Hughes). Consequently, emergency services have strengthened.

Literature Review

This literature review will cover research in six areas: (1) empirical studies of international data related to hospitalization, (2) empirical studies of effectiveness of urban and rural treatment services, (3) empirical studies of race as a determinant in psychiatric hospitalization and utilization of mental health services, (4) empirical studies of risk factors as determinants of psychiatric hospitalization, (5) empirical studies of psychiatric emergencies, and (6) empirical studies of diagnosis as a factor in crisis intervention.

Empirical Studies of International Data Related to Hospitalization

Crisis psychiatric services are a popular form of intervention in the international community. In a study involving the effectiveness of psychiatric emergency services, data suggested that only 36.4 % of all Scottish patients seen in the psychiatric emergency service setting were considered to be in emergency need of psychiatric assessment. Of the 36.4 percent, only 10 % were voluntary, self-referrals (Claassen, Hughes, Gilfillan, McIntire, Roose, Lumpkin, & Rush, 2000). This suggests that although the psychiatric emergency services may not be treating the most urgent crises, these facilities do indeed serve a vital purpose and participate in triage responsibilities. Mental health emergencies range from situational risks to intense personal distress, suicide ideations, or self-neglect (Ataken & Davies, 1997).

While community services can be provided for clients during the day, there is a present need for after-hours psychiatric services. Appropriate, as well as adequately staffed, crisis intervention programs that are community based can be difficult to

accomplish (Sauer, Ayonrinde, Lawal, Finn, & Ojo, 2002). The justification for this service includes the ability to respond quickly to crisis, accessibility for specific geographic regions, and coordination of community care for the mentally ill (Johnson & Thornicroft, 1995). According to Johnson and Thornicroft, British accident and emergency departments as well as hospitals are frequently used for emergency psychiatric assessments. They also found that the most often identified weaknesses of these facilities were lack of a crisis intervention and response team, lack of staff, lack of access to emergency services, and lack of crisis beds outside of the general hospital. In another study by Spooren and Jannes (1997), crisis intervention services within the hospital setting found several inpatient hospitalization determinant factors regarding the individuals who were assessed by the emergency service. These factors included involuntary presentation, previous hospitalization, and possession of an Axis I diagnosis. Accordingly, it is evident that emergency psychiatric services benefit the community as a valuable resource.

Beech, Parry, and Valiani (2000) related that non-medical health professionals are typically trained to provide psychiatric assessment and referral adequately. The researchers implemented a computer database to monitor the day and time of assessment, diagnosis, and disposition of the client. A holistic form for the purposes of assessment was also used. Socioeconomic factors, suicidal ideation and intent, self-harm, substance abuse, and violence were all contained on the form. The study included 88 assessments over a 12-week period, with a slight male bias detected. The researchers discovered that 75% of the episodes assessed involved individuals who were already known to be receiving specialist services. In addition, the most common reason for referrals for

emergency assessment was self-harm (37.5%), suicidal (15.6%), alcohol use (15.6%), and depression (9.4%). Furthermore, 42% of the patients assessed were admitted to the psychiatric hospital, 23 patients received referrals to their mental health center, and an additional nine patients were referred to substance abuse treatment centers, according to Beech and colleagues. The gender differences associated with this study are of interest. The researchers detected that twice as many men were admitted to inpatient hospitals and substance treatment centers compared to females. Although this study focused on referral data and gender differences, predictors involved in the need for intervention, as well as diagnoses, are also of importance.

In the United Kingdom, emergencies may or may not involve disorders of a psychotic nature. Substance misuse leading to violent behavior and personal vulnerability was also a prime target for intervention. In addition, acute anxiety disorders and panic disorders were focuses of clinical attention (Ataken & Davies, 1997). Worsening symptoms, increased hallucinations, rapid changes in behavior, increased stress, and threats were all found to be predictors of emergency psychiatric needs. The researchers were able to identify several main risk factors in regard to mental health emergencies. Delusions and depressive states as well as manic excitement, self neglect, and sexual exploitation were found to be determining factors. In addition, suicidal intentions, chaotic behavior, and deliberate self-harm were also considered to be identifiers.

An additional study in Manchester, England evaluated the demographic, social, and clinical characteristics of individuals seen on an emergency basis. Hatfield, Perry, and Spurrell (2000) studied 189 emergency assessments, which included 170 different

people that took place over a period of two months. Of those assessed, 18 people were seen on more than one occasion (52.4% were men) and the majority of individuals were either single, separated/divorced, or widowed. In addition, slightly more than one individual in five lived alone and fewer than one quarter of those assessed were employed at the time of assessment. Hatfield et al. detected that 53.5% of the persons seen had previous contact with psychological services, and mental health professionals were currently seeing 35.9%. Also, drug use was reported in 14.3% of all assessments and alcohol use was discovered in 33.9% of those assessed. The researchers found significant risk factors within the study including relationship issues, revelation of child abuse, risks of self-harm, poor coping mechanisms, major life changes, and social difficulty. Furthermore, of those individuals assessed, slightly greater than a quarter resulted in admission to an inpatient psychiatric facility. Based on the interesting findings in this study, it appears that although individuals may already be receiving some form of treatment, there is still a need for emergency psychiatric service provision.

Researchers in Belgium discovered that of 8,477 cases referred to the hospital, 4,531 of the patients were admitted inpatient for psychiatric purposes (Spooren & Jannes, 1997). In addition, Spooren and Jannes found that the main reasons for referral included attempted suicide, presentation with affective or psychotic symptoms, substance abuse, and relational crises, behavioral, social, and occupational problems. Furthermore, the researchers detected that those presenting to the emergency department on a voluntary basis tended to be referred to outpatient treatment, whereas those who were assessed for psychiatric reasons were more likely to be treated on an inpatient basis. In reference to criteria associated with hospitalization, the study found that those who had attempted

suicide had been previously hospitalized, and those who were elderly were more likely to receive inpatient treatment. Also, those who were diagnosed with a major disorder were more often referred to inpatient services (Spooren & Jannes). In an additional study, Merson and Tyrer (1992) evaluated 100 patients between the ages of 16 and 65 who presented at a London hospital for psychiatric emergencies. Of those assessed for crisis intervention, a total of 23 were admitted to an inpatient psychiatric hospital (Merson & Tyrer). Indications from the study suggest that schizophrenia and mood disorders are the most common reason for referral. Secondly, more females (63%) required intervention than males (38%) according to Merson and Tyrer. Moreover, ethnicity was found a distinctive factor with 75% of the individuals assessed being Caucasian, 8% Middle-Eastern, and 17% of Afro-Caribbean or Asian descent. This data would suggest that international incidences are generally consistent with episodes of psychiatric emergencies that occur in the United States.

Empirical Studies of Effectiveness of Urban and Rural Treatment Services

The needs of those suffering from severe and persistent mental illness, regardless of geographic location, is an important factor in community based mental health services. Indications have been made that location and the effectiveness of treatment have been related to the outcomes of mental health treatment. One study suggests that individuals who live in a relatively affluent area are more likely to have long stays in inpatient psychiatric facilities (Hodgson, Lewis, & Boardman, 2000). Observations of urban and rural differences in association with quality of service, use of such services, and outcomes of treatment may be determined by the differences found in those individuals

who are accessing the services, as well as the mental health practitioners providing the services (Hartley, 2002).

Several barriers may be indicative of less-than-adequate mental health services in the rural communities. For instance, often rural areas lack availability of services and have limited accessibility (Fekete & Bond, 1998). In addition, stigma in the social realm is often more prevalent in rural regions. Because of these issues, those individuals residing in rural areas may be reluctant to seek psychiatric help. One study implemented a program which emphasized intensive outreach and in-home treatments entitled Assertive Community Treatment (ACT). With the implementation of this model of treatment, Santos found a 79% decrease in hospital stays among four rural ACT programs which were evaluated (as cited in Fekete & Bond, 1998). Also, a reduction (64%) of hospital admissions per year was discovered. This information indicates that although there were seemingly effective and available treatment options for rural residents, there is a greater need of implementation of such mental health services.

Although rural aspects vary, several specific characteristics have been associated with rural areas. The population is often scattered and sparse, transportation is limited and difficult to obtain, and the regions are often big and not easily navigated (Herzig & Murphy, 1997). They also suggested that patterns of psychological disorders may vary between rural and urban areas due to urban migration, access to substances, lifestyles of the family, socio-economic factors and educational levels. Individuals living in rural communities are typically described as having stronger traditional-type values and are more protective of the community. In addition, they tend to have a greater care for the environment surrounding them and more social support systems in place than those living

in urban areas (Fekete & Bond, 1998). Data indicates that rural regions have one third of the nation's poor residing in these areas. Higher rates of mental illness, poorer behavior concerning health, and morality have all been associated with the rural population (Hartley, 2002). Specific rural cultural aspects may play a role in the use, quality, and outcome of mental health treatment. In addition, lack of cultural competency on the part of the mental health professional was evident in the rural region. Evidence suggests that there was a disproportionate amount of mental health practitioners in the urban areas rather than rural, and that the lack of rural mental health professionals may be due to recruitment difficulties (Herzig & Murphy). Furthermore, contact between mental health professionals and individuals requiring services is less frequent in the rural regions (Fekete & Bond).

Distance is an important factor regarding mental health services in the urban and rural areas. One study reported that individuals dwelling within 15 miles of a psychiatric hospital were much more likely to consult psychiatrists, attend follow-up appointments and to be admitted for inpatient treatment (Herzig & Murphy, 1997). In addition, Sommers (as cited in Herzig & Murphy,1997) related that persons living in rural areas were more apt to utilize crisis intervention services rather than conventional mental health services. Arguments made have asserted that there is indeed an urban bias in the mental health field and that little has been done to increase the use of mental health services by individuals living in distant areas. In addition, the researchers promulgate that accessibility to professionals is often inadequate for those suffering from acute psychiatric problems in remote areas. Studies suggest that rural areas of a remote nature

have a greater occurrence of psychiatric hospital admissions as well as more full-blown crises in instances of psychiatric emergencies.

An integrated approach to psychiatric services is valuable to individuals living in remote areas. Due to limited access to services, available resources must be on hand to ensure appropriate measures of treatment. Law enforcement typically plays a valuable role in the arena of mental health services. Police officers often arrive on the scene in a psychiatric crisis (Herzig & Murphy, 1997), especially in rural areas. These officers also are typically responsible for safety issues, involvement in violent behavior, as well as matters of transportation to emergency facilities.

Grusky and Tierney (as cited in Herzig & Murphy, 1997) related that there is a definitive weakness in financial aspects in regard to mental health services. Funding policy encourages the admission of individuals to inpatient psychiatric treatment; on the other hand, outpatient treatment is less profitable. Trends in the health insurance companies' willingness for reimbursement indicates that hospitalization is more likely to obtain greater amounts of payment than will outpatient services, according to Santos (as cited in Herzig & Murphy, 1997).

In a study conducted by Wang et al. (2002), it was determined that there was a greater use of mental health services in the South than in the Northwest. Predictors of not receiving minimally adequate psychological treatment were also found, which included being a young adult, being diagnosed with a psychotic disorder, having African-American descent, being treated by a general practitioner, and residing in the South. Those individuals not residing in metropolitan areas have greater difficulty remaining engaged in mental health treatment according to Hartley (2002). Furthermore,

acceptance on the part of the individual receiving services in response to intervention may be hampered as well in the rural setting.

Empirical Studies of Race as a Determinant in Psychiatric Hospitalization and Utilization of Mental Health Services

Race or ethnicity has proven to be an indicator of risk as well as having a potential for biases in regard to mental health services and inpatient hospitalization. Numerous circumstances may contribute to the differences that have been found in the research. These may include such indicators as differences in exposure to risk factors, genetic make-up, presentation of mental illness, problems with communication, and misdiagnosis (Kales, Blow, Bingham, Copeland, & Mellow, 2000). According to various studies, one's ethnic background plays a vital role in the access to health care and reception of mental health services. Klinkenberg, Dean, and Calsyn (1997) suggested that 40 to 60% of people who are discharged from inpatient hospitals will not receive outpatient services. In addition, almost 40% of those individuals will be hospitalized again within a given year. Research has indicated that African-Americans are less likely to receive outpatient mental health treatment than Caucasians. Also, African-Americans are prone to be admitted on an inpatient basis and typically will have longer stays in psychiatric hospitals.

In a study conducted by Klinkenberg et al. (1997), admissions at a psychiatric emergency room were evaluated. Client information assessed included race, sex, marital status, living situations, educational level, and accompaniment by others with the client to the emergency room. Of the 319 individuals seen, nearly two-thirds were male, half were African-American, and 53% were never married. Based on the data gathered, African-

Americans were more likely to have had at least one previous psychiatric hospitalization, were more often accompanied to the emergency room by the police, and more frequently classified with a diagnosis of psychosis. Predictors of psychiatric hospitalization for African-Americans included the gender status of male, lack of social or familial support at the psychiatric emergency room, and the lack of aftercare treatment services. Furthermore, Pavkov and colleagues (as cited in Klinkenberg et al., 1997) promulgated that clinicians over-diagnose schizophrenia and under-diagnose affective disorders in African-Americans. One suggestion made in the Klinkenberg et al. study promotes the use of race-specific intervention in relation to psychiatric hospitalization. An understanding of differences in association with racial characteristics and the needs for mental health services is also an issue that should be addressed.

Feinstein and Holloway (2002) evaluated a psychiatric intensive care unit in order to determine whether an overrepresentation of African-American patients occurred. The researchers attempted to discover whether ethnic background was a risk factor for admission. Data was gathered throughout the study including ethnicity, age, marital status, employment, current living conditions, gender, and history of mental illness. Of the 107 individuals admitted to the inpatient unit, 42% were of Afro-Caribbean ethnicity and 10% were listed as African-Americans. Feinstein and Holloway's research also indicated that Afro-Carribeans were significantly less likely to be employed than the Caucasian group. In addition, patients of Afro-Caribbean ethnicity received psychiatric orders to remain longer on the inpatient unit. Moreover, African-American patients, as well as Caucasian patients, were more likely to have had a previous admission to the psychiatric hospital. The researchers discovered that Afro-Caribbeans were more likely

to be readmitted to the psychiatric unit during the study than the other representative ethnic groups. Compositions of overall admissions involved 20% Afro-Caribbean, 60% Caucasian, and 5.6% African-American. The examiners concluded that an over-representation of minority ethnic groups did indeed occur. In regard to diagnosis of ethnic groups, Feinstein and Holloway found that Afro-Caribbean patients received a diagnosis of schizophrenia significantly more often than Caucasians. Afro-Caribbean individuals were also more likely to have abused cannabis than the other ethnic representatives. Suggested reasons for these discrepancies include non-helpful interaction between ethnic minorities and admissions staff, differences in approaches to treatment, and intrinsic biases regarding different races and interactions with mental health services as well as the criminal justice system.

An additional study by Wang et al. (2002) reported that African-American persons suffering from mental illness have a less likely chance of receiving quality mental health services. Also, they are five times less likely to receive the basic and necessary minimum of psychological treatment. On the contrary, Hispanic sufferers are five times more likely than Caucasian individuals to receive adequate mental health treatment for mental disorders. Other research indicates that the proportion of African-Americans who were committed to state-run inpatient psychiatric hospitals was significantly greater than the general population, at a rate of approximately 30.5% (Lawson, 1994).

Research has presented indications that the demand for mental health services in areas significantly populated by Afro-Caribbeans may be extraordinarily high, according to Coid and Kahtan (2000). Also, Moodley and Thornicroft suggest that Afro-Caribbean

individuals have an increased likelihood of being treated in inpatient psychiatric facilities if held under the Mental Health Act (as cited in Coid & Kahtan, 2000). In a study conducted by Coid and Kahtan, 3,155 first admissions to inpatient forensic psychiatric treatment facilities were evaluated. Of those admissions, 21% were of African-American origin, 3% were of Asian descent, and 2% were other ethnic minorities. The researchers found that admission rates were higher for African-American males (5.6 more times) and females (three times as many) than for Caucasian males and females, respectively. There were lower admission rates for Asian individuals than for any other ethnic group. The data from the study further indicated that compared to white patients, black individuals were more likely to be single, male, less likely to have a personality disorder, and more likely to be in the 20% of the most socially deprived population. Moreover, as compared with the Caucasian group, Asian individuals were less likely to be unmarried prior to admission and less likely to be diagnosed with a personality disorder. Asian patients were also more likely to originate from the 20% of most socially deprived areas. Asian persons were less likely than Caucasian persons to have had a previous history of hospitalization. In addition, Caucasian patients were more likely to be referred from the community or transferred from other inpatient hospitals than African-American patients. This research promulgates the needs for increased attention to cultural needs specifically revolving around mental health care. Also, preventive intervention within all ethnic groups should be a priority.

Further research involving racial characteristics has produced significant findings in regard to race and diagnosis. Kales and colleagues (2000) reported evidence of lower rates of affective disorders in African-Americans than Caucasians among a sample group

of 23,758 veterans. Also, the researchers determined that a significantly larger proportion of elderly African-Americans were diagnosed with cognitive disorders and substance abuse disorders, but smaller rates of mood and anxiety disorders occurred with this ethnic group. A greater percentage of African-Americans and Hispanic patients were diagnosed with psychotic disorders than Caucasians. Kales et al. also determined a greater rate of mood disorder diagnoses among Caucasians. The researchers purported that several factors may induce certain diagnoses among ethnic minorities. For instance, data indicates that depressed African-American individuals may utilize neighbors, church, and family systems as a means of support and are therefore less likely to report depressed states. In addition, the level of acculturation on the part of the Hispanic population may play a role in dictating the report of psychiatric symptoms.

Matthews, Glidden, and Hargreaves (2002) conducted a study involving the admission of a sample population to three separate inpatient psychiatric units that were culturally specific in order to evaluate whether rates of diagnosis would be altered. Their sample consisted of 5,983 psychiatric patients with representation from Asian descent (15%), Latinos (11%), African-Americans (26%), and Caucasians (48%). Patients were sent to a "matched" unit (i.e., culturally specific) or an "unmatched" unit (i.e., a general unit). Ethnicity was found to be significant in regard to diagnosis. African-American patients tended to have fewer diagnoses of adjustment disorders and were diagnosed more often with psychotic disorders. Hispanic individuals were more often diagnosed with adjustment disorders and psychotic disorders. Patients of Asian descent were not found to have any significant diagnostic differences in comparison to Caucasian patients. Matthews and colleagues determined that language was a factor that related to the

differences of diagnosis. Hispanic psychiatric patients who were admitted to a cultural specific unit were more often diagnosed with depression and were less often diagnosed with schizophrenia than unmatched Latino patients. Matched African-Americans had more frequent diagnoses of schizoaffective disorders and lower rates of depression diagnoses than unmatched African-Americans. Based on the evidence located in the research, racial factors play a crucial role in the realm of diagnosis and mental health service utilization.

Empirical Studies of Risk Factors as Determinants of Psychiatric Hospitalization

Risk factors are crucial components in psychiatric emergencies. It is the duty of the clinician to assess risk factors as well as assimilate the seriousness of the crisis and plan the disposition accordingly. Contact with mental health services is one aspect of preventing emergent psychiatric situations. It has been estimated that 28% of individuals who commit suicide may have lost contact with community-based mental health services with which they had been formerly affiliated (Barr, 2000). In addition, previous studies have suggested that as many as one-third of patients released from an inpatient psychiatric facility will not follow-up with aftercare treatment. Failure to maintain contact with community mental health services has not been determined to be a consequence of social isolation. Subjects studied by Barr failed to make contact with appropriate treatment resources regardless of whether they lived alone or not. The findings did indicate that those individuals suffering from schizophrenia were more likely to remain in contact with mental health professionals whereas depressed individuals were not. Persons who were diagnosed with bipolar disorder also had a greater likelihood of maintaining contact with mental health services. The research reflected that over half of

the participants having a psychotic disorder were also compliant with mental health treatment. Expectations of the study include focusing more attention on individuals who are suffering from major mental illness in an attempt to thwart the possible crisis. Lack of contact, in and of itself, poses a risk factor for recurrent psychiatric emergencies.

Studies have indicated that psychiatric disorders are involved in approximately 90% of all suicides (Anderson, Anderson, Rosholm, & Gram, 2001). Moreover, the researchers found that of 390 cases of suicides, 42% of those were previously hospitalized on an inpatient basis. The study determined that nine of the cases had been hospitalized only once prior to their suicide. Also, 3% of the suicide cases evaluated had no previous contact with inpatient psychiatric facilities. In addition, 60 cases were discharged from an inpatient psychiatric facility with a diagnosis of affective disorder and 17 had been diagnosed with schizophrenia. Furthermore, Anderson et al. (2001) related that the risk of the reoccurrence for affective disorders is approximately 85% after the initial episode. Therefore, with each episode that occurs, there is a greater likelihood that another one will follow. The episodes often become more severe with an increase in debilitating symptoms. Depression has been found to occur in more than 50% of suicides. The data gathered in this study suggests that there is a need for more extensive exploration of risk factors associated with suicide as well as the need for more effective treatment of depression.

Peterson, Zhang, Santa Lucia, King, & Lewis (1996) evaluated 1,436 psychiatric emergency room visits by children under the age of 16 in order to determine the presenting problem and associated risk factors. The researchers classified the problems as suicide attempts, which were considered to be acts of inflicted self-injury, and suicide

ideations, which were considered to be thoughts of committing suicide without participating in any act of suicide. Other classifications that were used included aggressive tendencies, which were considered to be physical aggression or threats of homicide and oppositional-defiant behavior or some other problem. They also sought to evaluate the demographic risk factors connected with the psychiatric emergency visits. The study attempted to evaluate the severity of the psychiatric crisis by modeling the ability of the presenting problem classification and the associated risk factors to predict whether the child assessed was sent to the psychiatric hospital or not. Risk factors associated with those individuals who attempted suicide were increased age, being female, and being of minority ethnic status. Those persons who expressed suicidal ideation were found to be older and were more likely to be Caucasian. Significantly younger male children accounted for factors associated with aggressive tendencies. Children who presented with oppositional-defiant behavior were significantly younger males. The study determined that risks for inpatient psychiatric hospitalization included exhibitions of aggression, suicidal ideations and attempts, homicidal threats, and increasing age of the individuals assessed. Individuals presenting with oppositional-defiant tendencies or aggression were less likely to also display suicidal ideations or attempts of suicide. The researchers also discovered a strong occurrence that an initial hospitalization on the first psychiatric emergency room visit decreased the likelihood of subsequent visits involving suicide attempts. One prediction factor of suicide attempts was increased age. Incidents of suicide appear to be more prevalent in ethnic minorities. Peterson et al. (1996) also indicated that a higher rate of major depression occurs in adolescent girls rather than boys. In addition, they related that children who attempt

suicide are not significantly different from those individuals who contemplate thoughts of suicide. The data also suggested that unhappiness and stress are more often felt by minority children and are more likely to be internalized by them. Other risk factors include family discord, academic failure, feelings of loss and rejection, and poor coping mechanisms. This research relates the necessity for intense vigilance in regard to troubled adolescents, and for that matter, adults who present with certain risk factors. In addition, protective intervention and effective treatment should be in place to reduce the need for emergent psychiatric services.

An additional study by Pottick, Hansell, Gutterman, and White (1995) related several other predictive circumstances. These researchers suggested that illness factors, predisposition factors, and enabling factors were considered influential in determining inpatient psychiatric hospitalization. Factors associated with illness included signals for needs of mental health services, severity of the issues involved with illness, and diagnosis. Illness factors that best predicted hospitalization, according to their data, included recent aggression, recent depressive episodes, and suicidal behaviors. In addition, they also indicated that individuals suffering from affective disorders and psychotic disorders may be greater indicators of the need for inpatient treatment. Predisposing factors were related as characteristics within an individual that were pre-existing and would affect the likelihood of that individual to need mental health treatment. These indicators would include history of illness, demographic characteristics, and personal beliefs and opinions regarding mental health services and other resources available in the community. Research has indicated that mentally ill adults with a record of previous hospitalization are an important predictive measure for successive inpatient

psychiatric treatment. According to the research, a prior inpatient psychiatric stay increases the odds of future stays by approximately 4.6 times as opposed to no previous inpatient history. In addition, adolescents have similar predictive factors. Those adolescents who have had previous exposure to inpatient or outpatient treatment, a history of treatment, or current involvement in mental health treatment all are predictors for future hospitalization. Enabling factors presented in the study included access to mental health care and appropriate facilities, familial resources, community resources, insurance coverage, income, and availability of providers in the area.

Pottick and colleagues (1995) recognized four main risk factors associated with inpatient psychiatric hospitalization. One of the risk factors was insurance coverage. Their research suggested that approximately 65% of young persons who were hospitalized had private insurance, whereas only 24% of young persons with private insurance received outpatient mental health services. Another factor associated with hospitalization is previous hospitalizations. Individuals with a prior history of inpatient psychiatric treatment are more likely to experience another inpatient stay. An additional factor includes diagnosis. The researchers determined that individuals suffering from adjustment disorders, substance abuse, psychotic disorders, or affective disorders were at an increased risk for hospitalization. Furthermore, age is a factor related to inpatient psychiatric treatment. This data would suggest that increased awareness of predictive factors associated with the mentally ill should be a goal in future research as well as treatment.

According to previous research, the provision of emergency psychiatric services has become increasingly more difficult as financial rates for such services rise, especially for individuals who come in frequent contact with crisis intervention (Arfken, Zeman, Yeager, Mischell, & Amirsadri, 2002). What was once used primarily for placement into inpatient psychiatric facilities has now become the first contact an individual has with mental health care in a psychiatric emergency, as well as being a provider to individuals who are often disadvantaged. Often, individuals access emergency psychiatric services because they have had previous difficulty in obtaining alternative services. Other reasons may include unmet basic needs, problems with substance abuse, the desire for inpatient psychiatric treatment, and noncompliance with other methods of treatment.

Schneider (2003) suggested that individuals who experience a psychiatric emergency often have difficulty with general emergency room practices, triage, and wait times due to the nature of their crisis. In some instances, suffering persons have left without treatment because of the negative environment that they experience. Schneider related that crisis intervention teams have been established in order to assist with the deferment of the mentally ill from the emergency room to appropriate treatment resources. Police officers have also begun to undertake training in an effort to assist crisis intervention specialists in order to help in situations involving the mentally ill. Data from a psychiatric emergency room in Indianapolis, Indiana indicates that although operation costs are expensive, the assistance that the crisis intervention service provides is worth the cost. Of 230 individuals who were assessed over a one month period, 109 were sent home after being assessed by the psychiatric emergency team and being

treated. Of the total sample, 52 were admitted to an inpatient psychiatric facility. This information provides evidence for the need for psychiatric emergency rooms, and also recognizes the ability that the service has to more accurately determine those who are in need of intensive services.

Arfken et al. (2002) related that one third of all visits of an emergent psychiatric nature involve frequent visitors. Generally, these individuals lack social, community, or familial support and often do not have alternative treatment settings in which to obtain needed psychiatric services. Therefore, psychiatric emergency benefits them by fulfilling basic needs that go unmet. In addition, the researchers detected a fluctuation in volume of assessments related to psychiatric emergencies. They found holidays, status of the weather, as well as seasonal patterns, affected crisis interventions. Arfken and colleagues (2002) evaluated patterns of use of psychiatric emergency rooms by a sample of 5,722 service records over the course of one year. In the cases studied, the researchers discovered that substance abuse was involved in 92% of the assessments. In addition, 81% of the persons assessed were non-compliant with regular outpatient mental health treatment. Furthermore, many of the individuals had basic needs such as food, shelter, community and familial support unfulfilled. More psychiatric emergencies seemed to occur during the first portion of each month and also during worse weather conditions. This research provides insight into possible motivations on the part of the mentally ill individual, as well as helps to recognize important factors associated with psychiatric emergencies.

Claassen et al. (2000) conducted a study in which the legitimacy of psychiatric emergency services was assessed. The researchers obtained data from physician

questionnaires, medical records, and administrative reviews of the assessments from three separate facilities. They discovered that 21.7% of 1,002 emergency visits were indeed justified and 70.4% of visits were considered to be necessary according to the treating physicians. Acuity of behavioral symptoms as well as acute dangerousness to self or others reflect common characteristics of appropriate usage of psychiatric emergency services. In addition, psychiatric emergency services are promulgated as one of five quintessential services guaranteed by the 1963 Community Mental Health Act in the United States. This is based on the belief that its effectiveness could diminish the use of inpatient hospitalization as well as discourage dependency and the chronic needs for such services. Furthermore, psychiatric emergency services vary greatly by location with no sole definition of the facility's appropriate use. However, there is general recognition that these types of services should include a variety of treatments, although no specific ones were mentioned, and that the services should be utilized for the sincere emergency.

Psychiatric emergency room personnel often have to work with individuals who suffer from dual diagnosis. In these instances, patients not only have a psychological disorder, but they also have abuse or dependency issues with alcohol, drugs, or both. In many cases, those who are dually diagnosed enter the mental health system through assessments in the psychiatric emergency room (Loneck, Banks, Way, & Bonaparte, 2002). With mental illness and substance abuse issues comes other related factors associated with the need for crisis intervention. These factors may include thoughts or gestures of suicide or homicide, lack of support, inappropriate housing, history of legal issues, and financial problems. Past studies have indicated that clients suffering with substance abuse in addition to mental illness experience increased psychiatric symptoms

such as anxiety, depression, and aggression. In addition, clients with dual disorders tend to have less effective treatment outcomes, are often non-compliant with mental health treatment, and may have a heightened increase in symptoms. Relapse is also a key issue with individuals suffering from dual diagnosis. Because of the role that substance abuse plays with mental disorders, sufferers often present for intervention in a psychiatric emergency. The researchers indicated that individuals with dual diagnosis often utilize psychiatric emergency rooms in an effort to seek help. The study by Loneck et al. evaluated cases obtained from a crisis intervention center associated with a psychiatric emergency room. The sample consisted of 39 cases that were assessed for intervention. Patients were primarily of African-American descent and were predominantly male. In most instances, the individuals had a primary diagnosis of schizophrenia; in other cases, individuals had a primary diagnosis of adjustment disorder. In all cases, substance abuse or dependence was involved. The study sought to determine whether referrals either to inpatient treatment facilities or to outpatient mental health services were successful. The researchers determined that of those presenting to the psychiatric emergency room, the outcome was found to be successful if all appointments were kept by the client. Of the cases evaluated, 59% of the outcomes were successful while only 41% were considered to be failures. This research indicates the need for more intense focus on individuals suffering from dual diagnosis and specific treatment needs that they may have. It also relates the importance of having psychiatric emergency rooms and crisis intervention centers in order to meet the needs of individuals who not only suffer from mental illness, but who also have issues with substance abuse or dependency.

Claassen and colleagues (2000) related that approximately 23% of the individuals assessed for psychiatric emergencies were hospitalized in an inpatient psychiatric facility. Those admitted to the psychiatric hospital were admitted based on either voluntary presentation, involuntary presentation with police involvement, or due to transfer after medical stability had been reached. The researchers determined that a psychiatric emergency was considered legitimate if an individual had a sudden onset of psychiatric symptoms or an exacerbation of those symptoms. In addition, justification was made if the person had experienced a recent onset of symptoms or if the symptoms had become increasingly worse. Also, the emergent basis for the assessment was considered valid if an individual portrayed a dangerousness to self or others. The study indicated that 69.5% of individuals who were hospitalized had impairments in behavioral control. Moreover, problems with behavior and danger to self or others were present in 91.4% of hospitalized patients. Based on the data, the researchers discovered that individuals who presented voluntarily or who were transferred after medically stable, and those who were alone at the time of assessment were considered more likely to be inappropriate for crisis intervention in a psychiatric emergency. In addition, those who experienced a gradual onset of psychiatric symptoms, those who had not experienced acute exacerbation of symptoms, and those who presented as dangerous were also less likely to be considered appropriate assessments for psychiatric emergencies. Furthermore, those individuals involved in this study who were hospitalized tended to relate as being either dangerous to self or others or acute problems of behavior. Additionally, the study promulgated that although inpatient psychiatric hospitalization could be considered a legitimate result of a psychiatric emergency, individuals who received referrals to outpatient mental health

services may also be justified as having a psychiatric emergency. This research indicates that although there are various factors associated with psychiatric emergencies, the study found only a small portion of significant criteria associated with legitimate psychiatric emergencies. In addition, psychiatric emergency interventions serve a valuable purpose and cover numerous issues.

Empirical Studies of Diagnosis as a Factor in Crisis Intervention

A diagnosis is an integral aspect of mental health treatment. In order to allocate appropriate resources, an individual must possess a diagnostic classification. In addition, the diagnosis is the primary reason for which services are reimbursed. Diagnoses also play a vital role in the realm of crisis intervention. One study suggested that personality, severity of mental illness, level of social functioning, as well as diagnosis, specifically psychotic disorders, are all factors that influence the amount of time spent on an inpatient psychiatric unit (Hodgson, Lewis, & Boardman, 2000). Often, referrals are made according to the diagnosis that individuals possess. Therefore, evaluations of diagnoses seen on an emergent basis are necessary.

Coid and Kahtan (2000) evaluated racial differences in admission rates by recording 3,155 assessments. Data from those assessments indicated that African-American patients were more likely to have diagnoses of schizoaffective disorder, schizophrenia, drug dependency or abuse issues, and psychotic episodes. In addition, the study determined that African-American individuals were less likely to have been given diagnoses of alcoholism, borderline personality disorder, alcohol abuse, or depression in contrast to Caucasian patients. Moreover, Asian individuals were more likely to receive diagnoses of schizoaffective disorders and were less often given the diagnosis of

antisocial personality disorder or substance abuse or dependence as opposed to Caucasian persons. The researchers did not find any significant differences in ethnic groups in regard to obsessive-compulsive disorders, phobias, delusional disorders, or dependent, schizoid, or paranoid personality disorders.

It has been suggested that adolescents who exhibit abnormal personality traits and atypical behaviors may be at an increased risk of experiencing mental illness as adults (Weiser, et al., 2001). Likewise, adolescents who have been diagnosed with personality disorders have a greater likelihood of experiencing anxiety, substance abuse issues, and behavioral problems in adulthood. Moreover, persons who have been diagnosed with social phobias, panic disorders, and obsessive-compulsive disorders tend to have a greater likelihood of risk for schizophrenia. This study evaluated the prevalence of non-psychotic psychiatric disorders in adolescents and reevaluation of later presentation of schizophrenia as well as future hospitalizations. Research indicated that adolescents possessing a diagnosis of a non-psychotic nature were at an increased risk for future hospitalization under the diagnosis of schizophrenia as compared with the possibility of risk for schizophrenia found in the average population of adolescents. Of the 9,365 assessments studied, 26.8% of the males hospitalized with a diagnosis of schizophrenia had a previous diagnosis of a non-affective, non-psychotic nature in adolescence. Conversely, the prevalence rates for the general population diagnosed with non-psychotic psychiatric disorder was 7.4%. In addition, the research indicated that 15% of children living in the community had a psychiatric diagnosis.

Hodgson, Lewis, and Boardman (2000) attempted to determine the length of stay in a psychiatric inpatient facility based on individual diagnoses. Their research indicated

that individuals who were diagnosed with substance disorders had the shortest length of stay in a psychiatric hospital. However, patients suffering from affective psychoses, followed closely by schizophrenic patients, spent the longest amount of time in inpatient treatment. The examiners suggested that readmission rates are probably not due to premature discharge but rather are associated with long-lasting, debilitating mental illness. The study utilized a sample size of 4,139 patients. Data taken from those individuals indicated that 47 had a diagnosis of schizophrenia and 59 were diagnosed with affective psychosis. In addition, 34 were considered to be suffering from anxiety and/or depression, 28 were diagnosed with personality disorders, and 16 of the individuals had substance abuse issues. In an additional study involving the examination of 1,608 individuals presenting at a psychiatric emergency clinic, 245 (15%) individuals had a diagnosis of substance abuse (Unnithan & Farrell, 1992). Likewise, 191 patients had problems associated with alcohol use or dependence and 54 had problems relating to drug use. Glass and Jackson related that 10% of all admissions to psychiatric inpatient facilities involved problems associated with substance use (as cited in Unnithan & Farrell, 1992). Unnithan and Farrell's study discovered that of 54 assessments, 43 individuals had a main diagnosis of substance induced disorder. Twenty-five of these patients had a diagnosis of drug dependence, morphine type, and 18 individuals received a diagnosis of drug-induced hallucinatory state. Along with a substance disorder, five of the assessments involved a secondary diagnosis of depressive disorder, one was diagnosed with schizophrenia, paranoid type, and one had a diagnosis involving anxiety. The study found that 86% of the individuals were considered to have alcohol abuse or dependence issues. Hospitalization was necessitated for 11 patients with substance

disorders. For individuals suffering from alcohol-related problems, 16 required admission to an inpatient psychiatric facility. Data indicated that 13% of all psychiatric admissions involved some type of substance, alcohol or illicit drugs, abuse issues. Furthermore, the researchers determined that individuals diagnosed with substance disorders were more frequently referred for inpatient psychiatric treatment than individuals suffering from other mental illnesses, at a rate of 20% and 13%, respectively. This information would indicate that there is a need for evaluation and appropriate allocation of services for individuals suffering from specific diagnoses. Moreover, psychiatric emergency centers may not be the most suitable location for individuals with substance-related issues as most are primarily designed to serve the needs of individuals suffering from other psychiatric disorders.

Further evaluation of diagnoses in relation to psychiatric emergent interventions has shown that schizophrenia seems to be the primary diagnosis associated with the need for inpatient psychiatric treatment. In Feinstein and Holloway's (2002) research involving the study of 107 psychiatric patients admitted to an inpatient treatment unit, 43 individuals (40%) were diagnosed as having schizophrenia. Bipolar disorder was the second most commonly seen diagnosis with 24% suffering from this disorder. Of patients assessed, 6.5% were diagnosed with substance abuse, 5.5% had major depression, 1.9% had anxiety disorder, and 1.9% suffered from delusions. Personality disorders accounted for 7% of the psychiatric admissions. Of those individuals diagnosed with some form of personality disorder, 4% had mixed personality disorders, one individual was diagnosed with schizotypal disorder, and 7% of the patients were

classified as having antisocial personality disorder. Of the individuals who were admitted, 81% did not receive a diagnosis of any personality disorder.

A study conducted by Fekete and Bond (1998) which explored rural community treatment through the use of an ACT team provided diagnostic material from the 160 individuals used in their research. Individuals suffering from schizophrenia totaled 48%. Thirty-two percent of the sample had a diagnosis of affective disorders and 20% of those studied were diagnosed with other disorders, such as personality disorders or phobias. Furthermore, the researchers determined that 39% had a previous history with substance abuse and 9% of the sample had diagnoses associated with developmental disabilities. Generally, psychiatric emergency service staff assess individuals with a variety of diagnoses in order to make a determination regarding placement. However, there are several diagnoses that are typically more often seen during crisis interventions than other disorders (Classen et al., 2000). These are psychotic disorders, inclusive of schizophrenia, bipolar disorders, and psychosis, not otherwise specified, as well as substance abuse and induced disorders. Additionally, depression with suicidality and other diagnoses including depression without suicide features, anxiety, adjustment disorders, and situational problems are also considered to be common diagnoses seen on an emergent psychiatric basis.

Although there has been an increased awareness of the need for crisis intervention services, relatively few in the population seek emergent help or have access to the services. Wang et al. (2002) related that 8.5 million individuals in the United States do not receive minimally adequate mental health treatment. In addition, there has been recognition of critical risk factors, diagnoses, and cultural differences associated with

inpatient psychiatric hospitalization, which continues to be a commonly employed method of treatment for emergent situations. Discriminate variables associated with inpatient treatment have been found to include presentation at a crisis center on an involuntary basis, previous hospitalization history, various reasons associated with the referral, and an Axis I diagnosis (Spooren & Jannes, 1997). Therefore, the purpose of this study was to determine if the frequency of an Axis I diagnosis had an influence toward admission to an inpatient psychiatric facility. This study sought to confirm the following hypothesis: the frequency of inpatient psychiatric hospitalization is directly related to the frequency of an Axis I diagnoses.

Methods

Participants

Only archival data was used for this study. This research was conducted through the use of data obtained from Mobile Crisis Triage Walk-In Center records located in Clarksville, Tennessee. Three hundred cases, with permission of Centerstone Community Mental Health Centers, Incorporated (see Appendix A), were evaluated in this research project. The cases contained no identifying information regarding anyone who was assessed during a psychiatric emergency.

Materials

Due to the archival nature of the information, the material used in this study was comprised of data compiled on a Microsoft Excel spreadsheet format. The information contained on the spreadsheet includes the diagnosis of each assessment that occurred. In addition, the disposition, or outcome, of each case evaluated is available on the spreadsheet.

Procedure

This research project was conducted by utilizing archival data contained on a spreadsheet from records of Centerstone Mobile Crisis assessments spanning a one year period. No identifying information was contained on the spreadsheet. The only data present is the diagnosis of each individual who was assessed as well as the outcome of the case, whether it be hospitalization in a psychiatric facility, referral for outpatient services, or no referral made. The examiner only focused on whether an individual case was hospitalized or not, without regard to any other dispositions. This research evaluated if frequency of diagnosis had a relationship with the frequency of inpatient psychiatric hospitalizations by examining the data.

Design

This study implemented a chi-square model to determine if a relationship exists between frequency of diagnosis and psychiatric hospitalization. The archival data spanned a one year period and a sample size of 300 was used. The crisis center assesses approximately 100 cases per month. The sample was derived from the assessments evaluated in the months of April, August, and December, or every fourth month of the twelve-month cycle. Inclusion in the sample was based on nonrandom selection. The raw data for hospitalization and no hospitalization was assigned a numerical value of 1 and 2, respectively. This data was analyzed through the use of the SYSTAT statistical program in order to determine the frequency of occurrence between diagnosis and hospitalization. The examination of the data determined the mode of the sample.

Results

The mean and standard deviation were calculated for the cases representing individuals who were hospitalized as well as those who were not hospitalized. These calculations are represented in Table 1.

Table 1

Mean and Standard Deviation For Hospitalized and Non-hospitalized Representatives

Sample	Mean	Standard Deviation
300	294.39	43.575

A chi-square analysis was utilized in order to determine if the frequency of mental health diagnosis and the frequency of inpatient psychiatric hospitalization are related. Results did not support the hypothesis, $x^2 (2) = 2.446$, $p \geq .05$, and it was determined that a clinically significant relationship could not be established between diagnosis and hospitalization frequency. Other results from the data include the mode of the sample, which was derived in order to determine which diagnosis most frequently occurred within the sample population. In addition, the most frequent diagnoses contained in the cases evaluated were also determined. This data is represented in Table 2.

Table 2

Most Frequent Diagnoses for Hospitalized and Non-hospitalized Representatives

Diagnosis	Sample N = 300
Major Depressive Disorder, Recurrent, Severe without Psychotic Features	n = 41
Depressive Disorder, Not Otherwise Specified	n = 40
Major Depressive Disorder, Recurrent, Severe with Psychotic Features	n = 19
Schizoaffective Disorder	n = 13
Mood Disorder, Not Otherwise Specified	n = 11
Major Depressive Disorder, Single Episode, Severe without Psychotic Features	n = 11

The representative disorders were consistently observed more often than the remaining Axis I diagnoses. Of the diagnoses evaluated, individuals with Major Depressive Disorder, Recurrent, Severe without Psychotic Features were more frequently hospitalized.

Discussion

The results of this research do not suggest that the frequency of Axis I diagnosis and psychiatric inpatient hospitalization frequency are directly related. Subsequently, individuals seeking emergent psychiatric care may or may not have a greater chance of admission on an inpatient basis. A statistically significant finding was not obtained from the calculations involved in this study. Thus, a significant relationship was not found to exist between the two variables. In addition, prior research has suggested that individuals suffering from Schizophrenia have a greater likelihood of being hospitalized than other persons with alternative mental health diagnoses. Contrary to previous studies, the most frequently occurring diagnosis in this study was Major Depressive Disorder, Recurrent, Severe without Psychotic Features. Reasons for this finding may include the appropriate management of severe disorders such as Schizophrenia in the community, or perhaps aspects related to seasonal depressive tendencies may be a contributing factor associated with the findings in the study.

These results have important implications regarding mental health treatment and emergency psychiatric hospitalization. Based on the research, it is important to recognize the need for appropriate allocation of resources to those individuals who stand a chance of requiring inpatient care. One apparent outcome from this study is that individuals possessing a diagnosis of Schizophrenia appear to require less intensive care for their illness, which may be a reflection of the intensive management of the disorder in the mental health community. In addition, the more intensive mental health treatment may be required for individuals suffering from depressive disorders based on the frequency found in the sample population of the study. Regional aspects may also contribute to the

outcome of this research. Differences in regions are known to exist as determined in prior studies. Since Clarksville is a known military community, this aspect may play an important role in the factors associated with this research.

Despite the valuable indications presented, this research does have several limitations. One shortcoming is the lack of other criteria associated with the data. Due to the nature of the study, no identifying information was used. This presents limitations in regard to acknowledging gender differences and racial characteristics as well as age variance. In addition, this study fails to recognize the interplay of support factors and reasons for referral for psychiatric emergency care. Moreover, regional discrepancies may have occurred. Subsequently, the results may not generalize to the population as a whole. Garnishment of adequate information in order to ascertain an appropriate diagnosis for the individual might also be a shortcoming of this research data. Due to the nature of crisis intervention, appropriate descriptive data may not be obtained from the individual being assessed. Therefore, future research should be directed towards evaluation of factors contributing to the need for intervention as well as demographic variables, which may include but are not limited to, age, race, gender, and socioeconomic status. Previous outpatient and inpatient treatment relating to both community mental health, as well as the private sector setting, are also aspects that could be included in future research opportunities.

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