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A DESCRIPTIVE STUDY OF ACCESSIBILITY TO MOBILE CRISIS SERVICES

JONI M. HEINE

Submitted in partial fulfillment of

the requirements for the degree of

Master of Social Work

AUGSBURG COLLEGE

MINNEAPOLIS, MINNESOTA

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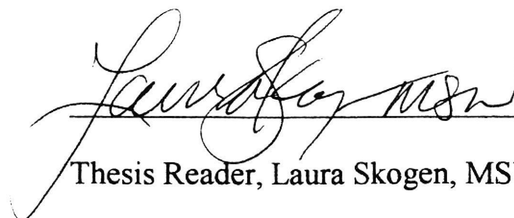

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Abstract

Mobile crisis services are seen as a secondary modality in provision of health care services. Past research indicated a lack of integration into the health care system and funding as obstructions. Accessing these services is limited to law enforcement, jails, emergency rooms, crisis line phone contacts, and providers. This research explored a mobile crisis service from greater Minnesota as a primary modality in health care services by examining who was accessing the service, voluntary or non-voluntary individuals in relation to hospitalization, and follow up and does this relationship vary by gender, utilizing the chi-square statistical test. Hospitalization and follow up in relation to types of accessibility showed no significant relationship. But the results indicated a significant relationship between types of accessibility, hospitalization, and follow up with using gender as a control variable. The implications of these findings for social work practice include: a) an increase in the number of social workers functioning within crisis services, b) a need for follow up after the initial contact is made 50% of the time, c) 2:1 gender difference in accessing mobile crisis services in greater Minnesota.

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Chapter One - Introduction

Community psychiatry came into the public's awareness and acceptance after World War II. The high incidence of psychiatric problems in the 1950's and 1960's created changes in attitudes and community action. The beginning use of psychotropic drugs also assisted in providing opportunities for open wards and the rehabilitation of an individual in his own home (Aguilera, 1998). Day hospitals also emerged for the care of psychiatric patient due to a shortage of hospital beds. At about the same time, brief therapy was developed as a result of the dissatisfaction of cost factors with the length of psychoanalytic therapies. Crisis intervention as an extension of brief therapy slowly developed in community psychiatric centers throughout the United States. Caplan was a leading advocate for community-based preventative crisis intervention. Caplan stressed the need for intervention at critical times in an individual's life. He found individuals are more susceptible to change by intervening as quickly as possible for resolution of an immediate crisis (Gilliland & James, 1993). Mobile crisis services evolved from these community crisis centers.

Mobile crisis services assist individuals in learning how to cope with, stabilize, and resolve a personal crisis while within their community. Intervening prior to the development of a crisis is the purpose of this type of service (Turner, 1996). The intervention assists an individual to develop new problem solving skills by changing learned behavioral patterns.

Statement of Problem

Today mobile crisis services are being established in Italy, Great Britain, Canada, and the United States. Accessing these services is limited to personnel within law enforcement, jails, emergency rooms, and crisis line phone contacts, as well as providers who are aware of the service. Crisis services is manned by individuals twenty-four hours a day increasing the cost, stress, and burn out by the staff. Staffing these programs is difficult with the emphasis being on paraprofessionals and non-professionals in the United States.

Past research indicated a lack of integration of crisis services into the health care system and funding as obstructions. The mental health policy in the United States has been designed to mimic health care with its emphasis on hospitalization, which can be costly. Utilizing a mobile crisis service is more economically feasible but the problem of accessibility to the service is limited.

Research question

This research explored a mobile crisis service offered in central Minnesota as a primary modality in health care services. The research question asked was: Is there a relationship between voluntary and non-voluntary accessibility of a mobile crisis service in relation to hospitalization, and follow up and does this relationship vary by gender? The rationale for utilizing existing data from this mobile crisis service is to show patterns with the relationships between the referral source (voluntary or non-voluntary), gender, hospitalization, and follow up. This research indicated patterns between the demographics of greater Minnesota and mobile crisis interventions of the region studied along with other regions within the United States. The research also established a pattern

with the need for follow up after the initial contact was made and in the way gender, males and females access the service. By examining these factors, the results of the research will provide information regarding who was accessing the service and where referrals are initiated.

Chapter Two - Literature Review

The literature on mobile crisis services began with the formation of community crisis centers and the emergence of crisis intervention from brief therapy. Studies by Akutsu and Watson (1998), Reding and Raphelson (1995) and Mosher and Burti (1989) found mobile crisis services to be more economically feasible than hospital stays. Mobile crisis services focus is on assisting an individual immediately whereas psychoanalytical therapy is lengthy (Aguilera, 1998). The review found that there was strengthening support in the community along with follow up after the initial contact was made (Milne, 1997; Chi & Primeau, 1991; Bengelsdorf & Alden, 1987). Another study (Lincoln, 1999) stressed the limitation of individuals to have access mobile crisis services.

The following literature review reveals the historical emergence of crisis centers, methodology of crisis intervention, the models of crisis, and an adult response to a crisis. The review will also examine the structure, function, and treatment methods of a mobile crisis service and discuss intervention techniques, funding, and staffing.

Historical emergence of crisis

Crisis. Gilliland and James (1993) defined a crisis as "a perception of an event or situation as an intolerable difficulty that exceeds the resources and coping mechanisms of a person" (p. 3). Crisis intervention itself is a fairly new concept. It has evolved within the last few decades from the theories of Freud, Hartman, Rado, Erikson, Lindemann, and Caplan (Aguilera, 1994). Crisis intervention evolved from a linkage of crisis theory with a psychosocial approach to psychotherapy. The theory outlines the concept that a normal person is in a state of equilibrium or balance, learned from behavioral patterns as a person develops within the environment. Crisis intervention theory was jointly researched and developed by G. Caplan and Erich Lindemann.

The characteristics of individuals in crisis indicated that various factors led to numerous interventions with the same person; demographics, serious difficulty in daily

functioning, causing harm to self or others, and follow up after initial discharge (Segal, Akutsu & Watson, 1998; Bengelsdorf & Alden, 1997). Talking to someone tends to be avoided until a problem disrupts the balance of life (Gillilard & James, 1993). Crisis intervention needs to occur when an individual is uncertain about what to do or how to solve a problem. Crisis intervention focuses on assisting an individual to develop new techniques for problem solving and to change behavioral patterns. Resolution of a crisis occurs when a person recognizes a turning point and chooses what direction to move (Fuse', 1997).

Models. In crisis intervention there are three models used by workers at different times in a crisis: the mechanistic, the cognitive, and the psychosocial model. The following explains each model.

When G. Caplan began his work, he looked at the concept of equilibrium and the mechanistic model to formulate his theory. Even Freud's view of the mind, (with the id, superego, and ego) stresses the importance of keeping the mind in a state of equilibrium or balance (Germain, 1991). The equilibrium model is used in early intervention, prior to a major crisis with an individual. At this time an individual is out of control, disoriented and unable to make decisions concerning their needs. Individuals in crisis are in a state of emotional disequilibrium. Caplan's theory assumes that an individual in disequilibrium is out of balance with his personality and the social system. An individual tries to solve his problems and maintain the equilibrium of both physical and emotional needs. Thus Caplan's theory suggests that there is severe disruption of the equilibrium and established mechanisms fail to restore the equilibrium, a crisis occurs.

The cognitive model was developed to understand and assist an individual in crisis. In this model people are believed to have developed faulty thinking about events or situations (Gilliland & James, 1993). The goal of this model is to make an individual aware and change the views and perception about the events or situations that occurred. An individual needs to gain control of his or her life. With constant negative talk and

twisted beliefs about reality, an individual wears out. As an individual begins to believe the negative self-talk, behavior regresses. Crisis intervention assists in reshaping an individual's thoughts from negative to positive beliefs. This model is utilized after an individual stabilizes when an individual can comprehend tasks needed to do in order to change.

The psychosocial transition model is based on the belief that an individual's hereditary and social environment shape existence (Gilliland & James, 1993). An individual is constantly changing within the environment. When crisis occurs, an individual has disrupted his environment or social influences. Crisis intervention assists an individual in preventing a crisis by offering alternatives present behavior. By changing an individual's mechanisms of coping, social supports, and environment, control is restored.

Mobile crisis team. A mobile crisis team is a group of professional or paraprofessional multidiscipline individuals who provide direct crisis services on the site of a crisis. In Amsterdam over seventy years ago, a home psychiatrist consultation service was developed which eventually evolved into a mobile crisis service. The home psychiatrist was on call 24 hours a day, seven days a week (Reding & Raphelson, 1995). Recently in Italy, Great Britain and Canada programs have begun that send people into the community to intervene with crisis intervention services. In the study by Mosher and Burti, (1989), they recommended 24 hour mobile crisis teams should be the center of every Community Mental Health Center.

In designing a mobile crisis team the flexibility, availability and therapeutic alliance of the teams reduced mental health hospital admissions from an average of 17.6 to 10.8 in 1990 (Mishara & Daigle, 1997; Reding & Raphelson, 1995). But this reduction found in both studies (Mishara & Daigle, 1997; Reding & Raphelson, 1995) prompted the need for continued follow up over a period of weeks, months or years depending on whether referrals to other agencies could be utilized by an individual. With

follow up after the initial contact, seventy percent of the individuals did not need hospitalization (Bengelsdorf & Alden, 1987). Patient conformity with an aftercare regiment did not predict the need for rehospitalization nor the development of another crisis (Mishara & Daigle, 1997; Segal, Akutsu & Watson, 1998). According to Segal, Akutsu and Watson (1998) the return of the individual for hospitalization was dependent on the same factors, factors that initially brought the patient in the first time, their psychosis and their level of dangerousness. Having insurance or other financial resources also increased the probability of the return to the hospital. Outpatient support was limited due to the high cost and the low levels of residual effects for these patients (Segal, Akutsu & Watson, 1998). The Swartz, Swanson, Wagner, Burns, Hiday, and Borum (1999) study argued the need for intense outpatient treatment to reduce the need for rehospitalization of individuals. But it was believed that in order to stabilize the individual, the following stages were to be used by staff: building trust and partnership, therapeutic alliance, acceptance and compliance, and resolution (Chiu & Primeau, 1991).

Intervention. The interventions utilized by personnel within crisis intervention centers were different among the various mobile crisis intervention services. In two studies by Milne (1997) and by Chiu and Primeau (1995), they found that personnel utilized a more psychoanalytical approach. Reding and Raphelson (1995) found that early administration of long acting anti-psychotics to alleviate symptoms was an easier approach. After injection of these anti-psychotics, they would use psychoanalytical techniques. Chiu and Primeau, (1995), Milne, (1997), Bengelsdorf and Alden, (1987), and Reding and Raphelson, (1995) utilized the following themes in assisting an individual in crisis (a) helping the individual to gain an intellectual understanding of the crisis, (b) helping the individual into being open about his present feelings to which he may not have access, (c) exploration of coping mechanisms, (d) reopening the social world (Aguilera , 1994).

Adult response to a crisis.

Development. The messages people believe during a crisis situation are ones that they learned early in their life. A child's perceptions are influenced by their parents (Witt, 1997). A child's behavior is different with each experience. Attitudes, self-concept, and social and emotional relationships are influenced by all early experiences.

In the 1920's, Gesell studied the development of children and his research produced information about the patterns and rates of child development. Gesell developed the technique of analyzing children's behavior from film, reviewing frame by frame (Berger, 1994). Environmental influences were later identified which stressed the importance of parental behavior in infancy. Freud's theory of personality stressed this idea by studying how the id, ego, and superego integrated biological and environmental influences into the study of child development (Berger, 1994; Germain, 1991).

Later in the 1960's, Piaget developed his theory of perception and cognition by continuing the study of integration of biological and environmental influences of child development. He believed the mind built mental structures or categories that permit influences slowly to increase in learning about the environment (Germain, 1991). As a child, our mind is intensely active, selecting and organizing experiences as new information is processed. This theory of perception and cognition is based on the concept of adaptation which builds categories or structures through interactions with the environment (Berger, 1994; Dworetzky, 1987).

With children, patterns of development and change are influenced by: (a) heredity and environment, (b) physical growth, (c) language, (d) personality formation, (e) socialization, (f) social relationships, (g) family relationships (Brody, 1997; Witt, 1997; Biernat, 1991; Germain, 1991; Eccles, Jacobs, & Harold, 1990). Over a lifetime, an individual experiences urges, wishes, wants, and desires that often are in conflict with each other. Defensive modes and mechanisms of existence form patterns of functioning (Wohl, 1989). These patterns influence an individual's response to a crisis as an adult.

Steps of a crisis. A crisis is self-limiting and begins four to six weeks prior to unequilibrium. An individual progresses through three stages in a crisis. First the individual experiences a critical situation which increases tension and anxiety. The second stage is when an individual tries normal coping mechanisms, which fail to work. This failure results in increased tension and disorganization. Many different behaviors emerge as the efforts to reduce stress fail. Reactions may include repression, avoidance, denial, blame and at times, substance abuse. The final stage is withdrawal. This behavior intensifies reactions to agitation, depression, confusion, hopelessness and even suicidal tendencies (Crisis Connection, 1994).

Suicide. Suicide is the extreme end of a crisis. The causes have evolved from sociology, psychology and biochemical theories. But not one of the theories can account for all types of suicide (Fuse', 1997). Suicide attempts are motivated by negative expressions directed toward others or at self (Holden, Kerr, Mendonca, & Velamoor, 1998). Durkeim pointed to an individual's lack of integration into social groups and society as an explanation. Today at least one third of adults who attempt suicide have not made a plan. But thoughts of suicide can turn into an attempt with very little warning (Crosby, Cheltenham, & Sacks, 1999).

Today women are three times more likely to attempt suicide while men are three times more likely to succeed (Holmes, 1997). Expressions of anger and aggression are stereotyped into a man's role while women internalize those feelings (Holmes, 1997). Gender differences reflect beliefs about the intent to commit suicide. Males are more lethal in their attempts as they are three times more likely to succeed. The pressure of surviving a suicide attempt has led males to act out in drastic measures to assure success even if their crisis is minor. Social acceptance of non-lethal acts offers women a reaction

to the social pressures of internalizing their feelings (Canetto, 1992; Lewis & Shepeard, 1992).

In a study by Benson (1996), the gender of the mental health counselor impacted the decision about whether to hospitalize individuals. Female counselors were more likely to hospitalize male individuals and less likely to hospitalize females. Males overall were more likely to be committed to the hospital due to the possible lethal methods used. Gender bias was also found to occur in treatment decisions.

Coping skills also reflect differences in male and females. Women are more willing to adapt to other people's needs. Seeking help from a professional or a non-professional is easier for women in balancing issues. According to Rich, Smith, Bonner & Jans (1992), men need to control and shape the world according to their needs, and failure is a perceived fear. It projects the appearance of weakness.

Legal status of an individual was also an influence on mental health treatment decisions (Lincoln, 1999). Involuntary access to treatment through law enforcement resulted in an outcome of a higher hospitalization rate. This study by Lincoln also indicated that voluntary individuals with support in the community were hospitalized for mental health reasons at a lower rate than involuntary individuals.

Economic Feasibility

Cost. In designing and maintaining a mobile crisis team, cost is a factor especially in the United States. In the United States the mental health policy is designed to parallel the health policy with its emphasis on hospital care (Reding & Raphelson, 1995). According to Segal, Akutsu and Watson (1998) "currently the mainstay of treatment efforts may be insufficient to meet the needs of patients" (p.1217). In a study by Mosher and Burti (1989), it was found that mental health hospital stays are expensive

whereas community based mobile teams are found to be more economically feasible. Individuals in crisis may hesitate to seek assistance due to their limited financial resources

In the studies by Milne (1997) and Reding and Raphelson (1995), it was found that European and Canadian costs were reduced due to the instigation and continued public policy support of the crisis teams. Several studies in the United States showed crisis team resulted in a marked decrease of hospital admissions but some states still do not fund crisis services (Reding & Raphelson, 1995; Segal, Akutsu & Watson, 1998). According to Reding and Raphelson (1995), the rationale is due to an emphasis on psychiatric training, practice and reimbursement for hospital and clinic treatments. Another reason is the crisis teams aren't considered to be a central or primary treatment modality in community mental health centers (Reding & Raphelson, 1995). They are seen as preventative and maintenance, a bandaid method rather than acute illness treatment (Segal, Akutsu & Watson, 1998). Other factors contributing to the rationale of not funding crisis teams were (a) non-acceptance and non-integration into community mental health due to boundary issues, (b) restrictions of the staff due to education and hospital privileges, (c) differences in integration into community mental health due to boundary issues with an emphasis on competition, (d) differences in philosophies between teams and ongoing support staff (Reding & Raphelson,1995).

However Bongar (1993) suggest that other costs can be reduced. Law enforcement personnel may often accompany an individual to the hospital. By utilizing a mobile crisis team, an officer may return to his regular duty quicker. Court costs, hospital use, and family burden are also reduced. By initially assessing individuals in a crisis more accurately, crisis teams may also decrease the number of suicides and lawsuits (Bongar, 1993).

Staffing. Staffing of crisis intervention teams with wither professional or non-professional people is an argument for the design and maintenance of these teams. In

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New Jersey, a Screening Law was implemented to standardize crisis intervention services in screening centers and emergency service programs (Thomas, 1996). This law established minimum requirements for educational qualifications and work experience. A masters degree was preferable but requirements could also be filled with a bachelors degree plus three years mental health experience, one of these years in a crisis setting and being enrolled in a masters program. The law suggests health care professionals can benefit from being on a mobile crisis team. The education from the experience can challenge and provide new ways of assisting individuals in the community. Italy, Great Britain, and Canada have implemented teams where a psychiatrist is on the team, not just as a telephone consultant (Milne, 1996; Reding & Raphelson, 1995). The study by Chiu and Primeau (1991) also supports the use of a psychiatrist on the team. In the United States, Chiu and Primeau (1991) and Reding and Raphelson (1995) found that very few crisis centers utilize a psychiatrist in this fashion. It goes against the traditional psychiatric training (Reding & Raphelson, 1995). The trend in the United States is to utilize paraprofessionals and volunteers with training for reduction in cost and the hours that the mobile crisis intervention teams work (Aguilere, 1994; Fisher, 1973). However a study by Romano (1990) argued that utilizing paraprofessionals and volunteers may not fully assess an individual in crisis.

Needs. Focusing on mobile crisis teams, patterns began to emerge. According to Segal, Akutsu, and Watson (1998) "as many as one third of the patients admitted to a psychiatric emergency service are likely to return within a year"(p. 1216). In Great Britain, it was one in seven during a three month period (Milne, 1997). The need for a comprehensive and thorough examination of the patient initially may have decreased or prevented rehospitalization of these patients (Segal, Akutsu & Watson, 1998). Chiu and Primeau (1991) supported this finding but went further to emphasize the strengthening of a support network, maintaining patients in the community, and engaging reluctant patients before the police intervene. Studies by Reding and Raphelson (1995),

Bengelsdorf and Alden (1987), Chiu and Primeau (1991), and Swartz, et al, (1999) supported the need for intervention outside of the hospital. Milne (1997), Zealberg, Santos, and Fisher (1993), and Fisher (1973) also supported the reduction in cost and the quicker recovery to normal functioning.

Conclusions

Gaps. By reviewing the articles and books on the subject of mobile crisis teams and intervention, this researcher found that the lack of communication between providers was evident with all parties involved. Some other countries have found ways to go beyond this communication gap but the United States seems to be more territorial and competitive in communicating. The study by Reding and Raphelson (1995) stressed the need for availability and flexibility among all members of the teams. Even the psychiatrist from European countries was flexible in being available to meet the needs of the patients. But still the downfall of this study was the lack of proper integration and acceptance of the team into the entire service delivery scheme of the community mental health center as well as the restrictions the hospitals put on the crisis psychiatrist (Reding & Raphelson, 1995). Psychiatrists rarely if ever function on a 24 hour on-call basis daily in the United States (Reding & Raphelson, 1995). They take their turns at being on call but in a limited fashion, much different from the psychiatrist in other countries.

In the United States, managed care is reinforcing the standard of competition among providers. Insurance coverage for reimbursement of crisis services is an issue that managed care is pushing into the forefront. It isn't allowing for the best needs of the patients(Bengeldorf & Alden, 1987). Philosophical beliefs, funding, and procedures of the past and present are obstacles that crisis services continue to face. As Reding and Raphelson (1995) stated in their study, mental health policy is designed to parallel health care with its emphasis on hospital care. They discussed the cost of providing these services but not in terms of who is in need of these services. The research also neglected

to discuss the shortage of personnel needed to staff these 24 hour crisis teams, and the stress and possibility of burn out of staff from being on call.

Few studies devoted any discussion of socioeconomic factors influencing access to crisis services. Crisis service is believed to serve only the poor and minority people (Aguilera, 1994). Mental illness crosses all socioeconomic classes but within these articles it limited the discussion to the poor and minority. Only in the book from Aguilera (1994) did it discuss equal human rights to equal care and treatment in crisis situations.

Staffing of the mobile crisis teams emphasized the need for trained individuals. The extent of the training varied depending on what part of the country a mobile crisis team was from. Throughout the literature discussion emphasized a nurse, a social worker and a psychiatrist for team members but only Thomas (1996) discussed the difference between crisis training and clinical training. Only the article by Chiu and Primeau (1991) discussed the funding of training.

A major gap in the literature is the lack of discussion about liability when working with any personnel whether non-professional, professional and paraprofessionals. No article was found that mentioned who would be liable if something happened to a patient or to one of the staff. In working with voluntary and involuntary patients, there is always a degree of danger to an individual or others.

Crisis intervention is meant for both male and female individuals. Formally crisis intervention services can be accessed through emergency rooms, law enforcement, and the phone. The literature neglects to include informal ways of accessing these services such as general physicians, friends or family. Utilization of crisis intervention in alleviating a problem point to questions concerning usage by non-voluntary and voluntary individuals.

No article was found that discussed gender as an obstacle in accessing crisis services. The differences in suicidal tendencies were highlighted but as far as accessing the service only the study by Rich, Smith, Bonner and Jans (1992) indicated differences

in the way individuals seek help. Rich, Smith, Bonner, and Jans (1992) indicated females have an easier time seeking help than males due to the stereotypes influenced by earlier patterns of development.

Chapter Three - Theoretical Framework

The conceptual framework for is centered in the general systems theory. This theory looks at how individuals interact in their social and physical environment. The general systems theory was developed, according to Schwartzman (1985), "as a result of attempts to provide better explanations of natural phenomena" (p. 67). Aristotle formulated his teleology, the study of final causes, by believing a natural phenomena is determined by an overall purpose in nature (Nichols & Everett, 1986). The overall purpose was an understanding of the meaning and significance of things. Along with understanding and meaning, scientists wanted a way to predict and control phenomena. Scientists utilized the mechanistic analytic thinking process that reduces reality into small units in order to determine the cause of units or individuals.

Through these theories, the basis for the general systems theory evolved. Einstein's revolutionary theory and the Newton's quantum theory provided the final focus on nature, function, and the relationship of objects. The general systems theory looks at the world from a holistic, organic, and ecological perspective (Turner, 1996).

An individual human system is an open system, continuously changing, ensuring the survival, and development of an individual. An open system allows for an active exchange of information with the environment. The boundaries of an open system allow for flexibility, increasing the number and types of roles a system can function as (Germain, 1991).

A system is a whole that is composed of interrelated and interdependent parts (Hartman & Laird, 1983). Each part complements or reinforces the other parts. Input or information is taken from the environment, processed and organized for transformation or change. Once the transformation or change occurs, the information is outputted back into the environment (Germain, 1991). Within a system the whole is greater than the sum of its parts. The interrelated units in a system form new qualities, reinforcing the interrelationship of the parts. This assumption emphasizes the importance of focusing on

the patterns of relationships within a system rather than on the substance of its parts (Nichols & Schwartz, 1998).

An individual must keep changing or adjusting to survive in a human system. A family is seen in a mediating position, linking an individual to the broader society. Through the process of adaptation, values and functioning are a way an individual communicates with the environment and other individuals. Each problem or need is developed from a situation or the environment (Green & Ephross, 1991). The learned boundaries give an individual his identity and focus. These changes focus an individual back to the path of his eventual goal or state of equilibrium.

Perspectives

Equilibrium/disequilibrium. Within an open system, an individual can grow, develop, and change over time and across space. Survival depends on keeping changes or adjustments within normal limits or in balance. This concept draws on internal feedback processes to inform an individual about the relationship among the parts and external feedback processes to inform an individual about the environment (Germain, 1991).

This perspective suggests that the equilibrium/disequilibrium perception of a crisis focuses on the degree of stabilization of an individual. An individual in crisis is in disequilibrium or out of balance with his personality and social system. Each individual possesses problems whether through development or a situation. When an individual cannot process and organize the information coming in, tension and anxiety occur, causing a severe disruption of the equilibrium. The prior methods of correcting or adapting past mechanisms fail to work, prompting an individual to learn new mechanisms and change past patterns (Fuse', 1997).

Crisis theory. Crisis theory refers to a work in progress based on a set of assumptions presented by an individual in crisis (Turner, 1996). This perspective

emphasizes a crisis as an identifiable, stressful life event that manifests a perception of loss, a threat, or a challenge to an individual. During a crisis an individual can experience depression, anxiety, feelings of confusion, and anger (Claiborn & Specter, 1983). Individuals are more vulnerable when distress is added to an already stressful life. The character of the precipitant event, symptom patterns, socioeconomic status, chronically stressful lives, and inadequate support systems increase the risk for and impact on an individual when facing a crisis. These stressors can cause an individual to lose their equilibrium based on their normal way of coping. Crisis intervention assists an individual to restore his life to the previous state, improve his life, or lower his ability to function. A crisis can take six to eight weeks to reach resolution. The more successful past problems have been dealt with, the easier an individual has dealing with the current crisis.

According to crisis theory, prevention of a crisis is the overriding goal of crisis intervention (Turner, 1996). Prevention is defined by three types; primary – refers to decreasing the number of people in crisis, secondary – is interventions aimed at minimizing the severity of the crisis, and tertiary – trying to reduce the degree of impairment and prevent the functioning of an individual from getting worse. Crisis theory aims at providing short-term help to an individual in resolving a crisis (Sue, Sue, & Sue, 1990).

Ecological theory. This perspective focuses on how things fit together and adapt in the environment. The ecological perspective incorporates ideas from the general systems theory and looks at how to understand interrelationships between an individual and his/her physical environment (Hartman & Laird, 1983). An individual and the environment are influenced and shaped by continuous reciprocal exchanges between them (Germain, 1991). As an individual grows the system becomes more complex, allowing individuals to differentiate or become more independent. The ecological perspective points to theoretical systems such as biological, physiological, psychological,

emotional, environmental, and cultural knowledge, that yield needed understanding of human beings and their environments (Germain, 1991).

Communities utilize emergency service workers to respond to various crisis' that occur due to a natural disaster. Many times these workers are volunteers who respond and make decisions in the field. Crisis debriefing is utilized in these settings to establish a program of stress management, pre-incident education, and critical incident stress debriefing and defusing programs (Casey & Leger, 1996). These workers temporarily intervene during a period of great stress in an individual's life. The goal is to shield the crisis victim from any additional stress, assist the victim in organizing and mobilizing his resources, and to return the victim as much as possible to pre-crisis level of functioning (Casey & Leger, 1996).

Intergeneration perspective. Intergeneration perspective involves the family of origin in influencing growth and development in an individual. The assumption is that we are all deeply enmeshed within our families. Members of the family system use influences from past generations and passes portions or parts onto their children and grandchildren. As children develop, adaptation, the family systems, traditions, and cultural process of learning are absorbed (Hartman & Laird, 1983). Values, roles, patterns of communication, and attitudes all shape the child. The more access an individual has to information about past generations, the more power and control a crisis provider has in assisting to diffuse the power of the presenting conflict (Hartman & Laird, 1983).

Definitions

crisis - "a perception of an event or situation as an intolerable difficulty that exceeds the resources and coping mechanisms of an individual" (Gilliland & James, 1993, p. 3).

crisis intervention - is a verbal or physical contact used to assist an individual to develop new problem solving techniques and to change behavior patterns to restore that person to a state of equilibrium.

voluntary - is an individual's free choice in utilizing a service.

involuntary - is without an individual's free choice, brought by law enforcement.

Applications

Brody (1997) and Witt (1997) found that past patterns are formulated through the process of development. Attitudes, self-concept, family structure, gender roles along with social and emotional relationship's influence the patterns an individual develops. This research questions how the past patterns and influences an individual has developed throughout his life influence a crisis. An individual draws on these patterns and influences in making a decision to resolve a crisis. Child development, family structure, gender, roles, stereotypes, and the environment all affect an individual when a breakdown occurs and when past learned behaviors do not help to resolve a crisis. Crisis intervention is effective in using the systems approach by choosing treatment strategies aimed at the particular system in which the intervention will be most effective (Bergelsdorf & Alden, 1987).

Mobile crisis services can assist in stabilizing an individual from the micro to the macro level of involvement within the community. With any individual system, mobile crisis intervention can occur at any level. The crisis theory refers to a work in progress like an individual that adapts and grows within the environment. The ecological perspective questions whether coping skills can be taught prior to the development of a crisis. Mobile crisis services constantly are changing and growing to meet the needs of

each community. Past influences from family and past generations all influence whether there will be an eruption of a crisis today. By examining past patterns and responses, mobile crisis services can diffuse a crisis before the conflict begins.

Chapter Four – Methods

This chapter will describe the methods used to research crisis service accessibility in greater Minnesota. The research question, design, conceptual definitions, operational variables, and the study population will be discussed. The measurement issues used along with data collection and analysis procedures will also be outlined.

Research question

In greater Minnesota, a crisis intervention service is actively working to assist individuals in crisis. This mobile crisis service has served approximately five hundred individuals a year on a referral basis. But questions have emerged as to who is being serviced by and from where are the referrals being initiated. Personnel from law enforcement, the emergency department of hospitals, social workers, community support workers, and jails all have access to the mobile crisis service. But are individuals accessing crisis services voluntarily or non-voluntarily and through which access point? The research question for this study was: Is there a relationship between voluntary and non-voluntary accessibility of a mobile crisis service in relation to hospitalization, and follow up and does this relationship vary by gender?

Research design

The research is a descriptive study of people directly accessing a crisis service in greater Minnesota. The research was aimed at gaining insight into who was accessing the crisis services and what was their referral source. Analyzing data from existing records was used to test the research question. Secondary analysis is a form of research where data is

collected and processed by one recorder and reanalyzed for a different purpose by another researcher. The decision to analyze secondary data was based on the convenience and accessibility of records from a crisis service. With the data compiled by the crisis services, this researcher saved time and money by not having to transcribe the data. But utilizing existing data has limitations within the privacy of the records. The data may be protected by the confidential nature of the material within the documents. The people accessing the crisis services could not be directly approached due to the confidentiality of using this service. Validity may be a problem in secondary analysis. When collecting information one researcher may not collect the data for the same purpose another researcher may need. Most of the data in secondary analysis will be close but not accurate as to what is being researched (Weinbach & Grinnell, 1998).

Conceptual definitions

Within research, definitions can be misconstrued with their meaning. Inconsistencies and not properly defining a concept can lead to false interpretations. The following definitions were defined to clarify their useage in this study:

Crisis: Gilliland and James (1993) definition is "a perception of an event or situation as an intolerable difficulty that exceeds the resources and coping mechanisms of a person" (p.3).

Crisis Services: a service team in greater Minnesota who assists people in meeting their mental health needs through an effective service system.

Law enforcement: an officer who enforces the law, police, sheriff, by maintaining order, enforcing the law and who prevents and detects

crime.

Jail: a prison or confinement of a person awaiting trial or convicted of a minor crime.

Telephone: an instrument used for electronic transmission of a voice over a wire.

Emergency department: a department located at a hospital for immediate response to urgent situations.

Other: a direct referral by a service provider or self within the community.

Operational variables

Each variable used in this study was taken from the agency information (contact) sheet (Appendix A). Each contact the crisis services has is through a referral by personnel from law enforcement, the jail, a hospital emergency department, telephone or other is formulated on an information (contact) sheet (Appendix A). The agency information sheet is filled out and filed by a member of the crisis services who received the call.

In this study the following independent variables were used: Voluntary – is an individual's free choice in utilizing a service. For this study it included a hospital emergency room, telephone, and other. Non-voluntary – is without an individual's free choice, one who was brought in by law enforcement personnel. This included a hospital emergency room, jail, and law enforcement.

The dependent variables were: Hospitalization – is a person being admitted into an acute or long-term care facility for the purpose of stabilization. Follow up – is direct contact with an individual after the initial contact by telephone or in person by the crisis

services. For this study gender was used as a control variable. Gender – a classification of nouns and pronouns into masculine, feminine (Portland House, (Ed.), 1990)

Study population

The sample consisted of individuals served by the crisis services on a referral basis in greater Minnesota during the interval of January 1, 1999 through December 31, 1999. The sample represented individuals from greater Minnesota who were in crisis and needed assistance either by voluntary or involuntary means. A portion of the sample were taken from critical stress debriefing. These contacts were not separated by the mobile crisis service. These were the only elements needed for representation in the sample.

The crisis services served four hundred and eighty-one individuals in 1999. According to the state demographics, the population for the greater Minnesota region studied is approximately 159,100 people, 76,840 males and 82,260 females (Minnesota State Demographics Center, 1998).

Measurement issues

Demographic data was collected for each individual from the agency information (contact) sheet (Appendix A). The data collected was nominal data (gender, law enforcement, jail, hospital emergency department, telephone, follow up, hospitalization, and other). The data were classified as discrete variables, data placed in categories.

Random error may occur due to the size of the sample. Inputting approximately five hundred information sheets of data can cause problems. A crisis worker may miss hitting a key, invert numbers, or may not have filled out the information sheet correctly.

To minimize random error, tabulating will be done for each month and confirming with the crisis services to verify the number of contacts they have tabulated for each month. Random error may also occur if the members of the crisis services are not properly trained or do not receive the same type of training in the use of the forms.

Validity may be a problem in secondary analysis. When collecting information a researcher may not collect the data for the same purpose another researcher may need. Most of the data in secondary analysis will be close but not accurate as to what is being researched (Weinbach & Grinnell, 1998). Collection of the information from the documents may result in incomplete or inaccurate records produced by the personnel of crisis services. The information sheet will be reliable if the information was recorded properly on the document. A person filling out the information sheet must be accurate in documenting as well as the researcher tabulating the information onto a research spreadsheet.

Data collection

Each contact the crisis services has through a referral by personnel from law enforcement, the jail, hospital emergency department, telephone or other is recorded on an agency information (contact) sheet (Appendix A), distinguishing individual variables. The agency information sheet is filled out and filed by a member of the crisis service who received the call. For analysis, information sheets were compiled into a file for each month. Each monthly file was given to this researcher after identifying information had been deleted or covered when copied. A designated member of the crisis service copied the information sheets each month, put them in an envelope and personally give them to

this researcher. The sample included all written individual contacts made by the crisis services for January 1, 1999 through December 31, 1999.

The data was transferred from the agency information sheets (Appendix A) received from the crisis services onto a spreadsheet (Appendix B) developed by researcher. Each variable (gender, law enforcement, jail, hospital emergency room, telephone, hospitalization, follow up and other) was categorized into voluntary, non-voluntary, hospitalization, follow up, male and female (Appendix C). The agency information sheets were numbered in chronological order, first by date, then by time. Each agency information sheet was numbered prior to inputting to reduce error.

Data analysis

The data was analyzed using the chi-square, a non-parametric statistical test. Each variable (gender, voluntary, non-voluntary, hospitalization and follow up) is at the nominal level of measurement, a condition needed in using a chi-square test. The nominal variables were formulated into a two by two cross-tabulation matrix based on a null hypothesis. Gender, as a control variable, was compared with voluntary and non-voluntary accessibility in one matrix, then to hospitalization and follow up. Voluntary and non-voluntary accessibility will be compared to hospitalization and follow up to form the other matrices. The analysis may show a strong consistent pattern with the relationship between the variables (Weinbach & Grinnell, 1998). The large sample will also strengthen the analysis of the data. A comparison will be made on the variables from the sample. The chi-square tests will allow a comparison between frequency observed and frequency expected.

Human subjects

The data were from the intake records of a crisis service in greater Minnesota. Permission to pull and utilize data from the information sheet was accepted and obtained from the Director and the Board of Directors of this crisis service. The agency information sheet (Appendix A) was filled out and filed by a member of the crisis service team who received the call. These measures were taken to protect the privacy and confidentiality of the individuals accessing the crisis services.

Chapter Five – Results

This chapter will describe the findings of the crisis service contacts for 1999. A description and totals of the sample, a hypothesis of each proposed relationship, and results of the chi-square statistical test will be provided. The data will also provide conclusions as to the significance of the relationship between the variables.

Description of the sample

This research asks: Is there a relationship between voluntary and non-voluntary accessibility of a mobile crisis service in relation to hospitalization, and follow up and does this relationship vary by gender? For this study the variables voluntary and hospitalization, non-voluntary and hospitalization, voluntary and follow up, and non-voluntary and follow up were used in formulating crosstabs for the chi-square statistical test. The computer program Statistical Package for the Social Sciences (Kirkpatrick & Feeney, 2000) was used to calculate the findings. The one-tailed test was used for the hypothesis. This directional test was used due to the assumptions that could be hypothesized from the data. The values for the directional test had less deviant values within the observed contacts, and the region of rejection is located on one side of the distribution. For the null hypothesis .05 was used as the rejection level. Table 1 summarizes the data collected.

Table 1 <u>Total number of dependent and independent variables</u>

Month	Gender Female	Gender Male	Voluntary	Non-Voluntary	Hospital	Follow up
January	13	18	21	10	6	19
February	16	10	19	7	2	15
March	17	21	19	19	13	20
April	23	15	22	16	8	16
May	20	24	34	10	10	22
June	22	16	21	16	10	17
July	24	17	30	11	12	20
August	31	18	30	19	13	23
September	12	21	23	12	5	18
October	25	17	28	14	12	25
November	33	31	41	22	19	28
December	20	17	23	14	13	16
Totals	256	225	311	170	123	239

The sample was taken from existing data of a crisis service for 1999. The data accessed from the agency information sheet (Appendix A) was location, referred by, follow up, hospitalization and gender. Date and time of day were used to put the data into chronological order while compiling the information. All identifying information was deleted or covered when copied for this researcher.

Table 2 presents the cross tabulation of the variables hospitalization, follow up, voluntary and non-voluntary accessibility in relation to the control variable gender.

Table 2 <u>Total Number of Dependent and Independent Variables in Relation to the Control Variable of Gender</u>

Gender	Voluntary	Non-Voluntary	Hospitalized	Follow Up
Male	115	110	58	128
Female	196	60	65	111

Table 3 Voluntary accessibility of hospitalization and follow up in relation to gender

Gender	Hospitalization	Follow Up
Male	33	58
Female	49	101
Totals	82	159

Table 4 Non-voluntary accessibility of hospitalization and follow up in relation to gender

Gender	Hospitalization	Follow Up
Male	25	53
Female	16	27
Totals	41	80

Hospitalization

Table 5 presents the cross tabulation summary of the types of accessibility and hospitalization.

Table 5 Cross Tabulation of the Types of Accessibility and Hospitalization

Accessibility	Hospitalized	Not Hospitalized	Totals
Voluntary	82	229	311
Non-Voluntary	41	129	170
Total	123	358	481

The hypothesis for types of accessibility and hospitalization was that individuals who voluntarily access the crisis service was more likely to be hospitalized than non-voluntary individuals accessing the service.

Null Hypothesis: There is no relationship between an individual voluntarily or non-voluntarily accessing the service and the likelihood that the individual would be hospitalized.

Independent Variable: Types of accessibility

Dependent Variable: Hospitalization

Presentation of Results: $X^2 = .14$, df = 1, $p > .05$

Conclusions: The one-tailed test is rejected and the null hypothesis is supported. The relationship between types of accessibility and hospitalization is greater than .05, the rejection level for the null hypothesis.

Table 6 presents the cross tabulation summary of males in relation to the types of accessibility and hospitalization.

Table 6 Cross Tabulation of Males and Females Hospitalized in Relation to Types of Accessibility

Accessibility	Males Hosp.	Females Hosp.	Totals
Voluntary	33	49	82
Non-Voluntary	25	16	41
Totals	58	65	123

The hypothesis for males to types of accessibility and hospitalization was that males are more likely to be hospitalized by accessing the crisis service voluntarily than non-voluntarily.

The null hypothesis: There is no relationship between males and females accessing the types of service and the likelihood of males and females being hospitalized.

Independent variable: Types of accessibility

Dependent variable: Hospitalization

Control variable: Gender

Presentation of Results: $X^2 = 5.24$, df = 1, $p < .05$

Conclusions: The null hypothesis is rejected and the one-tailed test is supported. The types of accessibility and hospitalization have a significant relationship when incorporating gender into the hypothesis.

Follow up

Table 7 presents the cross tabulation summary of the types of accessibility and follow up

Table 7 Cross Tabulation of Types of Accessibility and Follow up

Accessibility	Follow up	Not Follow up	Totals
Voluntary	159	152	311
Non-Voluntary	80	90	170
Totals	239	242	481

The hypothesis for the types of accessibility and follow up was that individuals who voluntarily accessed the crisis service were more likely to receive follow up services than non-voluntary individuals.

Null Hypothesis: There is no relationship between individuals voluntarily accessing the service and follow up.

Independent Variable: Types of accessibility

Dependent Variable: Follow up

Presentation of Results: $X^2 = .75$, $df = 1$, $p > .05$

Conclusions: The one-tailed test is rejected and the null hypothesis is supported. The relationship between types of accessibility and follow up is greater than .05, the rejection level for the null hypothesis.

Table 8 presents the cross tabulation summary of the types of accessibility and follow up in relation to gender

Table 8 Cross Tabulation of Males and Females who Received Follow up in Relation to Types of Accessibility

Accessibility	Males Followed up	Females Followed up	Totals
Voluntary	58	101	159
Non-Voluntary	53	27	80
Totals	111	128	239

The hypothesis for males and females in relation to the types of accessibility and follow up was that males and females are more likely to receive follow up by accessing the crisis service voluntarily than non-voluntarily.

The null hypothesis: There is no relationship between males and females accessing the types of service and the likelihood of receiving follow up.

Independent variable: Types of accessibility

Dependent variable: Follow up

Control Variable: Gender

Presentation of Results: $X^2 = 19.29$, $df = 1$, $p < .05$

Conclusions: The null hypothesis is rejected and the one-tailed test is supported. Types of accessibility and follow up have a significant relationship when incorporating gender into the hypothesis.

Chapter Six - Discussion

This chapter will discuss the findings of the data presented in chapter five. Each table will be examined and discussed in relation to the research question. Is there a relationship between voluntary and non-voluntary accessibility to a mobile crisis service in relation to hospitalization and follow up and does this relationship vary by gender. The strengths and limitations of the study will be discussed along with implications for practice and future research.

Description of the sample

The sample taken from a mobile crisis service in greater Minnesota is comparable to the demographics of the region. Males in this region roughly make up 48% of the population, females 52% (Minnesota State Demographics Center, 1998). In this study sample, the percentages were 47% males and 53% females. Females accounted for 256 contacts whereas males made 225 contacts.

In 1999 voluntary contacts (311) exceeded non-voluntary ones (170) by almost a 2:1 margin. Of the individuals studied, and regardless of the gender, only one fourth were hospitalized after the initial contact was made, 58 were male and 65 female. But 50% of the individuals within the study required follow up after the initial contact, 111 were male and 128 female. These results are similar to the studies by Mishara and Daigle (1997), Reding and Raphelson (1995) and Bengelsdorf and Alden (1987). The findings indicate a pattern between the mobile crisis services interventions of this region and other regions within the United States.

Hospitalization

The cross tabulation of types of accessibility and whether hospitalization occurred indicate approximately a 2:1 difference in voluntary hospitalization versus non-voluntary hospitalization. This was contradictory to the study by Lincoln (1999), who indicated non-voluntary access through law enforcement had a greater hospitalization outcome. Lincoln further indicated voluntary contacts who had support in the community were hospitalized at a lower rate.

This research indicated voluntary accessibility had a greater hospitalization than non-voluntary accessibility. The chi-square statistical test indicated no relationship between voluntary and non-voluntary accessibility and hospitalization access of crisis services. But when using the control variable gender the chi-square tests for males and females indicated a significant relationship between the variables. According to Segal, Akutsu, and Watson (1998) hospitalization was dependent on an individual's degree of psychosis, financial resources, and level of danger to the community.

Follow up

The cross tabulation of types of accessibility and follow up indicated approximately a 2:1 difference in individuals voluntarily accessing the service and needing follow up services and those non-voluntary individuals accessing the service. This research indicated 50% of all the individuals accessing the service required follow up after the initial contact, 46% were males and 54% were females. In the study by Bengelsdorf and Alden (1987), 70% required follow up after the initial contact. Studies by Segal, Akutsu and Watson (1998), Chiu and Primeau (1991), Reding and Raphelson

(1995), and Bengeldorf and Alden (1987) all supported the need for intervention outside the hospital. The chi-square statistical test indicated no significant relationship between voluntary and non-voluntary accessibility and whether follow up was necessary. But again when using the control variable gender within the chi-square statistical test, it indicated a significant relationship between the variables for both male and females utilizing the service.

Gender

The cross tabulation of types of accessibility and gender indicate a 3:1 difference in females voluntarily accessing the service whereas males are approximately equal, 1:1 in voluntary and non-voluntary access to the service. In the study by Rich, Smith, Bonner and Jans (1992) gender predicted a difference in the way individuals seek help. This study suggested that females have an easier time than males due to the stereotypes influenced by past patterns of development and as this study outlined in previous chapters.

Gender also influenced hospitalization and follow up. Individuals who voluntarily accessed the crisis service were hospitalized disproportionately by gender: 40% for males and 60% for females. Conversely individuals who non-voluntarily accessed the crisis service were hospitalized disproportionately by gender: 61% for males and 39% for females. When incorporating gender as a control variable in the chi-square statistical test, the results changed. Gender indicated a significant relationship within the variables. Separating males and females showed gender influences the relationship of the variables.

This study focused on the individuals accessing the service rather than the facilitator of the service. However, matching the gender of the mental health counselor and the individuals accessing the service may alter the results of the study as to how gender affects accessibility. This study did not look at the impact gender has in regard to the mental health counselor in the decisions of individuals accessing the service. Benson (1996) indicated that there was gender bias on the part of the mental health counselor when recommending treatment.

Strengths

In this study, probabilistic knowledge is a strength (Rubin & Babbie, 1997). By narrowing the causes or factors that contribute to the effects of human behavior, this study can aid in predicting or explaining human behavior in a crisis. This information could lead to more preventative measures prior to a crisis formulating.

This research was aimed at the systems in which individuals operate. It is assumed that individuals function within a system from the micro to the macro level in our environment. The perspectives of equilibrium/disequilibrium, crisis theory, and ecological focus on each individual constantly changing or adjusting to survive. A disruption forces an individual to adapt in order to function in society. The need for follow up and/or hospitalization is determined by the initial contact made with an individual. By initially making a thorough and comprehensive examination of an individual, the mental health counselor is assisted in making decisions as to the needs of an individual. As indicated in earlier chapters, taking a history of an individual's past and present will indicate patterns and influences with regard to attitudes, heredity, self-

concept, family structure, gender roles, and social and emotional relationships with others and the environment as indicated. As described in the intergeneration perspective, past generation influences on growth and development passes on portions or parts onto their children and grandchildren.

An individual is a system constantly changing by taking in information from the environment, processing it then adjusting to meet an individual's needs. As described by Aguilera (1994), a mental health counselor can assist in making an individual aware of and able tochange the view or perception about the event that has occurred. Each individual's family is their link to the broader society. By studying these family patterns of behavior, primary prevention can be put in place.

Another strength is the ex post facto design of using existing records for secondary analysis. As stated in earlier chapters, potential bias is minimized due to records being completed prior to the initiation of this research. The crisis service staff could not change their records to make the results look favorable toward their service. The crisis service did not know the extent of the research or what the results may imply. Individuals who had accessed services could not be contacted due to identifiers being removed prior to this researcher obtaining the records thus keeping the confidentiality of the individual in tact.

Within this study the independent variables were not manipulated within the statistical tests. The independent variables status was the occurrence of some natural event allowing the dependent variables to be studied by this researcher as to the behavior of each individual (Matheson, Bruce & Beauchamp, 1970).

Limitations

The use of existing data for secondary analysis is a limitation of this study. Reliance on information previously collected was limited to the quality of the records produced by personnel of the crisis service. Incomplete or inaccurate records were not used due to the insufficient data needed for the research. The individuals accessing the service could not be directly approached due to the deletion of identifiers from the information sheets for this research.

A second limitation is the amount of communication, integration, and acceptance of crisis services into the delivery of the existing mental health services. Crisis services overlap the many disciplines and services within the mental health system. Competition for reimbursement of these services decreases the need for more services to be initiated within each community. Boundaries and differences in philosophies between crisis service personnel and ongoing staff prompt territorial contradictions about the most effective way to treat individuals in crisis. Community mental health centers hesitate in formulating crisis services due to the lack of reimbursement for services. Individuals also hesitate to use crisis services due to their limited income. The extent to which cost is a factor for individuals could not be measured: pre-existing records did not disclose this information and there was no access to individuals for information about cost and insurance.

Staffing also presents a limitation to this study. Restrictions put on staff for liability and hospital privileges prevent crisis service personnel from being integrated into the mental health service system. The utilization of volunteers and paraprofessional staff reduces the cost of the service but increases the liability in staffing the service. The use

of volunteer, paraprofessional, or professional staff could alter the results of hospitalization and follow up. Less experienced staff may not fully assess the situation or the needs of an individual, increasing or decreasing the number of individuals hospitalized or seen for follow up after the initial contact. A volunteer or paraprofessional may miss a cue or misunderstand the communication presented by an individual. Also bias may occur in mental health counselors, making decisions and hospitalizing individuals based on the gender of the counselor and the individual.

Implications for practice

With the growing concern about the increase cost of services and the decrease in resources in mental health and social work resources, the role of the social worker is changing. Social workers will continue to be utilized on a broader spectrum. Brief treatment occurrences will happen on a regular basis. Additional roles will be defined for social workers in emergency treatment, crisis debriefing, crisis support, crisis intervention, mobile crisis services, and crisis intervention centers for families. Social workers will be designing, implementing, and evaluating programs stressing education about coping with a crisis, resources, and the interventions needed to prevent a crisis in the community.

This study indicated a 50% need for follow up after the initial contact is made whereas the study by Bengeldorf and Alden (1987) indicated a 70% need for follow up. By referring individuals to support within the community, it is assumed that the hospitalization of individuals would decrease. Support and influence from family, friends, clergy, and providers account for stability in an individual's life. An individual

with support can restore his life to the previous state or improve his life. In some cases without community support an individual would regress and become hospitalized. Prevention is the goal of crisis services by providing short-term help to an individual in crisis.

In this study, gender indicated a difference in the way individuals access the service. It was found that females accessed the service approximately at a ratio of 3:1 voluntarily whereas males were approximately equal 1:1. Taking in the attempts and successes of suicides with male, and female individual's account for different ways of intervening in a crisis. This study reinforced stereotypes influenced by past patterns of development utilized within the intergenerational and ecological perspectives. Females and males do react differently to a crisis and gender of the individual should be taken into consideration when making treatment decisions.

Implications for further research

Crisis services are the future for mental health services. But will managed care provide financial resources for this type of mental health services? Crisis service research has been neglected in regard to gender, cultural considerations, socioeconomic factors, intergenerational and the family of origin. Each culture has traditions, beliefs, values, and roles within which each gender functions. An individual in crisis may respond differently depending on the culture in which they were raised. Researching the effects of cultural diversity on crisis intervention may produce differences in accessibility. The responses to interventions and access of these individuals may provide different patterns of usage.

The family is the cornerstone of many cultures. Researching the effects of intergenerational history and the type of family origin may produce factors as to why a crisis occurs. The formulation of families along with socioeconomic factors may be preventing individuals from accessing crisis services.

Service providers working in crisis services all have different intervention strategies and staffing beliefs. Continued studies separating out the outcomes of each intervention with regard to cultural diversity, gender, and socioeconomic factors may be helpful in preventing a crisis from occurring.

To continue this research I would look at the precipitating factors prompting an individual to begin a crisis. Finding the causes of why an individual regressed into a crisis would assist in continuing to decipher patterns and learn ways of teaching coping strategies.

Conclusions

Mobile crisis services are needed with the changing needs of individuals and the increased cost of traditional services. Funding these services is an issue to be looked at by the Minnesota Department of Human Services and the state legislators as well as insurance carriers. Some of the problems identified through research need to be resolved by adjusting for future programming to reflect these findings.

This research pointed out the differences and the ways gender influences individuals in accessing a crisis service. Gender effects the way crisis services intervene with individuals in a crisis. Past research, along with this study indicate gender effects where an individual accesses a crisis service. Hospitalization and follow up are also

effected by gender. Males and females have different ways of approaching and coping with a crisis. Past influences from parents, values, beliefs, past generations all are effect the environment we live in. The general systems theory incorporates all of the influences we develop and creates a balance or equilibrium for each individual's life. Keeping this equilibrium balanced controls crisis' which may occur. Utilization of crisis intervention services can be a link between individuals and services along with an initial view of a potential problem. This research reinforced the need for follow up services after the initial contact is made. Assisting individuals to identify and resolve problems by reestablishing a balance or equilibrium in their life is one purpose behind working with people.

As indicated in the chi-square statistical tests, gender used as a control variable influenced the results of the test. Each independent and dependent variable resulted in a change in the significance of the relationship. As social workers we need to be aware of the differences and educate individuals concerning these differences.

The United States needs to look to other countries and their advances in crisis programs, drop their territorial ways and be open to looking at patient versus monetary needs. The number of hospitalizations would decrease and follow up would occur through programs set up in the community to prevent a crisis from formulating.

Recommendations

The mobile crisis service used in this research is a fairly new service. In reviewing their records many discrepancies where found. To help with accuracy and assistance for future reference having a uniform way of recording each contact would help. Training the staff to record each contact the same way would allow for accurate

and accountability with their records. It would also assist in narrowing as to where referrals are coming from. Distinguishing between contacts, a crisis debriefing, a serious and persistent mentally ill individual, and a first time referral to the service also would assist in narrowing where referrals are coming from. It would gain insight into where education is needed within the community.

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Appendix A
Agency Information Sheet

Location: Staff:

County: Date: SPMI:

Referred by: Time of Day:

Follow-up: Veteran: TBI: Length of time: Hospitalized:

Client:	Age:	DOB:	Sex:
Address:			
Guardian:			
Phone:	SS#:	INS:	

Emergency Cont:

Primary Phy:

Living Alone: Supported: Family: Homeless:

Present Problem:

Psych HX:

Medical HX:

Legal HX:

Meds RX:

Meds taking:

Precautions: Threatening: Assaultive: Weapons: SIB:

SUICIDAL: Ideation: Plan: Means: HX:

HOMICIDAL: Ideations: Plans: History:

Comm Resources:

Appendix B
Research Spreadsheet

				January					
		NONVOLUNTARY		VOLUNTARY					
NUMBER	GENDER	LAW ENF	JAIL	ER	PHONE	OTHER	HOSPITAL	FOLLOW UP	
1001									
1002									
1003									
1004									
1005									
1006									
1007									
1008									
1009									
1010									
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1029									
1030									
1031									

Appendix C

Research Worksheet

				January					
NUMBER	GENDER	NONVOLUNTARY		VOLUNTARY			HOSPITAL	FOLLOW UP	
1001									
1002									
1003									
1004									
1005									
1006									
1007									
1008									
1009									
1010									
1011									
1012									
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November 1, 1999

Dear Sirs:

Ms Joni M. Heine has requested utilizing information compiled by the Regional Mental Health Crisis Services for the 1999 year. This data is collected by the Regional Mental Health Crisis Services for each contact they have with a person in crisis. The data will be copied by a member of the crisis team each month, put into an envelope and given to Ms. Heine for her study. All identifying information (name, address, social security number) will be deleted or covered when copied to protect client confidentiality and privacy.

Once the study is completed we request that the copied data be destroyed. The tabulated data be given back to the Regional Mental Health Crisis Services and Ms. Heine's copy be destroyed. The Crisis Intervention Staff, the Board and myself agree to this procedure. Please respond in writing with your agreement, questions or concerns. Thank you.

Sincerely,

Mark Bublitz, M.Ed., LICSW, CTRS
Director Regional Mental Health Crisis Services

Augsburg College
Lindell Library
Minneapolis, MN 55454