EVALUATING A MOBILE CRISIS INTERVENTION PROGRAM

Luke G. Sander
(Bachelor of Arts, University of Lethbridge, 1995)

A Thesis
Submitted to the Council on Graduate Studies
of the University of Lethbridge
in Partial Fulfilment of the
Requirements for the Degree

MASTER OF ARTS

UNIVERSITY OF LETHBRIDGE
LETHBRIDGE, ALBERTA
March, 1996

ABSTRACT

There are four main components in this thesis: a literature review of program evaluation, a description and discussion of the current status of program evaluation in the crisis intervention literature, results and discussion of the formative evaluation which is the primary element of the thesis, and a report on the use of the Goal Attainment Follow-up Guide (GAFG) (Kiresuk & Sherman, 1968) and the Brief Derogatis Psychiatric Rating Scale (B-DPRS) (Derogatis, 1978) for community-based mobile crisis intervention programs.

The data for the evaluation were gathered using both quantitative and qualitative methods. There were 150 participants in the study: 89 females and 61 males. The mean age was 35. The GAFG was completed by 81 of the participants; 33 of the participants were administered the B-DPRS.

There were three major findings in this evaluation. The participants contacted significantly more community agencies and spent less time in hospital after using the crisis program and the GAFG and B-DPRS were found to be unsuitable as outcome instruments for a community-based mobile crisis program.

Acknowledgements

The completion of this thesis would not have been possible without the patience and encouragement from my loving wife Daphne and family. I am grateful to my supervisor, Mark Sandilands, for providing me with the guidance and support that enabled me to complete the thesis. I would also like to thank the members of my supervisory committee Robert Loo, Robert Arms, Chris Armstrong-Esther, and Jochen Bocksnick for all their time and effort. I also acknowledge Canadian Mental Health Association for providing financial support for the project. Finally I would like to acknowledge the interest and dedication of the staff at Canadian Mental Health Association, especially those members of the crisis program who helped gather the data.

TABLE OF CONTENTS

LIST OF TABLES

FIGURES

APPENDICES

ABBREVIATIONS

B-DPRS= Brief Derogatis Psychiatric Rating Scale

CMHA= Canadian Mental Health Association

GAFG= Goal Attainment Follow-up Guide

LCICSP= Lethbridge Crisis Intervention and Community Support Program

LCP= Lethbridge City Police

LMH= Lethbridge Mental Health Clinic

LRH-E= Lethbridge Regional Hospital Emergency Department

Chapter 1

INTRODUCTION

There are four main components in this thesis: a literature review of program evaluation, a description and discussion of the current status of program evaluation in the crisis intervention literature, results and discussion of the formative evaluation which is the primary element of the thesis, and a report on the use of the Goal Attainment Follow-up Guide (GAFG) (Kiresuk & Sherman, 1968) and the Brief Derogatis Psychiatric Rating Scale (B-DPRS) (Derogatis, 1978) for community-based mobile crisis intervention programs.

Researchers have sought to evaluate crisis intervention programs through referral follow-ups, client surveys, and tracking the rates of hospitalizations (France, 1990; Roberts, 1990). The main goal of the present formative evaluation is to determine the feasibility of an interrupted time-series design (Campbell & Stanley, 1966) as a means of evaluating the Lethbridge Crisis Intervention and Community Support Program (LCICSP). This quasi-experimental design was chosen because it was not ethically feasible to randomly assign some of the individuals in crisis to a control group who would not receive crisis services. The

advantage of using an interrupted time-series design is that the participants act as their own controls. In addition, the design also enables the evaluator to examine the data for trends before and after receiving treatment. The goals of the formative evaluation were to monitor hospitalization rates, the number of community agencies the participants contacted, assess the level satisfaction of those who are involved with the LCICSP, and to pilot test some outcome instruments.

Formative and Summative Evaluation

Formative evaluations are used to provide feedback during the development of a program and to examine how program policies and procedures should be improved. Formative evaluations also pilot test methods for monitoring a program's progress. In contrast, summative evaluations estimate the impact a program has on the people it serves and determines a program's worth: whether it is effective or not (Chambers, 1994).

Crisis Intervention

There are a number of reasons why crisis intervention has become a central part of mental health services. An increasingly complex society and rapid change has caused individuals and families to be faced

with a greater number of stressors (Roberts, 1990). Parad and Parad (1990) have asserted that crises occur wherever there are people. For example, Slaikeu (1984) explains:

> All humans can be expected at various times in their lives to experience crisis characterized by great emotional disorganization, upset and a breakdown of previously adequate coping strategies. The crisis state is limited (equilibrium is regained in four to six weeks), is usually touched off by some precipitating event, can be expected to follow sequential patterns of development through various stages, and has the potential for resolution toward higher or lower levels of functioning (p. 14).

During a time of government cutbacks, especially in mental health care, there has been an increasing demand for short-term treatment. The therapeutic approaches used in crisis intervention are necessarily of short duration. According to Glasser (1990), "with the shortage of professionally-trained therapists who have too many clients and patients to serve-- who often need help immediately-- the movement to crisis intervention

approaches seems almost inevitable" (p. XV).

With the expansion of crisis services in the past 25 years, crisis intervention has become an important part of the mental health care system. Geller, Fisher, and McDermeit (1995) conducted a survey of crisis services across the United States. They found that there are approximately 1,480 different crisis intervention sites. The study revealed that more than 72.5 percent of the states have mobile crisis teams. The number of crisis services in Canada is also increasing. A recent survey suggests that there are now over 140 different crisis centres in operation across Canada (Twine & Barraclough, 1995). In Alberta alone, there are currently 22 crisis programs. Over the past two years, Alberta Mental Health has introduced six mobile crisis intervention programs into urban centres. In addition, rural crisis programs are in the planning stage of development. The Provincial Mental Health Board (1995) has classified crisis intervention services as one of the seven core-services requirements of mental health. In addition, further development of crisis services will be central in reforming the Alberta mental health-care system (The Provincial Mental Health Board, 1995).

The Lethbridge Crisis Intervention Community Support Program

In 1993, Alberta Health, Department of Mental Health Care, identified seven core-service requirements that were to be implemented in all of Alberta's urban centres by 1996 (Provincial Mental Health Board, 1995). Crisis intervention services was one of these core-service requirements. The program in Lethbridge began as a pilot project funded by Alberta Health, Alberta Mental Health Division, with the support of the South West Regional Mental Health Planning Committee.

In the beginning of January 1994, funds were allocated to operate a mobile crisis intervention program in Lethbridge. Although Canadian Mental Health Association in Lethbridge was chosen to be the administrator of the program's funds, it was only one of a number of agencies managing the project. The crisis intervention management advisory committee consisted of one representative from each of the following agencies: 1) Canadian Mental Health Association (CMHA), 2) Lethbridge Mental Health Clinic, 3) Lethbridge City Police, 4) Royal Canadian Mounted Police, 5) Lethbridge Regional Hospital: Department of Emergency and Community Psychiatry, 6) Family and Social Services: Child Welfare, 7) Lethbridge Health Unit: Home Care, 8) Claresholm and

Raymond Care Centre, 9) Sik-Ooh-Kotok Native Friendship Society, and 10) the Samaritans.

The staff component of the pilot project was hired in January 1994, and consisted of full-time coordinator, one 3/4 time crisis worker, and one half-time crisis worker. By February 15, 1994, the program was operating 24 hours a day and seven days a week.

After the pilot project had been in operation for six months (i.e., August, 1994) the Provincial Mental Health Board sent a management committee to Lethbridge to evaluate the program. This committee recommended the program be continued and expanded. In September, 1994, the Raymond and Claresholm Care Centre seconded a full-time position to the LCICSP.

The LCICSP continued to operate 24 hours a day and seven days a week. The crisis program was designed to provide support through person-to-person or telephone contact with people who present at the Lethbridge Regional Hospital Emergency Department (LRH-E), police station, or at other community agencies. Interventions also occur in person(s) home or at CMHA during the day from 0800 to 1630. The goal of these interventions is to defuse the immediate crisis. Usually the crisis worker only sees a client between two and five sessions and then the client is referred, if needed, to the appropriate

agencies for on-going long-term support.

At the time of the formative evaluation there were two full-time staff, four relief staff, one part-time native outreach worker, and one practicum social work student from the University of Calgary. Presently, there are two full-time staff and four relief staff (i.e., scheduled to work on an as-needed basis) employed by the LCICSP.

I was hired by Canadian Mental Health Association to conduct a formative evaluation of the LCICSP. My role in the formative evaluation included the following: 1) to develop an information system, 2) to develop three satisfaction surveys, and 3) to review the literature for possible outcome measures. In addition, I also taught the crisis workers how to administer the forms and the selected outcome instruments and I ensured that the staff used a standardized method of collecting the data.

In summary, the present formative evaluation focused on developing an information system to monitor the LCICSP's progress. Data from the information system were reported monthly to the crisis intervention management advisory committee. This continuous feedback provided the management advisory committee with the necessary insight needed to implement policy and procedural changes to the LCICSP. The present evaluation also assessed

satisfaction levels of those involved with the program. Data from the formative evaluation were used to determine the suitability of using the Goal Attainment Follow-up Guide (Kiresuk & Sherman, 1968) and the Brief-Derogatis Psychiatric Rating Scale (Derogatis, 1978) as outcome instruments for use with a community-based mobile crisis intervention program.

This thesis is divided into six chapters. Chapter 2 begins with a brief history of evaluation, followed by a discussion of the theoretical models used to conduct an evaluation. The reasons for using either a formative or summative evaluation are then examined. The next section explains how formative evaluations use needs assessment and program monitoring studies to obtain information whereas summative evaluations use impact assessment studies to determine outcomes.

Chapter 3 provides background information on crisis intervention such as the short-term and long-term aims of crisis intervention, how crisis intervention theory has been conceptualized on three different levels (i.e., basic theory, applied theory, and expanded theory), the stages of crisis, and the procedural steps for crisis counselling. How crisis intervention has evolved through research is discussed in the four remaining sections of Chapter 3.

Chapter 4 contains a description of the subjects, instruments, and procedures used to complete the formative evaluation. The results are in Chapter 5. In addition, the findings are discussed in the context of the LCICSP. The conclusions and recommendations of the formative evaluation are in Chapter 6.

CHAPTER 2

AN OVERVIEW OF EVALUATION

A Brief History of Evaluation

By the early 1900s, behavioural science had become an accepted method for conducting field research. Academics were concentrating on refining their methodology to ensure findings could be defended. It was a time when the majority of social scientists, with the exception of economists, kept their distance from politics (Cronbach et al., 1980; Lyons, 1969). In 1969 Cabot (cited in Ruttman & Mowbray, 1983) planned and conducted one of the first controlled experiments to examine the effectiveness of therapeutic interventions, a study which has since become known as the Cambridge-Sommerville Youth Study.

Another example of a controlled experiment is the Hawthorne study done by Roethlisberger and Dickson (1939). Later Lewin and his students confirmed many of Roethlisberger's and Dickson's conclusions (cited in Cronbach et al., 1980). The Hawthorne study and other studies motivated numerous researchers to question group processes, which in turn began "paving the way for the 'action research' during the period from 1935 to 1960" (Cronbach et al., 1980, p. 29).

After World War II emerged many large-scale social programs designed to accommodate the growing needs of society (i.e., the development of an educational curriculum, technological advances, job retraining programs, housing for the poor, and the increasing demand for health and welfare services). This was a time when Canada, like many countries in Europe, and the United States agreed to implement programs for rural community development, family planning, universal health-care, and nutrition standards. Every country was interested in the impact and the viability of these newly developed programs (Cronbach et al., 1980; Guba & Lincoln, 1982; Rossi & Freeman, 1985; Shadish, Cook, & Leviton, 1991).

As the funding for social programs increased so did the number of books and journal articles on evaluation. By the mid-1970s, a large variety of literature was available for evaluators to assist them in designing methodologically-sound evaluations. For example, Weiss's (1972) book discusses the various research methods evaluators should and should not apply when conducting an evaluation and provides the reader with the realities of evaluation in a real-life context. Rossi, Freeman, and Wright (1979) wrote about theory, practice and politics in evaluation research. In addition, a number of universities (e.g., Boston College, UCLA, Stanford

University, and the University of Minnesota) started offering courses in evaluation and later developed graduate programs (Madaus, Stufflebeam, & Scriven, 1983).

The journal Evaluation Review appeared in 1976 and there are now approximately a dozen journals devoted to evaluation research. Also there are national associations of evaluators in Canada and the United States. As Rossi and Freeman (1993) put it, "the proliferation of publications and conferences, the formation of a professional association, and special sessions on evaluation studies at the meetings of academic and practitioner groups are testimony to the rapid development of the field" (p. 11).

In summary, advances in evaluation over the past 15 years have been very impressive, (e.g., the increase in the number of college-level evaluation courses and proliferation of evaluation research in prestigious journals), but the current economic constraints present evaluators with many new challenges. The next important step for evaluation is to effectively adapt to society's changing needs. The following section presents some of the main approaches to conducting evaluation research.

Models of Evaluation

There are many different established approaches used to conduct evaluations. However, most of these approaches can be categorized under a few basic 'models'. Each model has a large number of advocates who teach it at universities or colleges, cite the approach in the literature, or present findings at conferences. As a result, these well-established models are often refined, critiqued, and imitated by other evaluators and their students.

However, many prominent evaluation theorists do not identify themselves with any specific approach. House (1980), Cronbach (1963), Campbell and Stanley (1966) and Glass (1954) are among these. House (1980) has argued "I have conducted evaluations using all the major approaches. So the models should not be identified as the property of any one person or as typifying a particular person" (pp. 21-22).

System Analysis Approach

Rossi and Freeman (1993) define system analysis as "the systematic application of social research procedures for assessing the conceptualization, design, implementation, and utility of social intervention programs" (p. 5). In this approach the researcher

identifies a few key outcome measures and then explains the variations in test scores by comparing differences from one program to another. The majority of the data produced is quantitative, and the outcome measures are obtained via statistical techniques.

System analysis is the most dominant approach in evaluation research. The approach was developed under the auspices of Secretary McNamara for the United States Department of Defense. Since 1965, it has been the primary evaluation approach used by the U.S. Departments of Health, Education, and Welfare (House, 1980). Other countries (Britain, Canada, Germany, Norway, Denmark, Switzerland, and the Netherlands) have used the system analysis approach to evaluate their government departments (House, 1993).

System analysis attracts a large number of researchers because many of its advocates claim it is the only scientific evaluation approach (House, 1980). It is also supported by a large number of prominent theorists and economists including Rossi, Chen, Freeman, Rivlin, and Wright.

A benefit of using the system analysis approach is that an evaluation can be replicated because it follows the procedures of social science. Another strength of this approach is that the researcher can identify cause-

and-effect relationships.

Goal-Based (Behavioural Objective) Approach

In 1926, Sydenstricker (cited in Suchman, 1967) developed a set of principles for conducting a goal-based evaluation. He stated that: (1) key activities of a program should be measured rather than the whole program, (2) objectives and methods need to be clearly defined, (3) scientific research methods need to be applied to evaluation, and (4) comparison and experimental groups should be used because they allow the researcher to identify cause-and-effect relationships.

Campbell and Stanley's (1966) research methods were used as the foundation to develop the behavioural objective approach. Suchman (1967) defined the behavioural objective evaluation process as it is applied by many evaluators today. He divided the process into six steps. In the first, value formation, the evaluator starts out selecting the most relevant value(s). Goal setting is the second step: goals are developed based on the selected value(s). In the third step, goal measuring, the researcher decides what types of measures would be appropriate given the nature of the prevailing situation. For example, if we set a goal that fewer people should be hospitalized, then we need to administer

a test that would enable us to discover how many people need to be hospitalized. In the fourth step there is an identification of the activity (i.e., goal attaining activity). Putting activity into operation is the fifth step; this happens when activities are identified and then monitored. Finally in the sixth step, at a pre-determined time, the researcher must assess the identified activities (i.e., assessing the effect of this goal operation).

The behavioural objective approach is the most popular model among practising evaluators (House, 1980). One reason for its popularity is that the model is oriented toward providing information for administrators and managers. Furthermore, the approach can be applied to a variety of different settings effectively and efficiently. For example, Fengler (1987) used it to evaluate the progression of participants' knowledge at a workshop. Cohen (1987) used the behavioural approach to measure the accountability of probation and parole staff. Kiresuk and Sherman (1968) used it to evaluate community mental-health programs.

This approach provides a practical model for evaluators because it is relatively easy to conduct, produces measurable outcomes, and can be replicated. Despite all its strengths, this approach has some

weaknesses. The behavioural objective approach is similar to system analysis because it has a tendency to focus much too narrowly on a few key behaviours and therefore may ignore other key behaviours. There are other problems with this approach, such as: Who sets and defines the goals? Whose interests are being taken into consideration when the goals are being defined? How can the goals be measured without bias? (House, 1980).

Goal-Free Approach

Scriven (1973) developed the goal-free approach to evaluation. A goal-free evaluation "requires evaluators to ignore goals, and to match effects of evaluands against the needs of those whom evaluands affect" (Shadish et al., 1991, p. 73). Evaluators employing this model do not base their evaluation on the program's pre-determined goals. Scriven (1973) claims that not knowing a program's goals reduces the effects of bias. Hence, the evaluator is forced to search for outcomes. As a result of not knowing the program's goals a large number of these outcomes have unanticipated positive and negative side effects. Side effects, "whether good or bad often wholly determine the outcome of the evaluation. In fact, it's risky to hear even general descriptions of the [pre-determined goals] because it focuses your

attention away from the side effects [of the evaluation]" (Scriven, 1973, p. 321).

To avoid bias the evaluator must maintain independence from the program's personnel (Scriven, 1976). The goal-free model has two main principles constructed to deal with the issues of independence. The first principle, independent feedback, states that "no unit should rely entirely on a given subunit for evaluative feedback about that subunit" (House, 1980, p. 31). The second principle, instability of independence, says that, over time, evaluators become assimilated into the program and that evaluators should be cautious and maintain their distance.

Scriven (1974) has argued that evaluation should assign merit or demerit to the programs. The methodology used to determine whether a program is effective or ineffective, however, is not as explicit as it is in other approaches. The general methods used by goal-free evaluators include checklists and needs assessments (House, 1980; Scriven, 1974).

The primary advantage to using the goal-free model is that it is oriented towards serving the target population's needs rather than those of the program managers. Furthermore, it is deemed as being highly credible by clients (House, 1980). In recent years, it

has become the trend to place an emphasis on client satisfaction and involvement in conducting evaluations. For example, in 1995 the Alberta Provincial Mental Health Board hired a client to survey other clients' attitudes towards the restructuring of the mental-health system in Alberta.

The goal-free evaluation approach is probably the most talked about and the least used model for evaluating social programs (House, 1980). Its lack of specifically structured methods is the main reason it is seldom used. Furthermore, the results tend to vary based on the technique the evaluator decides to employ. The non-prescription of methods is somewhat foreign to many evaluators. Traditionally, evaluators have been trained to employ a means-to-the-end logic. That is, the objectives of the program are specified and the measures employed are used to determine if the objectives have been achieved (Shadish et al., 1991).

The concept of objectivity for the goal-free model is based on the principle that evaluators should maintain their independence from the numerous influences that may cloud their judgment. In contrast, the traditional concept of objectivity relies on using measures that are highly reliable (Shadish et al., 1991). Despite this apparent lack of objectivity in comparison to a

prescribed method, this model does the field of evaluation one important service: it forces evaluators to choose their research method(s) based on logic rather than basing the evaluation on a pre-structured methodology (Shadish et al., 1991).

A limitation of the goal-free model is the difficulty of interpreting social interactions. It is often cumbersome to interpret and understand what a social program's outcomes are if you do not know its intentions. In order to interpret a program's effects, one needs to interpret people's actions via their intentions. One particular act may be construed very differently by two separate evaluators. Therefore, evaluators employing the goal-free model can only "listen to the agent's expressed intentions and look for corresponding acts" (House, 1980, p. 234).

Another weakness of the goal-free approach is that it can be so independent of the practitioners that it may not help improve the services for the clients. In effect, the evaluator could report that the clients are very satisfied whereas the clinicians may be under a great deal of pressure to work longer hours for less pay. In the long run this type of evaluation could have an overall negative effect on the entire program.

Decision-Making Approach

Decision-making evaluations are designed according to the actual decisions made by the head administrator, policy-maker, or manager (Weiss, 1972; House, 1980). Hence there is a common link between all evaluation approaches and the decision-making approach.

The model was first introduced by Cronbach (1963). He recommended that evaluators should move away from using the traditional objective-based model to a more decision focused model. Stufflebeam et al. (1971) supported Cronbach's views and further developed them into a conceptualized model.

The decision-making approach states that an evaluation consists of a number of steps: (a) identify the levels of decision making, (b) project the types of decision situations that will be made, (c) define the criteria for each decision, and (d) define the policies for the evaluator. Once this has been accomplished, the evaluator can collect, organize, analyze, and report the information (Stufflebeam, 1969). Another view of the decision-making approach is that of Wholey (1983) and Patton (1986). They both have argued that it important to identify the key decision-makers (e.g., managers, administrators, or policy-makers) and then collate the relevant questions according to the needs of the

decision-makers. Wholey (1981) has argued that decision-makers need rapid feedback to ensure that the relevant questions will produce useful answers. Wholey (1983) and Patton (1986) propose that this type of model will enhance the usefulness of evaluation results.

Decision-making evaluation is conducted primarily by using surveys, such as questionnaires and interviews. A strength of this approach is that the methods can be adapted to the program being evaluated rather than designing a separate experiment (House, 1980).

The decision-making approach is the most favoured model among program managers, policy-makers, and administrators. It is not surprising that it is popular with this group of people since it caters specifically to their needs. Therefore, decision-making results are more readily accepted and used.

One must, however, be wary of a model that places so much emphasis on the decision-makers. It causes researchers to wonder if this approach gives the decision maker(s) too much power. Another question that arises is this: Do managers, administrators, and policy-makers select research questions that reflect only the positive aspects of their program? How can safeguards be implemented to prevent such bias? These questions are potential limitations to the decision-making approach.

A practical benefit of the decision-making approach is that it allows the evaluator and decision-makers to focus on the key elements of the evaluation collaboratively. Thus, evaluators who support the decision-making approach would argue that only the most useful information for the decision maker should be gathered and reported. Moreover, the pre-selection process of acquiring the information reduces the amount of time spent collecting the data which, in turn, means the evaluation costs less and the results can be used sooner (Shadish et al., 1991; Wholey, 1983).

Case Study Approach

This approach examines processes of programs, the goal being to find out how other people (i.e., experts) would evaluate the program. Research questions addressed in this approach are drawn from practitioners and clients who are affected by the program. The purpose of the case study is to help people who are part of the local environment understand how their program works, and how people who are directly involved in the program value its operations. Gathering information for the case study model is done through observation of the people at the program site and in-depth interviews with these people. The data produced by the case study may include direct

quotes, personal observations, informal narratives, and illustrations (House, 1980).

Stake (1967) developed the case study approach. He has argued that the model should be used to improve the readers' and the audiences' understanding of the program by demonstrating how others have valued the program. Stake (1975) indicates that evaluators should describe their findings and not make the value judgments. Moveover, it is up to the audience or the reader to summarize the information and to interpret it (Stake & Easley, 1978). The case study approach has become quite popular, despite the fact that it has had problems establishing its credibility in an area dominated by rigorous scientific methodology. The case study approach has managed to thrive because it is based on the naturalistic paradigm (Guba & Lincoln, 1982). This model assumes that variables are inter-related and therefore evaluators must focus on the multiple realities rather than independent ones. Consequently, this model produces rich and persuasive information that is not always obtained from other approaches (House, 1980). Stake and Easley (1978) have argued that the case study should be judged by the information it provides for the reader: "It seems less important to ask if these case studies met scientific standards than to ask if they added to the

understanding. Neither one depends on the other" (p. 56). Evaluators using case study model report the values of the minority stakeholders that may not otherwise have been heard (Stake, 1975). This is a strength of the model because it can be used to gather information from a diverse group of individuals. This strategy also produces results that are of great interest to diverse stakeholders who have a broad set of questions. This diversity and lack of scientific rigor, however, is viewed as a weakness by the scientific community. In addition, the findings from case studies may not be generalized from one program to another.

Another limitation is that the case study approach puts the onus on readers to interpret and synthesize the results. The problem with this model arises when readers are presented with conflicting negative and positive aspects of the program. How can readers resolve these conflicts if they have to wade through the entire document? This is a very time consuming and expensive process for upper management. Moreover, the manner in which the information is presented may cause the reader to make a faulty interpretation.

A strength of the case study approach is that it is initiated by local project stakeholders to meet their own needs (Stake, 1986). This means that practitioners who

serve the clients and control how a program will be implemented will also be the ones to use the data. The fundamental weakness of this model is that the success of the evaluation depends on the practitioner's motivation to initiate change. Furthermore, if the already-busy practitioner has the time to read and interpret that information, who will ensure that the results will be utilized? If the results remain at the local level, the dilemma is who is accountable for interpreting and implementing the findings?

Purpose of Evaluation

Formative and Summative Evaluation

In planning an evaluation, the evaluator must determine the primary purpose of the evaluation. Evaluators can be asked to investigate a number of questions; they must narrow down which questions will best determine a program's success, so that decisions such as the following can be made:

1) To terminate the program.
2) To extend funding for the program.
3) To set up similar programs at other sites.
4) To increase funding to the site.
5) To narrow or expand the target population.

6) To improve the program's procedures and practices.

7) To accept or reject program strategies and techniques.

The primary purpose of evaluation is to provide feedback to improve the way a program delivered its services. "The greatest service evaluation can perform is to identify aspects of the [program] where revision is desirable" (Cronbach, 1963, p. 236). Reacting to Cronbach's (1963) article, Scriven (1967) argued that there are two distinct purposes of evaluation, (1) to provide feedback that may be used to improve a program (formative evaluation), and (2) to provide information for decision-makers who are deciding whether to fund or terminate a program (summative evaluation).

The primary purpose of summative evaluations are to evaluate the effectiveness of a program. Summative evaluation results are often used by government policy-makers or private sponsors. In contrast, formative evaluations provide feedback during the development of the program and can be used to focus on ways of improving and enhancing the program at any stage of its development. Formative evaluations are useful for program staff and administrators (Patton, 1986).

Examples of formative evaluation questions are: How

can the program be improved or enhanced? What policies and procedures need to be changed? What are the strengths and weaknesses of the program? What good aspects of the program can be used to improve future programs? How do the clients, staff, administrators, and others perceive the program? How have the changes in the program affected it?

Summative questions include: Was the program effective? What was the program's worth or merit? Should funding be extended or terminated? Should similar programs be initiated at other sites?

These two distinct groups of questions are answered by the use of different methods. The summative evaluator's preferred design is experimental and the outcomes can be determined through statistical analysis. These evaluators often use controlled random assignment of participants with an equivalent-groups design. The ideal is to obtain data from two different time intervals: pretest and posttest. This enables the evaluator to compare the treatment and control group on a number of standardized measures (Cronbach et al., 1980). Formative evaluators depend more on surveys, in-depth interviews, and on-site observations (Patton, 1980). Formative evaluations may be also used to monitor an information system that provides regular outcomes.

This can serve to improve the implementation of innovative programs or fine tune pre-existing ones. The feedback from formative evaluations is continuous. In contrast, the feedback from summative evaluations occurs at the end of the program. In addition, a summative evaluation is usually conducted by an external evaluator whereas a formative evaluation is more likely to be done by an internal evaluator. Summative evaluations are more threatening because they determine whether a program will be terminated, whereas formative evaluations are more readily accepted because they focus on improving the program (Chambers, 1994).

In practice, evaluation is generally used to help decide how to improve programs (Weiss, 1972). The termination of ineffective programs is actually very rare. Even if the program has proved to be a complete failure the typical reaction is that it is less expensive and easier to patch it up and try it again (Patton, 1986; Rossi & Freeman, 1985; Shadish et al., 1991). One possible explanation for the limited use of evaluations is that the policy-makers, administrators, and sponsors can gather information from so many other sources (e.g., other studies, government documents, and gossip). As a result "program evaluations are only one of these sources. . . . Evaluators are not surprised when clear

evaluation reports are not followed by definitive decisions. Thus, nearly all evaluations are formative, hopefully serving to improve the program evaluated" (Posavac & Carey, 1985, p. 18).

Summative evaluations have not been well used because the rigorous experimental design "control vs. treatment" cannot be truly applied to social programs and that it is difficult to maintain the strict boundary between treatment conditions. Sometimes staff do not realize how their actions and reactions can bias a person's perception of the program. Also it is often difficult to track down and contact the mobile persons who are the targets of most social programs. Consequently, this can make summative evaluations less reliable and less valid (Cronbach et al., 1980).

In summary, formative and summative evaluations are general categories for evaluation research. Formative evaluations improve service delivery whereas summative evaluations determine if a program is effective or ineffective. Formative evaluations are more commonly used by evaluators because they can be more readily applied in a field setting.

Tools of Evaluation

Formative evaluations use needs assessments and program monitoring studies to obtain information whereas summative evaluations use impact assessment studies to determine outcomes.

Needs Assessment

Formative evaluation research often involves needs assessment. There are two basic levels of needs, primary and secondary (Witkin, 1984). Primary level needs are individual needs for educational, medical, financial, or social services. Secondary level needs are those of an institution, organization, or community agency. Individual level needs are those of clients, students, patients, or other members of a community. At the client level (i.e., mental-health-care) clinicians have typically defined a need as the difference between a desired level of psychological improvement and the actual or perceived level of improvement. Institutional needs are related to equipment, facilities, service delivery, and available personnel. At the institutional level, needs may be defined as the difference between the desired length of waiting and the actual waiting time (Witkin, 1984).

A needs assessment may also be regarded as a

"systematic appraisal of type, depth, and scope of problems as perceived by study targets of their advocates" (Rossi & Freeman, 1985 p. 105). This definition implies needs assessment is a precursor for action which is based on "the difference between the extent of a condition or need in a given population and the amount of service provided to meet that need" (Mayer, 1985, p. 70).

Purpose of Needs Assessment. A needs assessment enables program designers to verify that a problem exists and that it is not currently being successfully managed. Before a program can be implemented, program designers often must prove that the needs of the potential target population are not currently being addressed in the most efficient and effective manner. A needs assessment also serves to support existing programs, and may be used to refine or replace an ineffective component of a particular service. Weiss (1972) suggests that, in most cases, program sponsors and policy-makers support the idea of fixing a 'broken' program rather than re-allocating resources to an innovative social program.

There should be two basic criteria present before a needs assessment can be conducted: 1) the results will be used in the decision-making process, and 2) there are adequate resources available to do a thorough assessment

of the existing problem (Demone cited in Witkin, 1984, p. 18). Demone indicates that there are six scenarios when a needs assessment is inappropriate:

1) If the data that will be collected are not relevant to the problem or policy at hand;

2) If the person who would be using the data is very resistant to obtaining it;

3) If the methodology is inadequate insomuch that the information obtained cannot be used to help make decisions;

4) If the data will not be collected in time for then to be sufficiently used;

5) If the different levels of management do not agree about the purpose and how the needs assessment will be used; and

6) If the sponsors of the organization do not have the power to follow through with and use the results.

Needs assessments are required because determining the nature and magnitude of a social problem is generally quite a complex and difficult process. Individuals who are concerned about a social problem have the tendency to exaggerate the extent of the problem. People with a vested interest often do this in an attempt to initiate a new program or expand an existing one. Even though the

problem may exist, the information required to accurately describe its characteristics are often not present (Rossi & Freeman, 1993). A needs assessment is therefore conducted to "estimate the number and program-relevant characteristics of the t rget [population]" (Rossi & Freeman, 1985, p. 107).

The Importance of Establishing Targets. In social research the target is usually a type of individual, but it may also be a type of aggregate, (e.g., a family, employees of a large business, or members of an organization), a geographical area (e.g., a neighbourhood), or based on a political alliance (e.g., Green Peace). Since the same program's target population can vary from location to location, it is very important to clearly define the target(s) before undertaking a needs assessment.

The definition of the target is dependent on whether individuals, a group, or an organization are being assessed. As a rule, targets are chosen on the basis of possessing one or more of the following criteria: a particular geographical location, a certain demographic characteristics, or a type of social problem. For example, targets for sexual abuse crisis counselling might be specified as male or female children between the ages of seven and thirteen who have been sexually

violated by a parent within the past two years.

Targets may also be identified as being either direct or indirect. Direct targets receive the treatment immediately. For example, a psychiatrist prescribes a medication for a person who is depressed. Indirect targets are those who eventually receive help. For example, a trained crisis worker teaches crisis intervention to a group of volunteers. These volunteers then go to a third world country and train other people in crisis intervention. The indirect target approach is not as common because it is initially more time consuming and expensive than serving a direct population. In addition the success of this type of program depends solely on the motivation and abilities of the trained volunteers (Chambers, Wedel, & Rodwell, 1992).

It is recommended that program designers specify the population size and distribution of their targets (Berk & Rossi, 1990). At the onset of this process it seems very simple to specify a target. However, once one examines any human or social situation it becomes quite clear that this task is not so easy.

For an evaluator to properly specify a target she or he should set boundaries (i.e., inclusion and exclusion rules). A common problem in designing a new program is specifying a target population that is too broad. For

example, defining a crisis as any situation in which a person becomes very upset is futile, because everyone becomes upset sometime in their life, but this does not necessarily mean that a crisis team is required to deal with every problem. The problem with this overinclusive definition is that it cannot provide an evaluator with the information needed to conduct a useful needs assessment. The above definition of a crisis may cause the evaluator to overestimate the prevalence of the problem. These exaggerated estimations often result in the allocation of large sums of money to a group of individuals who have little to gain from the service.

In contrast, restricting the target population may eliminate too many potential users of the program. For example, a program's goal may be to re-integrate the mentally ill into the community. However, the program's designers may decide not to accept any person who is diagnosed with schizophrenia into their program. The problem with exclusion, in this case, is that 85% of the potential recipients of the program are likely to be schizophrenics.

Consequently, a balanced target definition must be developed. Furthermore, a useful definition is one that is feasible, easy to apply, and takes into account the varying perspectives of different stakeholders. Also it

is important to avoid using complex definitions that require the gathering of detailed information (Rossi & Freeman, 1993). Furthermore, if a needs assessment cannot be conducted quickly and easily, do not use that particular approach. Program designers and stakeholders want a needs assessment to be relatively inexpensive, to be done within a short time span, and to generate valid and useful results (Marks, 1995).

There are a number of ways to estimate a target population. No matter which approach or combination of approaches is chosen, cost, feasibility, complexity, and quality of the data must always be taken into consideration. The techniques of conducting a needs assessment discussed below are the most popular methodological approaches used by evaluators and other social researchers.

The most economical and least complex method is the key informant approach (Berk & Rossi, 1990). However, the key informant approach is an unreliable approach because is uses expert testimony to gauge the magnitude of the target populations' problems. Nevertheless, it is one of the most widely used techniques because it is inexpensive and often the most politically acceptable method (Rossi & Freeman, 1993).

Another technique that typically follows the key

informant approach is the community forum approach. These forums may include the gathering of a designated group of people (e.g., teachers) or informal groups of people (e.g., farmers from a rural community). This technique tends to be more effective and reliable than the key informant approach because information is obtained from a more representative group of stakeholders in a relatively short time span. The community forum approach should not be used by itself to build up a supportive consensus for any given program (Rossi & Freeman, 1993).

Another technique that is used in a needs assessment is the rates-under-treatment approach (Warheit, Bell, & Schwab, 1977). This approach involves the collection of data from other services that serve the same target population in a similar type of geographical area. Chambers et al. (1992) state that the process of collecting and analyzing the data is relatively inexpensive. They also indicate that the rates-under-treatment approach can result in the evaluator obtaining undisclosed insights from administrators and personnel who serve the clients themselves.

The main limitation of this approach is that few community agencies keep reliable and valid records. Such deficiencies in record keeping usually occur because it

is expensive to update records and, more commonly, records are mainly kept as a means of indicating program accountability. In addition, client records are also kept so that the agencies can track the progress of their clients, not for undertaking future needs assessments. Therefore, before evaluators can use records from such community agencies they must take into account the agencies' main purpose for collecting the data.

An accurate means of collecting statistical data is through various government reports. This process is known as the indicators approach (Warheit et al., 1977). Most developed countries produce large bodies of statistical information. Evaluators may find the statistical indicators on special topical areas particularly useful. These reports usually include trends on data such as gender, income status, age, race, life expectancy, mortality, poverty, crime, government spending, and family structure. Analysis of these indicators allow an evaluator to estimate the target population or identify the population-at-risk.

The indicators approach is generally more costly to conduct than the rates-under-treatment, forum, and key informant approaches because it is more time consuming (Rossi & Freeman, 1993). Despite their high costs, the statistical indicators data can be collected by a

researcher with limited training and experience. The analysis of the data, however, must be done by a skilled researcher.

Examining data from different geographical locations and levels of government can be highly beneficial because it provides program designers with a representative spectrum of data. This strength is also a central weakness because data from different geographical areas may not truly reflect the characteristics of individuals from those areas. Therefore, using data that do not represent the target population may result in an exaggerated estimation of the problem or social condition being assessed. "Statistical indicators in many ways are characterized as gross and insensitive measures of environmental and human conditions" (Chambers et al, 1992, p. 93).

The most common technique used to conduct a needs assessment is a special census or sample survey. It is the most accurate and costly means of estimating the needs of the population-at-risk. A sample survey draws data from a representative sample whereas a special census survey is an enumeration of the entire target population (Rossi & Freeman, 1993).

There are three main techniques for collecting survey data: face to face interviews, mailed

questionnaires, and telephone interviews (Dillman, 1978). The method employed by the evaluator is dependent on the nature of the problem being examined and the practical constraints of obtaining valid and reliable data. Social researchers prefer to use the sample survey method instead of a special census because a sample survey is less costly and, if done properly, produces just as valid and reliable results as a special census survey (Rossi & Freeman, 1993).

Needs assessments are an essential step in the process of evaluation. Before a program can be successfully monitored, an accurate needs assessment should be completed. The next section focuses on the process of program monitoring.

Program Monitoring

An important part of evaluation is monitoring how social policies and programs are implemented (Rossi & Freeman, 1993). Program monitoring can occur at several different developmental stages of a program or in the process of constructing social polices. Evaluators can be helpful in assisting program designers to anticipate what problems may be encountered during the process of program implementation. Even though an innovative program may be very well planned, unanticipated results

and undesirable effects frequently surface in the early stages of implementation. For example, a crisis intervention program that is intended to help people in crisis from 0800 to 1600 may soon show that it is screening out all the people who have to work during the day.

The results from program monitoring are crucial in providing data for modifying a program. To effectively reproduce the basic features of a program in another geographical location, one needs to be able to describe the program in operational detail. The essential issues in implementation need to be identified. For example, how managers have effectively dealt with past problems should be outlined and policy and procedure manuals may be used to explain how the program will deliver its services (Rossi & Freeman, 1985).

Program monitoring beyond the developmental stage can be used by upper management to inform them of the program's progress. Such coverage can also be an effective means of receiving feedback about whether a program is fulfilling its mandate. A program usually needs fine-tuning if it is running over budget, not serving its intended target population, has a high rate of staff burnout, or staff workloads are too light. Administrators who do not systematically monitor their

programs are at risk of running a program that may not meet its original mandate (Rossi & Freeman, 1993).

Many social programs are funded by a variety of external sources and, when this is the case, the program and its sponsors are held accountable. Program monitoring is useful because it can justify the need for external funding. It can also act as a signal to sponsors that funds are being used as they were originally intended. The results from program monitoring can be, in turn, used by sponsors to justify how they allocate resources.

Types of Accountability. In today's world of fiscal restraints, program monitoring has become essential for those who sponsor and fund programs. The primary aim of accountability studies is to provide information about the various aspects of a program to its stakeholders and its sponsors. DeMont (1975) has argued that social programs and the educational system are under attack by the public. "The demand for accountability in education matches the demands for reform in the welfare systems" (p. 1).

Rossi and Freeman (1993) point out that accountability information can be obtained via the following forms:

1) **Impact Accountability**. The information is most often used by sponsors and program managers to justify the impact of internal operations and the existence of the program externally. Impact assessment will be discussed below.

2) **Efficiency Accountability**. The relationship between impact and program costs is important internally. The evaluator can compare the benefits and effectiveness versus the costs of the various elements of the program. It is also important externally in determining resource allocation.

3) **Coverage Accountability**. The key issues addressed in this type of evaluation are: to determine how many people are being served and their characteristics, to estimate the rate of target utilization (i.e., to find out what proportion of the total population in need is actually being served by the program), and to determine dropout rates.

4) **Service Delivery Accountability**. Service delivery accountability assesses whether the operations of a program are following its intended plan. For example, a crisis intervention program responds to crises

24-hours a day, seven-days a week. The accountability question would therefore be: Is this particular program really providing a 24-hour service seven-days a week? Another frequently addressed accountability issue is whether the program is using appropriately qualified staff.

5) **Fiscal Accountability**. All programs are responsible for accounting for the use of monies throughout the fiscal year. Aside from what is strictly an accountant's responsibility, an evaluator can address a number of money-related questions. For example, how much does it cost the program to serve one client? How much does it cost for different therapists to serve similar clients? How much would it cost to reproduce and implement a similar program at another site?

6) **Legal Accountability**. Programs are under obligation to follow legal responsibilities such as informed consent, confidentiality, and equal community representation on decision-making. For most public programs, funds are not allocated or continued unless the adequate legal requirements are maintained.

It is advisable for evaluators to work in conjunction with the experts (i.e., accountants and legal professionals) when conducting fiscal and legal accountability studies. Typically, impact, efficiency,

coverage, and service delivery accountability issues are more relevant for evaluators (Rossi & Freeman, 1985).

Although program accountability monitoring and management-oriented monitoring address the same questions, the information is used for different purposes. Management-oriented monitoring is typically used to identify problems on a continuous basis.

Results from program accountability monitoring serve to provide information for a wide range of program stakeholders. The type of information collected is dependent on the funding agency and at what developmental stage the program will be monitored. Systematic monitoring can assist in program design and implementation. Typically, a program is monitored and then an impact assessment follows. However, in some situations program monitoring may be continued while an impact analysis is being conducted.

Impact Assessments

Impact assessments have historically attempted to determine whether a program is producing its intended effects. Like other social researchers, evaluators' estimates of a program's impact are subject to errors and varying degrees of credibility. To reduce the effects of errors and increase the credibility of estimating the

efficiency and effectiveness of programs, impact evaluations must be conducted as systematically and rigorously as possible (Rossi & Freeman, 1989).

There are two primary reasons for conducting impact assessments: first, to examine the impact that an innovative program has had or to determine whether changes in an existing program have been beneficial and second, to assess the usefulness of existing programs (Burke & Rossi, 1990). Program managers frequently use the results from impact assessments to verify that a program is fulfilling its objectives. An impact assessment may also be used by policy-makers to support the expansion of a program or to initiate the introduction of the same program at another geographical site that has similar needs.

The Necessary Preconditions for Assessing Outcomes. In order to assess the impact a program has had on its target population there are a number of prerequisites. First, the clients' needs should be examined. This can be accomplished by way of a needs assessment. The various methods that may be used to conduct such an analysis are outlined in the needs assessment section of this chapter. Second, the program designer should have clearly stated objectives. It is crucial for the evaluator to identify measures of goal achievement that

are directly related to the program's objectives. In addition, program goals are rarely subject to a program evaluation because program goals tend to be too abstract to evaluate (Chambers, 1986; Chambers et al., 1992). Third, the evaluator needs to find out how and who will be using the data. Then, ideally, the evaluator and stakeholders should come to a consensus as to the type of data that will be collected. Finally, it is imperative that the program's basic elements should have been implemented and delivered to the target population. Rossi and Freeman (1993) state that it would be a waste of time, money, and energy to estimate the effect of a program that has not been implemented properly or does not have a set of clear and measurable objectives.

Threats to Internal Validity. The next two sections contain descriptions of three extraneous factors that may jeopardize the internal validity of an evaluation, factors that present "alternative interpretations of the presumed causal relationship between A-as-manipulated and B-as-measured" (Cook & Campbell, 1976, p. 226). Internal validity tells the researcher, for example, if a treatment made a difference in a particular study. For example, if a researcher discovers a new type of intervention to help people in crisis, she or he wants to be able to conclude that the intervention helps people in

crisis or that the intervention treats people in crisis more effectively than another type of intervention. Rarely are such straightforward conclusions found. Researchers cannot make such definitive statements since they are often unable to control or eliminate extraneous variables that threaten internal validity. The three most frequently encountered threats to internal validity are described in the following list. A more extensive list and discussion can be found in Judd et al. (1991) or Rossi and Freeman (1993).

(1) **Maturation**: This is the occurrence of any natural or ordinary sequence of events that affect the treatment condition, such as spontaneous remission. For example, an intervention for people in crisis must distinguish its effectiveness from the fact that a certain number of people may recover from crisis without treatment.

(2) **History**: This is an event that occurred between pre-and post-treatment measures which mask or enhance the effects of a program. For example, a crisis program that is initiated to avert hospitalizations of people in crisis may appear to be effective. This is because it may coincide with a government attempt to reduce hospital admissions.

(3) **Selection**: This is when there is a prior

difference between individuals in a treatment and control group. In social programs it is often the case that the evaluator cannot control who will participate in the program. The most typical selection scenario occurs when the targets volunteer themselves to participate in a program. For example, people who self-refer to a crisis program are more likely to be motivated to change than people who are forced by the court system to receive crisis services.

True experimental designs and quasi-experimental designs are the research procedures which deal best with threats to internal validity.

True Experimental Designs. True experimental designs are the preferred method of evaluating effect an intervention. For an evaluation to be defined as a true experimental design the researcher must be able to control or manipulate the independent variable so that individuals can be randomly assigned to different levels of the independent variable (Judd, Smith, & Kidder, 1991). For example, when a new drug is being tested, often individuals are randomly assigned to receive either a placebo drug (i.e., the control group) or the new drug (i.e., the treatment group). A true experimental design allows evaluators to assess the impact of the new drug (treatment group) against those who received the placebo

drug (control group).

The most frequently applied true experimental design in evaluation is the posttest-only control design with random assignment to groups (Rossi & Freeman, 1985). This design is used more often than the pretest-posttest control design because it is easier to implement in a field setting (Cook & Campbell, 1976). Posttest-only control design is generally less expensive and time consuming to conduct than other true experimental designs. In addition, the posttest-only control design controls for history threats, maturation threats, and selection bias. Data produced by this design enable the evaluator to identify cause-and-effect relationships.

Quasi-experimental designs. The other large body of impact assessment designs consists of nonrandomized quasi-experiments. These designs aim to compare participants in the program to nonparticipants. The main goal of using a quasi-experimental design is to estimate the net effect of a program (Rossi & Freeman, 1993).

Regression Discontinuity Design. The application of the quasi-experimental regression discontinuity design is very specific because the selection procedures of the participants are explicitly outlined and followed. Trochim (1984) has indicated that this design is particularly useful for evaluating educational programs.

For example, this procedure is often used to find out if scholarships are benefiting their recipients or if admission criterion to universities are appropriate.

Although the regression discontinuity design can be almost as valid as a true experiment, it is extremely difficult to apply to social programs because most programs do not have strict and precise enough selection procedures. The design, therefore, has not been used by a large number of researchers (Campbell & Stanley, 1966; Rossi & Freeman, 1993).

Before and After Designs. From the perspective of a program stakeholder the before and after design is the most feasible and practical. Decision-makers prefer this design because it is not subject to selection bias and, more importantly, the general public views it as a valid means of justifying a program's existence. However, from a trained researcher's perspective it is one of the least valid quasi-experimental assessment designs. This design does not control for a number of threats to internal validity such as history or maturation because there is no control group.

The before and after design cannot account for all these extraneous variables. Evaluators who use a before and after design must be cautious in identifying causal relationships (Cook & Campbell, 1976).

Interrupted Time Series Design. Time-series design is an extension of the before and after design because it includes numerous repeated measures of pretest and posttest scores. This extension enables a researcher to argue that the threats to internal validity (i.e., maturation, and history) are limited. As a result this design is considerably more powerful than the before and after design (Judd et al., 1991).

To illustrate how these threats could affect the findings of a crisis program consider a design in which a researcher examines whether receiving crisis intervention services reduces clients hospitalizations. Hospitalization rates are collected over four time intervals:

18-12 months before crisis	12-6 months before crisis	6 months-before crisis	crisis services	6 months after crisis
O_1	O_2	O_3	X	O_4

Suppose the researcher finds a significant difference between O_3 and O_4 and she or he wonders if the change in hospitalization rates was a result of receiving crisis services (X) or maturation. This can be determined by examining the other time intervals (i.e.,

O_1 and O_2) to see if maturational trends are present. If maturation was present then "it would show up as a long-term trend producing similar differences between [O_1 and O_2, between O_2 and O_3] along the entire series" (Judd et al., 1991, p. 113). If upon examining the other time intervals, no maturation trend appears then the difference between O_3 and O_4 is not due to maturation. History effects may also be ruled out if there is no difference between any of the time intervals other than between O_3 and O_4. However, if the history threat coincides with crisis services it may be difficult to determine its effects. Judd et al. (1991) point out that most historical events occur slowly over time and have accumulative effects rather that a sudden change.

Cross-sectional Design. This design estimates the net effects of a program that is the result of the collection of data from one cross-section in time. The measures are usually drawn from a cross-sectional sample survey of a specific target population. In other instances there may be cross-sectional surveys of a target population which has received different treatments or varying amounts of the same treatment. Evaluators typically use statistical control techniques of matching variables not under inquiry to minimize the differences between the two comparison groups.

External Validity: Replicating and Generalizing Impact Assessment Findings. A researcher who is concerned about external validity asks the question: To what extent can the evaluation results be generalized to other similar target populations and places? (Campbell & Stanley, 1966). Another important question is: To what extent can the findings be replicated? (Rossi & Freeman, 1993). For evaluators to ensure their results can be reproduced by other researchers, using the same design in the same setting, they must make a number of trade-offs. The more likely an evaluation can be replicated the less likely the evaluator can generalize the results to other natural settings. The ability to replicate the results of any given evaluation is a function of the power of the evaluation design. The degree to which an evaluation can be replicated depends on how closely a given program represents its original program design and the appropriateness of the statistical techniques that were applied to analyze the data (Rossi & Freeman, 1985). Impact assessments which employ powerful designs (e.g., pretest-posttest control group design) with large representative samples and that are analyzed properly produce results that can usually be replicated. In other words, randomized controlled evaluations produce data that can be more readily replicated than quasi-

experimental evaluations (e.g., before-and-after design) which cannot randomly assign their participants to control and treatment groups.

Berk and Rossi (1990) point out that replication may be more important than generalizing the results. This is especially so if an intervention is very controversial or if a treatment could have potentially harmful side effects. Similarly, when researchers evaluate social programs (i.e., personal social services) one of their priorities should be to find out if the results can be replicated (Chambers et al., 1992). In addition, it is "not usually fruitful to make statements about whether findings can be generalized across places, times, target groups, and organizational settings" (Chambers et al., 1992, p. 234). In addition, it is extremely difficult to replicate the unique social interaction which occurs between the practitioner and the program participant because every program evaluation that involves evaluating human service technology is in itself a new experiment (Chambers et al., 1992).

There is another group of evaluators who advocate that being able to generalize findings from field studies is the more important form of external validity. For example, Cronbach et al. (1980) advise evaluators that impact assessments which are highly generalizable are

more relevant than powerful designs with low generalizability. These evaluators indicate that there are a number of practical factors that can affect the generalizability of an impact assessment. In order to generalize that a program will be effective in a field setting the researchers should use a sample of the potential or actual target population.

Generalizing the findings of an impact assessment may vary according to who is conducting the assessment. Marks (1995) points out that an evaluation which is carried out by a highly dedicated researcher and program personnel may not be generalizable to an identical program which is conducted by the same researcher who has program personnel who are not committed to collecting the data. He asserts that impact assessments can only be generalized if they are an accurate reproduction of the actual intervention and that the same method was employed to collect the data.

The question of whether impact assessments should be able to be generalized to similar existing or prospective programs is a controversial issue. Some evaluators (e.g., Chambers et al., 1992) argue that generalizing findings is a low priority. In contrast, other evaluators (e.g., Cronbach et al., 1980) claim that evaluations should have a high degree of

generalizability. The trade off between replicating and generalizing findings is dependent on the type of program that is being assessed (Rossi & Freeman, 1993).

CHAPTER 3

THE FIELD OF CRISIS INTERVENTION

A crisis is defined as a short-term disruption in an individual's baseline functioning, generally lasting no longer than four to six weeks. When people are in a crisis there is a significant increase in their feelings of anxiety and tension or depression and defeat. Left unaided, some people can no longer function at their normal levels. Their customary methods of problem solving become insufficient and they resort to searching for new methods or strategies to cope with the situation. People in crisis generally tend to be more open to using or trying these new coping techniques. Some people find new coping strategies beneficial whereas other methods are maladaptive in the long run (e.g., alcohol use) (Callahan, 1994; Caplan, 1961; Gilliland, 1988; Golan, 1978; Slaikeu, 1990).

An important aspect of a crisis is the person's perception of the situation. Golan (1978) points out that, if an individual views a precipitating event as a threat, anxiety is elicited. Perceived loss heightens feelings of depression, and perceptions of a challenge elicit moderate levels of anxiety.

If an individual experiencing a crisis does not receive appropriate external assistance and lacks personal resources to cope, the person may descend to a lower level of baseline functioning. In contrast, obtaining the appropriate help or having adequate internal resources may not only help resolve a crisis, but the individual may even reach a higher level of functioning (Caplan, 1964; Slaikeu, 1990).

Crisis intervention is characterized as a process of working through a period of disequilibrium in order to alleviate the impact of a perceived stressful event and to assist in the development of new coping methods. Crisis intervention focuses on helping the individual: "1) Make behavioural changes and interpersonal adjustments. 2) Mobilize internal and external resources and supports. 3) Reduce unpleasant or disturbing affects related to crisis. 4) Integrate the event and its aftermath into the individual's other life experiences and markers" (Roberts, 1980, p. 11).

The long-term goal of crisis intervention is to prepare the individual to be able to cope with similar stressful situations that may occur in the future. This is done by removing past vulnerabilities from the individual and teaching the individual a repertoire of new coping strategies (Parad & Parad, 1990).

Crisis intervention theory has been conceptualized on three different levels: basic crisis theory, expanded crisis theory, and applied crisis theory (Janosik, 1984). Basic crisis theory is based on Lindemann's (1944, 1956) research. The participants in these studies had no diagnosis but were beginning to show symptoms that could become pathological if left untreated. Lindemann's early research taught professionals how to better deal with people whose grief was caused by loss. He taught professionals and paraprofessionals that behavioural responses related to grief are generally normal, temporary, and can be alleviated through short-term crisis therapy. There are five normal grief behaviours: "(1) preoccupation with the lost one, (2) identification with the lost one, (3) expression of guilt and hostility, (4) some disorganization in daily routine, and (5) some evidence of somatic complaints" (Janosik, 1984, p. 11).

Caplan (1964) expanded Lindemann's basic crisis theory to include all crisis situations. Caplan suggests that a traumatic event can only be classified as a crisis if the person perceives the situation to be a threat to his or her needs, safety, or meaningful existence. Basic crisis theory therefore aims to help people in crisis to "recognize and correct temporary cognitive, emotional and behavioural distortions brought on by traumatic events"

(Gilliland & James, 1988, p. 13).

Gilliland and James (1988) have argued that basic crisis theory is an inadequate approach because it only identifies predisposing factors as the primary or only cause of pathological symptoms. Basic theory depends entirely on a psychoanalytical approach to resolve the crisis, and over the years it has become evident that one single approach cannot satisfy all the social, environmental, and situational aspects of a crisis event. As a result, expanded theory is based on a number of theories such as psychoanalytical theory (e.g., Fine, 1973), systems theory (e.g., Haley, 1976), adaptational theory (e.g., Cormier & Cormier, 1985), social learning (e.g., Bandura, 1973) and interpersonal theory (e.g., Rogers, 1977). This approach states that "given the right combination of developmental, sociological, psychological, environmental, and situational determinants, anyone could fall victim to transient pathological symptoms" (Gilliland & James, 1988, p. 14).

Applied crisis theory requires the crisis worker to view each person as well as the events precipitating the crisis as unique. Brammer (1985) states that applied crisis theory addresses three types of crises: (1) normal developmental crises, (2) situational crises, and (3) existential crises. Developmental crises may occur in

response to the normal flow of human growth such as the birth of a child, entering into the work world, or retirement. Situational crises are described as unexpected external events, such as rape, kidnapping, loss of job, or death of a loved one. Existential crises are inner conflicts and anxieties that are related to important human issues of responsibility, commitment, or dependence. An example of an existential crisis would be the remorse a 55 year-old women feels when she realizes that she might not be able to have children or get married because she has never moved out of her parents' home. The Lethbridge Crisis Intervention and Community Support Program (LCICSP) uses applied crisis theory.

Stages of Crisis

There are three stages of crisis, (I) impact, (II) coping, and (III) withdrawal. A person in crisis usually experiences the first two stages while a small proportion of people go through stage III.

Stage I: Impact. In this stage, people are reacting to what they perceive to be a sudden unavoidable and unsolvable situation. The person's typical coping methods have failed to resolve the problem(s) created by the precipitating event (Caplan, 1964).

Failures to deal with previous problems influence

how people will respond to and cope with current problems (Rapoport, 1970). A condition termed learned helplessness may result if the person's feelings persist. If clients come to believe their customary coping strategies are ineffective in preventing undesirable events or outcomes, then they may start to feel helpless (Abramson, Seligman, & Teasdale, 1978). A person's perceived lack of control may cause motivational, cognitive, and emotional deficits. If a person shows fewer attempts to solve problems it may reflect a decrease in motivation. The person may also become cognitively restricted and start focusing on single interpretations of a traumatic situation. Emotionally, one may feel powerless, overwhelmed, and out of control (Abramson, Seligman, & Teasdale, 1978).

There are two different etiological processes that may precipitate a crisis (Golan, 1978). The first is exhaustion. In this situation, the person has been able to deal well with stress and sudden emergencies for a prolonged period of time. Then suddenly the individual becomes exhausted and can no longer cope. A second process that precipitates a crisis is shock. Here the individual experiences a dramatic change in his or her social environment creating a release of emotions that overwhelm the customary coping mechanisms. The

individual cannot prepare for the impact and therefore goes into emotional shock due to the absence of forewarning.

The impact stage is generally brief (France, 1990) and crisis workers usually encounter the individual once it is over. However, a few instances may occur when the worker is present during impact. Such instances include the notification of death or job loss, or an anticipated medical procedure (Hendricks, 1984).

Stage II: Coping. Once people have felt the impact of the crisis, their customary defense mechanisms weaken or break down completely. This occurs when the individuals realize their present coping methods are ineffective and feelings of insecurity, anxiety, and fear have become insurmountable. At this stage, they are generally very motivated to accept help and receptive to trying new coping strategies (Caplan, 1964); here, minimal time and effort by a crisis worker can produce maximal effects. The relatively small amount of "crisis first aid," if focused appropriately, can produce greater results than extensive therapy during periods of low emotional accessibility (Golan, 1978).

During the stage of coping or restoration of equilibrium, some form of re-organization starts to take place in the individual's level of functioning. In 1972,

Pasework and Albers (cited in Golan, 1978) identified three steps in the coping stage. During the first step, correct cognitive perception, the person is conscious of the problem but unable to completely understand why the problem was left unresolved. In the second step, management of affect, the person accepts and begins to release feelings related to the crisis situation. In the final step there is a development of new behavioural patterns of coping. At this point, the person begins to adopt constructive ways of dealing with stressful situations and starts using other people and organizations to assist in the process of returning to normal baseline functioning.

Stage III: Withdrawal. Withdrawal often evolves when the adaptive or maladaptive coping strategies have failed to resolve the situation (France, 1990). Faced with continued pressure, the individual begins to increase the use of negative defence mechanisms such as projection, introjection, and denial (Golan, 1978). Hostility may be directed toward others, provoking reactive hostility which is then thrust back onto the individual. The cycle causes lower self-esteem which, in turn, heightens the use of destructive defense mechanisms (Jacobson, Strickler, & Morley, 1968). Eventually these individuals withdraw and stop attempting to cope with the problems

(Hobbes, 1984).

There are two types of withdrawal. In the first, voluntary, the person might attempt suicide. At this point the individual has chosen death over a continuation of a miserable life. The second, involuntary, the person may experience disruptions in thinking, "perceptual distortion[s], mood disorder, unusual motor behaviour," (France, 1990, p. 13) and other personality related problems.

Procedural Steps for Crisis Counselling

There are numerous models and strategies developed for crisis intervention. The procedural steps used by the LCICSP are based on the work of a number of crisis intervention experts (e.g., Aguilera, 1994; Caplan, 1964; Golan, 1978; Parad and Parad, 1990; Roberts, 1990). All of these models have the common aim of resolving immediate problems and emotional difficulties with the fewest number of contacts.

It is important for crisis workers to keep in mind that gauging when to proceed to the next stage is dependent on the individual. The following model is just one of many and it should be viewed as a guide to dealing with people in crisis.

The procedure the LCICSP uses is as follows:

1) Make immediate contact and quickly develop a relationship.

The focus in this stage is to quickly establish rapport with the client by expressing feelings of genuine respect and acceptance. Peoples' feelings about the problem are then normalized (i.e., to remind the clients that their reactions and feelings are normal given the circumstances). They are also reassured by the worker that they can be helped and that it was appropriate to reach out for help.

2) Identify the dimensions of the problem.

It is often useful to find out the precipitating event that caused the client to seek help. Identify what coping methods have been successful and unsuccessful in the past. Then examine the dangerousness or lethality of the problem. This is done by being directive and using open-ended questions. For instance, focusing on the 'now and how' instead of the 'then and why' helps define the problem. Two key questions used are: "What situation or events led to you reach out for help?", and "When did it take place?".

3) Encourage the expression of feelings and emotions.

Allowing people to talk about their feelings and emotions in a safe, comfortable, and nonjudgemental setting is generally therapeutic. Active listening is

used by the intervenor to identify the person's feelings and emotions. The technique requires the intervenor to listen in an empathetic and supportive manner to the person's perception of what happened and how the person feels about the current crisis event.

4) Probe and examine past coping methods.

Most people have developed coping mechanisms to resolve past crisis situations. The primary aim of this step is to identify and modify the person's coping behaviours. It is therapeutic for the person to consciously explore how and why specific events such as the death of a close one, failures, or aggression were or were not resolved. Learning how the person responds gives the intervenor an opportunity to teach the client how to change maladaptive behaviours.

5) Brainstorm alternatives and discuss outcomes.

In this step, alternatives are generated in a collaborative manner by the intervenor and client. The consequences and feelings towards the alternatives are also explored during this stage. Generally, clients have an idea of what solutions would be appropriate. Often however, the crisis worker is required to give some guidance in defining and conceptualizing more adaptive coping strategies to resolve the crisis. In situations where the person has limited insight into the problem,

the crisis worker needs to be directive and recommend adaptive coping techniques.

6) Begin to restore functioning by using new resources.

The use of the cognitive approach assists the client to focus on why specific events lead to a crisis. At the same time it will help teach the client the response(s) that will effectively resolve similar events in the future.

The cognitive approach is triphasic. In the first phase, the client needs to come to terms with what really happened, why it occurred and what was the final outcome. In phase two it is therapeutic for the individual to understand the meaning of the event in relation to his or her values, expectations, and life goals. The intervenor should attempt to listen carefully for any contradictory statements or overgeneralizations. The intervenor then needs to help the client find these distortions or irrational beliefs. Finally, it is time to replace faulty cognitions or unrealistic beliefs with new cognitions and realistic beliefs. This process can be accomplished by giving the client homework assignments or referring the person to a support group. Those individuals who need additional support are referred to the appropriate community mental health service, (e.g., private mental-health counselling, sexual assault

counsellors, and alcohol or drug detoxification centres) to help them deal with their problems.

7) Follow-up.

During closure in the final session, the crisis worker must remind clients that they are always welcome to re-contact the service and informs them how to do so. Clients are also told that they will be contacted by telephone within two weeks. This final contact is made to find out if the client has internalized the new coping methods and has followed through with the recommended referrals.

Historical Background of Community Mental Health

The current trend in North America is to increase community-based mental-health services. As a result, a growing number of local community mental-health centres have started providing treatment for community residents. These centres' mandates and responsibilities are increasing constantly (Wicks, 1978).

Community mental-health centres were first established during the 1930s in Amsterdam by Querido (1968). Querido's "Psychiatric first aid stations" used basic crisis intervention theory to resolve crisis situations. The aim of the centre was to assist people in their homes, integrate services with social welfare

agencies, and form liaisons with community physicians. Querido also coordinated services with police in assisting people who were experiencing crises in their lives. He encouraged people to use personal resources in conjunction with appropriate community supports. Querido's work has had a profound impact on present day crisis intervention theory (Wicks, 1978).

Crisis intervention techniques can also be traced to World War II and the Korean War. During this time, many soldiers suffered from combat fatigue (presently known as post-traumatic stress disorder) and were not being successfully treated (Hoff, 1989). A number of studies found that most of the soldiers who received crisis intervention services, individually or in a group, were more likely to return to combat duty than those who did not (Glass, 1954; Hansell, 1976; Menninger, 1948). They also revealed that those soldiers who were permanently removed from front-line duties experienced feelings of isolation which, in turn, heightened their stigma of having a psychiatric problem. The general principles applied to emergency military crisis intervention are similar to modern crisis intervention methods.

In 1942, a fire in a Boston night club killed 492 people. Erik Lindemann of the Massachusetts General Hospital decided to examine the mourning reactions of the

people who lost loved ones. Lindemann's (1944) study became a foundation for the development of preventative crisis intervention theory.

"Although the foundation work was done by Lindemann, Caplan is generally acknowledged as the master architect of preventive crisis intervention" (Parad & Parad, 1990, p. 13). Much of Caplan's research was conducted at the Harvard Family Guidance Centre. This multidisciplinary centre continues to train psychologists, psychiatrists, social workers and nurses in crisis intervention theory (Schulberg & Killilea, 1982). Caplan (1964) has argued that people within the community, such as family practitioners, teachers, clergy, school counsellors, and other professionals in education, should be taught by mental-health workers how to identify, predict, and deal with crisis situations. Cohen & Nelson (1983) have reviewed Caplan's works extensively and they suggest that he had "borrowed generously from ego-psychological principles" (p. 13).

A number of psychologists, namely, Heinz Hartmann, Rudolf Loewenstein, Abraham Kardiner, David Rapoport, Gordon Allport, Abraham Maslow, and Erik Erikson, laid a philosophical base for much of contemporary crisis intervention theory (Hoff, 1989). These psychologists studied conflict-free areas of ego development: the

development and change which occurred in an individual's life cycle. For a more in-depth description of how these and other psychologists have contributed to the study of crisis intervention, see Aguilera and Messick (1982) and Golan (1987).

In the late 1950s, the suicide prevention movement also contributed greatly to the development of crisis intervention theory. Much of the early suicide prevention work was carried out by Dublin (1963) and Farberow and Schneidman (1961) at the Los Angeles Suicide Prevention Centre. The Los Angeles Suicide Prevention Centre and other centres soon expanded their services to provide telephone assistance for people experiencing a life crisis. The approach was further developed in the early seventies to include quick-response mobile-crisis services. These mobile teams would travel to peoples' homes, schools, bus stations, and community medical clinics, to provide immediate face to face intervention (McGee, 1974).

By 1969 there were over 100 suicide prevention and crisis centres throughout the U.S. (Hoff, 1989). Since then, crisis services in primary and secondary education facilities have proliferated (Ottens & Fisher-McCanne, 1990). There are a variety of crisis programs for battered women and their children (Roberts & Roberts,

1990), for alcoholics and drug abusers (Gilliland & James,1988), and for children and adults who have been sexually assaulted (Parad & Parad, 1990). A recent review of crisis services revealed that there are more than 1,480 different state funded emergency crisis intervention programs U.S. (Geller et al., 1995) and more than 140 in Canada (Twine & Barraclough, 1995). Along with the increasing number of crisis services, there has been a heightened interest in evaluating these programs.

Research Developments and Evaluation

An extensive review of the research evaluating crisis intervention services indicates that most of these studies are exploratory, descriptive, or based on case studies rather than employing a true or, at least, quasi-experimental design (Auerbach & Kilmann, 1977; Geller et al., 1995). Geller et al. (1995) point out that, "although mobile crisis services have been widely accepted as an effective approach to emergency services delivery, no systematic studies have documented the prevalence or effectiveness of these services" (p. 893).

In the 1960s, a number of commonly encountered, potentially crisis-inducing events were studied. Examples are: the loss of a loved one, (Lindemann, 1944); the impact of premature births, births of children with

congenital anomalies, tuberculosis, and the effects the birth of twins have on lower and working-class families, (Caplan, 1964; Kaplan & Mason, 1960; Rapoport, 1962); and change in social status as a result of entering into school, college, marriage, divorce, or a sudden shift in social mobility (Klein & Lindermann, 1961; Klein & Ross, 1958).

Bill (1969) developed a system for classifying these stressful events. The events were categorized according to their source, how the event was perceived by the person in crisis, and how it affected the organizational structure of the family.

Holmes and Rahe (1967) developed a life change scale which assigns specific values to a range of life changes such as retirement (45 points), marital separation (65 points), divorce (73 points), and death of a spouse (100 points). The Holmes study implies that, if changes in the course of one year add up to more than 300 points, then there is danger of the person experiencing a crisis. Findings from the Holmes and Rahe study showed that 80% of subjects who scored 300 points or more experienced severe pathological symptoms, strokes or other serious illnesses in the following year.

Measuring the concepts mentioned above produce a number of methodological problems because it is difficult

to relate them to the crisis intervention model (Parad & Parad, 1990). One fundamental problem is that researchers are still grappling over what constitutes a crisis (Callahan, 1994). There is a general consensus among mental health workers, however, about what constitutes a crisis situation. For example, Neuwelt (1988) examined if 100 mental health experts could differentiate between the presence or absence of a crisis in relation to a known precipitating event. The study revealed that workers were able to distinguish consistently and accurately crisis from noncrisis situations. It appears the problem with evaluating contemporary crisis services stems from the fact that there are so many different types of crisis programs. Establishing a standardized evaluation model is quite difficult because crisis services are designed to meet the needs of the clients rather than those of researchers. Golan (1987) notes

> the rapid pace, unpredictable direction, and intense involvement of staff members in crisis treatment programs tend to run counter to the meticulous planning and rigorous controls required by researchers. Although this has been a stumbling block in [applied field] research generally, it becomes particularly

evident in crisis intervention (p. 369).

Satisfaction Surveys

One way to evaluate a crisis intervention program is to assess satisfaction with the service. However, the research conducted on satisfaction with crisis intervention services is fraught with many methodological problems and practical restraints. There are numerous reasons for the poor quality of satisfaction research (Lebow, 1983). First, there is often no rule that forces agencies, associations or institutions to monitor the level of satisfaction among staff, clients, or agencies who receive clients from crisis intervention programs. Second, journal articles describing satisfaction research tend to be brief. In these articles there is little, if any, emphasis placed on the methodology used to conduct the research.

A number of researchers have investigated client satisfaction. A Suicide Prevention and Crisis Services Centre in New York asked 72 clients who were seen by a crisis worker at the walk-in clinic to make a comparison between the telephone counselling they had received and the help obtained through a call to a significant other. The findings revealed that the telephone counsellor was rated as more understanding and helpful than a

significant other (Speer & Schultz, 1972). However, a number of methodological weaknesses make it difficult to draw any substantive conclusions from this study. For example, there was no control for confounding variables such as maturation and history effects. Second, some counsellors may have been more effective than others which would have distorted the findings. Finally, the sample could have been biased because the researchers only examined satisfaction levels of clients who came to the walk-in clinic.

Getz, Fujita, and Allen (1975) interviewed 104 clients who were first seen by hospital emergency department staff and then received one-session from a community crisis intervention worker. These clients were interviewed six to twelve months after they had received the crisis service. Eighty percent of the clients judged the hospital emergency staff (that is, doctors, nurses, paramedics, and receptionists) to be helpful or very helpful, and 85 percent of the clients' ratings fell between the same two categories for the crisis workers at the community mental-health centre. However, the respondents were not interviewed until six to twelve months after they had received crisis services. This is a long time period and many of the clients may have used other crisis services in the meantime or had difficulties

differentiating between hospital staff and community crisis workers.

Beers and Foreman (1976) evaluated the effectiveness of the walk-in crisis intervention centre located at the University of Cincinatti. Thirty clients were asked to assess their crisis workers. The researchers asked the following questions: 1) how well did the worker understand the client's problems? 2) how much did the client feel they had benefited from the crisis services? and, 3) would the client recommend the service to a friend?

The clients' mean rating score of the workers' effectiveness was 3.94 out of 5 (Beers & Foreman, 1976). However, the sample size was small and may not have been representative of the clientele the program served. To compound this problem, 10 crisis workers were evaluated by only 30 clients. Drawing conclusions from such a sample may therefore be misleading and inappropriate.

Outcome Studies

As mentioned earlier, there are only a few published studies evaluating the effectiveness of crisis intervention. Most of the studies focus on just parts of a program such as monitoring hospitalization rates, comparing before and after treatment levels of symptoms,

or tracking whether the clients have contacted the agreed-upon community resources.

A number of studies have examined the issue of how crisis intervention programs have affected hospital admission rates. Harris, Bergman, and Barharch (1986) studied psychiatric and nonpsychiatric indicators for rehospitalization in a chronic patient population. They found that chronic patients in crisis are typically re-admitted into a psychiatric unit of a hospital for medical or social reasons. However, "the effects of psychiatric and nonpsychiatric factors [were] difficult to separate in seriously ill adults. . . . Dysfunction in one area often [led] to dysfunction in other areas" (Harris et al., 1986, p. 631). The complexity of the symptoms, combined with the difficulty of obtaining an accurate medical history of the client, made it difficult for physicians not to err on the side of caution and rehospitalize the person.

Langsley and his colleagues (Langsley, Flomenhaft, & Machotka, 1969; Langsley, Machotka, & Flomenhaft, 1971; Langsley, Pittman, Machotka, & Flomenhaft, 1968) examined whether family crisis therapy was more effective than in-patient psychiatric treatment. The researchers randomly selected 150 families that included a family member who under normal circumstances would have been

hospitalized as a psychiatric patient. This experimental group received family crisis therapy for an average of 24.2 days. All these patients lived with their families and none were admitted while receiving therapy. Another 150 families were randomly selected to receive traditional psychiatric in-patient treatment. This treatment averaged 28.6 days. Demographic and mental-health related variables indicated the groups were not significantly different.

Results from the first sixth-month post-treatment measure revealed that there were significantly fewer hospitalizations for those receiving crisis therapy. Those in crisis therapy spent less time in the hospital than the control group. The two groups showed similar improvements on measures of social and personal adjustment. In addition, crisis patients went back to their past job or normal area of functioning on average three weeks earlier than the control group.

The Langsley studies demonstrated that crisis therapy was more effective than in-patient treatment because fewer patients had to be hospitalized. It was also more efficient because crisis therapy only cost one sixth as much as in-patient treatment. Patients receiving family crisis therapy returned to their jobs or normal daily activities sooner than those treated as in-

patients. The main shortcoming of the study was that the cost-effectiveness of the different components of crisis therapy was not evaluated.

More recently, Bengelsdorf, Church, Kaye, Orlowski and Alden (1993) examined whether mobile crisis intervention services could be more cost-effective by diverting hospital admissions into community treatment. Fifty people were studied for six months. Daily records of every psychiatric treatment received were kept. The savings produced by diverting hospitalizations was $97,752 (US) while an additional $36,939 (US) was saved in hospital expenses for three high-risk patients.

While not conclusive, this study shows that crisis intervention services can save money. However, subjects were not randomly assigned to hospitals or crisis services. Instead of using a control group, the researcher estimated patient costs. This indicates that the cost-effectiveness analyses are crude estimates. Thus, it is difficult to confirm to what extent crisis intervention services are cost-effective.

Fisher, Geller, and Wirth-Cauchon (1990) compared 20 catchment areas in Massachusetts that had mobile crisis intervention services to 20 which did not. Controlling for differences in community resources and hospitalizations they concluded that mobile service did

not significantly affect the rates of psychiatric hospitalizations.

The incidence of hospitalizations has also been investigated by Decker and Stubbleline (1972). The Decker and Stubbleline study not only demonstrated a reduction in hospital admissions, but showed that people who received crisis services had fewer disabilities and suicidal thoughts than the control group.

Viney, Clarke, Bunn, and Benjamin (1985) compared crisis intervention counselling techniques and in-patient psychiatric treatment for 288 hospitalized Australian patients. The data was gathered at three time periods: upon admission, upon discharge, and during a home visit 12 to 15 months after discharge. The discharge measure revealed that those who received crisis counselling showed significant reductions in feelings of anxiety in comparison to the control group. Patients in crisis counselling also expressed higher levels of competence than did those that in the control group. Levels of anxiety and perceived self helplessness were markedly reduced. In addition, levels of depression decreased significantly at the final follow-up time for those who received crisis counselling. The researchers suggested that crisis intervention counselling achieves immediate patient goals and may, in the long-run, be useful in

achieving primary prevention goals.

The ability to generalize the findings in the Viney, Clarke et al. (1985) study to other crisis programs is somewhat limited because the sample consisted primarily of people of lower socio-economic status and two thirds of the sample were females. This sample is, however, representative of the clientele that the majority of hospital-based crisis intervention programs serve (Capone, Good, Westie, & Jacobson, 1980; Viney, Benjamin, Clarke, & Bunn, 1985).

Viney, Benjamin et al. (1985) examined the effects crisis intervention counselling. Investigators randomly selected 389 medical and surgical patients from a hospital admission list. Participants were tested at three different time periods: upon admission, at discharge, and at a follow-up 12 months after discharge. Women who received crisis counselling showed significantly greater psychological gains in the short term, (i.e., decreased feelings of anxiety and more competence) and in the long term (i.e., lower levels of anxiety and helplessness) in comparison to those who did not. In addition, the study suggests that compared to men, women responded better and showed greater psychological gains overall.

In Wollongong General Hospital, 30 immediate family

members who brought a seriously injured or ill person to the hospital were randomly assigned either to crisis counselling or to a control group (Bunn & Clarke, 1979). The treatment group received twenty minutes of one-to-one crisis counselling. The participants in the control group remained in the hospital emergency waiting room. A researcher conducted an initial five-minute interview with both groups and a second interview approximately 20 minutes later. The levels of anxiety in the two groups were high at the time of the first interview; however, during the second interview those who had received crisis counselling showed a significant reduction in feelings of anxiety.

At the Harvard Community Health Plan in Boston, 43 clients participated in a minimum of four crisis group sessions. The researchers gathered data at three times: prior to entering the group, following treatment, and one year later. Participants entered the group because they were experiencing relationship or marital problems. The sample consisted of young, white, middle-class, and highly educated people. Results following the final treatment sessions indicated participants felt significantly less anxious and depressed. At the second measurement time, 91 percent of the participants mentioned that the group sessions had benefitted them.

The follow-up measure after one year showed even greater reductions in feelings of anxiety and depression. Seventy-eight percent of the patients felt the group sessions had helped them (Donovan, Bennett, & Mcelroy, 1979).

The main weakness of this study is the lack of a control group to show whether the participants improved because of the treatment or, for example, due to history or maturation effects. Secondly, the sample was drawn from a highly educated group of young people. Perhaps these participants would have benefitted from other types of therapy as well. Another criticism is that 50 percent of participants did not return the one year follow-up questionnaire. There is no way of determining whether only those participants who returned the questionnaires were happy with the services whereas those who were not did not respond. There are too many possible explanations in this study to draw any firm conclusions.

At Superior Court of Lake County (Indiana) researchers investigated whether first-time juvenile offenders showed any difference in frequency of court appearances if they received special treatment. The researchers assigned 307 youths to the control group and 599 entered into two incorrigibility programs. Crisis intervention counselling was a main component of both

programs. Significantly fewer youths from the two treatment groups appeared in court (i.e., a total of 40) than from the control group (i.e., a total of 172). After two years of follow-up only 10 percent of youths from the treatment groups reappeared in the court system compared to 17 percent of youth from the control group (Stewart, Vockell, & Ray, 1986).

In a study conducted at Memphis Centre for Reproductive Health, 23 men who arrived with a woman seeking a legal abortion received two hours of group crisis counselling while 23 did not. Levels of anxiety were measured at two points, before treatment and two hours later. There was no difference in pre-treatment levels of anxiety; however, compared to the control group men who participated in crisis counselling reported decreased levels of anxiety two hours later in comparison to the control group (Gordon, 1978).

Most of the controlled studies have occurred within an institutional setting such as a hospital or a juvenile detention centre. Several controlled studies have been conducted in a community-based settings (e.g., Gordon, 1978; Fisher et al., 1990). The primary limitation in the community-based studies, however, is that the researchers could not ethically justify randomly assigning people to control and experimental groups. The

institutional sector, however, has had more success in designing well controlled studies (Langsley, Flomenhaft, & Machotka, 1969; Langsley, Machotka, & Flomenhaft, 1971; Langsley, Pittman, Machotka, & Flomenhaft, 1968; Viney, Benjamin, Clarke, & Bunn, 1985; Viney, Clarke, Bunn, & Benjamin, 1985).

"Beliefs about mobile crisis services far outnumber facts. . . . No systematic studies have documented the prevalence or effectiveness of [mobile crisis services]" (Geller et al., 1995, pp. 896 and 893). No studies on community based mobile crisis intervention programs have examined hospitalization rates, symptom trends, follow-up contact rates, and client satisfaction levels. Such a comprehensive study would be costly and time consuming to complete. Another reason for the lack of this type of study is the fact that the institutional sector and community-based programs have not been interested in working in conjunction with each other. Without the cooperation of both sectors it is difficult to accurately determine the frequency with which clients use mental-health services. It is only recently that the two groups have chosen to work collaboratively.

CHAPTER 4

METHODOLOGY

Formative Evaluation

Formative evaluations are used to provide feedback during the development of a program and to examine how program policies and procedures should be improved. Formative evaluations also pilot test methods for monitoring a program's progress. In contrast, summative evaluations estimate the impact a program has on the people it serves. Summative evaluations also determine a program's worth: whether it is effective or not (Chambers, 1994).

Researchers have sought to evaluate crisis intervention programs through referral follow-ups, client surveys, and tracking the rates of hospitalizations (France, 1990; Roberts, 1990). The main goal of the formative evaluation is to determine the feasibility of an interrupted time-series design as a means of evaluating the effectiveness of the LCICSP. The goals of the formative evaluation were:

1) track hospitalization rates,
2) to determine the number of community agencies the participants contacted,

3) assess satisfaction of clients, agencies sending referrals, and agencies receiving referrals, and
4) to determine the suitability of the GAFG and the B-DPRS as outcome instruments.

One purpose of the formative evaluation was to develop a computerized information system for a mobile crisis intervention program because there are no existing community-based information systems in North America (Geller et al., 1995; Twine & Barraclough, 1995). The selection methods outlined by the decision-making approach to evaluation were used to help determine what data should be collected (Weiss, 1972). For example, the LCICSP's management committee, CMHA Executive Director, LCICSP coordinator, and the crisis workers were asked to describe what type of data would help them monitor the program's progress. Based on this feedback an intake form was developed. The intake form was used to first collect information on the demographic characteristics of the clients and to track the frequency and duration of hospitalizations. Secondly, a community agency referral follow-up form was also developed at this time (i.e., to determine if clients were contacting the community resources the crisis team had recommended).

The third purpose of the project was to obtain the views of clients, agencies referring clients to the

program, and agencies receiving clients from the program. This third purpose was accomplished by conducting three satisfaction surveys: (1) a client satisfaction survey, (2) a satisfaction survey for each agency that referred a client to the LCICSP, and (3) a satisfaction survey for each agency that received a client referral from the LCICSP. The methods outlined in the system analysis approach to evaluation were used to structure the collection of the satisfaction survey data (Rossi & Freeman, 1993).

The fourth part of this project was to determine the suitability of the Goal Attainment Follow-up Guide (GAFG) (Kiresuk & Sherman, 1968) and the Brief Derogatis Psychiatric Rating Scale (B-DPRS) (Derogatis, 1978) as outcome instruments for use with a community-based mobile crisis intervention program. The GAFG measures the progress of each client's identified goals. The B-DPRS measures the severity of symptoms of the clients before and then after receiving crisis intervention services. The selection of the GAFG and B-DPRS was based on the selection methods which are outlined in the system analysis approach to evaluation (Rossi & Freeman, 1993).

Table 3-1 is a time table of the activities of the formative evaluation.

Table 3-1

A Time line of the Activities of the Evaluation

Time	Activities
Jan. 21, 1994 to Feb. 8, 1994.	Reviewed the LCICSP's proposal and policy and procedures manual.
March 10, 1994 to March 31, 1994	Collected evaluation instruments from other crisis intervention programs.
May 16, 1994 to June 30, 1994	Developed and pilot tested the first intake form.
May 16, 1994 to July 25, 1994	Interviewed 35 clients during the pilot testing of the client satisfaction survey.
June 01, 1994 to July 29, 1994	Developed a computerized information system.
June 01, 1994 to Sept. 30, 1994	Interviewed 35 front line workers (e.g., LCP, LRH-E, and family doctors) for the referring agency satisfaction survey.
June, 01, 1994 to Dec. 01, 1994	Pilot tested the contacting community agency service form.
July 04, 1994 to July 29, 1994	Assisted in the revision of the goals and objectives for the LCICSP.
July 04, 1994 to Nov. 30, 1994	Interviewed 28 key referring agency staff (e.g., LMH, private counsellors, and home nurses) during the pilot testing of the agency satisfaction survey.

Table 3-1 (continued)

A Time Line of the Activities of the Evaluation

Time	Activities
Sept. 06, 1994 to Oct. 14, 1994	Second revision of the initial intake form.
Dec. 01, 1994 to Dec. 30, 1994	Training crisis workers how to use the GAFG.
Dec. 15, 1994 to July 31, 1995	Collection of the data from the intake form, GAFG, and the contacting community agency form.
Feb. 15, 1995 to Sept. 15, 1995	Mailing satisfaction surveys.
June 01, 1995 to July 31, 1995	B-DPRS was used to rate 33 of the participants.
Aug. 01, 1995 to Jan. 29, 1996	Data analysis.
Sept. 15, 1995 to March 08, 1996	Write-up of the results.

Subjects

The LCICSP did not limit its services to people with a chronic mental illness. The target population included any person who was experiencing a mental or emotional crisis. More precisely, a crisis was defined as an individual's inability to cope with a specific situation using his or her customary strategies of problem solving (Gilliland, 1988). During this time a person is often

more open to using new or seldom-used coping methods (Callahan, 1994).

The initial sample consisted of 206 clients who used the LCICSP between December 1, 1994 and July 31, 1995. Those clients who did not have face to face contact (N = 51) with a crisis worker were excluded from the evaluation. In addition, five clients were excluded because they did not have a fixed address, a phone nor next-of-kin where they could be contacted.

The final sample, upon which the discussion of the results is based, comprised 150 community-dwelling residents. Sixty percent (89 of 150) of the sample were female and 41 percent (61 of 150) were male. Participants were divided into two age categories, 10 to 41 and 42 to 85 (Table 3-2). The 10 to 41 and 42 to 85 age categories were choosen to conform with the age categories used by Alberta Mental Health Division (Provincial Mental Health Board, 1995). The mean age was 35 and the participants' ages ranged from 10 to 85.

Table 3-2
The Participants' Distribution of Age by Gender

Age category	Males	Females	Total
10 to 41	38	67	105(70%)
42 to 85	23	22	45(30%)
Total	61(41%)	89(59%)	150(100%)

Instrumentation

Intake Form. To obtain the demographic statistics, an intake form was constructed and pilot-tested for five months (Appendix 1). The form underwent three revisions mostly consisting of adding items to several categories and clarifying ambiguous statements. For example, the first version of the intake form asked the crisis worker to record past hospitalizations, but the second revision of the intake form asked the crisis worker(s) to report the past two years of psychiatric hospitalizations and the length of each stay rounded to the nearest whole week. The third revision of the intake form asked the crisis worker to report the past two years of psychiatric hospitalizations and the length of each stay rounded to the nearest whole day. These revisions have enabled the staff to determine more accurately the frequency and duration of each hospital admission.

The intake form was also used to collect other basic demographic information such as gender, age, income status, and phone numbers (Appendix, 1). It also functioned as a means of tracking the frequency and length of time a crisis worker spent with each participant. The form indicated what type of contact (i.e., mobile, a walk-in, or a phone only) the crisis worker had with the client. Another important aspect of the intake form was the release-of-information section. If the participant did not sign the release-of-information, the crisis worker was unable to send a referral form to another community agency. This, in turn limits the services the LCICSP can offer to the client.

Contacting Community Agencies. The contacting community agency form was developed to determine if participants were seeking aid from other community agencies. It was pilot-tested for five months and, based on the feedback from 20 clients and the crisis workers, it was revised (Appendix 2). The main revision was that the response scales (i.e., 1 no, not any, 2 no, I don't think so, 3 yes one to 4 more than one) were moved from beside each statement to underneath the statement. The contacting community agency form focused on two themes: (1) knowledge of services, and (2) how frequently and

recently had the participants been involved with any other community agencies. The form also included an open ended question. For example, if the participants stated that they had previously contacted any community agencies, the crisis worker would ask the person to list the names of such agencies.

Satisfaction Surveys. To increase the readability of the surveys, each section (i.e., the instructions, demographical information, and quantitative and qualitative questions) was blocked separately. Qualitative responses were used to qualify each participant's level of satisfaction and to help formulate recommendations.

Referring Agency Survey. The referring agency survey (Appendix 3) contains 15-items which were specifically developed to allow referring agencies to provide feedback about the LCICSP's services. The respondents were asked to evaluate the LCICSP's service on a number of dimensions including quality of service to the promptness of service provided.

This instrument was constructed following interviews with 35 front-line workers (i.e., the Lethbridge City Police, local general medical practitioners, and doctors and nurses from the Lethbridge Regional Hospital Emergency Department) between the months of June and

September, 1994. Following the recommendations of the participating professionals the format of the survey was changed and each section was blocked separately for readability. The response scales were moved from beside each statement to underneath each statement. Block brackets were placed above each response item to reduce the chance of having multiple responses for each statement. Several ambiguous questions were re-worded to improve clarity. For example, question eight, in its original form, was somewhat ambiguous (i.e., "How competent and knowledgeable do you feel the crisis worker was?"). Many clients stated that they thought that "competent" and "knowledgeable" had two different meanings. In addition, a number of the referring agencies reported that they dealt with more than one crisis worker at a time. Consequently, the question was altered to read, "overall, how competent do you feel the crisis team is?". Cronbach's alpha from pilot testing was .68 and Cronbach's alpha for the second version of the survey was .78.

Agency Satisfaction Survey. The agency satisfaction survey (Appendix 4) is a 12-item survey which was specifically devised to enable agencies which received a client from the crisis team to provide feedback to the LCICSP. This instrument was developed following 28

interviews with the key referring community agencies (e.g., LMH, private counsellors, physicians, and Home Care) between the months of July and November, 1994. As a result of pilot testing, two questions which assessed the attractiveness and comfort of the LCICSP's building, were deleted.

Cronbach's alpha from pilot testing was .69 and Cronbach's alpha for the second version of the survey was .77. A question addressing the duplication of community crisis intervention services was also added to the second version of the survey along with two additional qualitative items.

Client Satisfaction Survey. The client satisfaction survey (Appendix 5) was used to determine the degree to which the clients who contacted the LCICSP were satisfied with the services they had received. This survey was pilot tested on 35 clients between the months of May and July, 1994. The evaluator interviewed each client after they completed the survey. Based on client feedback, the instrument was shortened and the format of the response scales was simplified. The response scales were moved from beside each statement to underneath the statement. Block brackets were placed above each response item to reduce the chance of having multiple responses for each statement. Cronbach's alpha from pilot testing was .82

and Cronbach's alpha for the second version of the survey was .94. The items on the survey have given the crisis team the opportunity to find out which client referrals were appropriate and which were not. The client satisfaction survey has given the crisis team a chance to deal with some of the clients' concerns or problems.

Goal Attainment Follow-up Guide. Kiresuk and Sherman (1968) developed the Goal Attainment Follow-up Guide (GAFG) to evaluate community mental-health programs. GAFG measures how much movement there is toward or away from the identified goals. The GAFG is a very effective instrument for monitoring both patient-specific and problem-specific outcomes. It has been particularly useful in a community setting because it is an individualized means of estimating the effectiveness of a service (Kiresuk & Sherman, 1968).

Goal development is a fundamental aspect of crisis intervention. France (1990) reports that "putting these objectives into written form merely makes more concrete what is already occurring in the interaction" (p. 206). The formulation and follow-up of these goals only takes a short amount of time. GAFG is known to have several therapeutic benefits. The process of establishing goals gives many clients a sense of accomplishment (Roberts, 1990). Encouraging the client to get involved in the

process of identifying and setting goals empowers them and can help build self-esteem (France, 1984). Furthermore, collaborating in the creation of goals with the client makes the goals become more attainable and realistic for the client (Smith, 1981). Extensive research recommends the use of the GAFG technique as a valid means of evaluating crisis intervention programs (Ellis & Wilson, 1973; France, 1990; Kiresuk & Sherman, 1968; Laferrier & Calsyn, 1978; Roberts, 1990, Slaikeu, 1990; Thompson, 1985).

Brief Derogatis Psychiatric Rating Scale (B-DPRS). The B-DPRS is the shortened version of the Derogatis (1978) Psychiatric Rating Scale (DPRS). This instrument was formerly known as the Hopkins Psychiatric Rating Scale. The B-DPRS includes nine primary psychiatric scales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, and a global pathology index. The crisis worker rated each symptom on a seven-point scale which ranged from 0 (absent) to 6 (extreme).

Procedure

Intake Form. The intake forms were completed by the crisis worker during the first face-to-face contact with each participant. If the crisis worker did not have direct contact with the person in crisis the person was excluded from the evaluation. All the participants were followed-up six or seven months later to determine if they had been recently hospitalized.

Contacting Community Agency Form. The after-treatment utilization data came from follow-up with the client subsequent to receiving crisis services and follow-up with the referring agency. In addition, from a list of 35, seven community therapists were randomly chosen and asked to rate the clients they received from the crisis program. The therapists were asked to match the client(s) from the crisis program to other similar self-referred clients. They then compared the client's compliance to therapy on a five point scale which ranged from 1 much more compliant than similar self-referred clients to 5 much less compliant than similar self-referred clients. In addition, therapists were asked to qualify each rating by providing a short explanation of how compliant the client was to treatment. The propriety of the referral itself was also evaluated at this time.

Satisfaction Surveys. The satisfaction surveys were mailed to each participant, each agency receiving a referral from the LCICSP and each referring agency upon completion of the final goal attainment follow-up contact. If surveys were not returned within one week of the mailing deadline participants or agencies received a follow-up telephone call. People who had discarded or lost the survey were sent another providing they were willing to complete it. People who did not return the second survey received another follow-up phone call.

Goal Attainment Follow-up Guide. The crisis workers were trained to administer the GAFG over a one month period. Initially, each worker was asked to read the three part Introduction to Goal Attainment Scaling (Garwick, 1975). Four days later the goal attainment manuals were discussed with the crisis workers by the evaluator. That same day, the Guide to Goals Manual was given to each worker (Garwick, 1976). Two days later, a four hour training session was held for all the crisis workers. During this session, it was explained that each crisis worker and participant would identify and negotiate the goals together. If the participant was unable to help set the goals with the crisis worker, the crisis worker was asked to develop the goals based upon the needs of the client. It was recommended that most of

the goals should be constructed during the initial interview. Additional goals could, however, be negotiated in subsequent sessions (Ellis & Wilson, 1973). The crisis workers did not set goals for those people who refused to participate in the process of goal-setting or who did not give the workers enough information to identify any goals.

Three days after the intensive staff training, the crisis workers met with the evaluator to review the previous six months' files. Based on this review a set of standardized goals was developed to act as a model for identifying frequently encountered presenting problems. The crisis workers administered the GAFG to all the new clients they encountered for a two week period. They then met with the evaluator to discuss how each participant's goals had been constructed and ambiguous goals were clarified. Three participants from the two week pilot period were not included in the evaluation because their goals were unrealistic. For example, one person's goal was to get a driver's license. This person, however, was taking medication which prohibited the individual from ever operating a vehicle.

The GAFG was administered to each participant during the initial interview and followed-up within two weeks of intake, between the fourth and sixth week, and between

the eighth and tenth week (Table 3-3). The specific time-lines were chosen based on the nature of the Lethbridge Crisis Intervention and Community Support Program's objectives, and recommendations in the literature (e.g., France, 1990; Parad & Parad, 1990; Roberts, 1990).

The GAFG was re-administered to each participant by telephone within two weeks of the initial interview and between the fourth and sixth week because the research shows that crises do not generally last longer than six weeks (Caplan, 1961; Golan, 1978). The eight to ten week follow-up score was used to determine if the clients had improved since the original crisis had occurred.

Table 3-3

Goal Attainment Follow-up Schedule

Time 1 Initial Interview (N>100)	**Time 2** Follow-up within 2 weeks	**Time 3** Follow-up between 4th & 6th week	**Time 4** Follow-up between 8th & 10th week
Data analysis	Compare time 1 & 2	Compare times 1, 2, & 3	Compare times 1, 2, 3, & 4

Sixty-one percent (91 of 150) of the participants agreed to set goals. Fifty-four percent of these

participants were contacted on all three follow-up time periods whereas no follow-up was done for ten clients whose phones had been disconnected.

After each participant's goals were identified, the attained levels were recorded on a separate follow-up sheet (Appendix 6). The initial status and subsequent goal attainment levels were not viewed by the worker prior to follow-up. This was done to avoid bias and improve specificity at each follow-up period. In addition, 86 percent (70 of 81) of the follow-up was completed by a crisis worker who did not do the initial ratings. The other 14 percent (11 of 81) were completed by the seconded crisis worker.

Brief Derogatis Psychiatric Rating Scale. The B-DPRS scores were used to compare the severity of psychiatric symptoms during pre-and post-intervention time periods for 33 participants. The B-DPRS was administered between June 1st 1995 and July 31st 1995. The B-DPRS was used only for research purposes. It was not used to do clinical assessments on any of the participants.

CHAPTER 5

FORMATIVE EVALUATION RESULTS AND DISCUSSION

One purpose of the formative evaluation was to develop an information system using an interrupted time-series design. The information system consists of an intake form (Appendix 1), a contacting-community-agencies form (Appendix 2), and three satisfaction surveys (Appendices 3, 4, and 5). This system has enabled the LCICSP's staff to answer a wide range of questions more thoroughly and cost effectively (Table 4-1).

Table 4-1

Questions the Computerized Information System was Designed to Answer

MAJOR QUESTIONS
1. How many clients and significant others are being reached by the program?
2. From where do referrals originate?
3. What are the clients' identified problems?
4. Where do crisis workers deal with clients (i.e., hospital, police station, at the office, by phone only or in the person's home)?
5. When do people call the crisis program?
MINOR QUESTIONS
1. What are the clients' characteristics (e.g., age, gender, and income status)?
2. What day of the week and time of the day are certain agencies more likely to refer clients?
3. How long do clients remain in the program?
4. How many sessions do crisis workers spend with each client?
5. How much time do the crisis workers spend with clients outside of office hours?
6. How many clients are repeat users?
7. Are clients following through with the recommended referrals?

Presenting Problems

The participants who contacted LCICSP had a broad range of presenting problems (Table 4-2). Twenty-two percent (33 of 150) of participants had one presenting problem. Fifty-four percent (81 of 150) of the participants had two presenting problems and 24 percent (36 of 150) had three presenting problems. No significant relationships were found between gender and the number or type of presenting problems.

The crisis workers most frequently dealt with people who were experiencing relationship discord. Forty percent (60 of 150) of the crises arose from disputes among immediate family members (i.e., a spouse, parents, or sibling rivalries). A further analysis revealed that more females between the ages of 10 and 41 presented with relationship discord than females between the ages of 42-85.

Twenty-nine percent (43 of 150) of the participants presented with suicidal thoughts. Sixteen percent (24 of 150) of the participants, before talking to a crisis worker, had attempted suicide within the previous 24 hours and 36 percent (54 of 150) of the participants required specialized suicide crisis intervention.[1] These data suggest that it is important to continue training crisis workers in suicide crisis intervention.

---

[1] Thirteen of the participants who attempted suicide were still highly suicidal when they talked to a crisis worker.

Table 4-2

Presenting Problem by Age Category and Gender

	Males (n = 61)		Females (n = 89)		
Age category	10-41	42-85	10-41	42-85	Totals
Relationship discord	14	6	28	12	60
Depression	15	12	26	6	59
Suicidal thoughts	12	7	22	2	43
Anxiety	12	7	16	6	41
Suicide attempt	8	4	10	2	24
Paranoia	5	0	3	4	12
Substance related	3	3	4	0	10
Legal	3	1	3	3	10
Sexual abuse	1	0	3	0	4
Life skills	0	1	3	0	4
Other	2	2	2	0	6
Totals	75	43	120	35	273

Note. Some clients had more than one presenting problem.

Participants' Reported Diagnoses

Fifty six people reported that they had been diagnosed by a psychiatrist as having a mental disorder (Table 4-3). During the period of the evaluation the crisis workers reported that they had dealt with 12 schizophrenics and 30 depressives. A chi-square goodness-of-fit analysis, based on an expected equal distribution, showed a significant difference between the number of females and males reporting they had been diagnosed with depression, $\chi^2(1, N = 30) = 4.8$, $p<.01$.

Participants who reported having a personality disorder re-contacted crisis services more times than others with a reported diagnosis. Seventy-five percent (6 of 8) of these people re-contacted the crisis team four or more times. Also these participants had been hospitalized more frequently and for a longer duration than others with a reported diagnosis. One explanation for this finding is that people with a personality disorder have difficulty complying with long-term psychiatric-care (Kernberg, Selzer, Koenigsberg, Carr, & Appelbaum, 1989; Koenigsberg, 1984).

Table 4-3

Reported Diagnoses by Age Category and Gender

	Males (n = 22)		Females (n = 34)		
Age category	10-41	42-85	10-41	42-85	Totals
Depression	5	4	14	7	30
Schizophrenia	4	2	3	3	12
Personality disorder	1	2	5	0	8
Alcoholism	1	1	0	0	2
Posttraumatic stress disorder	1	0	0	0	1
Trichotillo-mania	0	0	1	0	1
Anorexia	0	0	1	0	1
Fetal alcohol syndrome	1	0	0	0	1
Totals	13	9	24	10	56

Note. No participant had more than one diagnosis.

Income Status

Thirty-six percent (53 of 150) of the participants were employed. Seventeen percent (25 of 150) of the participants were on social assistance, and six percent (9 of 150) received Assured Income for the Severely Handicapped. Another 12 percent (18 of

150) stated they had no income whereas six percent (9 of 150) of the participants income was Unemployment Insurance. Nine percent (14 of 150) of the participants were supported by their parents and five percent (8 of 150) had a student loan. Six percent (9 of 150) of the participants were on old age pension. The income status was unknown for three percent (5 of 150) of the participants.

Referrals to the Program

The LCICSP is a cooperative venture of the following community agencies: CMHA, Lethbridge Mental-Health Division, Family and Social Services: Child Welfare, Lethbridge City Police (LCP), Lethbridge Health Unit: Home Care, the Lethbridge Regional Hospital, Raymond Care Centre, Claresholm Care Centre, Royal Canadian Mounted Police, Samaritans, and the Sik-Ooh-Kotok Friendship Society. During the study period the LCP referred more people to the LCICSP than any other partner: 26 percent (39 of 150) of the total referrals (Table 4-4).

It was expected that the crisis program would receive more agency referrals than self or family referrals because the general public is not aware of the LCICSP. Despite the absence of advertising, the program received 36 percent (54 of 150) of its referrals directly from self-referrals and family members. A chi-square goodness-of-fit analysis, based on an expected equal distribution, revealed referrals not to be evenly distributed, $\chi^2(3, N = 150) = 11.76$, $p<.01$, self or family referrals appeared

to be most common.

Table 4-4

Origin of the Calls

Source of referral	Frequency	Percent
Self-referral	45	30%
LCP	39	26%
Other agencies *	30	20%
LRH-E	27	18%
Family	9	6%
Total referrals	150	

Note. Other agencies are those agencies that deal with mental health-related issues.

It has been suggested by a number of the participants and referring agencies that the crisis program should advertise its program and make its pager number available to the general public. However, opening this service up to the public may pose problems. For example, the program operates on a limited budget and cannot handle a large increase in the number of clients. In addition, the current referral process allows community agencies to refer clients that they feel would be best served by the LCICSP.

Referral Times

Table 4-5 shows that the crisis program received the majority of its calls during regular-working-hours (i.e., weekdays between 0830 and 1630). Eighty-three percent (80 of 97) of the day-time calls required a mobile response (i.e, the crisis worker either went to the hospital, police station, or the person's home) to deal with the immediate crisis situation. Thirty-five percent (53 of 150) of the referrals occurred after normal weekday working hours or on weekends. Fourteen percent (21 of 150) of the referrals were received on the weekends whereas only eight calls were received between midnight and 0800.

It was expected the LCICSP would receive more calls on a Friday than any other day of the week because counsellors and other mental-health professionals, who do not work weekends, would inform clients how to contact the crisis program if they feel the client may need extra support over the weekend. A chi-square goodness-of-fit analysis, based on an expected of equal distribution, showed the calls were not equally distributed, $\chi^2(6, N = 150) = 26.02$, $p<.001$. Fridays appear to have had the largest number of calls.

Table 4-5
Calls Reported by Day of the Week and Referral Time

Day of the week	Calls during office hours [1]	Calls outside office hours [2]	Total calls received
Monday	14 (9.3%)	5 (3.3%)	19(13.6%)
Tuesday	17 (11.3%)	9 (6.0%)	26(17.3%)
Wednesday	20 (13.3%)	8 (5.3%)	28(18.6%)
Thursday	15 (10.0%)	4 (2.7%)	19(12.7%)
Friday	31 (20.6%)	6 (4.0%)	37(24.6%)
Saturday		10 (6.7%)	10 (6.7%)
Sunday		11 (7.3%)	11 (7.3)
Total Calls Received	97 (65.0%)	53 (35.0%)	150(100%)

Note. 1. Office hours are between 0830 and 1630 during weekdays.
2. Outside office hours occur after 1630 and before 0830 on weekdays and all day on weekends.

It was expected that crisis program would receive more regular-office-hour referrals from the LCP, the LRH-E, and other agencies than from self or family referrals because the general public is not aware of the LCICSP. Forty-two percent (41 of 97) of the regular-office-hours referrals were made by the participants or family members whereas 13 percent (13 of 97) came from the LRH-E (Table 4-6). A chi-square goodness-of-fit analysis, based on an expected equal distribution, revealed referrals not to be evenly distributed, $\chi^2(3, N = 97) = 17.4$, $p<.001$; self or family appeared to be most common.

Table 4-6
Calls Received During Office Hours Reported by Day of the Week and Referral Source

Day of the Week	LCP	LRH-E	Self or Family	Other Agencies	Total
Monday	5	2	5	2	14
Tuesday	3	1	9	4	17
Wednesday	3	2	10	5	20
Thursday	2	1	7	5	15
Friday	8	7	10	6	31
Agency Totals	21	13	41	22	97

It was expected that the crisis program would receive more after-hour referrals from the LCP, the LRH-E, and other agencies than from self or family referrals because the general public is not aware of the LCICSP. The LCP referred 34 percent (18 of 53) of the after-hour clientele whereas 25 percent (13 of 53) of the after-hour calls came from self or family referrals (Table 4-7). A chi-square goodness-of-fit analysis, based on an expected equal distribution, revealed referrals not to be evenly distributed, $\chi^2(3, N = 53) = 18.15$, $p<.001$; LCP referrals appeared to be most common. One possible explanation for this finding is that the participants were unable to directly contact a crisis worker in the evenings and on weekends. The LCP, the LRH-E, and other agencies were therefore dealing with these people and then referring them to the LCICSP. During regular-office-hours people could reach a

crisis worker by phoning the CMHA.

Table 4-7

Calls Received After-Office-Hours Reported by Day of the Week and Referral Source

Day of the Week	LCP	LRH-E	Self or Family	Other Agencies	Total
Monday	0	1	1	4	6
Tuesday	1	2	4	1	8
Wednesday	6	0	1	1	8
Thursday	0	0	4	0	4
Friday	2	4	0	0	6
Saturday	3	5	2	0	10
Sunday	6	2	1	2	11
Agency Totals	18	14	13	8	53

An analysis of the after-hour clientele referred by the LCP and the LRH-E shows that 94 percent (30 of 32) of the after-hour clientele initially refused to contact traditional mental-health services (i.e., Lethbridge Mental Health Clinic or other private counselling agencies). Qualitative data suggests these participants may have felt there was a stigma attached to contacting such services. However, 87 percent (26 of 30) of these participants contacted some type of mental-health service after talking to a crisis worker. Seven percent (2 of 30) of the participants reported they did not need a referral because they

felt the immediate crisis situation had been resolved. Two other participants attended two sessions with a crisis worker but refused to follow through with the recommended referrals.

The computerized information system provides data on when crisis calls are most likely to occur and has been useful in assisting the LCICSP coordinator in scheduling on-call hours. Indeed, the information has already led to scheduling changes which have made the program more cost-effective. For example, it was discovered that the part-time staff were receiving the majority of the crisis calls whereas the full-time staff members were not very busy. To rectify the problem, full-time staff members were scheduled to work during the busiest hours of the day.

Increasing Communication among Community Agencies

The monthly data collection enabled the crisis workers to identify a number of repeat users of the crisis program and prevent them from falling through the gaps in the system. This finding led to a recommendation to upper management that case conferences be held for a number of these more challenging clients. This recommendation was immediately implemented.

Case conferences are attended by the people the client comes into contact when she or he is in crisis. For example, if a case conference is called for a youth, the child's therapist, legal guardian or parent, crisis worker, and school teacher attend. These participants decide how the youth's problems should be

handled.

The case conference process has proved to be care-and cost-effective because it creates cohesiveness among community agencies and it allows all the service providers to develop an action plan as a group rather than individually. Consequently, this team approach reduces the client's chances of falling through the cracks in the system.

Time Spent with a Client

Table 4-8 is a cross-tabulation between the total time spent with the client and the referral source.

Table 4-8

The Referral Source
by Time Spent with the Client

Referral Source	<2 hrs.	2 to <3 hrs.	3 to <4 hrs.	≥4 hrs.	Total
Other community agencies	9 30.0%	4 13.3%	7 23.3%	10 33.3%	30 20.0%
LCP	9 23.0%	8 20.5%	9 23.1%	13 33.3%	39 26.0%
Self or Family	15 27.7%	10 18.5%	9 16.7%	20 37.0%	54 36.0%
LRH-E	6 22.2%	10 37.0%	5 18.5%	6 22.2%	27 18.0%
Total of all Sources	39 26.0%	32 21.3%	30 20.0%	49 32.7%	150 100%

The sum of third and fourth columns of data (i.e., the 3 to <4

hours and the ≥4 hours columns) in Table 4-8 shows that 53 percent (79 of 150) of the referrals required the crisis worker to spend three or more hours to resolve the immediate crisis. Referrals from the "other agencies" category and the LCP appear to take longer for the crisis worker(s) to resolve. This occurs often because the crisis worker(s) are dealing with clients who have misused other agencies' services (i.e., used agencies services when they did not need them). It is therefore difficult for the crisis worker(s) to find other appropriate community agencies that are willing and able to deal with these participants' problems.

At the other end of the spectrum, participants who are referred from the LRH-E generally tend to be entering the mental-health-care system for the first time. These participants are more readily referred to the appropriate community agency. The following cases illustrate the typical referral pattern. The first client who was referred from "a community agency" will be called "Mr. X." The second example is a client called "Mr. O" from the LRH-E.

Example 1

Mr. X, an alcoholic, was referred to the LCICSP at 12:45 p.m. on a Friday by "a community agency." He had used the referring agency 12 times over the past six months. His crisis was that he had not had a drink for three days and he was starting to feel suicidal because he felt his girlfriend and family hated him. During a two hour intervention he was assessed as having a low to

moderate risk of committing suicide and was placed in an over-night crisis respite-care bed. The next day, a Saturday, it took the crisis worker two hours to find temporary placement because this person was a well-known in the community as a frequent user of the mental-health-system (e.g., he contacted the referring agency 12 times over the past six months).

To find a more permanent placement, a case conference was organized by the crisis worker. The crisis worker used another two office hours to arrange the meeting. The case conference included the crisis worker, Mr. X, Mr. X's school teacher, social worker, and parents. After the two hour evening meeting it was decided that Mr. X should be sent to a more extensive alcohol treatment program than could be offered locally. At this meeting Mr. X's school teacher, social worker and his parents developed a case plan to deal with him. Following treatment, he returned to school. The case plan made it much more difficult for Mr. X to manipulate any of the caregivers because the plan was designed by them as a team. Mr. X's case took a total of four office hours and four after-office-hours.

Example 2

Mr. O, also an alcoholic, was referred at 1:30 p.m. on a Friday afternoon. He had not had any alcohol for about 48 hours and he felt he was starting to feel suicidal. He had just separated from his girl friend and felt that he was disliked by everyone in his family. During a two hour intervention he was

assessed as having a low to moderate risk of committing suicide. Mr. O was referred to a local alcohol treatment centre and, following his treatment, he was referred to a counsellor. It took the crisis worker one office hour to arrange a case conference between for Mr. O, his counsellor, school teacher, parents, and a crisis worker. The evening case conference took one hour. Mr. O's case took a total of three office hours and one hour in the evening.

Mr. X and Mr. O are typical of the two different types of clients the crisis team deals with regularly. The first kind of client overuses the mental-health-system and therefore it is difficult to find agencies that are willing to attend to them. The second kind, on the other hand, usually refuses to use the mental-health-system because they feel there is a negative stigma attached to using mental-health services. These people tend to take less of the crisis worker's time and are usually easier to refer to other community agencies.

Response Time

An effective crisis program must be accessible and the crisis workers should be able to respond to a crisis quickly. Community agencies can contact the LCICSP's services by pager, by phoning CMHA during office hours, or through a pager number which is left on CMHA's answering machine for after-hour self-referrals. The pager system was found to be quite effective, except when the on-

call crisis worker was in a situation where he or she could not reach a phone immediately. This is no longer a problem because the on-call crisis worker now carries a cellular phone. To avoid large overhead expenses, the crisis program lobbied a local phone company to donate two phones and some free air time.

An analysis of these data suggests that 95 percent (143 of 150) of the participants were contacted within 15 minutes of receiving the referral. Immediate phone contact was not made with three of the 150 participants because they left the incorrect phone number at the hospital. Four inebriated participants were not contacted within 24 hours. The LCICSP's mandate restricts service to individuals who are intoxicated.

Contacting Community Agencies

An interrupted time-series design employing a one-way repeated-measures analysis of variance was used to compare the mean number of community agencies that participants contacted during four time intervals: six-months-before and one-month-before receiving crisis intervention services, one-month-after, and six-months-after receiving help from the LCICSP. As can be seen in Figure 1, there is a significant difference in the number of community agencies that the participants contacted during the evaluation period, $F(3, 321) = 14.05$, $p<.001$. The increase from 0.56 to 1.62 agencies contacted, from six-months-before receiving crisis services to one-month-after, suggests there is a substantial

increase in the number of participants contacting one or more community agencies after receiving crisis services.

Table 4-9 shows the differences between the mean number of agencies contacted for each time interval. The Tukey (HSD) test[2] revealed the mean for one-month-after receiving crisis intervention services was significantly different from the means for six-months-before and one-month-before receiving crisis intervention services, $\underline{HSD}(140) = 1.06$, $\underline{p}<.01$ and $\underline{HSD}(140) = 1.09$, $\underline{p}<.01$, respectively. These findings indicate that more of the participants contacted community agencies during the month following their contact with the LCICSP than six-months-before and one-month-before seeking help from the LCICSP. In addition, the number of agencies contacted, per person, significantly declined from 1.62 to 1.29 over the period from one-month-after to six-months-after receiving crisis intervention services (Table 4-9). An examination of the qualitative data from six-months-after receiving crisis intervention services showed that 28 of the participants had stopped attending sessions with their counsellor because they reported that the immediate crisis had been resolved.

---

[2] The Tukey honestly significant difference (HSD) test was used to compare the difference between each pair of means. Using the Tukey (HSD) test reduces the chance of making a type I error, compared to Newman-Keuls and Duncan tests, because it keeps the type I error rate at alpha for the entire set of comparisons. The Tukey method was used rather than Scheffe's test because it is more powerful (less conservative) for comparing pairs of means. The Tukey test is more sensitive in detecting differences when comparing two groups' means whereas the Scheffe's test is better at detecting differences among the means of more than two groups (Keppel, 1973).

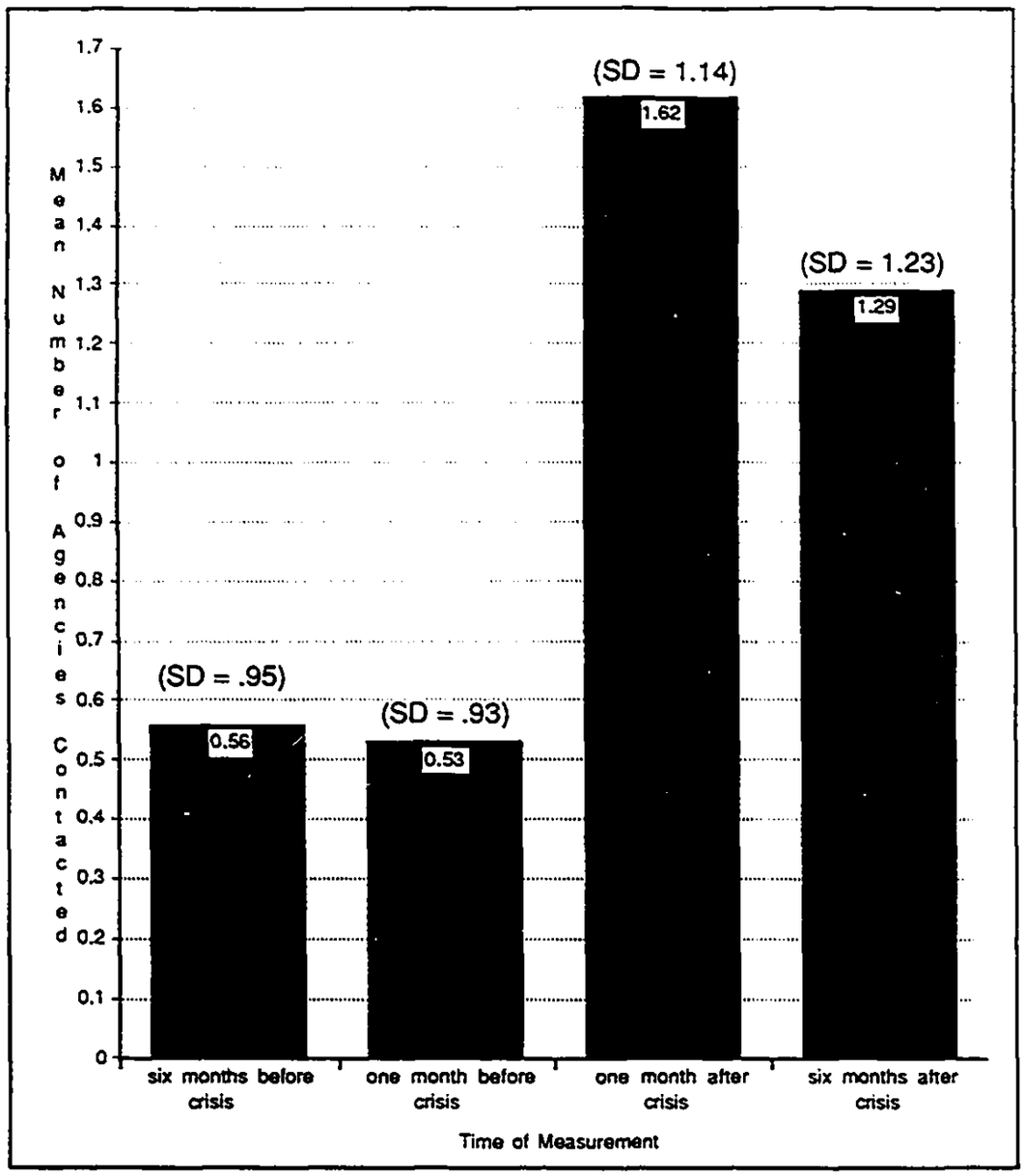

Figure 1. The mean number of community agencies the participants contacted. Participants contacted more agencies once they received services from the LCICSP. The values represent the mean number of agencies that were contacted by 141 participants.

Table 4-9

Tukey Honestly Significant Difference Comparisons of the Mean Number of Community Agencies Contacted

		T1	T2	T3
Six months-before receiving crisis services	T1	-		
One month-before receiving crisis services	T2	.03	-	
One month-after receiving crisis services	T3	1.06**	1.09**	-
Six months-after receiving crisis services	T4	.73**	.76**	.33*

Note. * $p < .05$
** $p < .01$

From a list of 35 community therapists, seven randomly selected therapists were chosen to rate the appropriateness of each referral they received from the LCICSP and the client's compliance to therapy. The therapists were asked compare the client's compliance to therapy on a five-point scale which ranged from 1 much more compliant than similar self-referred clients to 5 much less compliant than similar self-referred clients. The mean rating

was 2.55.[3] This suggests clients were rated by their therapist as being, on average, just as compliant as other similar self-referred clients.

Therapists were also asked to rate the appropriateness of the referral of each client on a four point scale which ranged from 1 not at all appropriate to 4 very appropriate. The therapists were asked to match the client(s) from the crisis program to other similar self-referred clients. The mean rating was 3.55. This suggests that the crisis workers referred the clients to the appropriate community agencies (i.e., counsellors).

Length of Psychiatric Hospitalizations

An interrupted time-series design was used to assess the impact of involvement of the LCICSP upon the length of hospitalization. A one-way repeated-measures analysis of variance was used to compare the mean length of psychiatric hospitalizations during four time intervals:

- 18 to 12 months-before receiving crisis services.[4]
- 12 to 6 months-before receiving crisis services.[5]

---

[3] The qualitative comments and ratings for each participant are in appendix 7.

[4] 528 days to 365 days before receiving crisis services.

[5] 364 days to 183 days before receiving crisis services.

- 6 months-before to the point of receiving crisis services.[6]
- from the point after receiving crisis services or from the point of discharge if the person was hospitalized while receiving crisis services to 6 months-after receiving crisis services.[7]

As can be seen in Figure 2, there is a significant change in the mean length of psychiatric hospitalizations during the evaluation period, $F(3, 596) = 4.33$, $p<.01$.

Fifteen percent (22 of 150) of the people who received crisis intervention services were hospitalized (for a total of 438 days) while receiving services. Admitting these 22 people immediately may have prevented prolonged admissions in the future. For example, 15 percent (23 of 150) of the participants were hospitalized for a total of 331 days during six months-before to the point of receiving crisis services. In contrast, after receiving crisis services to 6 months later, only eight percent (12 of 150) of these people were re-admitted into a hospital for a total of 210 days.

This reduction in hospital re-admissions may have occurred because the participants called a crisis worker before their problems escalated into a crisis.

---

[6] 182 days before receiving crisis services to the point of receiving crisis services.

[7] From the point after receiving crisis to 182 days after receiving crisis services.

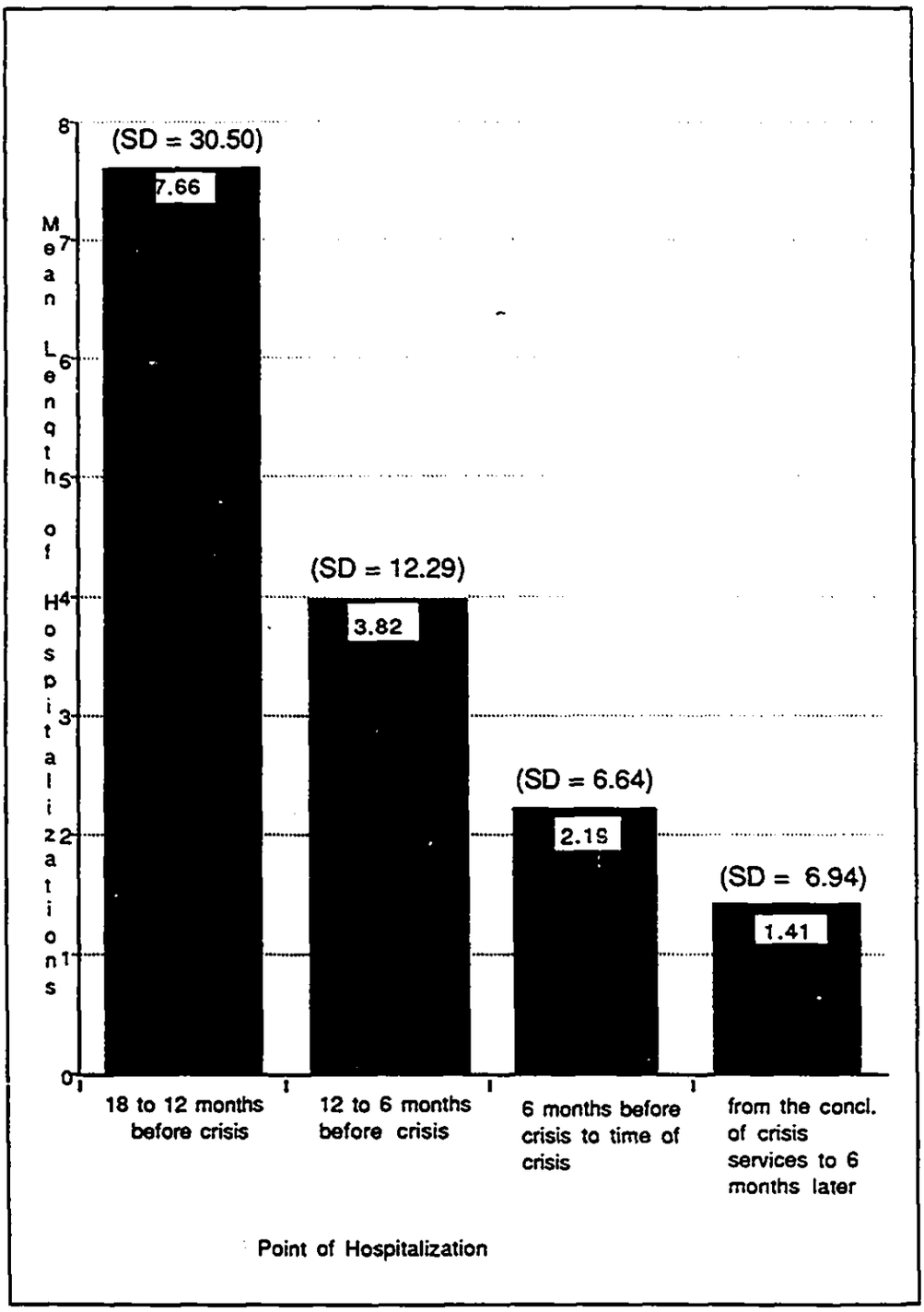

Figure 2. The mean length of psychiatric hospitalizations. There is a significant reduction in length of hospitalizations. The values represent mean length of hospitalizations for 150 participants.

Ten of the 11 people who were hospitalized during their involvement with the LCICSP re-contacted a crisis worker for additional support. As a result, none of these participants needed to be re-hospitalized. In addition, three of these participants were provided with an independent living support (ILS) worker to help teach them daily living skills. The ILS worker was not arranged by the LCICSP. ILS workers have been used in Alberta for over ten years as a means of reducing re-admissions among chronic users of the mental-health-system.

Re-admission rates among these 11 people may have been reduced because the participants' therapists provided additional counselling to help them cope. This may have prevented a re-lapse and avoided the necessity of a hospital re-admission.

Geller (1990) examined whether diverting patient admissions from state hospitals to crisis-respite-care beds would reduce the rate of re-admissions. His findings suggest that "the crisis intervention [services have created] a new locus of care [i.e., re-admissions to crisis intervention respite-care-beds] and inadvertently facilitated the development of a new breed of recidivist admissions" (p. 150). The LCICSP does have respite-care beds but, to date, the program has not experienced this problem. For example, of the 18 participants who re-contacted the LCICSP during the period from just after receiving crisis services to 6 months later, only one individual was re-admitted into a crisis-respite-care bed (for six days). Perhaps there are lower rates of

recidivism in the LCICSP's crisis-respite-care beds because the participants are connected or re-connected to a more extensive community mental-health-system than they are in the United States.

Table 4-10 shows that the length of psychiatric hospitalizations decreased over the evaluation time period. The Tukey (HSD) test revealed a significant difference in the mean length of psychiatric hospitalizations for 18 to 12 months-before receiving crisis services and 12 to 6 months-before receiving crisis services, $\underline{HSD}(149) = 5.46$, $\underline{p}<.05$. Table 4-10 also shows a significant difference between 18 to 12 months-before receiving crisis services and after receiving crisis services to 6 months later, $\underline{HSD}(149) = 6.24$, $\underline{p}< .05$. The comparisons of the other time intervals indicate there is a strong trend that suggests the LCICSP reduces the length of psychiatric hospitalizations. A history effect may be responsible for this gradual reduction because, partly due to policy decisions, the number of beds and length of stay in hospitals has decreased over the past year.

Table 4-10

Tukey Honestly Significant Difference Comparisons of the Mean Length of Psychiatric Hospitalizations

		T1	T2	T3
18-12 months-before receiving crisis services	T1	-		
12-6 months-before receiving crisis services	T2	3.84	-	
6 months-before to receiving crisis services	T3	5.46*	1.63	-
after receiving crisis services to 6 months later	T4	6.24*	2.41	.78

Note. * $p < .05$

The large standard deviations in the hospitalization data raises the question of the presence of outliers. Tabachnick and Fidell (1989) defined an outlier as an observation which is 3.67 or more standard deviations above the group's mean. For example, Mr. X was hospitalized for a period of 180 days during the first time interval (i.e., 18 to 12 months before receiving crisis services). This datum is 5.73 standard deviations above the mean length of psychiatric hospitalizations for the first time interval. A one-way repeated-measures analysis of variance was conducted with 17 clients' hospitalization data removed from all four time intervals

because the individuals had standard deviation scores above 3.67. As can be seen on Figure 2b, there is a significant change in the mean length of psychiatric hospitalizations, $F(3, 528) = 20.10$, $p<.001$. Tukey (HSD) test revealed a significant difference between the first time interval and the last time interval, $HSD(132) = 1.37$, $p< .05$ (Table 4-10b). The Tukey (HSD) test shows there is no significant difference between any other pairs of intervals. The implications of having outliers in data are discussed in Chapter 5.

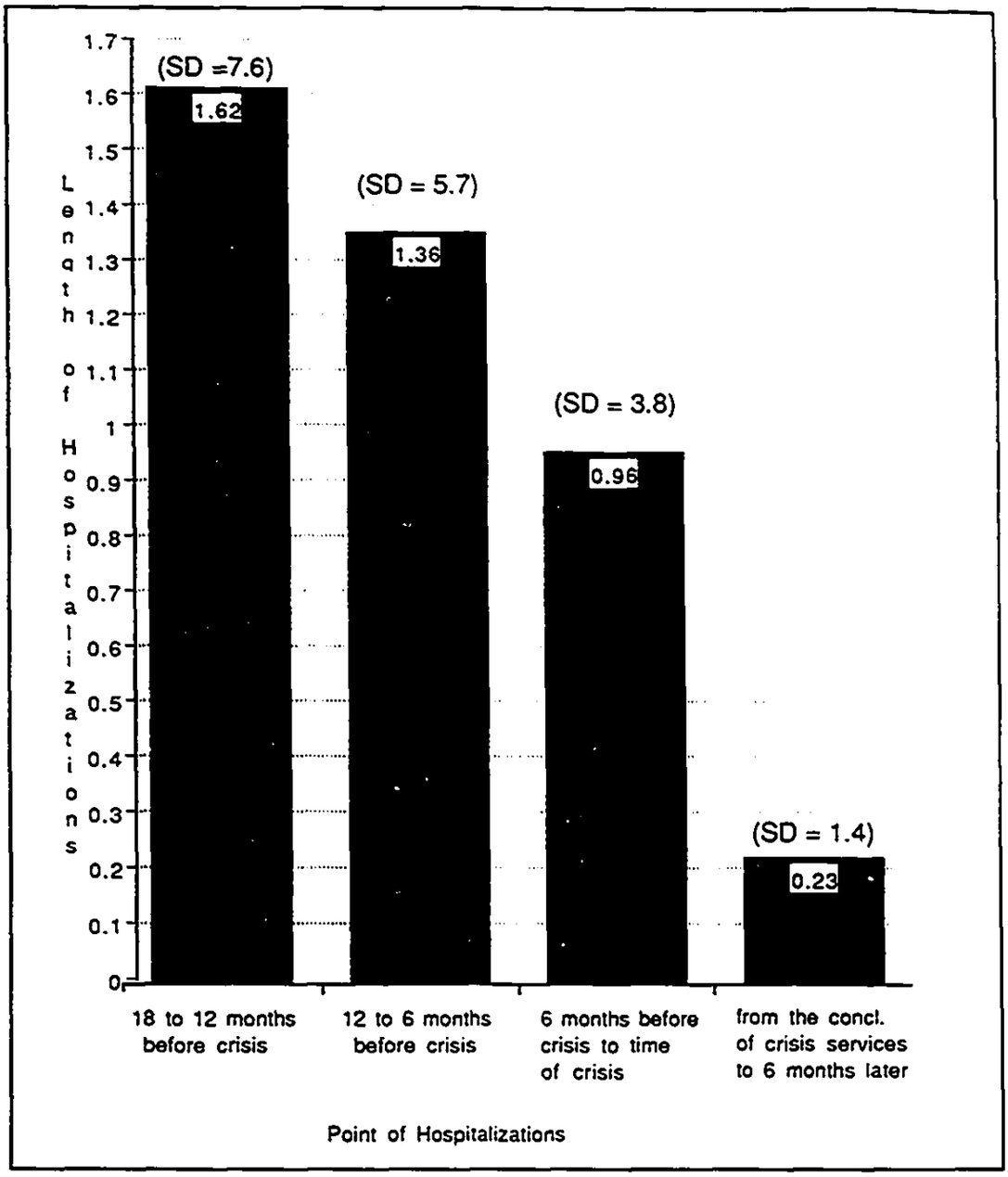

Figure 2b. The mean length of psychiatric hospitalizations. Seventeen outliers have been removed. The values represent mean length of hospitalizations for 133 participants.

Table 4-10b

Tukey Honestly Significant Difference Comparisons of the Mean Length of Psychiatric Hospitalizations, Excluding 17 Outliers

		T1	T2	T3
18-12 months-before receiving crisis services	T1	-		
12-6 months-before receiving crisis services	T2	.24	-	
6 months-before to receiving crisis services	T3	.65	.41	-
after receiving crisis services to 6 months later	T4	1.37*	1.13	.72

Note. * $p < .05$

In-service Training Sessions

Assessment of the impact of providing information about the crisis program to community agencies was an important focus of the formative evaluation. The LCICSP has used both informal and formal in-service training sessions. In informal in-service training sessions, the crisis worker distributes the crisis program's brochures to those present for the session (e.g., LCP, LRH-E, and Home Care) and then the crisis worker explains the LCICSP and how it could benefit their clients if they used the program. This type of in-service training session takes about 10 to 15 minutes whereas

a formal in-service training session is approximately 15 to 25 minutes. In the formal in-service training session the crisis worker explains the LCICSP and presents data which shows that other agencies have been using the program, the type of the clientele the program has dealt with in the past, and where participants have been referred to after using the LCICSP.

The crisis workers conducted 10 informal in-service training sessions for physicians between March, 1995 and April, 1995. Only four physicians referred patients to the program in the subsequent months. In June, 1995, four formal in-service training sessions were given and as a result seven physicians referred patients to the program. A number of the physicians who had attended an in-service training session were interviewed. Those who attended an informal in-service training session reported that the crisis team did not provide them with enough information to persuade them that the crisis program was a valuable resource. The general consensus from this group of physicians was that the process was too informal and that the crisis workers did not spend enough time explaining how the program could help them. In contrast, the physicians who received a formal in-service training session reported that the crisis program was well organized and that it was a necessary service for the community. Also these physicians stated that it was encouraging to learn that other agencies and clinics were referring to the crisis program.

Satisfaction Surveys

Satisfaction surveys were used to ascertain how people who have been involved with the LCICSP view its services. Three satisfaction surveys were used as part of the formative evaluation: a client satisfaction survey, a referring agency satisfaction survey, and an agency satisfaction survey. All the participants, the referring agencies, and the agencies that received referrals from the crisis program were mailed a satisfaction survey.

Client Satisfaction

Sixty-nine clients returned the survey and there were no significant relationships between presenting problems and gender of those participants who returned the survey and those who did not. One sub-group reported low to moderate levels of satisfaction with the LCICSP. This group comprised of those in the younger age category (i.e., 10-41 years old) and those with relationship discord problems. These participants' responses to the item "What can be done to improve the crisis program?" were informative. Two respondents reported that the crisis program's services would be improved if the program offered marriage counselling to those people who were able to pay for the extra service and 12 other respondents reported that they were uncomfortable with the idea of being referred to another agency for marriage counselling.

Table 4-11 shows the participants' responses to individual items. To calculate the means, the response indicating least

satisfaction (e.g., quite dissatisfied and not all appropriate) was assigned a score of 1, the response indicating the most satisfaction (e.g., very satisfied and very appropriate) was assigned a score of 4, with scores of 2 and 3 being assigned to responses indicating intermediate levels of satisfaction. Mean ratings for each item were found by averaging the respondents' scores. In response to item 1, 83 percent (57 of 69) of the respondents stated they were mostly or very satisfied with the help they received whereas 17 percent (12 of 69) were not. This finding is consistent with similar studies that are cited in the crisis literature (e.g., France, 1990; Getz, Fujita, & Allen, 1975; Lebow, 1983). These researchers suggest there will always be a small proportion of clients who express dissatisfaction in every client satisfaction survey.

In response to item 6, 35 percent (24 of 69) of the respondents stated yes, I think so or yes definitely that they needed other services which the program did not provide. Item 13 revealed that 39 percent (27 of 69) of the respondents reported the LCICSP only met a few of their needs. Many of these respondents stated that the LCICSP's would be improved if the crisis program offered short-term counselling and marriage counselling.

Item 10 had a mean rating of 3. Seventy-eight percent (54 of 69) of the respondents were mostly or very satisfied whereas 16 percent (11 of 69) were quite dissatisfied. The eleven people who were quite dissatisfied were re-contacted. These all stated that

the crisis worker was thrust upon them by their employer. These respondents stated that they were not unhappy with the service, but the referral process made them very upset. This problem has been addressed by the Executive Director of CMHA.

Items 12 and 15 assess the effectiveness of the LCICSP. In response to item 12, 88 percent (61 of 69) of the respondents indicated that if a friend was in need of similar help, they would refer the person to the LCICSP. Finally, 84 percent (58 of 69) of the participants stated that, if they needed help in the future, they would re-contact the crisis program (item 15).

Cronbach's alpha was .94, indicating a very high level of internal consistency among the items (Nunnally & Bernstein, 1994). An overall mean of 3.2 indicates that the clients were generally satisfied with the LCICSP's services.

The participants' responses to two open-ended items were informative. Of the 69 participants who answered the satisfaction surveys, 61 percent (42 of 69) completed both items. A number of the respondents provided several responses.

The participants had numerous positive perceptions of the LCICSP. Thirty-three percent (14 of 42) respondents reported that the crisis workers had good listening skills, were very professional, and were good at encouraging others to talk about their problems openly. One respondent said "I was pleased that the crisis worker took my crisis seriously. [The crisis worker] handled my crisis in a professional manner." Another respondent reported it was helpful to meet, in person, with the crisis worker.

Forty percent (17 of 42) of the respondents mentioned the importance of flexible hours, mobile response to a crisis, and easy accessibility of the program. Another 33 percent (14 of 42) of the respondents indicated that the mobility of the crisis team prevented further escalation of their crises. Twenty-four percent (10 of 42) of the respondents mention that it was beneficial to meet with a crisis worker within one hour of asking for assistance. Being able to arrange a second appointment within a week of the crisis was viewed as a positive aspect of the program by 7 percent (3 of 42) of the respondents. One respondent stated that "being able to see someone right away without having to wait a month [as at other agencies] was great. I also liked the idea of being referred to an agency that could deal with my problems immediately."

Table 4-11 (continued)

Percentage of Responses and Mean Values on the Client Satisfaction Survey

					Mean	SD
8) Overall, how competent do you feel the crisis team is?						
5.8%	10.1%	29.0%	55.1%		3.3	.89
Poor abilities at best	Only of average	Fairly competent	Highly competent			
9) How would you rate the overall quality of the service you have received from the crisis team?						
50%	40%	4.2%	5.8%		3.3	.82
Excellent	Good	Fair	Poor			
10) Generally how satisfied are you with the service you received from the crisis team?						
15.9%	5.8%	39.1%	39.1%		3.0	1.05
Quite dissatisfied	Mild dissatisfied	Mostly satisfied	Very satisfied			
11) Have the people from the crisis team generally understood the kind of help you wanted?						
11.6%	11.6%	44.9%	31.9%		3.0	.95
No,they misunderstand almost completely	No,they seemed to to misunderstand	Yes, they seemed to generally understand	Yes, they understood almost perfectly			
12) If a friend were in need of similar help would you recommend our program to him or her?						
5.8%	5.8%	21.7%	66.7%		3.5	.85
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely			
13) To what extent has our program met your needs?						
18.8%	36.2%	39.1%	5.8%		2.7	.85
Almost all of my needs have been met	Most of my needs have been met	Only a few of my needs have been met	None of my needs have been met			
14) Have your rights as an individual been respected?						
4.2%	0%	17.4%	78.3%		3.7	.69
No, almost never respected	No, sometimes not respected	Yes, generally respected	Yes, almost always respected			
15) If you were to seek help again, would you come back to our program?						
5.8%	10.1%	15.9%	68.1%		3.5	.90
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely			
Alpha=.94					Mean 3.2	SD .90

Table 4-11 (continued)

Percentage of Responses and Mean Values on the Client Satisfaction Survey

					Mean	SD
8) Overall, how competent do you feel the crisis team is?						
5.8% Poor abilities at best	10.1% Only of average	29.0% Fairly competent	55.1% Highly competent		3.3	.89
9) How would you rate the overall quality of the service you have received from the crisis team?						
50% Excellent	40% Good	4.2% Fair	5.8% Poor		3.3	.82
10) Generally how satisfied are you with the service you received from the crisis team?						
15.9% Quite dissatisfied	5.8% Mild dissatisfied	39.1% Mostly satisfied	39.1% Very satisfied		3.0	1.05
11) Have the people from the crisis team generally understood the kind of help you wanted?						
11.6% No,they misunderstand almost completely	11.6% No,they seemed to to misunderstand	44.9% Yes, they seemed to generally understand	31.9% Yes, they understood almost perfectly		3.0	.95
12) If a friend were in need of similar help would you recommend our program to him or her?						
5.8% No,definitely not	5.8% No, I don't think so	21.7% Yes, I think so	66.7% Yes, definitely		3.5	.85
13) To what extent has our program met your needs?						
18.8% Almost all of my needs have been met	36.2% Most of my needs have been met	39.1% Only a few of my needs have been met	5.8% None of my needs have been met		2.7	.85
14) Have your rights as an individual been respected?						
4.2% No, almost never respected	0% No, sometimes not respected	17.4% Yes, generally respected	78.3% Yes, almost always respected		3.7	.69
15) If you were to seek help again, would you come back to our program?						
5.8% No,definitely not	10.1% No, I don't think so	15.9% Yes, I think so	68.1% Yes, definitely		3.5	.90
Alpha=.94					Mean 3.2	SD .90

Finally, seven percent (3 of 42) of the respondents mentioned the importance of being able to select either a male or female crisis worker. For example, a female who had been sexually abused was unwilling to talk openly with the male crisis worker on-call, so a female crisis worker was called in to talk with her.

When the participants were asked "What do you think could be done to improve the program?" 31 percent (13 of 42) responded "nothing." Twenty-six percent (11 of 42) of the respondents mentioned that there were problems with follow-up. The complaints focused on the lack of follow-up by two crisis workers. Ten percent (4 of 42) of the respondents mentioned that it was difficult to contact the crisis program because there are no public advertisements explaining how the public can contact the program's services. Three respondents suggested that the LCICSP should advertise its services and provide more information to other community agencies.

Referring Agency Satisfaction

Lebow (1983) has argued that the clients' views of "treatment should always be considered in conjunction with other indices" (p. 744). Following Lebow's recommendation, the present evaluation also examined the perceptions of agencies that referred clients to the program using a 15-item satisfaction survey (Table 4-12).

Responses to item 1 revealed that 87 percent (39 of 45) of the respondents reported that they had been referring people to the

crisis program for three or more months whereas 13 percent indicated that it was the first time they had ever referred a person to the program. These findings suggest that the crisis program has been receiving the majority of its referrals from the same agencies.

These results suggest that the crisis program should focus on those community agencies and groups which have not received in-service training sessions such as for the staff at correctional facility, the soup kitchen, the food bank, nursing homes, schools, and security guards at the local shopping centres.

The LCICSP policy and procedure manual states that all referrals from other agencies should receive a follow-up letter. This brief letter informs the referral agency about the client's progress. When asked if they received a follow-up letter, 42 percent (19 of 45) responded never whereas 44 percent (20 of 45) reported they sometimes or often received a follow-up letter. Only 13 percent (6 of 45) reported they always received a follow-up letter. These results suggest that the crisis workers must become more diligent in sending out follow-up letters. Since the evaluation, the program coordinator and director have been informed about the situation and have taken corrective measures. In the three months subsequent to July 1995, approximately 90 percent of the clients' files contained a follow-up letter.

Table 4-12

Percentage of Responses and Mean Values on the Referring Agency Survey

						Mean	SD
1) When did you first start referring clients to the crisis team?							
13.3% This my first time	0% One month ago	0% Two months ago	86.7% Three or more months ago		N=45	3.6	1.03
2) Do you usually receive a follow-up letter when you refer clients to the crisis team?							
42.2% Never	11.1% Sometimes	33.3% Often	13.3% Always		N=45	3.2	1.13
3) Have the people from the crisis team generally understood the kind of help your agency needed?							
0% No,they misunderstood almost completely	2.2% No,they seemed to to misunderstand	66.7% Yes, they seemed to generally understand	31.1% Yes, they understood almost perfectly		N=45	3.3	.51
4) Have the services you received helped you deal more effectively with those people experiencing a mental crisis?							
88.1% Yes,they helped a great deal	7.1% Yes,they helped somewhat	4.8% No,they really did not help	0% No,they seemed to make things worse		N=42	3.8	.49
5) How appropriate are the services the crisis team provides?							
50% Highly appropriate	47.7% Generally appropriate	2.3% Not very appropriate	0% Not appropriate at all		N=44	3.5	.55
6) Do you think the Crisis Intervention Program is a duplication of of community services?							
61.4% No,definitely not	31.8% No, I don't think so	4.5% Yes, I think so	2.3% Yes, definitely		N=44	3.5	.70

Table 4-12 (continued)

Percentage of Responses and Mean Values on the Referring Agency Survey

						Mean	SD
7) How satisfied are you with the kind of services you have received from the crisis team?							
4.7% Quite dissatisfied	4.7% Mildly dissatisfied	41.9% Mostly satisfied	48.8% Very satisfied		N=43	3.4	.78
8) Overall how competent do you feel the crisis team was?							
2.3% Poor abilities at best	0% Only of average	50.0% Fairly competent	47.7% Highly competent		N=44	3.4	.62
9) Is it easy to get in contact with the on call crisis worker?							
54.8% Very easy	40.4% Easy	2.4% Difficult	2.4% Very difficult		N=42	3.4	.67
10) Once you were able to get hold of the crisis team how prompt were they in responding to your call?							
0% Not very prompt at all	0% Not prompt	21.4% Fairly prompt	78.6% Very prompt		N=42	3.8	.42
11) How would you rate the overall quality of the service you have received from the crisis team?							
69.8% Excellent	25.6% Good	4.7% Fair	0% Poor		N=43	3.7	.57
12) Generally how satisfied are you with the service you received from the crisis team?							
2.3% Quite dissatisfied	0% Mildly dissatisfied	27.9% Mostly satisfied	69.8% Very satisfied		N=43	3.7	.61
13) Will you continue to refer other clients to the crisis team?							
0% No,definitely not	0% No, I don't think so	20.5% Yes, I think so	79.5% Yes, definitely		N=44	3.8	.41
Alpha=.78						Mean 3.5	SD .65

The provision of feedback to the referring agency on the client's progress is important because this assures the agency that the crisis worker has maintained contact with the client and is continuing to meet the clients' needs. In addition, it encourages the agency to continue referring clients to the program.

Item 6 revealed that the LCICSP was viewed by seven percent (3 of 44) of the respondents as a duplication of community services whereas 93 percent (41 of 44) perceived no overlap. The respondents who indicated that the LCICSP was a duplication of services suggested that the daytime referrals duplicated the services provided by Lethbridge Mental Health Clinic. The Lethbridge Mental-Health Clinic, however, only deals with crisis on a walk-in basis and does not have a mobile crisis team. In addition, these data show that only 12 percent (18 of 150) of the referrals were walk-ins and 50 percent of these 18 walk-ins had previously contacted the crisis program.

For a mobile crisis intervention program to be effective the on-call crisis worker must be easily contacted and capable of responding to a crisis call quickly. In response to item 9, 95 percent (40 of 42) of the respondents mentioned that it was easy or very easy to contact the on-call crisis worker. Item 10 revealed that 79 percent (33 of 42) of the respondents reported that, once the on-call crisis worker was paged, the worker was very prompt in responding to the call, whereas 21 percent (9 of 42) stated the crisis worker was fairly prompt. All of the respondents indicated

that they would continue to refer clients to the LCICSP.

Cronbach's alpha was .78, indicating a high level of internal consistency among the items. An overall mean of 3.5 indicates that the referring agencies were generally satisfied with the LCICSP's services.

The referring agencies' responses to the two open-ended items were informative. Of the 45 respondents who completed the survey, 35 answered the first item: "What do you like best about the crisis program?" Some respondents provided several responses.

Generally, there were more positive than negative perceptions of the program. Forty-six percent (16 of 35) of the respondents stated that the best part of the crisis program was outpatient follow-up, after regular office-hours. Another 31 percent (11 of 35) of the respondents stated that the crisis workers were helpful and provided follow-up for patients who do not have a family physician. Thirty-four percent (12 of 35) of the respondents mentioned that the 24-hour service was a positive aspect of the program.

The crisis workers' ability to respond immediately to a crisis was mentioned by 26 percent (9 of 35) of the respondents. Another 14 percent (5 of 35) of the respondents stated that the crisis program fills a void in the mental-health-system. One person said "the crisis program deals with clients when no other agency is willing to provide a mobile service." Twenty-three percent (8 of 35) of the respondents indicated a positive aspect of the crisis

program is the crisis workers' ability to deal with the immediate crisis. Fourteen percent (5 of 35) of the respondents mentioned the professional and efficient manner in which the workers handled crisis situations. It was also mentioned by 34 percent (12 of 35) of the respondents that the crisis workers have excellent abilities in assessing suicidal people. Finally, every referring agency reported that the crisis workers were friendly and that they provided an essential community service.

When asked what they thought could be done to improve the program, 82 percent (37 of 45) of the respondents did not provide a answer. There were, however, a number of suggestions from those who did respond. Four respondents (i.e., from four different agencies) mentioned that their agency needs more contact with the crisis workers. Two other respondents reported that the crisis team needs to work more collaboratively with them on long-term follow-up (i.e., remaining in contact with the client for at least two years after dealing with them).

Receiving Agency Satisfaction Survey

In addition to the referring agency satisfaction survey, agencies receiving referrals from the crisis program were also surveyed. It was difficult to get these agencies to return the surveys: 62 percent (55 of 88) of the respondents said that the clients referred themselves to their agency. Thirty-eight percent (33 of 88) of the surveys were answered. As a result of the low

return rates, the referral process to other agencies has been formalized. Each time a crisis worker refers a client to another agency the worker fills out a form and faxes it to the referring agency.

The perceptions of the respondents who did return the surveys were very positive (Table 4-13). The agencies' ratings of staff cooperation and accessibility were revealed by items 4 and 5. In response to item 5, 100 percent of the respondents reported that the crisis workers were very cooperative. Increasing cooperation among community agencies is one of the LCICSP's mandates. Item 4 revealed that 87 percent (26 of 30) of the respondents indicated that the on-call crisis worker was easy or very easy to contact whereas 13 percent (4 of 30) did not. The results from item 4 suggest that there is a need for the crisis team to become more accessible to other community agencies. To increase accessibility, the crisis team has increased the number of in-service training sessions for these agencies. The training sessions emphasize how to contact the on-call crisis worker by using the pager system or phoning the Canadian Mental Health Association. In addition, the on-call crisis worker now carries a cellular phone to further increase accessibility.

In response to item 6, 79 percent (26 of 33) of the respondents indicated that the crisis program was not duplicating other community services whereas 21 percent (7 of 33) thought it might be. These seven people suggested that the Lethbridge Mental

Health Clinic could handle all the daytime patients who could arrange their own transportation to the clinic. Tnese seven respondents have a valid concern but the data suggest that the crisis workers see only about 12 percent (18 of 150) of their clientele on a walk-in basis.

Item 7 assessed the perception of the overall quality of service. One-hundred percent of the respondents' ratings were in the good or excellent range. These ratings are consistent with perceptions of the clients and referring agencies. Overall satisfaction with the program was evaluated by item 10. Ninety-four percent (30 of 32) of the respondents were mostly or very satisfied with the referrals they received from the crisis program.

Cronbach's alpha was .77, indicating a high level of internal consistency among the items. An overall mean of 3.5 indicates that the agencies receiving referrals from the LCICSP were generally satisfied.

Of the 33 respondents, 73 percent (24 of 33) responded to the first item: "What do you like best about the crisis program?". A number of the respondents indicated that they liked several aspects of the program.

Table 4-13

Percentage of Responses and Mean Values on the Agency Satisfaction Survey

						Mean	SD
1) Considering your agency's mandate, how appropriate are the referrals you have received from the crisis team?							
78.8%	21.2%	0%	0%		N=33	3.8	.42
Highly appropriate	Generally appropriate	Not very appropriate	Not at all appropriate				
2) Are you satisfied with the kind of referrals you have received from the crisis team?							
3%	0%	39.4%	57.6%		N=33	3.5	.67
Quite dissatisfied	Mild dissatisfied	Mostly satisfied	Very satisfied				
3) Overall how competent do you feel the crisis team was?							
0%	0%	27.3%	72.7%		N=33	3.7	.45
Poor abilities at best	Only of average	Fairly competent	Highly competent				
4) Is it easy to get in contact with the on call crisis worker?							
66.7%	20.0%	13.3%	0%		N=30	3.5	.73
Very easy	Easy	Difficult	Very difficult				
5) Is the crisis team cooperative?							
0%	0%	36.7%	63.3%		N=30	3.6	.49
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely				
6) Do you think the Crisis Intervention Program is a duplication of community services?							
45.5%	33.3%	21.2%	0%		N=33	3.2	.80
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely				

Table 4-13 (continued)

Percentage of Responses and Mean Values on the Agency Satisfaction Survey

					Mean	SD
7) How would you rate the overall quality of the service you have received from the crisis team?						
48.4% Excellent	51.6% Good	0% Fair	0% Poor	N=31	3.5	.51
8) Have the people on the crisis team generally understood the kind of clients your agency is capable of handling?						
0% No,they misunderstood almost completely	13.3% No,they seemed to to misunderstand	56.7% Yes, they seemed to generally understand	30.0% Yes, they understood almost perfectly	N=30	3.2	.65
9) Does the process of referring clients to your agency need to be changed?						
0% Yes, definitely	0% Yes, I think so	81.3% No, I don't think so	18.6% No, definitely not	N=32	3.2	.40
10. Generally how satisfied are you with the referrals you received from the crisis team?						
56.3% Very satisfied	37.5% Mostly satisfied	0% Mildly satisfied	6.3% Quite dissatisfied	N=32	3.4	.80
Alpha=.77					Mean 3.5	SD .59

The respondents made a number of positive comments about the crisis program. Seventy-nine percent (19 of 24) of the respondents stated a strength of the LCICSP was its ability to provide immediate on-going support to clients on a 24-hour basis. There was a general consensus among the respondents that the crisis team provides help for those clients who would otherwise not be served by the mental-health-care system. One person said, "The crisis team is prepared to deal with many situations no one else will."

Three respondents indicated that the crisis team has encouraged them to work more collaboratively with other agencies (i.e., through case conferences for clients). Five additional respondents suggested that the crisis team should continue to organize case conferences because it improves communication with other community agencies. One respondent said "Communicating with other agencies will allow the client to contact all the community services they require while at the same time prevent clients from misusing community mental health services." Two respondents appreciated the crisis workers' willingness to make good use of community resources which, in turn, enhances the quality of care for the clients. Finally, three respondents mentioned the cooperation shown by the crisis workers as a good aspect of the program.

Sixty-six percent (22 of 33) of the respondents suggested ways to improve communication between the crisis program and their agencies. Sixty-eight percent (15 of 22) of the respondents

mentioned the need for more follow-up. Another respondent mentioned it would be useful for the crisis workers to follow-up within 24 hours of the referral to ensure the clients' immediate safety. Thirty-one percent (7 of 22) of the respondents suggested they needed more information (i.e., in-service training sessions) about the crisis program's services. Two respondents indicated that the communication could be improved if the crisis workers would visit their agency more regularly. One agency suggested on-going in-service training sessions for new staff members.

GAFG and B-DPRS Results

The third part of the formative evaluation was to determine if the GAFG and the B-DPRS would be suitable as outcome instruments for use with a community-based mobile crisis intervention program. The GAFG measures each participants identified goals and the B-DPRS measures the severity of the clients symptoms on pre-intervention and post-intervention times of measurement.

Goal Attainment Follow-up Guide Results. Three separate goals were developed for each participant. The GAFG was administered to each participant during the initial interview and followed-up within two weeks of intake, between the fourth and sixth week, and between the eighth and tenth week. A one-way repeated-measures analysis of variance was used to compare four GAFG mean scores: initial score, within two week follow-up score, the four to six week follow-up score, and the eight to ten week follow-up score. As can be seen

in Figures 3, 4, and 5 there are significant improvements in the participants' three identified goals during the evaluation period, $F(3, 321) = 14.05$, $p<.001$; $F(3, 321) = 17.28$, $p<.001$; and $F(3,292) = 16.92$, $p<.001$, respectively.

The Tukey tests between the initial score and the within two week follow-up score, the four to six week follow-up score, and the eight to ten week follow-up score proved to be significant $p < .01$ (Table 4-14). No significant differences were found between the within two week follow-up score, the four to six week follow-up score, and the eight to ten week follow-up score.

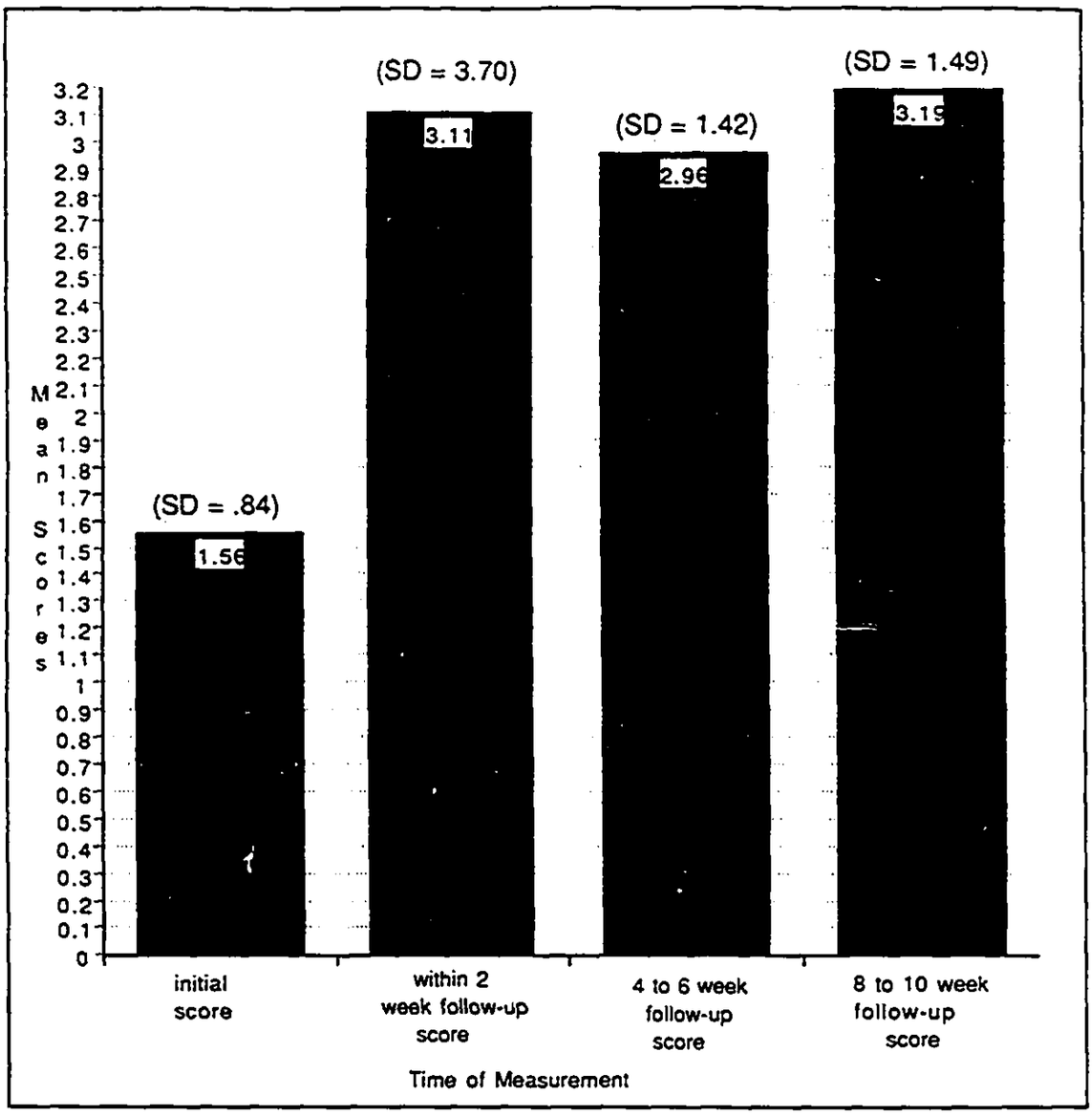

Figure 3. GAFG mean scores for the first identified goal. GAFG scores improved significantly over time. The values represent the mean scores for 81 participants.

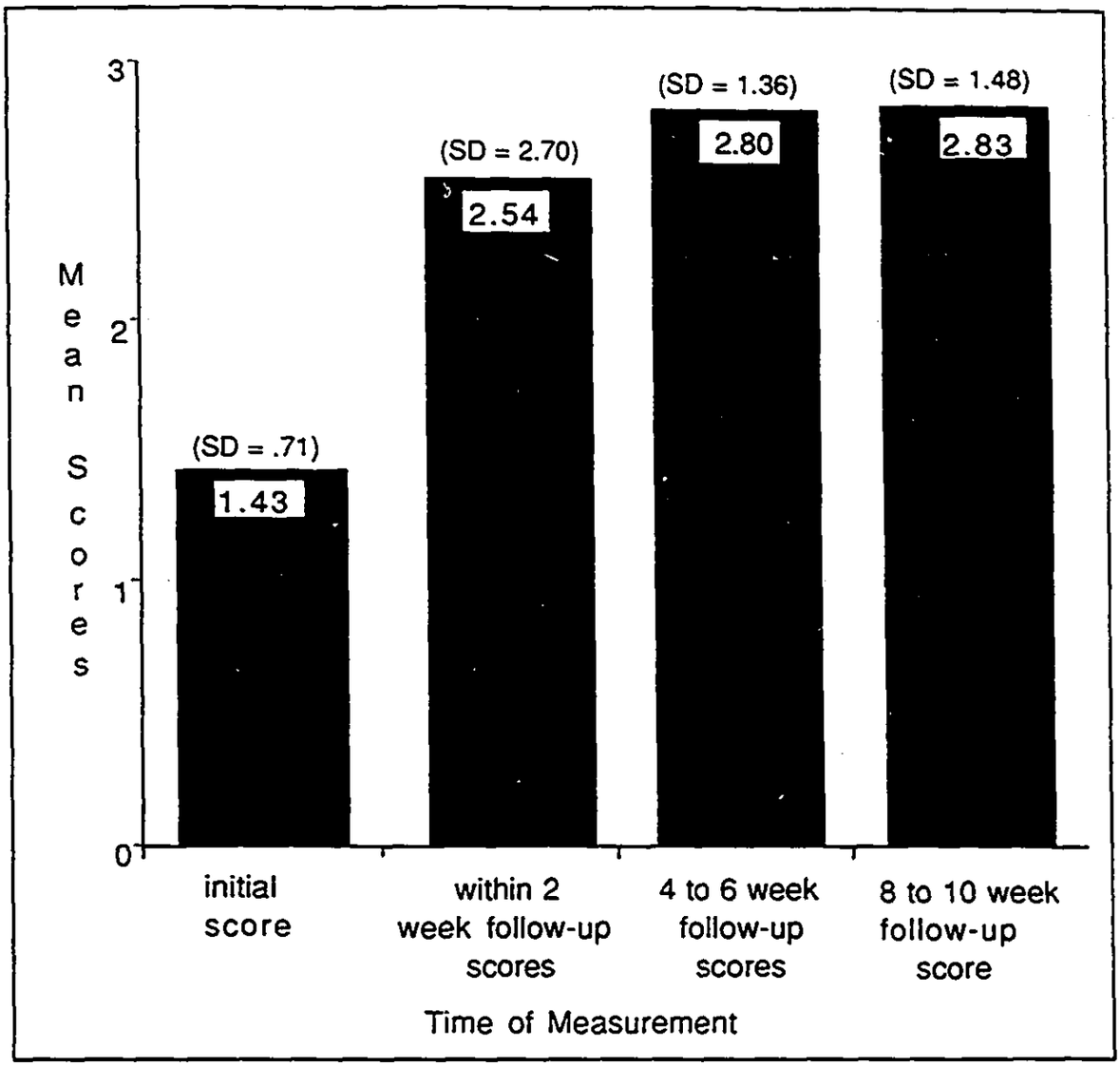

Figure 4. GAFG mean scores for the second identified goal. GAFG scores improved significantly over time. The values represent the mean scores for 81 participants.

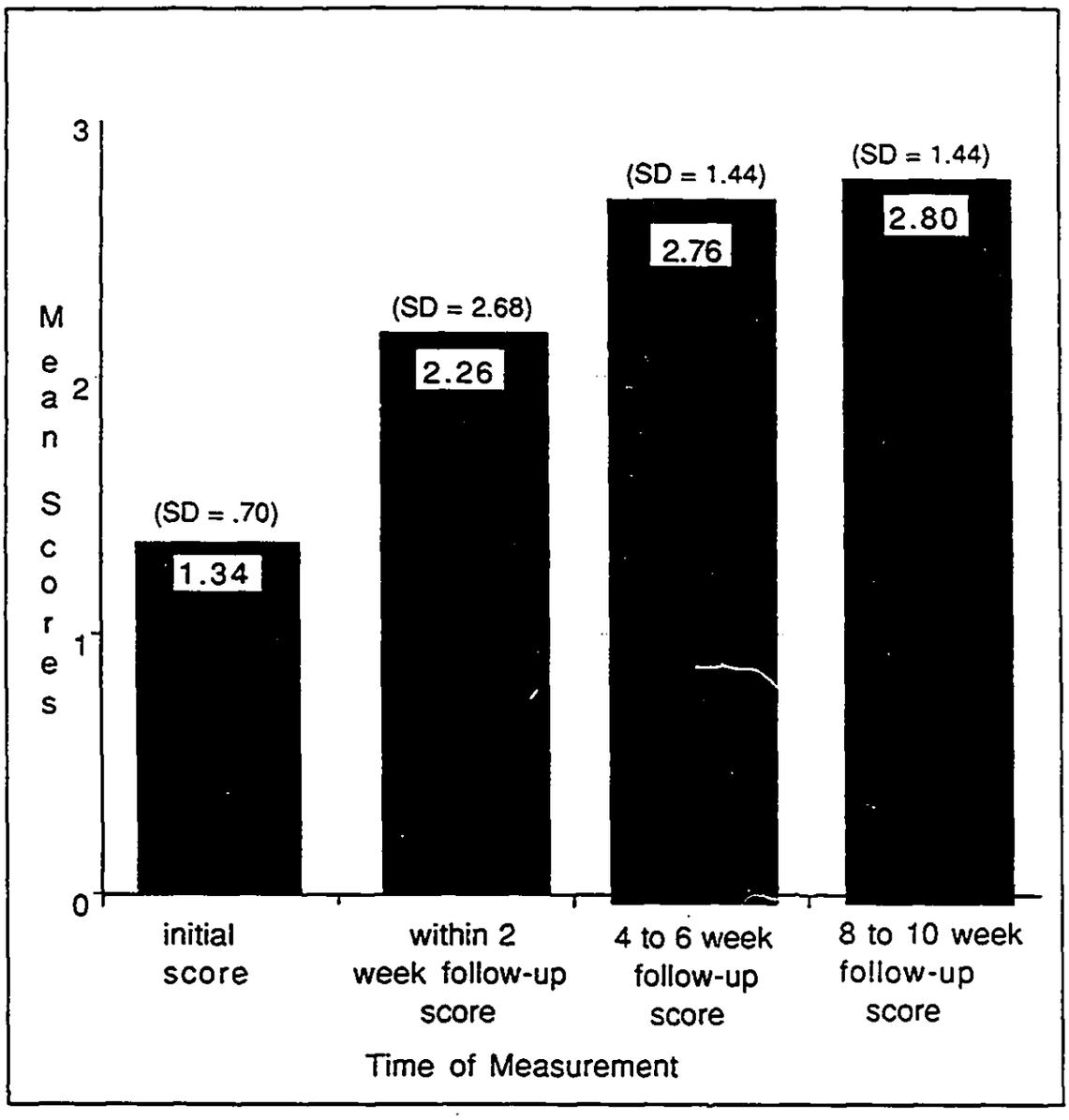

Figure 5. GAFG mean scores for the third identified goal. GAFG scores improved significantly over time. The values represent the mean scores for 74 participants.

Table 4-14

Tukey Honestly Significant Difference Comparisons of the Mean GAFG Scores for the Three Identified Goals

		First Goal (n = 81)		
		T1	T2	T3
Initial score	T1	-		
Within 2 week score	T2	1.55*	-	
4 to 6 week score	T3	1.41*	.13	-
8 to 10 week score	T4	1.63*	.08	.22

		Second Goal (n = 81)		
		T1	T2	T3
	T1	-		
	T2	1.11*	-	
	T3	1.37*	.26	-
	T4	1.40*	.28	.03

		Third Goal (n = 74)		
		T1	T2	T3
	T1	-		
	T2	.92*	-	
	T3	1.42*	.50	-
	T4	1.46*	.54	.04

Note. * P < .01

There were a number of problems with the GAFG. The crisis workers found it extremely time consuming to set goals with each participant. It took the crisis worker(s) and a participant an average of 15 minutes to set three goals. The crisis workers stated that a large number of the clients were not interested in spending so much time setting such in-depth goals, when they were only going to see the crisis worker one or two more times. Thirty-nine percent (59 of 150) of the participants refused to fill out the GAFG. Forty-six percent (27 of 59) of these were too upset to successfully negotiate goals with a crisis worker. Another 16 percent (23 of 59) were unwilling to negotiate any goals with a crisis worker and 16 percent (9 of 59) refused to set goals because they found the GAFG too complex. A general consensus among these last nine participants was that there were too many blanks to fill in and it was difficult to figure out how the goals would be rated. Finally, the crisis workers expressed concern about only having the participants rate their own progress. In some instances the participants would say they were doing fine, when really nothing had changed. The crisis workers suggested that it would be useful to have a similar instrument completed by both the crisis worker and the client. The scores could be compared and any large differences in scores could be examined more carefully. Lombillo, Kiresuk, and Sherman (1973) also encountered similar problems when clients negotiated goals with a crisis worker.

Brief Derogatis Psychiatric Rating Scale (B-DPRS) Results

Results from the B-DPRS revealed significant improvements in five of the nine primary symptom dimensions. Figure 6 shows that there was a significant positive change from pre-intervention to post-intervention scores for somatization, $t(32) = 2.87$, $p<.007$. Scores for interpersonal sensitivity indicated that the levels of impairment decreased significantly from pre-intervention to post-intervention, $t(32) = 2.27$, $p<.03$. The scores for depression revealed that there was a significant reduction from pre-intervention to post-intervention levels of impairment, $t(32) = 3.46$, $p<.002$. Levels of anxiety also decreased significantly from pre-intervention to post-intervention, $t(32) = 2.46$, $p<.02$. Phobic anxiety showed a significant reduction from pre-intervention to post-intervention scores, $t(32) = 2.55$, $p<.016$. The global pathology index scores revealed a highly significant positive change from pre-intervention to post-intervention scores, $t(32) = 4.92$, $p< .001$.

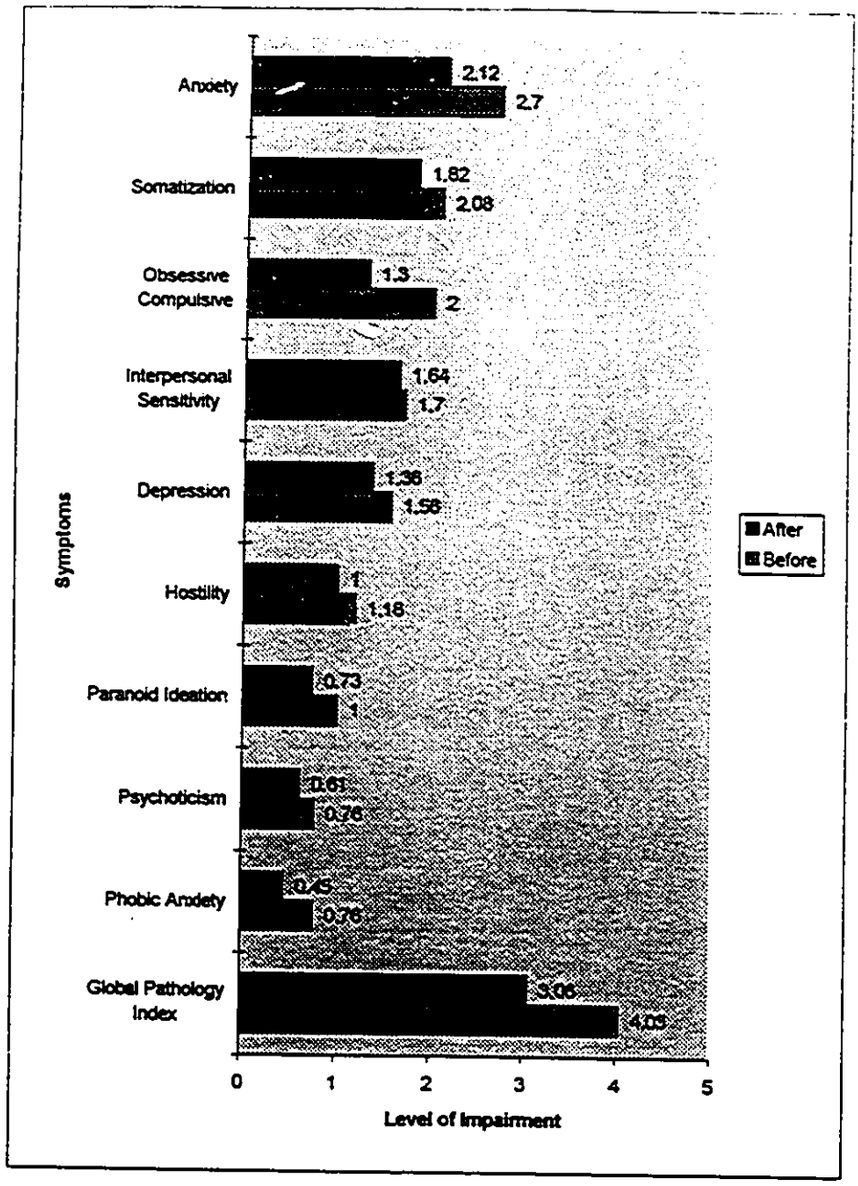

Figure 6. Before and after scores for the Brief Derogatis Rating Scale. The values represent the means of each symptom for 33 participants.

According to Marks (1995) improvement of two or more points on a symptom dimension of the B-DPRS is clinically significant. By this criterion, there were clinically significant improvements for many clients on the nine primary symptom dimensions (Table 4-15).

Table 4-15
The Participants' Numerical Change from Before to After Scores on the B-DPRS

Symptom	Became worse by one point	No change	Improved by one point	Improved by two or more points
Interpersonal Sensitivity	1(3%)	13(39%)	9(27%)	10(30%)
Anxiety	0	15(45%)	8(24%)	10(30%)
Depression	0	18(55%)	7(21%)	8(24%)
Obsessive-Compulsive	0	18(55%)	8(24%)	7(21%)
Somatization	1(3%)	21(64%)	4(12%)	7(21%)
Hostility	0	22(67%)	6(18%)	5(15%)
Phobic Anxiety	0	27(82%)	2 (6%)	4(12%)
Paranoid Ideation	0	27(82%)	3 (9%)	3 (9%)
Psychoticism	0	31(94%)	1 (3%)	1 (3%)
Global Pathology Index	0	10(30%)	12(36%)	11(33%)

Changes in anxiety and interpersonal sensitivity scores indicate that 30 percent (10 of 33) of the participants from each symptom dimension showed clinically significant improvements. Few participants improved clinically on psychoticism and paranoid ideation because only a small group of the participants appeared to have these problems and those who did had low levels of impairment.

In order to reduce rater bias the crisis workers were not informed what was a clinically significant improvement. However, it was explained to each crisis worker that the scores would not be used to evaluate their work performance.

Mean ratings by the part-time staff and those made by full-time staff did not differ significantly. Indeed, the full-time staff's mean ratings of the participants were slightly lower (4.6) than the part-time staff's (4.7). In addition, a seconded crisis worker's ratings (4.9) were compared to other workers. The seconded crisis worker's ratings were slightly higher (4.9) than other crisis workers (4.7). These comparisons suggest that the ratings were fairly consistent among all the crisis workers.

There were a number of problems with the B-DPRS. Some crisis workers suggested it would be useful to have one instrument which would allow the crisis worker to rate the participants and another for the participants to rate themselves. Only four of the 33 participants completed the Brief Symptom Inventory (BSI) which is used to validate the crisis workers ratings on the B-DPRS; and, as a result the scores could not be validated.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

General Discussion

There is a need to develop more rigorous methods for evaluating crisis intervention programs (Geller et al., 1995; Parad & Parad, 1990; Roberts, 1990). The main goal of the present formative evaluation was to determine the feasibility of an interrupted time-series design as a means of evaluating the Lethbridge Crisis Intervention and Community Support Program (LCICSP). This quasi-experimental design was chosen because it was not ethically feasible to randomly assign some of the individuals in crisis to a control group who would not receive crisis services.

Data for the number of community agencies contacted and hospitalization rates were analyzed within the context of an interrupted time-series design. The number of measurement times were limited to reduce participant loss. However, it was more difficult to identify maturation and history threats. The interrupted time-series design was found to be a feasible method of determining whether the participants contacted more community agencies after receiving crisis services than before.

The hospitalization findings are limited because there is only one measurement point after receiving crisis services. Tracking clients' hospitalization rates for an entire year after receiving

crisis services is difficult because these people are transitory (Golan, 1987) and often do not have their numbers listed in the telephone directory when they re-locate. One possible way to reduce subject loss is to randomly select a sub-sample and maintain telephone contact with that group on a bi-weekly basis. In addition, each participant should be asked to sign a release-of-information form so that medical records can be used to monitor hospitalization rates.

The formative evaluation resulted in the development of an intake form, a contacting-community-agency form, and three satisfaction surveys. The intake form was used to collect information on demographic characteristics of clients, to show what services a crisis program provides, and to structure follow-up to monitor the frequency and duration of psychiatric hospitalizations of clients. The decision-making approach (Weiss, 1972) was used to develop the intake form and the contacting-community-agency form. The system analysis approach to evaluation was used to determine how and when the data should be collected (Rossi & Freeman, 1993).

A one-way repeated-measures analysis of variance was used to compare the mean length of psychiatric hospitalizations during four time intervals: 1) 18 to 12 months-before receiving crisis services, 2) 12 to 6 months-before receiving crisis services, 3) 6 months-before receiving crisis services to the point of receiving crisis services, and 4) from the point of receiving crisis services or from the point of discharge if the person was hospitalized while

receiving crisis services to 6 months-after receiving crisis services. There is a significant change in the mean length of psychiatric hospitalizations across these time intervals. The Tukey (HSD) test revealed a significant difference in the mean length of psychiatric hospitalizations between the first time interval and the second time interval. A significant difference was also found between the first time interval and the last time interval.

A one-way repeated-measures analysis of variance was conducted with 17 outliers removed. The analysis revealed a significant change in the mean length of psychiatric hospitalizations across the four time intervals. Tukey (HSD) test revealed a significant difference in the mean length of psychiatric hospitalizations between the first time interval and last time interval.

The question of whether to delete outliers or not is difficult. Analyses of variance assume equal variability of scores in each group. The presence of extreme outliers in the present study may cause such a high degree of heterogeneity of variance that confidence in the statistical test is reduced. However, the probability of making a type I error is reduced because the p value was very low. This implies that there is a greater likelihood of rejecting the null hypothesis falsely (Keppel, 1973; Tabachnick & Fidell, 1989). In contrast, removing the outliers from the analysis misrepresents the target population the crisis program served. In addition, the outliers in the hospitalization data are individuals who have continued to use a large amount of the crisis

program's resources. Deleting these individuals from the analysis means that the impact they may have on the program is not acknowledged. It should also be noted that the LCICSP aims to serve a diverse group of clients and providing services for these clients prevents them from falling through the gaps in the mental health care system. As result, when interpreting the hospitalization data, it should be noted that there were outliers. The data from the contacting-community-agency form revealed that significantly more participants contacted one or more community agencies after receiving crisis intervention services than before. This finding raises the issue of whether clients contacted more agencies because they were in crisis or as a result of contacting the LCICSP.

The data from the present formative evaluation indicates that more clients contacted agencies because they received crisis services rather being in a crisis. Responses from question six in the referring agency and receiving agency satisfaction surveys suggest that the mobility of the crisis workers enabled the crisis program to provide a service to those clients who are unable to contact the appropriate community agencies themselves. A number of the respondents from the referring agencies and receiving agencies also indicated that their agencies do not have the time nor the resources the LCICSP has to effectively refer clients to other community agencies. Results from interviews with therapists who received referrals from the crisis program also supported the

notion that increased contact with the appropriate community agencies arose from receipt of services. In addition, question three in the client satisfaction survey suggests that the crisis program helped clients deal more effectively with their problems. The following case illustrates the typical pattern of how clients are more willing to seek help from other agencies after receiving crisis services.

Case 1.

Mrs. A is a 44-year-old alcoholic women who was sexually abused when she was young. In 1994, Mrs. A attempted to kill herself and was treated as an outpatient at a hospital. Six months later a crisis worker was called to the hospital to assess her because she attempted suicide again. After receiving crisis services the crisis worker arranged for Mrs. A to go to a detoxification treatment centre, a physician, and a therapist. The qualitative data from Mrs. A's client satisfaction survey and quantitative data from the referring agency satisfaction survey also indicated that Mrs. A had been in contact with more agencies after dealing with the crisis program than before receiving crisis services.

The three satisfaction surveys, the client satisfaction survey, the referring agency satisfaction survey, and the agency receiving referrals from the crisis intervention program satisfaction survey, provide insight on others' perceptions of the LCICSP. Results from the satisfaction surveys suggest that the

majority of the people who had contact with the LCICSP were satisfied with the service they received.

The formative evaluation was used to determine if the Goal Attainment Follow-up Guide (GAFG) (Kiresuk & Sherman, 1968) and the Brief Derogatis Psychiatric Rating Scale (B-DPRS) (Derogatis, 1978) would be suitable as instruments for use with community-based mobile crisis intervention programs. The main drawback of the GAFG was that it was time consuming and expensive to complete. Because of these problems, a substitute for the GAFG should be developed. The instrument should contain the a list of the client's main goals and be rated by the crisis worker and the client.

A problem with using the B-DPRS is that, in Canada, most crisis programs cannot afford to employ chartered psychologists and psychiatrists to administer it. In addition, only a few of the participants in the present study were willing to complete the Brief Symptom Inventory (BSI). The BSI is used to validate the crisis workers ratings on the B-DPRS. Therefore, without the BSI to compare scores there is no way of ensuring that the B-DPRS can produce reliable and valid findings.

Taking into consideration these limitations, a substitute for the B-DPRS should measure functional dimensions such as: ability to work, the frequency of involvement in social and private leisure activities, home management, relationships (i.e., the person's ability to get along with others), depression (i.e., what is the person's mood like in general?), communication skills, ability to

cope with stress, financial management skills, and hygiene skills. This type of functional assessment should be completed by the client and the client's ratings could be validated by the crisis worker's ratings.

Implemented Recommendations

The following implemented recommendations are based on data from the satisfaction surveys, interviews with agencies involved with the program, and the crisis program's monthly reports from the previous two years.

1. The pager system has been changed.

Results from the three satisfaction surveys indicated that the pager number should be made more accessible for the general public. The pager number is now left on CMHA's answering machine for after-hour calls. The Samaritans are now able to contact the crisis program if they feel a caller needs to be seen by a mobile crisis worker.

2. Scheduling of crisis workers has been changed.

Data from the information system indicated that full-time staff were not on-call during the busiest referral times. Full-time staff have now been scheduled to work when the majority of the calls are received. This results in more effective use of human resources.

3. Development of an intake form.

The intake form provides the crisis program with a standardized set of information about each client. This has resulted in the collection of more reliable and valid data. The intake form has been coded for direct entry into the computer and a spread sheet has been set-up so that monthly reports can be generated within minutes.

4. The number of times a crisis worker sees a client has been changed.

Data from the intake form showed that some clients require more intensive follow-up than others. Clients may now see a crisis worker 3 to 5 times instead of a maximum of 3 sessions. This change has proved to be cost-effective because there is a reduction the number of repeat users to the program.

5. Referring clients to other agencies has been standardized.

Low return rates from the receiving agency satisfaction survey and phone follow-up with those agencies who did not return the surveys indicated that the referral system needed to be changed. A referring agency form was developed so that every time a crisis worker refers a client to another agency, the crisis worker either faxes or hand delivers the form. This way the agency has some background information on the client and they also know from where the referral originated. A component of the formative evaluation

is to obtain satisfaction data and the referring agency form enables the program to better monitor the level of the agencies satisfaction with the referral.

6. Standardized in-service training modules.

Qualitative data from physicians and the Lethbridge City Police indicated that different in-service training modules needed to be developed for each agency referring clients to the crisis program. Modules have been developed for Lethbridge City Police and physicians (including physicians from the LRH-E and private physicians within the community). Modules are currently being developed through the school system, the clinic, community psychiatry, day treatment, correctional centre, Streets Alive, and other community agencies.

Recommendations

There is a need to collect empirical evidence on the effectiveness of mobile crisis intervention programs as an approach to emergency service delivery (Geller et al., 1995). Program managers must address the issues below so that they can develop effective mobile crisis intervention programs.

The following recommendations focus on two areas: suggestions from the participants and other community agencies and standards for conducting a formative. In addition, a more extensive set of recommendations was given to the LCICSP management committee.

Suggestions from the Participants and Community Agencies

1. The LCICSP should maintain its mobile service

A large number of participants indicated that they would not have been able to contact the program's services had it not been mobile. The two main referring agencies (i.e., LCP and LRH-E) also stated that most of their referrals require the crisis worker to be mobile.

2. More in-service training for other community agencies.

A number of community agencies have not received in-service training. The crisis workers should provide formal in-service training sessions for relevant community agencies. For example, they could provide in-service training sessions for the personnel

at the soup kitchen, food bank, schools, and nursing homes, for security guards at the local shopping centres, for university and college counsellors, and for various local social clubs.

3. The participants indicated they would prefer to deal with the same crisis worker.

A recurring complaint was that crisis workers did not follow-up with their own clients. The participants indicated they would prefer to be seen by a single crisis worker.

4. The Crisis Program should advertise its program

The program should advertise that the Lethbridge crisis hot-line has the ability to contact a mobile crisis intervention worker. It is important to specify that mobile services will only be made provided for those individuals who are deemed in need of the service.

Making the pager number available for the general public may pose problems. For example, the program operates on a limited budget and cannot handle a large increase in the number of clients. In addition, the current referral process allows community agencies to refer clients that they feel would be best served by the LCICSP.

Standards for Conducting a Formative Evaluation

1. Clearly Define the Program's Mission, Goals, Objectives, and Target Population.

Clearly stated mission, goals, and objectives tell sponsors and other stakeholders exactly what the program aims to accomplish (i.e., its goal or goals) and how the program will measure its progress (i.e., its objectives). By operationally defining the target population, the sponsors and stakeholders are able to determine whether the program is serving its mandated clientele. (See Morris & Fitz-Gibbon, 1978; Chambers, Wedel, & Rodwell, 1992; and Rossi & Freeman, 1993).

2. Develop a Initial Intake Form

It saves time and money to first find out if other programs are using or developing an initial intake form. If one is found, it may be worthwhile to modify it to suit the program. In addition, it is always wise to conduct a literature search to find out if any other researchers have published such an instrument. The intake form should be coded so that the information can be coded directly into the computer. Pilot test the instrument on 30 or more clients before using it to monitor the program's progress. The staff, who are administering the intake form and entering the data into the computer should be asked to provide feedback about the instrument. For an example of an intake form see Appendix 1.

3. Administer Periodic Satisfaction Surveys

This recommendation underscores the importance of administering satisfaction surveys to the participants, agencies referring clients to the program, and agencies who receive referrals from the program. These satisfaction surveys should be administered within two months of involvement with the client. If the researcher waits much longer, people will begin to forget what aspects of the program they liked or disliked. It is also important to find out how the clients and other agencies view the program (Lebow, 1983). To reduce the added workload on the staff, every month 10 percent of the clients should be randomly selected and surveyed.

This thesis raised the question of whether an interrupted time-series design is an appropriate means of evaluating a community-based mobile crisis intervention program. An interrupted time-series design was found to be feasible for some variables, but not for others. Evaluators must therefore be prepared to use a wide range of experimental designs and evaluation models when conducting a formative evaluation.

References

Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87, 49-74.

Aguilera, D. C. (1994). Crisis intervention: Theory and methodology (7th ed.). St. Louis, Missouri: Mosby-Year Book Inc.

Aguilera, D. C., & Messick, J. M. (1982). Crisis intervention: Theory and methodology (4th ed.). St. Louis, Missouri: Mosby-Year Book Inc.

Andreoli, A., Frances, A., Gex-Fabry, M., Aapro, N., Gerin, P., & Dazord A. (1993). Crisis intervention in depressed patients with and without DSM-III-R personality disorders. Journal of Nervous and Mental Disease, 181, 732-737.

Auerbach, S. M., & Kilmann, P. R. (1977). Crisis intervention: A review of outcome research. Psychological Bulletin, 84, 1189-1217.

Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, N.J.: Prentice Hall.

Beers, T. M. Jr., & Foreman, M. E. (1976). Intervention patterns in crisis interviews. Journal of Counseling Psychology, 23, 87-91.

Bengelsdorf, H., Church, J. O., Kaye, R. A., Orlowski, B., & Alden, D. C. (1993). The cost effectiveness of crisis intervention: Admission diversion savings can offset the high cost of service. Journal of Nervous and Mental Disease, 181, 757-762.

Berk, R. A., & Rossi, P. H. (1990). Thinking about program evaluation. Newbury Park, CA.: Sage Publications.

Bill, A. (1969). The effectiveness of a psychiatric emergency service. Delaware Medical Journal, 41, 241.

Brammer, L. M. (1985). The helping relationship: Process and skills (3rd ed.). Englewood Cliffs, NJ.: Prentice-Hall.

Bunn, T. A., & Clarke, A. M. (1979). Crisis intervention: An experimental study of the effects of a brief period of counselling on the anxiety of relatives of seriously injured or ill hospital patients. British Journal of Medical Psychology, 52, 191-195.

Callahan, J. (1994). Defining crisis and emergency. Journal of Crisis Intervention and Suicide Prevention, 15, 164-171.

Campbell, D. T., & Stanley, J. C. (1966). Experimental and quasi-experimental designs for research. Chicago; Rand McNally & Company.

Caplan, G. (1961). An approach to community mental health. New York: Grune and Stratton.

Caplan, G. (1964). Principals in preventive psychiatry. New York: Basic Books.

Capone, M. A., Good, R. S., Westie, K. S., & Jacobson, A. F. (1980). Psychological rehabilitation of gynaecologic oncology patients. Archives of Physical Medicine and Rehabilitation, 61, 128-132.

Chambers, D. E. (1986). Social programs and social policies. New York: Macmillan.

Chambers, D. E., Wedel, K. R., & Rodwell, M. K. (1992). Evaluating social programs. Needham Heights, Massachusetts: Allyn and Bacon.

Chambers, F. (1994). Removing confusion about formative and summative evaluation: Purpose versus time. Evaluation and Program Planning, 17, 9-12.

Christensen, L. B. (1991). Experimental methodology (5th ed.). Needham Heights: A division of Simon and Schuster.

Cohen, A. W. (1987). Behavioral objectives in probation and parole: A new approach to staff accountability. Federal Probation, 51, 40-49.

Cohen, L. H., & Nelson, D. W. (1983). Crisis intervention: An overview of theory and technique. In L. H. Cohen, W. L. Claiborn and G. A. Spector (Eds.), Crisis intervention (2nd ed.) (pp. 13-26). New York: Human Sciences Press.

Cook, T. D., & Campbell, D. T. (1976). The design and conduct of quasi-experiments and true experiments in field settings (pp 223-326). In M. D. Dunnette (Ed.), Handbook of industrial and organizational research (pp. 223-326). Skokie, ILL.: Rand McNally.

Cormier, W. H., & Cormier, L. S. (1985). Interviewing strategies for helpers: Fundamental skills and cognitive behavioral interventions (2nd ed.). Pacific Grove, CA.: Brooks and Cole.

Cronbach, L. J. (1963). Course improvement through evaluation. Teachers College Record, 64, 672-683.

Cronbach, L. J., Ambron, S. R., Dornbusch, S. M., Hess, R. D., Hornik, R. C., Phillips, D. C., Walker, D. F., & Weiner, S. S. (1980). Toward reform of program evaluation. San Francisco: Jossey-Bass Publishers.

Dazord, A., Gerin, P., Iahns, J. F., Andreoli, A., Reith, B., & Abensur, J. (1991). Pretreatment and process measures in crisis intervention as predictors of outcome. Psychotherapy Research, 1, 135-147.

Decker, J. B., & Stubblebine, J. M. (1972). Crisis intervention and prevention of psychiatric disability: A follow-up study. American Journal of Psychiatry, 129, 725-729.

DeMont, R. (1975). Accountability: An action model for the public schools. Homewood, Illinois: ETC Publications.

Derogatis, L. R. (1978). Brief Derogatis rating scale. Minneapolis: National Computer Systems INC.

Dillman, D. A. (1978). Mail and telephone surveys. New York: Wiley-Interscience Publication.

Donovan, J. M., Bennett, M. J., & Mcelroy, C. M. (1979). The crisis group-an outcome study. American Journal of Psychiatry, 136, 906-910.

Dublin, L. I. (1963). Suicide: A sociological and statistical study, New York: Ronald Press.

Ellis, E. H., & Wilson, N. (1973). Evaluating treatment effectiveness using goal-oriented automated progress note. Evaluation, 3, 473-490.

Farberow, N. L., & Schneidman, E. L. (1961). The cry for help. New York: McGraw-Hill Book Company.

Fengler, J. (1987). Lernzeil, design and evaluation. Gruppendynamik, 18, 5-18. (From Psychological Abstracts, 1989, 26, Abstract No. 72183)

Fine, R. (1973). Psychoanalysis. In R. J. Corsini (Ed.), Current psychotherapies (pp. 1-33). Itasca, IL: F. E. Peacock.

France, K. (1990). Crisis intervention: A handbook of immediate-to-person help (2nd ed.). Springfield, Illinois: Charles C. Thomas Publishers.

France, K. (1984). Goal attainment scaling as a therapeutic aid in crisis intervention, Crisis Intervention, 86, 11-20.

Fisher, W. H., Geller, J. L., Wirth-Cauchon, J. (1990). Empirically assessing the impact of mobile crisis capacity on state hospital admissions. Community Mental Health Journal, 16, 245-253.

Garwick, G. (1975). Introduction to Goal Attainment Scaling-Part I, II, and III. Minneapolis, Minnesota: A product of the Program Evaluation Resource Centre.

Garwick, G. (1976). A guide to goals. Minneapolis, Minnesota: A product of the Program Evaluation Resource Centre.

Geller, J. L. (1990). Anyplace but the State hospital: Examining assumptions about the benefits of admission diversion. Journal of Hospital and Community Psychiatry, 42, 145-152.

Geller, J. L., Fisher, W. H., & McDermeit, M. (1995, September). A national survey of mobile crisis services and their evaluation. Psychiatric Services, 46, 983-987.

Getz, W. H., Fujita, B. N., & Allen, D. (1975). The use of paraprofessionals in crisis intervention: Evaluation of an innovative program. American Journal of Community Psychology, 5, 135-144.

Gilliland, B. E., & James, K. R. (1988). Crisis intervention strategies. Pacific Grove, California: Cole Publishing Company.

Glass, A. (1954). Psychotherapy in the combat zone. American Journal of Psychiatry, 110, 725-731.

Glassor, P. H. (1990) Foreword. In A. R. Roberts (Ed.), Crisis intervention handbook: Assessment, treatment and research (p. xv). Belmont, CA.: Wadsworth Publishing Company.

Golan, N. (1978). Treatment in crisis situations. New York: Free Press.

Golan, N. (1987). Crisis intervention. In Encyclopedia of social work (18th ed.) (pp. 360-372). Washington, DC: National Association of Social Workers.

Gordon, R. H. (1978). Efficacy of group crisis-counseling program for men who accompany women seeking abortions. American Journal of Community Psychology, 6, 239-246.

Guba, E. G. & Lincoln, Y. S. (1982). Effective Evaluation. San Francisco: Jossey-Bass Publishers.

Haley, J. (1976). Problem-solving therapy. New York: McGraw-Hill.

Hansell, N. (1976). The destressed person. New York: Human Sciences Press.

Harris, M., Bergman, H. C., & Bacharh, L. L. (1986). Psychiatric and nonpsychiatric indicators for rehospitalization in a chronic population. Hospital of Community Psychiatry, 37, 630-631.

Hendricks, J. E. (1984). Death notification: The theory and practice of informing survivors. Journal of Police Science and Administration, 12, 109-116.

Hobbes, M. (1984). Crisis intervention in theory and practice: A selective review. British Journal of Medical Psychology, 57, 23-34.

Hoff, L. A. (1989). People in crisis: Understanding and helping. Redwood, C.A.: Addison-Wesley Publishing Company.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychsomatic Research, 11, 213-218.

House, E. R. (1980). Evaluating with validity. Beverly Hills CA.: Sage Publications.

House, E. R. (1993). Professional evaluation: Social impact and political consequences. Newbury Park, California: Sage Publications, Inc.

Jacobson, G. F., Strickler, M., & Morley, W. E. (1968). Generic and individual approaches to crisis intervention. American Journal of Public Health, 58, 338-343.

Janosik, E. H. (1984). Crisis counselling: A contemporary approach. Monterey, CA.: Wadsworth Health Sciences Division.

Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). Research methods in social relations. Fort Worth: Holt, Rinehart and Winston, Inc.

Kaplan, D. M., & Mason, E. A. (1960). Maternal reactions to premature birth viewed as an acute emotional disorder. American Journal of Orthopsychiatry, 30, 539-552.

Keppel, G. (1973). Design and analysis: A researcher's handbook. Englewood Cliffs NJ: Prentice-Hall.

Kernberg, O., Selzer, M., Koenigsberg, H., Carr, A., & Appelbaum, A. (1989). Psychodynamic psychotherapy of borderline patients. New York: Basic Books.

Kiresuk, T. J., & Sherman, R. E. (1968). Goal attainment Scaling: A general method for evaluating comprehensive community mental health programs. Community Mental Health Journal, 4, 443-453.

Klein, D., & Lindemann, E. (1961). Preventive intervention in individual and family crisis situations. In G. Caplan (Ed.), Prevention of mental disorders in children (pp. 283-306). New York: Basic Books.

Klein, D., & Ross A. (1958). Kindergarten entry: A study of role transition. In M. Krugman (Ed.), Orthopsychiatry and the school (pp. 22-31). New York: American Orthopsychiatric Association.

Koenigsberg, H. (1984). Indications for hospitalization in the treatment of borderline patients. Psychiatry Quarterly, 56, 247-258.

Laferrier, L., & Calsyn, R. (1978). Goal attainment scaling: An effective treatment technique in short-term therapy. American Journal of Community Psychology, 6, 271-282.

Langsley, D. G., Flomenhaft, K., & Machotka, P. (1969). Follow-up evaluation of family crisis therapy. American Journal of Orthopsychiatry, 39, 753-759.

Langsley, D. G., Machotka, P., & Flomenhaft, K. (1971). Avoiding mental hospital admission: A follow-up study. American Journal of Psychiatry, 127, 1391-1394.

Langsley, D. G., Pittman, F. S., Machotka, P., & Flomenhaft, K. (1968). Family Process, 7, 145-158.

Lebow, J. L. (1983). Client satisfaction with mental health treatment: Methodological considerations in assessment. Evaluation Review, 7, 729-752.

Levois, M., Nguyen, T. D., & Attkisson, C. C. (1981). Artifact in client satisfaction assessment: Experience in community mental health settings. Evaluation and Program Planning, 4, 139-150.

Lindemann, E. (1944). Symptomatology and management of acute grief. In H. Parad (Ed.), (1982). Crisis intervention: Selected readings (pp. 7-21). New York: Family Service Association of America.

Lindemann, E. (1956). The meaning of crisis in individual and family. Teachers College Record, 57, p. 310.

Lombillo, J. R., Kiresuk, T. J., & Sherman (1973). Evaluating a community mental health program: Contract fulfillment analysis. Hospital and Community Psychiatry, 24, 760-762.

Lyons, G. M. (1969). The uneasy partnership. New York: Russell Sage Foundation.

Madaus, G. F., Scriven, M. S., & Stufflebeam, D. L. (1983). Evaluation models: Viewpoints on educational and human services evaluation. Boston: Kluwer-Nijhoff Publishing.

Madaus, G. F., Stufflebeam, D. L., & Scriven, M. S. (1983). Program evaluation: A historical overview. In G. F. Madaus M. S. Scriven & D. L. Stufflebeam (Eds.), Evaluation models: Viewpoints on educational and human services evaluation (pp. 1-23). Boston: Kluwer-Nijhoff Publishing.

Marks, I. (1995, May). Developing mental health outcomes. Symposium conducted at the Heritage Building for Medical Research, Calgary, Canada.

Mayer, R. (1985). Policy and program planning: A developmental perspective. Englewood Cliffs, New York: Prentice-Hall.

McGee, R. (1974). Crisis intervention in the community. Baltimore, MD.: University Park Press.

Menninger, W. C. (1948). Psychiatry in a troubled world. New York: Macmillan.

Morris, L. L., & Fitz-Gibbon, C. T. (1978). Evaluator's handbook. Beverly Hills, CA.: Sage Publications.

Neuwelt, A. (1988). A study of the measurement of knowledge about crisis intervention among professional social workers. Unpublished doctoral dissertation, University of Toronto, Toronto.

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). New York: McGraw-Hill.

Olfson, M., Plotke, S. G., Harding, C. M., Jones, J., & Mayfield, V. W. (1990). A controlled evaluation of inpatient crisis treatment for acute schizophrenic episodes. Psychiatric Quarterly, 61, 143-154.

Ottens, A. J., & Fisher-McCanne, L. (1990). Crisis intervention at the college campus counseling center. In A. R. Roberts (Ed.), Crisis intervention handbook: Assessment, treatment and research (pp 78-97). Belmont, California: Wadsworth Publishing Company.

Parad, H. J., & Parad, L. G. (1990) Crisis intervention book 2: The practitioner's sourcebook for brief therapy. Milwaukee, Wisconsin: Family Service America.

Patton, M. Q. (1980). Qualitative evaluation methods. Beverly Hills, CA.: Sage.

Patton, M. Q. (1986). Utilization-focused evaluation (2nd ed.). Newbury Park, CA.: Sage Publications, Inc.

Posavac, E. J., & Carey, R. C. (1985). Program evaluation: methods and case studies. Englewood Cliffs, New Jersey: Prentice-Hall.

Provincial Mental Health Broad (1995). Building a better future: A community approach to mental health. Alberta: Alberta Mental Health.

Querido, A. (1968). The shaping of community mental health care. British Journal of Psychiatry, 114, 293-299.

Rapoport, L. (1962). The state of crisis: Some theoretical considerations. Social Service Review, 36, 211-217.

Rapoport, L. (1970). Crisis intervention as a mode of brief treatment. In R. W. Roberts and R. H. Nee (Eds.), Theories of social Casework (pp. 277-298). Chicago: University of Chicago Press.

Roberts, A. R. (Ed.). (1990). Crisis intervention handbook: Assessment, treatment and research. Belmont, California: Wadsworth Publishing Company.

Roberts, A. R., & Roberts, B. S. (1990). A comprehensive model for crisis intervention with battered women and their children. In A. R. Roberts (Ed.), Crisis intervention handbook: Assessment, treatment and research (pp 105-122). Belmont, California: Wadsworth Publishing Company.

Roethlisberger, F. J. & Dickson, W. (1939). Management and the worker. Cambridge, MA: Harvard University Press.

Rogers, C. R. (1977). Carl Rogers on personal power: Inner strength and its revolutionary impact. New York: Delacorte.

Rossi, P. H., Freeman, H. E., & Wright, S. R. (1979). Evaluation a systematic approach. Beverly Hills, California: Sage Publications, Inc.

Rossi, P. H., & Freeman, H. E. (1985). Evaluation a systematic approach (3th ed.). Beverly Hill, California: Sage Publications, Inc.

Rossi, P. H., & Freeman, H. E. (1989). Evaluation a systematic approach (4th ed.). Newbury Park, California: Sage Publications, Inc.

Rossi, P. H., & Freeman, H. E. (1993). Evaluation a systematic approach (5th ed.). Newbury Park, California: Sage Publications, Inc.

Ruttman, L., & Mowbray, G. (1983). Understanding program evaluation. Beverly Hills, CA.: Sage Publications Ltd.

Schulberg, H., & Killilea, M. (Eds.). (1982). The modern practice of community mental health: A volume in honour of Gerald Caplan. San Fransico: Jossey-Bass.

Scriven, M. S. (1967). The methodology of evaluation. In R. W. Tyler, R. M. Gagne, & M. S. Scriven (Eds.), Perspectives of curriculum evaluation (pp. 39-83). Chicago: Rand McNally.

Scriven, M. S. (1973). Goal free evaluation. In E. R. House (Ed.), School evaluation (pp. 21-38). Berkeley CA.: McCutchan.

Scriven, M. S. (1974). Evaluation and perspectives. In J. W. Popham (Ed.), Evaluation in education: Current application (pp 3-93). Berkeley, CA.: McCutchan.

Scriven, M. S. (1976). Evaluation bias and control. In G. V. Glass (Ed.), Evaluation studies review annual, Vol. 1. Beverly Hills, CA.: Sage Publications.

Shadish, W. R., Cook, T. D., & Leviton, L. C. (1991). Foundations of program evaluation: Theories of practice. Newbury Park, CA.: Sage Publications, Inc.

Slaikeu, K. A. (1984). Crisis intervention: A handbook for practice and research. Boston: Allyn and Bacon.

Slaikeu, K. A. (1990). Crisis intervention: A handbook for practice and research (2nd ed.). Boston: Allyn and Bacon.

Smith, A. (1981). Goal attainment scaling: A method of evaluating the outcome of mental health treatment. In P. McReynolds (Ed.), Advances in psychological assessment (pp. 424-459). San Francisco: Jossey-Bass.

Speer, D. C., & Schultz, M. (1972). An instrument for assessing caller-reported benefits of calls to a telephone crisis service. Journal of Consulting and Clinical Psychology, 43, 102-110.

Stake, R. E. (1967). The countenance of educational evaluation. Teachers College Record, 68, 523-540.

Stake, R. E. (1975). An interview with Robert Stake on responsive evaluation. In R. E. Stake (Ed.), Evaluating the arts in education: A responsive approach (pp. 33-38). Columbus, OH.: McCutchan.

Stake, R. E. (1982). The two cultures and evaluation evolution. Evaluation News, 3, 10-14.

Stake, R. E., & Easley, J. A. (1978). Case studies in science education. Champaign: University of Illinois, Centre for Instructional Research and Curriculum Evaluation.

Stake, R. E. (1986). An evolutionary view of education improvement. In E. House (Ed.), New directions in educational evaluation (pp. 259-267). London: Farmer.

Stewart, M. J., Vockell, E. L., & Ray, R. E. (1986). Decreasing court appearances of juvenile status offenders. Social Casework, 67, 74-79.

Stufflebeam, D. L. (1969). Evaluation as enlightenment for decision-making. In W. H. Beatty, (Ed.), Improving educational assessment and an inventory of affective behavior (pp. 41-73). Washington, DC: Association for Supervision and Curriculum Development, NEA.

Stufflebeam, D. L., Foley, W. J., Gerhart, W. J., Guba, E. G., Hammond, R. L., Merriman, H. O., & Provus, M. M. (1971). Educational evaluation and decision-making in education. Itasca, IL.: Peacock.

Stufflebeam, D. L. & Webster, W. J. (1980). An analysis of alternative approaches to evaluation. In G. F. Madaus, M. S. Scriven & D. L. Stufflebeam (Eds.), Evaluation models: Viewpoints on educational and human services evaluation (pp. 23-43). Boston: Kluwer-Nijhoff Publishing.

Suchman, E. A. (1967). Evaluation research. New York: Russell Sage Foundation.

Thompson, C. M. (1985). Characteristics associated with outcomes in a community mental health partial hospitalization program. Community Mental Health Journal, 21, 179-188.

Trochim, W. M. (1984) Research design for program evaluation: The regression discontinuity approach. Beverly Hills, CA.: Sage Publications.

Twine, N. E. & Barraclough, N. (1995, October). A Canadian survey of crisis intervention services. An unpublished paper presented at the Canadian Association for Suicide Prevention: 6th Annual Conference, Banff, Alberta.

Viney, L. L., Benjamin, Y. N., Clarke, A. M., & Bunn, T. A. (1985). Sex differences in the psychological reactions of medical and surgical patients to crisis intervention counseling: Sauce for the goose may not be sauce for the gander. Social Science Medicine, 20, 1199-1205.

Viney, L. L., Clarke, A. M., Bunn, T. A., & Benjamin, Y. N. (1985). Crisis-intervention counseling: An evaluation of long- and short-term effects. Journal of Counseling Psychology, 32, 29-39.

Warheit, G. J., Bell, R. A., & Schwab, J. J. (1977). Needs assessment approaches: Concepts and methods. Washington, DC: U.S. Government Printing Office.

Weiss, C. H. (1972). Evaluation research: Methods of assessing program effectiveness. Englewood Cliffs, New Jersey: Prentice-Hall.

Witkin, B. R. (1984) Assessing needs in educational and social programs. San Francisco: Jossey-Bass Publishers.

Wholey, J. S. (1981). Using evaluation to improve program effectiveness. In R. A. Levine, M. A. Solomon, G. M. Hellstern, and H. Wollman (Eds.), Evaluation research and practice: Comparative and international perspectives (pp. 255-276). Beverly Hills, CA.: Sage.

Wholey, J. S. (1983). Evaluation and effective public management. Boston: Little, Brown.

Wicks, J. W. (1978). Historical aspects of crisis intervention. In R. J. Wicks, J. A. Fine and J. J. Platt (Eds.), Crisis intervention: A practical, clinical guide (pp. 1-5). United States of America: Charles Slack Inc.

Appendix 1

CRISIS INTERVENTION
REFERRAL AND INTAKE FORM

Today's Date_____
Referral Time_____
Day of the Month_____Day of the Week_____
Length of Travel ___|___|___|___| km
Estimate to the nearest five minutes
Length Phone Contact ___|___|___|___|mins
___|___|___|___|mins
Length of Personal Contact Outside Office Hours ___|___|___|___|mins
___|___|___|___|mins
Total Time Spent on the Client
___|___|___|___|mins
___|___|___|___|mins
Type of contact: 1 Mobile 2 Phone Only
3 In office (during office hours)
4 In office (outside of office hours)
___|___|___|___|type
___|___|___|___|type

Client Name _____
Sex 1 male 2 female
Address _____
_____
Phone _____D.O.B._____
age( )
AHCIC_____
Living Arrangements 1 Home
2 Friend 3 Apartment
4 Shelter
5 Supportive housing
Time Until Contact
1 Immediately 2 24hrs
3 48hrs 4 More than 48hrs
5 Not nec 6 Not possible
(specify why)_____
_____

SOURCE OF INCOME: 1 S.A. 2 AISH 3 Student 4 Pension 5 UI 6 Unemployed
7 Wage 8 Parental support 9 Spousal support 10 Please specify_____
NEXT OF KIN/FRIENDS(S):
Name _____ Address _____ Ph _____ Rel _____
Name _____ Address _____ Ph _____ Rel _____
Significant others contacted (involved): 1 2 3 4 specify other_____

Origin of the call: 1 Police 2 Hosp. Emerg. 3 Self 4 Family 5 G.P.
6 Therapist 7 Employer 8 Other _____
Name: _____ **Address and Phone#:**_____

PRESENTING PROBLEM:
Please rank the presenting problems (only one number per rating):
Primary|___|**Secondary**|___|**Tertiary**|___|
1 Relationship discord 6 Legal problems 11 Sexually assaultive behavior
2 Suicide ideation 7 Sexual abuse 12 Physically assaultive behav.
3 Suicide attempt 8 Psychological abuse 13 Bizarre behavior
4 Depression 9 Substance abuse 14 Housing difficulties
5 Anxiety 10 Financial problems 15 Medical problems
16 Other_____

SUICIDE ATTEMPTS: 1 Past 2 Present 3 No 4 Uk
Describe past method(s): _____
Present intent/plan: _____
Sexual abuse: 1 Past 2 Present 3 No 4 Uk
Alcohol abuse: 1 Past 2 Present 3 No 4 Uk
Drug abuse: 1 Past 2 Present 3 No 4 Uk
HISTORY OF VIOLENCE BY CLIENT 1 Past 2 Present 3 No 4 Uk
DESCRIBE: _____

Involved with any other community agencies? 1 Past 2 Present 3 No 4 Uk
List past _____
_____
List present _____

HISTORY OF MENTAL ILLNESS: 1 yes 2 no
Reported diagnosis: _____

Hospitalization for psychiatric reasons BEFORE receiving crisis services:
In 1993 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)
In 1994 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)
In 1995 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)
In 1996 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)
Hospitalization for psychiatric reasons WHILE receiving crisis services:
In 1996 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)
Hospitalization for psychiatric reasons AFTER receiving crisis services:
In 1996 Length of first admission of the year _____
The number of other admissions: Times _____Length_____
(to the nearest day)

Present medication: _____
_____
Source of health care: 1 psychiatrist 2 G.P. 3 other _____
Name: _____ Address/Phone: _____
Physical Health: _____

Community resources referred to: 1 L.M.H 2 L.R.H. Emerge
3 Social Services 4 Al Vas 5 Day Treatment 6 Home Care
7 AADAC 18 No referral nec. 23 Crossroads 25 Family Services
26 Refused services 28 Family Centre 31 CMHA
32 Streets Alive

_____ _____ _____
_____ _____ _____

Which resources did the client contact and who is the contact person:
1a)_____ 1b) who is the contact person _____
2a)_____ 2b) who is the contact person _____
3a)_____ 3b) who is the contact person _____
4a)_____ 4b) who is the contact person _____
5a)_____ 5b) who is the contact person _____

RECOMMENDATIONS FOR F/U: _____
_____
_____

Caseworker _____ Date _____

CANADIAN MENTAL HEALTH ASSOCIATION
426 6 Street South
Lethbridge, Alberta
T1J 2C9
(403) 329-4775

MOBILE CRISIS INTERVENTION PROGRAM
Release of Information

To Whom It May Concern:

Please be advised that I _____, hereby give my consent to release any information, either verbal or written, that will assist Crisis Intervention Team Members. It is my understanding that Canadian Mental Health Association will maintain the confidentiality of this information and share it only with those agencies/individuals that are involved with my case planning.

_____ _____
Client Signature Case Worker

_____ _____
Date Date

_____
Guardian

_____
Date

Appendix 2

Access to Services
Before Crisis Services

Please ask each client the following questions.
This from is to be filled out by the caseworker.
Please circle the correct response:

1) Are you currently involved with any community agencies?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them
1) _____ 4) _____
2) _____ 5) _____
3) _____ 6) _____

2) Have you been in contact with any other community agencies within the past month?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them
1) _____ 4) _____
2) _____ 5) _____
3) _____ 6) _____

3) Do you know how to access any services that could help you deal with your problems?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them
1) _____ 4) _____
2) _____ 5) _____
3) _____ 6) _____

4) In the past six months were you involved with any community agencies?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them
1) _____ 4) _____
2) _____ 5) _____
3) _____ 6) _____

Access to Services
After Crisis Services

Please ask each client the following questions.
This from is to be filled out by the caseworker.

Please circle the correct response:

Follow-up one month after the consumer received services

1) Are you currently involved with any community agencies that a crisis worker recommended?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them 1)_____ 4)_____
2)_____ 5)_____
3)_____ 6)_____

If no state why the consumer has not been accessing services
_____

Follow-up six months after the consumer received services

2) Are you currently involved with any community agencies that a crisis worker recommended?

4	3	2	1
More than one	Yes, one	No, I don't think so	No, not any

If yes please list them 1)_____ 4)_____
2)_____ 5)_____
3)_____ 6)_____

If no state why the consumer has not been accessing services
_____

Appendix 3

Referring Agency Survey

Please help us improve the Crisis Intervention Program by answering the following questions. We are interested in your honest opinion, whether it is positive or negative.

Please answer all the questions on this questionnaire.

We also welcome your comments and suggestions. This questionnaire will only be seen by the evaluator; all your answers will be kept confidential.

Please put the completed questionnaire in the self-addressed envelope and mail it. Thank very much, we appreciate your help.

Please check [ ] only circle one response per question please.

Date _____ Work site _____

Male ____ Female ____ Age _____

1) When did you first start referring clients to the crisis team?

[ ] This my first time [ ] One month ago [ ] Two months ago [ ] Three or more months ago

2) Do you usually receive a follow-up letter when you refer clients to the crisis team?

[ ] Never [ ] Sometimes [ ] Often [ ] Always

3) Have the people from the crisis team generally understood the kind of help your agency needed?

[ ] No,they misunderstood almost completely [ ] No,they seemed to to misunderstand [ ] Yes, they seemed to generally understand [ ] Yes, they understood almost perfectly

4) Have the services you received helped you deal more effectively with those people experiencing a mental crisis?

[ ] Yes,they helped a great deal [ ] Yes,they helped somewhat [ ] No,they really did not help [ ] No,they seemed to make things worse

5) How appropriate are the services the crisis team provides?

[ ] Highly appropriate [ ] Generally appropriate [ ] Not very appropriate [ ] Not appropriate at all

6) Do you think the Crisis Intervention Program is a duplication of of community services?

[ ] No,definitely not [ ] No, I don't think so [ ] Yes, I think so [ ] Yes, definitely

a) If so please explain why:_____

_____

7) How satisfied are you with the kind of services you have received from the crisis team?

[ ] Quite dissatisfied [ ] Mildly dissatisfied [ ] Mostly satisfied [ ] Very satisfied

8) Overall how competent do you feel the crisis team was?

[ ] Poor abilities at best [ ] Only of average [ ] Fairly competent [ ] Highly competent

9) Is it easy to get in contact with the on call crisis worker?

[ ] Very easy [ ] Easy [ ] Difficult [ ] Very difficult

10) Once you were able to get hold of the crisis team how prompt were they in responding to your call?

[ ] Not very prompt at all [ ] Not prompt [ ] Fairly prompt [ ] Very prompt

11) How would you rate the overall quality of the service you have received from the crisis team?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

12) Generally how satisfied are you with the service you received from the crisis team?

[ ] Quite dissatisfied [ ] Mildly dissatisfied [ ] Mostly satisfied [ ] Very satisfied

13) Will you continue to refer other clients to the crisis team?

[ ] No,definitely not [ ] No, I don't think so [ ] Yes, I think so [ ] Yes, definitely

14) What do you like best about the Crisis Intervention Program?

_____

_____

15) What do you think could be done to improve the program?

_____

_____

General Comments:_____

_____

_____

Confidential

Please check to ensure that you have answered all the questions

Appendix 4

Confidential

Agency Satisfaction Survey

Please help us improve the Crisis Intervention Program by answering the following questions. We are interested in your honest opinion, whether it is positive or negative. **Please answer all the questions on this questionnaire**. We also welcome your comments and suggestions. This questionnaire will only be seen by the evaluator; all your answers will be kept confidential. **Please put the completed questionnaire in the self-addressed envelope and mail it.** Thank very much, we appreciate your help.

Please check [ ] only one response per question please.
Date _____ Work site _____
Male ____ Female ____ Age _____

1) Considering your agency's mandate, how appropriate are the referrals you have received from the crisis team?

[ ]	[ ]	[ ]	[ ]
Highly appropriate	Generally appropriate	Not very appropriate	Not at all appropriate

2) Are you satisfied with the kind of referrals you have received from the crisis team?

[ ]	[ ]	[ ]	[ ]
Quite dissatisfied	Mild dissatisfied	Mostly satisfied	Very satisfied

3) Overall how competent do you feel the crisis team was?

[ ]	[ ]	[ ]	[ ]
Poor abilities at best	Only of average	Fairly competent	Highly competent

4) Is it easy to get in contact with the on call crisis worker?

[ ]	[ ]	[ ]	[ ]
Very easy	Easy	Difficult	Very difficult

5) Is the crisis team cooperative?

[ ]	[ ]	[ ]	[ ]
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely

6) Do you think the Crisis Intervention Program is a duplication of of community services?

[ ]	[ ]	[ ]	[ ]
No,definitely not	No, I don't think so	Yes, I think so	Yes, definitely

a) If so please explain why: _____
_____

7) How would you rate the overall quality of the service you have received from the crisis team?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

8) Have the people on the crisis team generally understood the kind of clients your agency is capable of handling?

[ ] No,they misunderstood almost completely [ ] No,they seemed to to misunderstand [ ] Yes, they seemed to generally understand [ ] Yes, they understood almost perfectly

9) Does the process of referring clients to your agency need to be changed?

[ ] Yes, definitely [ ] Yes, I think so [ ] No, I don't think so [ ] No, definitely not

a) If so how could it be improved?_____

_____

_____

10. Generally how satisfied are you with the referrals you received from the crisis team?

[ ] Very satisfied [ ] Mostly satisfied [ ] Mildly satisfied [ ] Quite dissatisfied

11) What do you like best about the Crisis Intervention Program?

_____

_____

12) What could be done to improve communication between your agency and the crisis intervention program? _____

_____

Other comments and suggestions :_____

_____

Please check to ensure that you have answered all the questions before mailing the questionnaire. Thank you.

Confidential

Satisfaction Survey

Please help us improve the Crisis Intervention Program by answering the following questions. We are interested in your honest opinion, whether it is positive or negative.
Please answer all the questions on this questionnaire.
We also welcome your comments and suggestions. This questionnaire will only be seen by the evaluator; all your answers will be kept confidential.
Please put the completed questionnaire in the self-addressed envelope and mail it.
Thank very much, we appreciate your help.

Please check [ ] only one response per question please.
Date _____
Male ____ Female ____ Age_____

1) How satisfied are you with the help you have received from the Crisis Intervention Program?

[ ]	[ ]	[ ]	[ ]
Quite dissatisfied	Mildly dissatisfied	Mostly satisfied	Very satisfied

2) How appropriate are the services you have received from the Crisis Intervention Program?

[ ]	[ ]	[ ]	[ ]
Highly appropriate	Generally appropriate	Not very appropriate	Not appropriate at all

3) Have the services you received helped you deal more effectively with your problems?

[ ]	[ ]	[ ]	[ ]
Yes,they helped a great deal	Yes,they helped somewhat	No,they really did not help	No,they seemed to make things worse

4) When you talked to the crisis worker with whom you have worked most closely how closely do you feel he/she listen to you?

[ ]	[ ]	[ ]	[ ]
Not at all closely	Not too closely	Fairly closely	Very closely

5) How satisfied are you with the kind of services you have received from the Crisis Intervention Program?

[ ]	[ ]	[ ]	[ ]
Quite dissatisfied	Mildly dissatisfied	Mostly satisfied	Very satisfied

6) Are there other services you need but have not received?

[ ]	[ ]	[ ]	[ ]
Yes,definitely	Yes, I think so	No, I don't think so	No, definitely not

7) How clearly did the crisis worker with whom you worked most closely understand your problem?

[ ]	[ ]	[ ]	[ ]
Very Clearly	Clearly	Not very clearly	Not clearly at all

8) Overall, how competent do you feel the crisis team is?

[ ] Poor abilities at best [ ] Only of average [ ] Fairly competent [ ] Highly competent

9) How would you rate the overall quality of the service you have received from the crisis team?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

10) Generally how satisfied are you with the service you received from the crisis team?

[ ] Quite dissatisfied [ ] Mild dissatisfied [ ] Mostly satisfied [ ] Very satisfied

11) Have the people from the crisis team generally understood the kind of help you wanted?

[ ] No,they misunderstand almost completely [ ] No,they seemed to to misunderstand [ ] Yes, they seemed to generally understand [ ] Yes, they understood almost perfectly

12) If a friend were in need of similar help would you recommend our program to him or her?

[ ] No,definitely not [ ] No, I don't think so [ ] Yes, I think so [ ] Yes, definitely

13) To what extent has our program met your needs?

[ ] Almost all of my needs have been met [ ] Most of my needs have been met [ ] Only a few of my needs have been met [ ] None of my needs have been met

14) Have your rights as an individual been respected?

[ ] No, almost never respected [ ] No, sometimes not respected [ ] Yes, generally respected [ ] Yes, almost always respected

15) If you were to seek help again, would you come back to our program?

[ ] No,definitely not [ ] No, I don't think so [ ] Yes, I think so [ ] Yes, definitely

16) What do you like best about the Crisis Intervention Program?

_____

_____

17) What do you think could be done to improve the program?

_____

_____

General Comments:_____

_____

_____

Confidential

Please check to ensure that you have answered all the questions before mailing the questionnaire. Thank you.

Appendix 6

Client Name_____ and phone #_____
Client Number_____
Date of intake_____
Who did the intake_____

Initial Status of Client

To facilitate the retention of the "level at intake" data, please complete this form for each G.A.F.G., using the following format.

Indicate the "level at the time of intake" with an asterisk in the appropriate cell for each scale completed. If the client's "level at intake" does not appear on the scale, put an asterisk in the cell marked "D.N.A.". Any additional comments concerning the client's "level at intake" should be indicated on the bottom of this form.

Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)
Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)
Expected (3)	Expected (3)	Expected (3)	Expected (3)	Expected (3)
More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)
Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)
D.N.A	D.N.A.	D.N.A.	D.N.A	D.N.A.

Comments:

Client Name_____ and phone #_____
Client Number_____
Date of follow-up_____
Who conducted the follow-up_____

Follow-up within 2 weeks of intake

To facilitate the retention of the "follow-up" data, please complete this form for each G.A.F.G., using the following format.

Indicate the "level within 2 weeks of the intital intake" with an X across the appropriate cell for each scale completed. Please do not refer to the initial intake status sheet.

Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)
Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)
Expected (3)	Expected (3)	Expected (3)	Expected (3)	Expected (3)
More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)
Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)
D.N.A	D.N.A.	D.N.A.	D.N.A	D.N.A.

Comments:

Client Name_____ and phone#_____
Client Number_____
Date of follow-up_____
Who did the intake_____
Who conducted the follow-up _____

Follow-up between the 4th and 6th week of intake

To facilitate the retention of the "follow-up" data, please complete this form for each G.A.F.G., using the following format.

Indicate the "level between the 4th and 6th week after intake" with an X across the appropriate cell for each scale completed. Please do not refer to initial intake status sheet.

Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)
Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)
Expected (3)	Expected (3)	Expected (3)	Expected (3)	Expected (3)
More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)
Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)
D.N.A	D.N.A.	D.N.A.	D.N.A	D.N.A.

Comments:

Client Name_____ and Phone #_____
Client Number_____
Date of follow-up_____
Who conducted the folow-up _____

Follow-up between the 8th and 10th week after intake

To facilitate the retention of the "follow-up" data, please complete this form for each G.A.F.G., using the following format.

Indicate the "level between the 8th and 10th weeks after intake" with an X across the appropriate cell for each scale completed. Please do not refer to initial intake status sheet.

Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)	Much less than expected (1)
Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)	Less than expected (2)
Expected (3)	Expected (3)	Expected (3)	Expected (3)	Expected (3)
More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)	More than expected (4)
Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)	Much more than expected (5)
D.N.A	D.N.A.	D.N.A.	D.N.A	D.N.A.

Comments:

Appendix 7

Therapists' Views on Compliancy and Appropriateness of the Referral from the LCICSP

	Presenting Problem	Diagnosis	Client Compliancy to therapy	Appropriateness of the referral
Therapist 1 Client A	depressed	personality disorder	2	3
Therapist's opinion of the client	Client A has been willing to change. Client A has been difficult to motivate, but client A has been making some progress.			
Therapist 2 Client B	drug abuse rel.discord	N/A	3	4
Therapist's opinion of the client	Client A seems to be just as compliant to therapy as others with similar problems. This client would not admit to having a drug problem. This client was looking for short-term solutions.			
Therapist 3 Client C	inability to cope with stress rel.discord	N/A	1	4
Therapist's opinion of the client	Client C was very motivated to get an objective opinion. The client was willing to get connected in the community. Client just needed some professional short-term counselling.			

Therapists' Views on Compliancy and Appropriateness of the Referral from the LCICSP

	Presenting Problem	Diagnosis	Client Compliancy to therapy	Appropriateness of the referral
Therapist 4 Client D	depressed	personality disorder & depression	2	4
Therapist's opinion of the client	This type of client is difficult to deal with. This client needs ongoing support to remain in the community.			
Therapist 4 Client E	suicidal ideations	depression	3	4
Therapist's opinion of the client	Once the client felt better [he/she] quit and did not continue to attend sessions. This client felt [he/she] had dealt with the problem.			
Therapist 5 Client F	missing school	N/A	3	4
Therapist's opinion of the client	Client F was present, as scheduled for, appointments. The client changed schools and problems may have lessened.			
Therapist 5 Client G	missing school family discord	N/A	5	4
Therapist's opinion of the client	Family has presented client G as the problem. The client is pleasant and compliant during a sessions but is unwilling to follow through with everything.			

Therapist 6 Client H	suicidal	adjustment disorder with depressed mood	3	4
Therapist's opinion of the client	Client H did not keep any other appointments other than the initial session. Phone follow-up with client H indicated [she/he] was doing ok.			
Therapist 6 Client I	problems at university	depression	2	4
Therapist's opinion of the client	Client was highly compliant because [her/his] depression was not responding to the medication. Client was willing to do whatever it took to get a handle on [her/his] circumstances.			
Therapist 6 Client J	stressed	acute stress disorder	1	4
Therapist's opinion of	Client J wished to be seen as soon as possible. The client followed all recommendations and suggestions. Client J was able to recover quite quickly.			
Therapist 7 Client K	depressed	depression	3	4
Therapist's opinion of	Client K has worked hard to find solutions that work for [her/him].			
Mean			2.55	3.55
SD			1.08	.29

* Note. The scales used for rating client compliancy and referral appropriateness are in Appendix 7.