THE EFFECTIVENESS OF BIBLIOThERAPY IN TEACHING
PROBLEM SOLVING SKILLS TO FEMALE JUVENILE
DELINQUENTS

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by
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May 1984
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by

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THE EFFECTIVENESS OF BIBLIOTHERAPY IN TEACHING PROBLEM SOLVING SKILLS TO FEMALE JUVENILE DELINQUENTS

An abstract of a Dissertation by
Janice Kuehl Harbaugh
May 1984
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The problem. The problem of this study was to determine if bibliotherapy is an effective means of teaching specific problem solving skills to female juvenile delinquents. Specific problem solving skills under study were identification of problems, analysis of the emotional content of problems, analysis of the motivations of people involved in problems, and formulation of solutions to problems.

Procedure. Twenty residents at Mitchellville Training School, Mitchellville, Iowa, were involved in the study. Ten were control subjects who read books from a Book List and wrote plot summaries of what they had read; ten were experimental subjects who read books from the same Book List and discussed them with the bibliotherapist. The book discussions followed a specific format and focused on an analysis of the four problem solving skills as they were presented in the books.

A pretest and posttest were administered to each subject to determine whether subjects' problem solving skills had improved during the course of the four week experiment. Gain scores were computed, and the independent samples t test was used to test the significance of differences in mean gain scores between the two groups.

Findings. The mean gain scores of the experimental group did significantly exceed the mean gain scores of the control group (.05 level) for the identification of problem skill.

Conclusions. Bibliotherapy appears to be an effective means of teaching female juvenile delinquents to identify problems.

Recommendations. Bibliotherapy, in a structured book discussion format, is recommended as an approach to helping female juvenile delinquents develop their abilities to identify problems and problem situations. It is also recommended that more study be done concerning ways to increase the effectiveness of bibliotherapy.
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Chapter 1
INTRODUCTION

For the thoughtful, introspective person, the study of life and living is a reason for being. Almost everyone searches for meaning in life and desires greater understanding of themselves and others. Each person examines life from a unique perspective and, through our work and interaction with others, each of us can contribute to the ever-increasing body of knowledge about the human experience.

Much of this knowledge comes from the scientific community as the result of careful research into the psychological and physiological nature of being human. Other information comes from theologians, philosophers, and creative artists. This information may be less quantifiable and more intuitive in nature than information gleaned from scientific research, but it is also necessary to a complete understanding of the human condition.

Literature is an especially important source of information about being human. Authors study human emotions and motivations and recreate the living experience through literature. Good literature is a true reflection of life, and memorable characters seem alive because they are reflections of real people. Good literature is a realistic description of the feelings, aspirations, personality qualities, and
motivations of people within the context of conflict. It is also a description of how people work through personal limitations to interact with others in an attempt to solve problems. In these respects, we can learn about life through literature. Literature can show us how others feel and act and how they approach problems.

Literature addresses a major aspect of living when it describes human problems and their resolutions. The successful resolution of problems and conflicts is an extremely important motivating force for living. Literature, poetry, and drama exist because there seems to be a strong human desire to describe this motivating force. Philosophy and theology attempt to organize and give rationale to this process of problem resolution, and the sciences attempt to measure the process in concrete terms. A great deal of human activity is concerned with problem resolution.

Even a superficial survey of literature, and of real life experience, reveals that individuals differ in their abilities to solve problems. The success with which an individual is able to solve problems seems to depend on the environmental resources available, the intellectual, spiritual, psychological, and physical resources of the problem solver, and the degree to which the individual has developed specific problem solving skills.
RATIONALE

Problem Solving Skills

The basic problem solving process as it applies to human problems involves the ability to break a problem into components, to analyze the parts in a logical fashion, and then to formulate a solution based on that analysis.

According to Carkhuff, this can be done in four stages. The first stage involves identifying the problem and exploring its implications. The second stage involves analysis of the parts of the problem, which would include a thorough exploration of the emotions and motivations of the people involved in the problem situation. In the third stage, the problem solver lists as many alternative courses of action as possible without making judgments as to the feasibility of these possible solutions. The final stage involves using the information gained from the previous stages to formulate a reasonable, workable solution to the problem.1 "The extent to which individuals are able to follow, deliberately or intuitively, a problem solving model is the extent to which they are consistently able to solve problems successfully."2

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2Statement by Raymond Moore, Ph.D., director of a workshop dealing with problem solving skills, June 10, 1980.
Most cognitive theorists would agree that problem solving skills can be learned, and that they seem to be based on the ability to look outside oneself in an analytical manner. Other psychological characteristics that seem to be related to the development of problem solving skills are the ability to control impulses and the ability to delay gratification.\(^1\) Apparently, these two abilities are necessary to the process of stepping back from a problem long enough to analyze its components. An impulsive individual apparently is not able to invest the time required to complete the problem solving process and is not able to delay personal gratification in order to formulate a solution involving all the factors of the problem.

There are at least three factors that would logically influence the learning of problem solving skills in childhood: the examples set by parents and peers, the child's experience with cause and effect situations, and the educational opportunities available to practice logical, analytical thinking.

The imitation of parents and peers is an important learning process in operation during childhood.\(^2\) If the significant persons in a child's life demonstrate some type


of analytical behavior when solving problems, the child is likely to imitate them and develop these problem solving skills. As the child matures and peer influence becomes more important, the child tends to imitate contemporaries' approaches to problem solving.

Another important aspect in the development of the problem solving process is the relationship between cause and effect. Reasonable solutions to problems are often based on an understanding of cause and effect and the ability to predict the consequences of a particular course of action. Life experience is the means through which the child develops this skill. A consistent, reasonable environment in which the child is generally able to predict others' reactions fosters the ability to relate cause and effect and to predict outcomes of behavior. This skill is directly involved in the formulation of solutions to problems.

The third factor that influences the development of problem solving skills has to do with the educational opportunities available to the child. Educational activities that promote logical, analytical thinking provide for the development of cognitive functioning, which has direct

1Antony Flew, Thinking Straight (Buffalo: Prometheus Books, 1975), pp. 40-41.

bearing on the child's ability to organize facts and make
inferences. The more practice the child has in thinking
clearly, the more likely he or she is to develop the ability
to think maturely and abstractly and to then manufacture
solutions to problems.

A child's success at learning effective problem solving
skills depends to a large degree on these three factors. A
child needs role models who model effective problem solving,
an environment that teaches cause and effect relationships,
and educational opportunities to develop cognitive function-
ing. Also affecting a child's ability to problem solve are
the psychological characteristics of impulse control and
delay of gratification.

Delinquency and Problem Solving

Juvenile delinquency is a many faceted problem that af-
fected all of society in economic and emotional terms. The
monetary cost of delinquency is great. Property damage
caused by delinquent acts runs more than 3.9 billion dollars
each year, nationally.1 The cost of institutional care for
juvenile delinquents continues to increase: in 1980, it
cost eighty dollars per day per child to provide institu-
tional care and education in Iowa's juvenile corrections

1Brenda S. Griffin and Charles T. Griffin, Juvenile
Delinquency in Perspective (New York: Harper and Row,
facilities. Personal injury expense due to delinquent acts is also high, and it must be measured in emotional as well as monetary terms. The victims of juvenile crime, the families of the delinquent children, and the entire community suffer stress as a result of delinquency, in addition to the stress felt by the child. Delinquency causes a waste of human energy, human resources, and human potential.

Much research has been done to determine causes of delinquency and to describe the juvenile delinquent in order to formulate treatment for the problem. The research is often contradictory. Causation factors are numerous and seem to be related to an interaction between the individual's personality and the environmental situation. Factors which have caused one young person to commit delinquent acts do not necessarily cause similar behavior from other young people, even in the same environment. It is difficult to generalize concerning the causation of delinquency.

Describing the delinquent is almost as difficult. Young persons who commit delinquent acts come from all socio-economic levels of society, and they exhibit wide variances in personality structure, ranging from shy introversion to aggression. However, according to Eric L. Sage, acting superintendent at Mitchellville Training School, "Juvenile delinquents do seem to have one problem in common."

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1Statement by Patricia A. McNally, personal interview, November 30, 1981.
They have notoriously poor skills when approaching problems or making decisions. They often find themselves in trouble because they have acted impulsively.1 In addition, juvenile delinquents are often lacking in the experiences that promote the learning of problem solving skills.

Research has suggested that the home life of the delinquent child may be an important factor in the development of delinquent behavior.2 Often, the role models presented by parents and peers of delinquent children are less than adequate for the modeling of appropriate problem solving behaviors. Escape from problems through drug usage, alcoholism, and instability of relationships are ways of coping with stress that seem more frequent in homes in which delinquency occurs.3 Parents who use these methods to approach problems present a poor role model for their children, especially in terms of problem solving.

Instability of behavior and relationships and inconsistent discipline of children seem also to be factors associated with delinquent behavior.4 Instability, unpredictability,

1Statement by Eric L. Sage, personal interview, September 21, 1981.


4Griffin and Griffin, p. 249.
and inconsistency may prevent children from recognizing the relationship between causes and effects. Lack of this ability to accurately predict the consequences of a particular course of action would affect a child's ability to problem solve and would create feelings of frustration which, for children with inadequate means of verbal expression, could lead to hostile action. The logical linking of cause and effect, especially in the area of discipline, helps children to develop impulse control and to delay gratification, which, in turn, facilitates the development of problem solving skills. A lack of understanding of cause and effect could be a factor in the commission of delinquent acts. A young person who is unable to predict the negative consequences of a delinquent action is not likely to exert control over his or her behavior in order to avoid those negative consequences.1

Truancy and dropping out of school are common among children involved in delinquency.2 A study done at Mitchellville Training School found that, as a group, the female juvenile delinquents committed there during 1980 functioned

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1Sharon H. Roesch, "Deterrents to Delinquency as Perceived by Delinquents and Non-delinquents: A Study" Diss., Florida Atlantic Univ., 1976, p. 135.

three grade levels below normal on a measure of academic achievement. While learning disabilities and emotional problems may play roles in the impaired academic functioning of this group, it is important to note that 87% of these subjects had not attended school from six months to three years before being adjudicated to be delinquent. It seems reasonable to assume that lack of school attendance played a role in the lowered academic abilities of these subjects.

This assumption is supported by another study done at the same institution which found that the scores of institutionalized female delinquents on measures of reading ability consistently improved after three months of participation in the institution's education program, and that reading improvement continued for the length of stay of 88% of the subjects studied. It appears that attending school does promote cognitive functioning among delinquents, and that truancy tends to limit or suppress cognitive development. Since the thinking process is integral to the problem solving process, it appears that truancy and dropping out of school are counter-productive to the development of problem solving.

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2Linda Sorensen, "Patterns of Reading Improvement of Institutionalized Female Juvenile Delinquents Enrolled in the Institution's School Program," Xerox, n.d., p. 3.
The previous discussion presented the idea that juvenile delinquents are often lacking in at least three factors that promote the learning of a problem solving process: parental and peer role models who demonstrate problem solving skills, recognition of cause and effect relationships, and educational opportunities which promote cognitive development. From this perspective, delinquency may be considered a factor which hampers the learning of problem solving skills.

From another perspective, poor problem solving skills may be causative factors in the development of delinquency itself. Actual delinquent behavior may occur as a result of frustration caused from ineffective problem solving.

For example, a child who is unable to identify a problem involving a specific family relationship may react with general hostility toward all members of the family. The child may sense that there is a problem, but being unable to identify it, the child may react with free-floating hostility. If the problem is severe or of long duration, the hostile atmosphere in the home may provoke the child to run away or to commit hostile actions leading to more serious delinquent behaviors.

Frustration and anger may result even when the child is able to identify the problem, but is unable to understand the emotions or the motivations of other family members. Their actions may seem arbitrary or rejecting to the child,
and the child may retaliate with aggressive behavior.

Last, the child who is unable to formulate a reasonable solution to a family relationship problem is likely to continue to suffer the effects of the poor relationship. Any of these situations could lead an impulsive child to act in hostile ways and perhaps act out with aggressive, delinquent behavior.

Regardless of the role that problem solving, or lack of it, plays in the etiology of juvenile delinquency, it seems important to explore methods of teaching problem solving skills to juvenile delinquents. The results of sharpening these individual's skills in problem solving should benefit society as well as improve the quality of the individual's life. Ideally, improved problem solving skills would enable delinquent children to make better, less impulsive decisions and would enable them to organize their thinking, which would help them to understand themselves and others better. This should have a beneficial effect on the interpersonal relationships of the child. It should also affect the child's school experiences and job experiences, making them more positive and helping the child to feel successful.

At later points in the child's life, improved problem solving skills may have impact on the child's choice of vocation, choice of marriage partner, and choice of associates. Improved problem solving skills could have impact on the marriage relationship itself and on the parenting skills of
the individual. By improving the problem solving skills of delinquent children, we may be taking a step toward the prevention of delinquency in future generations.

These beneficial effects could have impact on a societal level. If the number of delinquent acts caused by frustration due to poor problem solving skills could be reduced through training in problem solving, there would be less personal and property damage, vandalism, and violence. Fewer, less severe, delinquent acts could result in fewer adjudications of delinquency which could mean savings to society in terms of the cost of institutionalization. Less expensive, community-based services may then be able to provide for the less severely delinquent children who might otherwise have been sent to an institution. Even a slight reduction in the frequency or severity of delinquent behavior would be of benefit to society in monetary as well as human terms.

Bibliotherapy and Problem Solving

The fact that juvenile delinquents are often truant from school or have dropped out of school precludes the teaching of problem solving skills in the public schools, at least in terms of reaching the delinquent child. Therefore, this study will be concerned with the structured teaching of specific problem solving skills within the framework of an institutional program designed to rehabilitate juvenile
offenders. One possible way to do this is through the counseling modality of bibliotherapy.

At present, bibliotherapy is defined very broadly by those interested in its use. Webster defines bibliotherapy as "the use of selected reading materials as therapeutic adjuvants in medicine and psychiatry; also, guidance in the solution of personal problems through directed reading." Bibliotherapy is based on the assumption that there is an interaction between a reader and written material, and that this interaction can be manipulated by a counselor in order to produce beneficial results for the client.

Tartagni has described the bibliotherapeutic process as having four phases. In the first phase, the counselor assesses the client's needs and determines whether written material would be of value in the counseling process. This determination is based on the type of problem presented by the client, the client's desire to read, the client's reading level, and the availability of appropriate reading material. After this information gathering phase, the counselor then recommends specific reading material to the client, based upon the client's needs. In the third phase, the client reads the material and interacts with it. The final phase involves counseling sessions during which the client

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1Jane Webster, "Using Books to Reduce Fears of First Grade Children," The Reading Teacher, 14 (January 1961), 159-62.
and counselor process the reading experience and analyze the written material in terms of its impact on the client.¹

Bibliotherapists base their practice of bibliotherapy on empirical knowledge gained from the observation of case studies. Most bibliotherapists would agree that readers identify, to varying degrees, with characters that they read about, and that this identification can be used to build self-esteem and to help the client learn from vicarious experience.² This process can also be used to help the client analyze the emotions and motivations of the book characters and to learn about their own motivations and emotions as well as those of others. Bibliotherapists would also agree that analysis of the conflict in the plot of a book seems to help clients unravel the conflicts in their own lives, and that analysis of characters' solutions to problems can suggest personal problem solutions to clients.³

This empirical knowledge suggests that bibliotherapy could be useful in helping clients learn how to solve problems. The four components of the problem solving process


(identification of the problem, analysis of the emotional content of the problem, analysis of the motivational content of the problem, and formulation of a solution) are in harmony with the bibliotherapeutic process and the results that have been observed by bibliotherapists in practice. By analyzing the problem solving process that book characters follow in order to resolve the conflict in the plot, clients may be able to learn the problem solving process for themselves.

As a counseling modality, bibliotherapy is quite adaptable to institutional programs designed for juvenile delinquents. It could be used as part of a counseling program in an individual or group format, or it could be used as part of a reading program, depending upon the training and expertise of the staff members involved. A bibliotherapeutic program could use existing institutional library materials and would require no special equipment or allocations of funds in order to be implemented. It could be administered jointly by institutional librarians, reading teachers, and counselors, in lieu of a bibliotherapist trained in both counseling and reading. This arrangement could promote cooperation between institutional departments and act to upgrade institutional programs through better communication among departments.

Because bibliotherapy is an adjunctive counseling modality that could be easily implemented in an institutional
setting, and because bibliotherapy could make better use of existing resources in institutions, it is important to determine if bibliotherapy is an effective means of teaching problem solving skills to institutionalized juvenile delinquents. Such information would be of value to institutional counselors and teachers and other staff members responsible for designing institutional programs in counseling and in education. This information would also be helpful to persons responsible for allocating or spending federal library funds.

STATEMENT OF THE PROBLEM

The problem of this study was to determine if bibliotherapy is an effective means of teaching four specific problem solving skills to ten female juvenile delinquents committed to Mitchellville Training School at Mitchellville, Iowa.

In order to determine this, the following questions needed to be answered:

1) Is there a significant difference between pretest and posttest scores on a measure of problem solving ability between subjects who have received a bibliotherapeutic program and subjects who have not received a bibliotherapeutic program?

2) Which of the four specific problem solving skills show improvement over the period of time covered by the experiment? Which problem solving skills do not show improvement?
HYPOTHESES

A null hypothesis and an alternative hypothesis were formulated for each comparison to be made:

H₀: For the four specific problem solving skills combined, the mean gain score of the experimental group receiving bibliotherapy does not significantly exceed the mean gain score of the control group.

H₁: For the four specific problem solving skills combined, the mean gain score of the experimental group receiving bibliotherapy is significantly greater than the mean gain score of the control group.

H₀: For Skill I (Identification of Problem), the mean gain score of the experimental group receiving bibliotherapy does not significantly exceed the mean gain score of the control group.

H₁: For Skill I (Identification of Problem), the mean gain score of the experimental group receiving bibliotherapy is significantly greater than the mean gain score of the control group.

H₀: For Skill II (Analysis of Emotional Content), the mean gain score of the experimental group receiving bibliotherapy does not significantly exceed the mean gain score of the control group.

H₁: For Skill II (Analysis of Emotional Content), the mean gain score of the experimental group receiving bibliotherapy is significantly greater than the mean gain score of the control group.

H₀: For Skill III (Analysis of Motivation), the mean gain score of the experimental group receiving bibliotherapy does not significantly exceed the mean gain score of the control group.

H₁: For Skill III (Analysis of Motivation), the mean gain score of the experimental group receiving bibliotherapy is significantly greater than the mean gain score of the control group.

H₀: For Skill IV (Formulation of Solution), the mean gain score of the experimental group receiving bibliotherapy does not significantly exceed the mean gain score of the control group.
**H₁:** For Skill IV (Formulation of Solution), the mean gain score of the experimental group receiving bibliotherapy is significantly greater than the mean gain score of the control group.

**ASSUMPTIONS**

Several assumptions are necessary to this study:

1) The subjects accurately and truthfully answered the questions concerning previous experience with bibliotherapy.
2) The subjects completed the pretest and posttest to the best of their ability.
3) The evaluators of the pretests and posttests accurately and carefully rated the tests.
4) The evaluators of the pretests and posttests rated the tests on the ideas presented by the subjects and did not allow themselves to be influenced by the writing ability of the subjects.
5) The design of the pretest and posttest allowed the subjects to demonstrate problem solving skills.
6) The rating scales used by the evaluators of the pretests and posttests were an accurate method of measuring problem solving skills.

**LIMITATIONS**

The information gained from this study has a rather narrow generalizability. The results apply to institutionalized female juvenile delinquents, aged fourteen to seven-
teen, who read above the sixth grade level. The subjects were a self-selected sample, since subject cooperation and participation were necessary in order for bibliotherapeutic treatment to take place. The conditions of the study did not control for the influence of peers or staff members on the subjects during the course of the experiment.

The pretest-posttest was designed by the researcher to elicit specific information from a particular group of subjects. The test was not administered to any other groups for comparison of scores. Therefore, no normative or standardization data are available for the pretest-posttest used in this study.

DEFINITIONS

Bibliotherapy is defined as an adjunctive counseling modality involving the use of written material which is read by the client and discussed with the bibliotherapist. In this study, fictional literature was used, and the bibliotherapist used a structured format during the book discussions.

Delinquent is defined as a legal term applied to persons aged twelve to eighteen who have broken state or federal laws, and who, through the process of adjudication, have been committed to an institution designed to rehabilitate youthful offenders.
Chapter 2

REVIEW OF RELATED LITERATURE

A review of the literature related to the field of bibliotherapy should include an overview of the history of bibliotherapy and the trends of thought that led to its development. This review will also include a discussion of the theoretical foundations of bibliotherapy, and a summary of the current research being done in the field.

Historical Overview

It has long been recognized that the written word can have influence on the feelings and thought of those experiencing it. The impact of the written word can be felt by groups of people as well as by individuals, and it is this collective influence that is most easily seen throughout history.

The early Greeks felt that libraries were places where the soul could be healed, and the importance of literature to them is exemplified by the Greek stories, poems, and plays which have survived the centuries. Aristotle felt that literature and the theater had healing power. His belief was based on the observation that emotions were aroused within people as they experienced those art forms.¹

The Greek theater did evoke a wide range of emotions from its audience, and it required the audience to become emotionally involved with the characters. The Greek chorus interpreted the emotional content of the play as it was happening, reacted to it, and gave the audience a model for their response. Through their interpretation of the written word, Greek actors influenced the emotions of other Greeks.

During the Middle Ages, literature was used as a means of transmitting knowledge and influencing the cognitive development of those who came in contact with it. The written word, especially in the form of textbooks, became a powerful means of influencing the educated, and it increased in influence with the growth of universities and the development of the printing press. The written word was also an important influence on the vast numbers of people who could not read; it was interpreted by actors in the morality plays which were sponsored by the Church to teach religious history and the principles of moral behavior. Although the thinking of both the educated and the uneducated were influenced by literature at this time, this influence was accomplished through different forms of writing, at different levels of abstraction.

William Shakespeare brought to literature the idea of making a single piece of writing have meaning for the uneducated as well as the educated, the abstract thinker as well as the concrete thinker, and the individual as well as the
group. In addition, his writing affected both the emotions and the thoughts of his readers or audience. By developing strong characterizations and showing human motivation through interpersonal and intrapersonal conflict, Shakespeare taught his readers much about being human. The resolution of these conflicts taught them about problem solving. The structure of his plays made it possible for people to learn concretely through plot action, or abstractly through symbolism and characterization.

Shakespeare's plays had great influence on the people of his time, regardless of their station in life. His plays were a means by which they could learn about English history; his words touched the emotions of the audience; and the content of his plays were studies in problem solving. Shakespeare's incorporation of all these elements set a standard for determining the quality of literature, and this standard has greatly influenced world literature since his time. His influence encouraged the kind of writing that contains the elements necessary for bibliotherapy.

It was not until the development of humanistic educational philosophies, however, that the idea of therapy through literature could be conceptualized. When the goals of education evolved to include the personal development of the individual, it became important to discover ways of encouraging this development, and the use of written material was a logical method to employ. As an example, the McGuffey's
Readers were designed to help students develop sound health habits and strong moral character. In this sense, the use of written material to help the individual avoid physical or moral difficulties could be considered preventative bibliotherapy.

Although educational philosophy set the stage for the concept of bibliotherapy, it was not within the educational structure of our country that bibliotherapy was first practiced as a counseling modality. The mental health movement of the early 1900's actually saw the birth of bibliotherapy as a structured process. This movement was responsible for the establishment of mental hospitals, and the prevailing philosophy was that troubled people needed a quiet, structured environment in order to recover. For this reason, many of the institutions built at that time were located in peaceful, rural settings, and patients followed a daily routine.

Iowa's institutions were among the first to support the idea that patients in institutions could benefit from a calm, structured intellectual environment as well as a similar physical environment, and an institutional library system was established by the state. As the newly-appointed institutional librarians began to notice that patients' moods were sometimes affected by their reading, more interest was

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shown in the possibility of therapy through literature. In 1916, G. S. Robinson, chairman of the Board of Control of State Institutions of Iowa, wrote an article for "Modern Hospital," in which he quotes Miss Carey, who was a pioneer in hospital libraries. She is quoted as saying that "books are tools to be used with intelligent expectation of getting results."¹ It was also in that year that Samuel Crothers used the term "bibliotherapy" to describe the process of using literature in a therapeutic way.²

The period from 1916 to the 1930's was a time of sporadic interest in bibliotherapy among institutional professionals. Many institutional librarians found the concept to be intriguing, but they were more in need of guidelines for setting up and operating institutional libraries than guidelines for carrying out therapy.

By the 1930's, however, the institutional library systems were well established, and professional interest began to turn to the use of literature in the total treatment of patients. Several major articles were published which suggested appropriate materials for inclusion in hospital libraries. Among these were Katherine Shorey's article, "The

Hospital Library,"¹ and Dr. Eric Kent Clarke's article, "Books for the Convalescent."² Zoe Wright, librarian at the State University of Iowa Hospitals in Iowa City, wrote "Bibliotherapy in a Children's Hospital," in which she described the beginnings of a bibliotherapeutic program at that institution.³ Toward the end of the decade, articles began to question whether bibliotherapy could become a science,⁴ and Dr. William C. Menninger became interested in bibliotherapy for use at the Menninger Clinic.

It was during the 1940's that professionals interested in bibliotherapy attempted to compile case studies to investigate the methods used by bibliotherapists and the effects of treatment. Ruth Tews wrote an article describing the case histories of patients' reading,⁵ and the Columbia University School of Library Services began a longitudinal study of the effects of reading on the mentally ill.⁶

⁶"Reading as an Aid to the Mentally Ill," School and Society, August 28, 1948, p. 132.
In 1949, a doctoral dissertation by Carolyn Shrodes, "Bibliotherapy: A Theoretical and Clinical-Experimental Study," focused attention on the need to investigate bibliotherapy in a scientific manner. In 1951, Esther Hartman continued this focus in her dissertation, "Imaginative Literature as a Projective Technique: A Study in Bibliotherapy."

During the 1950's, the Veteran's Administration encouraged bibliotherapy research at Veteran's Administration Hospitals. A major annotated bibliography published in 1958 was the result of this work.

In the 1960's, the concept of bibliotherapy spread from institutional settings to school settings, and bibliotherapy became a topic of interest for school librarians and reading teachers. The topics of several experimental studies indicated this shift of emphasis. "An Exploratory Study of the Effects of Bibliotherapy on the Behavioral Patterns of

1Carolyn Shrodes, "Bibliotherapy: A Theoretical and Clinical-Experimental Study," Diss., Univ. of California, 1949.
Adolescents" by J. T. Sandefur and Jeanette Bigge,\textsuperscript{1} and "The Effect of Short-term Classroom Bibliotherapy on the Personality and Academic Achievement of Reformatory Inmate Students" by C. M. Whipple\textsuperscript{2} indicate that researchers were interested in the effect of bibliotherapy on the feelings and academic achievement of students as well as its effect on the mental health of patients.

Concurrent with this shift of emphasis was a broadening of the goals of bibliotherapy. As part of institutional programs, bibliotherapy was used to treat emotional problems. As bibliotherapy came to be seen as appropriate in educational settings, professionals began to think in terms of its use as a preventative for emotional problems.

Currently, there are several issues of interest to those in the field of bibliotherapy. A major concern is still the lack of scientific research available concerning the effects of bibliotherapy. An equally important concern is the difficulty of determining when bibliotherapy is an appropriate counseling modality. Other topics of interest include the methods used by individual bibliotherapists, and the objectives of the process.

\textsuperscript{1}J. T. Sandefur and Jeanette Bigge, An Exploratory Study of the Effects of Bibliotherapy on the Behavioral Patterns of Adolescents (ERIC ED 003 677).

\textsuperscript{2}C. M. Whipple, "The Effect of Short-term Classroom Bibliotherapy on the Personality and Academic Achievement of Reformatory Inmate Students," Diss., Univ. of Oklahoma, 1968.
Theoretical Foundations

There is universal agreement among bibliotherapists that bibliotherapy is a psychodynamic process. Moreover, "the psychological dynamics involved in the aesthetic experience of reading parallel the fundamental phases of counseling...."1 These are the dynamics of identification, catharsis, and insight, and they are the theoretical cornerstones of bibliotherapy.

In terms of bibliotherapy, identification refers to the feeling of affinity that readers experience for the characters in their reading. The reader perceives the character to be like himself or herself in some important way. The reader feels a deep understanding of the character's emotions and motivations and is able to empathize with the characters' problems. Identification is primarily an affective process rather than an intellectual acknowledgement of the similarities between the reader and character, although both elements are present when there is a strong identification between the two. Characters have the potential to become role models for readers who feel especially strong affinity for them.

Catharsis refers to a release of emotion as a result of having identified with a character to the point that the character's described feelings are felt by the reader as his

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1Zaccaria and Moses, p. 16.
Catharsis occurs at the critical points in the plot of a book or story, and it usually involves feelings of conflict or feelings of relief at having resolved conflict. The more deeply the reader identifies with a character, the more likely the reader is to experience catharsis. Catharsis is a purely affective response to literature.

Insight refers to understandings about being human that are gained through reading. Insight has an affective quality about it, but it primarily involves an intellectual awareness of the principles of human behavior. Insight comes to the reader after he or she has identified with a character, processed feelings as the plot develops, and made observations about how the reading applies to his or her own life. Insight can also be thought of as a process through which the reader observes specific human behavior through plot action, becomes able to generalize the specifics to discover principles of human motivation, and then becomes more aware of personal motivations and feelings.

The psychodynamically oriented counselor would agree that identification, catharsis, and insight are stages in the counseling process. The client often identifies with the counselor, and the greater the client-perceived similarities between client and counselor, the greater the chance for communication. Client identification with the counselor also fosters a condition whereby the counselor can become a role model for the client. Identification as the first phase of
the counseling process is very similar to identification in the bibliotherapeutic process; the first is between client and counselor, the second is between client and character.

As good communication is established between client and counselor, the client discusses personal life situations, and catharsis may occur. The psychodynamically oriented counselor sees this as a productive process which allows the client freedom to be expressive and to communicate feelings which may have been held within, causing problems for the client. Catharsis involves a release of tension which then allows the client to plan a course of action unhindered by pressure from unresolved feelings. This process is very similar to the catharsis which can occur during bibliotherapy. In counseling, the client is reacting directly to personal events and feelings; in bibliotherapy, the client is reacting to plot events, which can lead to a catharsis of personal feeling depending upon how closely the client has identified with a character and how closely the plot action has paralleled personal experience.

The third phase of the counseling process involves insight, or the putting together of what was learned as a result of catharsis. It is a summarizing of the counseling experience and an attempt to put the understandings gained to use. The psychodynamically oriented counselor sees this phase as the culmination of the previous two phases. The bibliotherapist also sees the insight phase as the goal of
discussing characters and their feelings and motivations. It is during this phase that the client tries to apply understandings to his or her own life situation.

In addition to describing the bibliotherapeutic process in terms of identification, catharsis, and insight, bibliotherapists have described several broad goals for bibliotherapy. These goals can be summarized as having to do with three areas: personal development of the individual, social development of the individual, and problem solving capabilities of the individual.

Bibliotherapists think of personal development of the individual in terms of the inner development of the personality. This would include the development of desirable personality traits as well as the development of a personal understanding of one's own emotions and motivations.

Twyeffort feels that bibliotherapy should help clients to develop this type of understanding of themselves, and that clients may then be able to see how their personalities may be involved in their problem.\(^1\) Bibliotherapists generally agree that individuals feel a need to understand themselves, and that literature can be a tool for gaining this understanding through vicarious learning.

It is also generally felt among bibliotherapists that the identification of the client with a character causes the

\(^1\)Zaccaria and Moses, p. 9.
client to think more deeply about the similarities between them, and that this helps the client, with the guidance of the bibliotherapist, to explore his or her own personality. Bibliotheorists feel that characters can act as role models for clients, and clients can study specific personality traits of characters. With the help of the bibliotherapist, the client can practice chosen personality traits and perhaps incorporate them into his or her own personality.

Bibliotheorists think of social development of the individual as having to do with the outward movement of the person toward others, rather than an inner understanding of himself or herself, although inner understanding does facilitate socialization.

Menninger believes that literature encourages the individual to "invest in interests outside of himself," and other theorists agree. Rosenblatt feels that bibliotherapy should help individuals to become sensitive to the feelings of others, and many bibliotheorists note that bibliotherapy should help clients to understand human motivations better.

Using bibliotherapy to develop problem solving capabilities involves preparing the client to think in terms of problems. Bryan states that bibliotherapy should help the

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reader see that he or she is not the first to face a particular problem, and that there are various ways to approach problems and solve them. She also places importance on helping the client discover the motivations of the characters involved in the problem situation. \(^1\) It is generally agreed that bibliotherapists should help clients analyze and understand the problem solving processes in the books they read.

**Research Foundations**

During the past twenty years, researchers in the field of bibliotherapy have attempted to investigate its effects by using the experimental research design rather than the case study approach. Researchers have found the experimental study difficult to design due to problems in accurately measuring and quantifying affective data, as well as problems in isolating the effects of bibliotherapy from the effects of the environmental experiences that subjects are exposed to during the course of an experiment.

In spite of this, much of the current experimental research has been designed to measure attitude change, especially in terms of subjects' changes in attitude toward racial or ethnic minorities. A second area of current research concern is in the effects of bibliotherapy on personal development. These two areas of current research interest

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correspond to two of the broad goals of bibliotherapy: personal and social development of the individual. The following four studies are representative of the research currently being done in these two areas.

In 1972, B. J. Zucaro used a pretest-posttest experimental design to measure attitude change of suburban sixth graders toward Blacks as a result of reading. Two experimental groups read novels with Black themes. The first group did not discuss the novels; the second group did discuss them. The control group did reading unrelated to bibliotherapy or Black themes. By using an attitude change scale, Zucaro found that the attitudes toward Blacks of students who read and discussed books with Black themes improved during the course of the experiment. The group who read books with Black themes but did not discuss them also showed improved attitudes toward Blacks, but to a lesser degree than the first group. The control group's attitudes varied during the course of the experiment.¹

In the same year, L. N. Burt designed a study to determine whether a group book discussion format could be effective in improving the attitudes of adult inmates in a male and in a female correctional institution. Subjects were

¹B. J. Zucaro, "The Use of Bibliotherapy Among Sixth Graders to Affect Attitude Change Toward American Negroes," Diss., Temple Univ., pp. 1-134.
divided into experimental and control groups. The experimental groups met weekly, and they read and discussed the same six books. The control groups did not read or discuss, but they met to take reading interest surveys. A posttest was given to all groups, and Burt concludes that bibliotherapy may be helpful in improving inmate attitudes relating to behavior.¹

In 1966, F. L. Shirley used a modified critical incident technique to collect data from tenth, eleventh, and twelfth grade students concerning the ways in which they felt their attitudes and behavior were influenced by written material. Shirley found that self-image and philosophy of life were most frequently identified by students as being areas in which reading had influenced them. Shirley concludes that personal development through reading is a major purpose of reading instruction.²

In 1969, M. H. Appleberry conducted a study among third graders in which all children were pretested and post tested with the California Test of Personality. The experimental groups read stories from a selected group of bibliotherapeutic


books, while the control group read books that were not a part of the experimental group's list. The children kept lists of what they had read, and they identified the books that had helped them solve a personal problem. Appleberry found that, on nine of the twelve subtests of the California Test of Personality, the experimental group scores were significantly higher than the control group scores. She concludes that bibliotherapy is helpful in the normal classroom.¹

Although Appleberry touches on the problem solving possibilities of bibliotherapy in her study, there is an absence of research dealing with the experimental investigation of the effectiveness of bibliotherapy in teaching problem solving skills. Since bibliotherapists recognize problem solving as a potential goal of bibliotherapy, it would seem important to explore this area, using a scientific research design in order to add to the body of experimental knowledge in the field of bibliotherapy.

Chapter 3
RESEARCH PROCEDURES

Research Design

The pretest-posttest control group design was used in this study. An experimental group of ten subjects received bibliotherapeutic treatment, and a control group of ten subjects did not receive bibliotherapeutic treatment. A pretest and a posttest designed by the researcher was administered to each subject in each group.

Population

This study took place at Mitchellville Training School, a state residential treatment center for female adolescents aged twelve to eighteen, who have been adjudicated to be delinquent. The school is located at Mitchellville, Iowa and is operated under the supervision of the Iowa Department of Social Services.

Sociological profiles reveal that the typical resident at the Training School has a history of problem behavior including truancy, running away from home, school difficulties, interpersonal problems, and family conflicts. The typical resident has been seen by the juvenile court system five to ten times before being adjudicated to be delinquent and has experienced at least five separate placements in foster homes and group homes prior to being committed to the
Training School. An adjudication of delinquency and commitment to the institution is based on the adolescent's violation of municipal, state and/or federal law.

Sample

A sample of this population was used in this study. Subjects included in this sample met the following criteria:

1) The subjects had no prior experience with bibliotherapy, as determined from answers they gave to a questionnaire.

2) The subjects had a reading level of sixth grade or above, as measured by the California Test of Adult Basic Education.

It was important that the experimental subjects not have had prior experience with bibliotherapy in order to eliminate the possibility that change in the experimental subjects' problem solving abilities could be attributed to recall of previous learning. Since this was an important consideration for the experimental subjects, it was also a criterion for the control subjects.

It was also necessary that the subjects in this study have a reading level of sixth grade or above in order that they be able to read the young adult fiction on the Book List. A more detailed description of the subjects can be found in the Appendix.
Selection of Subjects

The subjects were selected from students enrolling in reading class at Mitchellville Training School from November, 1981 to January, 1982. Enrollment in the reading class was on a continuing basis since students could sign up for the class at any time, complete the requirements at their own pace, and transfer when they had earned the required credit.

Each newly enrolled reading student was asked to respond to a questionnaire to determine if she had had prior experience with bibliotherapy. At this time, the researcher checked the students' school records to ascertain whether the students' reading levels were sixth grade or above as measured by the California Test of Adult Basic Education, which was administered to every student upon entering the Training School. Students who met both criteria for inclusion in the study were assigned to either the experimental group or the control group. The first student eligible for the study was assigned control status; the second student eligible for the study was assigned experimental status. Assignment continued on an alternating basis until the data was gathered for ten control subjects and ten experimental subjects.

Instrumentation

Several instruments were developed by the researcher for this study: the Bibliotherapy Questionnaire, the pre-test-posttest called the Picture Analysis form, the Book
List, the Evaluator Rating Scales, and the Evaluator Rating Form. Copies of each of these can be found in the Appendix.

The Bibliotherapy Questionnaire consisted of two questions which determined if students had had prior experience with bibliotherapy in the classroom or in a counseling setting. Negative answers to both questions were required for inclusion in the study. The two questions were simple and direct, and it was assumed that students answered them accurately.

The pretest-posttest consisted of a photograph-like picture of a group of people, and four questions about the picture. The four questions corresponded to the four specific problem solving skills under study. The picture chosen for the pretest-posttest was selected because it depicted adults and adolescents of both sexes, and because there were suggestions of conflict in the picture. A letter, briefcase, newspaper, and telephone were elements that could have suggested problems to the subjects who viewed the picture. The body positions and facial expressions of the people in the picture were also elements that could have suggested conflict. However, the picture was not so definitive as to prevent the subjects from using imagination to analyze the picture situation.

The rationale for using a picture to measure problem solving skills is based on the assumption that problem solving requires the use of imagination to break problems into
parts and to formulate solutions. In order to answer ques-
tions about this particular picture, the subjects first
brought imagination to the process and then demonstrated the
specific analytical skills associated with problem solving.
This procedure parallels real-life problem solving procedure,
and so the use of a picture to measure problem solving abil-
ity would seem an appropriate method of assessment.

The pretest-posttest was in written format and required
written responses from the subjects. In the form given to
the subjects, it was called "Picture Analysis" in order to
avoid the suggestion that it was a test with right and wrong
answers. By avoiding this, it was hoped that the subjects
would respond honestly and completely to the picture.

The Picture Analysis pretest-posttest was examined for
content validity by four professionals: an Area Education
Agency psychologist specializing in testing, an Area Educa-
tion Agency consultant who holds a master's degree in counsel-
ing, a secondary literature teacher with a master's degree
in literature, and a secondary guidance counselor who has an
interest in bibliotherapy. These experts were asked to in-
dividually examine the pretest-posttest questions. Then
they were asked to make a statement describing the type of
information that would be elicited by the questions from a
subject who was answering the questions while looking at the
pretest-posttest picture.

All of these experts agreed that the first question
would elicit information concerning the identification of a problem; that the second question would elicit information concerning the feelings of the people in the picture; that the third question would elicit information about the motivations of the people in the picture; and that the fourth question would elicit information about the resolution of a problem.

Based on these judgments, this group of examiners judged the content of the Picture Analysis pretest-posttest to be valid for obtaining the type of information required by this study: the pretest-posttest was judged to be an effective means of eliciting appropriate information from the subjects involved in the study.

In addition, the pretest-posttest was subjected to the Dale-Chall readability formula, and it was determined that the test was written at a fifth to sixth grade reading level. In order for a subject to qualify for the study, her reading level had to be above sixth grade. Therefore, all subjects were theoretically able to read the pretest-posttest.

The Book List was developed in order to give structure to the individual bibliotherapy programs and to make the programs as similar as possible while allowing for individual reading differences such as interest and reading speed. Each subject chose books from this list and read as many as possible within the four week experimental time frame.

Each book included on the Book List met these criteria:
1) The book was fiction.
2) The main characters in the book were adolescents.
3) The characters used imagination and a logical thinking process to solve a problem.
4) The problem in the book was resolved in a positive manner. Illegal activity or immoral action was not used to solve the problem.
5) The problem in the book and the solution of the problem were realistic and were of interest to institutionalized female delinquents.
6) The book was available from the institutional library.

In order to identify books that met these criteria, the researcher consulted the institutional librarian. Together, they identified 128 fictional books in the institutional library in which the main characters were adolescents who were struggling with a problem.

In order to judge whether the problems in these books were of interest to institutionalized female juvenile delinquents, the researcher conducted a poll of all clients at Mitchellville Training School. The forty-eight clients were asked to write down five problems that were important to them. Results of this poll are included in the Appendix.

The five problems most frequently mentioned (getting in trouble, running away, drugs, divorce, alcoholism) were judged by the researcher to be problems of interest to
institutionalized female delinquents, and these topics were used as the basis for choosing books from the 128 previously identified fictional books. Of this number, 23 books addressed one or more of the five most frequently mentioned problems.

The researcher then skimmed the 23 books in order to determine which books met the third and fourth criteria for inclusion on the Book List. At that time, the researcher also made a judgment as to whether the solutions of the books' problems were realistic. The researcher's judgments were based on nine years of experience as a literature teacher.

The titles of the 21 books left which met all of the criteria established for inclusion on the Book List were placed in a container, and ten titles were drawn. Those ten books were placed on the Book List. This list, with a brief description of each book, can be found in the Appendix.

The Evaluator Rating Scales were developed to provide a uniform means of rating the subjects' responses to the pretest-posttest. The rating scales were based on the assumption that the quality of subjects' problem solving skills can be measured in terms of the specificity of their responses to the picture and the number of picture characters they discuss in their responses. In effect, each subject's responses were measured by the completeness of the response rather than by a subjective rating of the content of the
response.

Subjects' responses were rated separately on scales corresponding to the particular problem solving skills the response was expected to demonstrate. Ratings were from one to five. A score of "one" on any scale meant that the subject did not demonstrate that particular problem solving skill. A score of "five" on any scale indicated that the subject demonstrated a particular skill in terms of all the characters in the picture.

The Evaluator Rating Form was developed to provide an organized means for the evaluators to rate each subject's responses to the pretest-posttest. The form also allowed for coding of subjects' responses so that the evaluators did not know which responses were from experimental subjects and which responses were from control subjects. Evaluators were also unable to tell which responses were pretest responses and which responses were posttest responses.

Pretest and Posttest Phases

The pretest picture was presented to each subject on the first day of her reading class. Each subject was then asked to respond in writing to four questions about the picture. The four questions corresponded to the four problem solving skills under study: identification of the problem, analysis of emotional content, analysis of motivation, and formulation of solutions. Each pretest was assigned a code identification of three parts:
1) the letter C or E, depending upon whether the subject had control status or experimental status;

2) the number of the subject, indicating the order in which the subject entered the study;

3) the letter A, a code letter assigned to the pretest. For example, a test with the code identification C3A would be the responses that the third control subject wrote to the pretest.

The posttest picture was presented to the subjects exactly four weeks after the pretest was given. Each subject was again asked to respond in writing to the same four questions that were asked on the pretest. Each posttest was assigned a code identification consisting of three parts which would allow the pretests and posttests of each subject to be paired. The code identification again consisted of the letter C or E, the number of the subject, and the letter B, a code letter assigned to the posttest. For example, a test with the code identification C3B would be the responses the third control subject wrote to the posttest.

Treatment Phase

Each experimental subject received a bibliotherapeutic program lasting four weeks. During that time, each experimental subject read as many books as possible, which the subject chose from the Book List. These subjects discussed each book read with the researcher. The book discussions focused on the four specific problem solving skills:
Identification of the book characters' problems, analysis of the book characters' feelings, analysis of the book characters' motivations, and analysis of the process used by the book characters to formulate solutions to their problems. The format used for the book discussions can be found in the Appendix.

Each book discussion lasted approximately twenty minutes. As bibliotherapist, the researcher encouraged each subject to analyze the books in terms of her personal needs and the understandings that she could bring to the book. However, the bibliotherapist also pointed out faulty thinking on the part of the subject, such as misidentification of the problems in the book, misunderstanding of the characters' emotions or motivations, and lack of understanding of how the book characters went about solving their problems. The subjects were encouraged to share their insights and opinions about the books, and the bibliotherapist took an active part in the discussions by pointing out the problem solving aspects of the books. The book discussions were held privately in a quiet part of the reading classroom, and each subject earned reading credit for the books read. Experimental subjects received a reading grade based on the number of books discussed with the bibliotherapist.

Each control subject also read books from the Book List for reading credit, but these subjects did not discuss their reading with the bibliotherapist. These subjects wrote a
short plot summary for each book read and received no written or verbal feedback on what they had written. The control subjects received a reading grade based on the number of plot summaries written, and each control subject was given four weeks in which to read as many books as possible from the Book List.

Both control and experimental subjects received a grade of C for reading four books, a grade of B for reading six books, and a grade of A for reading 8 books. Extra free class time was earned by subjects who read more than eight books. This time could be used for visiting with other teachers during their preparation periods, or for thinking time during reading class. Each additional book entitled the reader to thirty minutes free time.

Evaluation of Pretests and Posttests

The pretests and posttests were assigned randomly chosen pairs of code letters. The researcher compiled a list of the code letters assigned to each test. These code letters were used in a random drawing to divide the forty tests into five groups. The five groups of tests were then randomly distributed among five psychologists at the Woodward State Hospital-School at Woodward, Iowa, for their evaluation.

Prior to rating the pretests and posttests, the psychologists were individually trained by the researcher in the use of the Evaluator Rating Scales. This training consisted
of five steps. First, the researcher showed each psychologist the picture and explained that the statements he or she would rate were in response to questions asked about the picture. Second, the researcher showed each psychologist a sample set of answers to be rated. Third, the researcher read the Evaluator Rating Scales aloud. Fourth, the researcher pointed out that the statements to be rated were to be rated according to the specific criteria on the Evaluator Rating Scale. Fifth, the psychologists were asked to rate the sample set of answers.

The sample set of answers was written by the researcher and rated by the researcher. In order to be included in the study as an evaluator, each psychologist must have agreed with the researcher's rating of the sample set of answers at least 80% of the time. The sample set of answers can be found in the Appendix.

After having qualified to be an evaluator, each psychologist evaluated eight tests by rating each subject's problem solving abilities on four scales as previously described. In addition to the eight different tests, all of the psychologists evaluated two tests prepared by the researcher in order to check reliability among the psychologists. These researcher-prepared tests can be found in the Appendix.

The researcher-prepared tests were placed in varied positions among the subjects' tests. The positions were assigned by random drawing. The numbers one through ten were
placed in a container, and five numbers were drawn for Test 1. The first number drawn was designated the position number for Test 1 for Evaluator 1. The second number drawn was designated the position number for Test 1 for Evaluator 2, and so on. The five numbers were returned to the container, and the process was repeated for Test 2. If the same number was drawn for Test 1 and Test 2, it was returned to the container and another number was drawn. The researcher-prepared tests were given the code letters "CH" (Test 1) and "JH" (Test 2).

Data Analysis

Pretest to posttest gain scores were computed, and the mean gain scores of the control subjects and the experimental subjects were compared using the independent samples t test.\(^1\) This test was used to compare the overall gain scores between the two groups, and also to compare the gain scores of each specific problem solving skill.

The following hypotheses were tested, using this procedure. For each comparison, the null hypothesis was rejected if the probability of the difference being obtained by chance was less than .05.

The basic hypothesis was that bibliotherapy would significantly improve the problem solving skills of female

juvenile delinquents. A null hypothesis stated that, for the four specific problem solving skills, there would be no significant difference between the mean gain score of the control group and the mean gain score of the experimental group. An alternative hypothesis stated that the mean gain score of the experimental group would be significantly greater than the mean gain score of the control group.

Gain scores were calculated and a mean gain score for each group was found. These were compared, using the independent samples t test:

\[ t = \frac{X_1 - X_2}{S_{Dx}} \]

difference between the means divided by the standard error of the difference. The null hypothesis was rejected at the .05 level of confidence if \( t \) was equal to or greater than 1.734.

The same procedure was used to test the null and alternative hypotheses for each of the four specific problem solving skills in order to determine which problem solving skills showed the most improvement: identification of problem, analysis of emotional content, analysis of motivation, and formulation of solution.

Tables displaying this information are presented in the following chapter.
Chapter 4
RESULTS OF RESEARCH

There were twenty subjects involved in this study: ten control subjects who read books from the Book List and wrote plot summaries of what they had read, and ten experimental subjects who read books from the Book List and discussed them with the bibliotherapist, who followed a structured book discussion format. A pretest and a posttest were given to each subject to determine if the subject had improved in the problem solving skills of identification of problem, analysis of emotional content, analysis of motivation, and formulation of solutions. These pretests and posttests were rated by evaluators, and gain scores were compiled for all the scales combined and for each separate scale. Tables 1 and 2 present summaries of this data.

The independent samples t test was used to determine whether there was a significant difference between the mean gain scores of the experimental group and the mean gain scores of the control group. For each hypothesis, t needed to be equal to or greater than 1.734 in order that the null hypotheses be rejected. Tables 3, 4, 5, 6 and 7 present this information.

The first null hypothesis stated that, for the four specific problem solving skills combined, the mean gain score of the experimental group receiving bibliotherapy would
## Table 1

Summary of Experimental Data

<table>
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<th>Subject</th>
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<th>Scale III</th>
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Mean GS 3.4 1.1 .6 .9 .8
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Total GS | 13 | 1 | 4 | 3 | 5

Mean GS | 1.3 | .1 | .4 | .3 | .5
not significantly exceed the mean gain score of the control group: \( H_0: E_{mgs} = C_{mgs} \). Since the t value was 2.699, this null hypothesis was rejected.

Table 3
Experimental and Control Group Gain Scores for All Scales Combined

<table>
<thead>
<tr>
<th>Subject</th>
<th>Experimental Gain Scores</th>
<th>Control Gain Scores</th>
<th>((X_1 - X_1)^2)</th>
<th>((X_2 - X_2)^2)</th>
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<td>.09</td>
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</table>

\( t = 2.699 \)

Experimental Mean Gain Score 3.4
Control Mean Gain Score 1.3
Sum of \((X_1 - X_1)^2\) 42.4
Sum of \((X_2 - X_2)^2\) 12.1

The second null hypothesis stated that, for Skill I-Identification of Problem, the mean gain score of the experimental group receiving bibliotherapy would not significantly exceed the mean gain score of the control group:
H₀: E₂ = C₂. Since the t value was 2.249, this null hypothesis was rejected.

Table 4
Experimental and Control Group Gain Scores for Skill I Identification of Problem

<table>
<thead>
<tr>
<th>Subject</th>
<th>Experimental Gain Scores</th>
<th>Control Gain Scores</th>
<th>(X₁-X₂)²</th>
<th>(X₂-X₂)²</th>
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<td>X₂</td>
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</table>

\[ t = 2.249 \]

Experimental Mean Gain Score 1.1
Control Mean Gain Score .1
Sum of \((X₁-X₂)²\) 14.9
Sum of \((X₂-X₂)²\) 2.9

The third null hypothesis stated that, for Skill II—Analysis of Emotional Content, the mean gain score of the experimental group receiving bibliotherapy would not significantly exceed the mean gain score of the control group:
Since the t value was .577, this null hypothesis was retained. Therefore, the gains of the group receiving bibliotherapy did not exceed those of the control group.

Table 5
Experimental and Control Group Gain Scores for Skill II
Analysis of Emotional Content

<table>
<thead>
<tr>
<th>Subject</th>
<th>Experimental Gain Scores $X_1$</th>
<th>Control Gain Scores $X_2$</th>
<th>$(X_1 - \overline{X}_1)^2$</th>
<th>$(X_2 - \overline{X}_2)^2$</th>
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$t = .577$

Experimental Mean Gain Score .6
Control Mean Gain Score .4

Sum of $(X_1 - \overline{X}_1)^2$ 6.4
Sum of $(X_2 - \overline{X}_2)^2$ 4.4

The fourth null hypothesis stated that, for Skill III—Analysis of Motivation, the mean gain score of the experimental
group receiving bibliotherapy would not significantly exceed the mean gain score of the control group: $H_0: E_{mgs} = C_{mgs}$. Since the $t$ value was 1.717, this null hypothesis was retained. Therefore, the gains of the group receiving bibliotherapy did not exceed those of the control group.

### Table 6

**Experimental and Control Group Gain Score for Skill III Analysis of Motivation**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Experimental Gain Scores $X_1$</th>
<th>Control Gain Scores $X_2$</th>
<th>$(X_1 - X_1)^2$</th>
<th>$(X_2 - X_2)^2$</th>
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<td>.81</td>
<td>.09</td>
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$t = 1.717$

| Experimental Mean Gain Score | .9 |
| Control Mean Gain Score      | .3 |
| Sum of $(X_1 - X_1)^2$        | 6.89 |
| Sum of $(X_2 - X_2)^2$        | 4.10 |
The fifth null hypothesis stated that, for Skill IV—Formulation of Solution, the mean gain score of the experimental group receiving bibliotherapy would not significantly exceed the mean gain score of the control group: $H_0: \mu_{E_{\text{mgs}}} = \mu_{C_{\text{mgs}}}$.

Since the $t$ value was .759, this null hypothesis was retained. Therefore, the gains of the group receiving bibliotherapy did not exceed those of the control group.

### Table 7

**Experimental and Control Group Gain Scores for Skill IV Formulation of Solution**

<table>
<thead>
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<th>Subject</th>
<th>Experimental Gain Scores $X_1$</th>
<th>Control Gain Scores $X_2$</th>
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<th>$(X_2-X_2)^2$</th>
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</table>

$t = .759$

| Experimental Mean Gain Score | .8 |
| Control Mean Gain Score     | .5 |

| Sum of $(X_1-X_1)^2$        | 9.6 |
| Sum of $(X_2-X_2)^2$        | 4.5 |
Data was also collected concerning the number of books read by each subject. There was no significant difference between the number of books read by the experimental subjects and the number of books read by the control subjects. The following tables present this information and compare the number of books read by each subject with the subject's gain score.

Table 8
Number of Books Read Per Subject Matched With Subject's Gain Scores on All Scales Combined
Experimental Group

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of Books Read</th>
<th>Gain Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>E5</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>E9</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>E3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>E2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>E6</td>
<td>5</td>
<td>4</td>
</tr>
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<td>E4</td>
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<td>0</td>
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<tr>
<td>E7</td>
<td>4</td>
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<td>Total</td>
<td>55</td>
<td>34</td>
</tr>
<tr>
<td>Mean</td>
<td>5.5</td>
<td>3.4</td>
</tr>
</tbody>
</table>
Table 9

Number of Books Read Per Subject Matched With Subject's Gain Scores on All Scales Combined

Control Group

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of Books Read</th>
<th>Gain Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3</td>
<td>8</td>
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</tr>
<tr>
<td>C8</td>
<td>7</td>
<td>1</td>
</tr>
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</tr>
<tr>
<td>C9</td>
<td>5</td>
<td>1</td>
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<tr>
<td>C1</td>
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<td>1</td>
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<tr>
<td>C2</td>
<td>4</td>
<td>4</td>
</tr>
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<td>C6</td>
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<tr>
<td>C7</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 52 13
Mean 5.2 1.3

The Spearman Rho statistic was used to compare the number of books read by the experimental group with their gain scores. A correlation of .8848 was obtained, a high positive correlation. The same statistic was used to compare the number of books read by the control group with their gain scores. A correlation of -.3060 was obtained, a low negative correlation.

There were two researcher-prepared tests among the pretests and posttests given to the evaluators for rating. The purpose of these tests, designated GH and JH, was to check inter-evaluator reliability. Table 10 presents the ratings that each evaluator gave to these tests. Table 11 presents
the inter-rater reliability matrices.

Table 10
Evaluator Ratings of a Common Response By Scale
1 (low) to 5 (high)

<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Test GH</th>
<th>Test JH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I  II  III IV</td>
<td>I  II  III IV</td>
</tr>
<tr>
<td>1</td>
<td>5 4 3 4</td>
<td>4 3 2 2</td>
</tr>
<tr>
<td>2</td>
<td>5 4 3 5</td>
<td>4 3 4 2</td>
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<td>4 3 4 2</td>
</tr>
<tr>
<td>5</td>
<td>5 4 3 4</td>
<td>4 3 4 2</td>
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</tbody>
</table>
Table 11

Inter-rater Reliability Matrix
Test GH  Spearman Rho

<table>
<thead>
<tr>
<th>Evaluator</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.00</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
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<td>1.00</td>
<td>.85</td>
<td>.85</td>
<td>.85</td>
</tr>
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<tr>
<td>4</td>
<td>1.00</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5</td>
<td>1.00</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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</table>

Inter-rater Reliability Matrix
Test JH  Spearman Rho

<table>
<thead>
<tr>
<th>Evaluator</th>
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<th>2</th>
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<th>4</th>
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<tr>
<td>1</td>
<td>1.00</td>
<td>.85</td>
<td>.85</td>
<td>.85</td>
<td>.85</td>
</tr>
<tr>
<td>2</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>3</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
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<tr>
<td>4</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
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<tr>
<td>5</td>
<td>.85</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Chapter 5
CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

Summary
The purpose of this study was to determine whether bibliotherapy was an effective means of teaching problem solving skills to female juvenile delinquents. The study focused on four specific problem solving skills: identification of problem, analysis of emotional content, analysis of motivation, and formulation of solution.

Twenty residents at Mitchellville Training School, Mitchellville, Iowa, were involved in the study. Ten were control subjects who read books from a Book List and wrote plot summaries of what they had read. The other ten were experimental subjects who read books from the same Book List and discussed them with the bibliotherapist. The book discussions followed a specific format and focused on the four specific problem solving skills. Both groups of subjects received reading credit based on the number of books they read.

An experimenter-designed pretest and posttest were given to each subject to determine whether subjects' problem solving skills had improved during the course of the four week experiment. These pretests and posttests were evaluated by psychologists at Woodward State Hospital-School, Woodward, Iowa, and gain scores were compiled for all the scales.
combined and for each separate scale.

The independent samples t test was used to determine whether there was a significant difference between the mean gain scores of the experimental group receiving bibliotherapy and the mean gain scores of the control group. Data was also collected concerning the number of books read by each subject, and this was compared with each subject's gain score.

The independent samples t test revealed that the mean gain score of the experimental group did significantly exceed the mean gain score of the control group for all the scales combined and for Scale I-Identification of Problem. The t test also revealed that the mean gain score of the experimental group did not significantly exceed the mean gain score of the control group for Scale II and Scale IV, Analysis of Emotional Content and Formulation of Solution. Although the null hypothesis was also retained for Scale III-Analysis of Motivation, the t value was very close to the t value needed for rejection of the null hypothesis, and so the significance of the difference between mean gain scores for this skill is unclear.

When the number of books read per subject was compared with the gain score of each subject, it appeared that there was a high, positive relationship between the number of books read and the gain scores, but only for the experimental group. The same data compared for the control group did not
show a relationship.

Conclusions

The following conclusions can be drawn from the data analyzed in this study:

1. When all scales were combined, the subjects who had received bibliotherapy demonstrated significant improvement in problem solving skills.

2. The subjects who had received bibliotherapy showed significant improvement in their ability to identify problems.

3. The subjects in this study did not demonstrate significant improvement in their ability to analyze the emotional content of problem situations.

4. The subjects in this study did not demonstrate significant improvement in their ability to analyze the motivations of people involved in problem situations.

5. The subjects in this study did not demonstrate significant improvement in their ability to formulate solutions to problems.

6. The number of books read by the subjects who received bibliotherapy was not significantly greater than the number of books read by the subjects who did not receive bibliotherapy.

7. For the subjects who received bibliotherapy, there was a high, positive relationship between the number of
books read and the subject's gain score: the more books read by the subject and discussed with the bibliotherapist, the greater the subject's improvement in problem solving skills.

Discussion

Two aspects of the bibliotherapeutic process could account for the difference in scores between the experimental and control groups. First, the book discussions forced the experimental subjects to think both concretely and abstractly. Practice in concrete thinking, such as identifying characters and describing specific events, may have helped subjects to become better able to identify concrete problems. Practice in abstract thinking, such as explaining relationships among the characters, may have helped subjects to become better able to think about the emotions and motivations of characters. Practice in these thinking processes may have given the experimental subjects an advantage in developing the four problem solving skills.

Second, the bibliotherapist called attention to specific details in the books under discussion and focused the experimental subjects' attention on problem oriented aspects of the plots. This would cause the experimental subjects to become more aware of how book characters handled problems. Each experimental subject practiced this four to eight times during the course of the experiment. The control subjects
received no direction or assistance in analyzing various aspects of the books they read. Any misperceptions or misunderstandings about their readings were not corrected. Because their attention was not directed toward the problem solving processes in the books they read, they apparently did not attach special significance to how the characters solved problems. They received no practice in analyzing any of the components of the problem solving process.

It seems likely that the experimental group showed significant improvement in their ability to identify problems because the greatest amount of book discussion time was used to identify the problems in the books they read. This was the first task of the book discussion, since an accurate understanding of the problem in the book was necessary before the subject could begin to talk about the feelings, motivations, or solutions involved in the problem. This meant that a greater percentage of time was spent on this task than was spent on the other tasks, since the book discussions were twenty minutes long and the bibliotherapist attempted to stay within that time limit so that all experimental subjects received the same amount of bibliotherapy.

It is also likely that bibliotherapy helped the experimental subjects to identify problems on the posttest simply by putting these subjects in a problem-oriented frame of mind. They had had practice in identifying problems and were conditioned by four weeks of bibliotherapy to search
for problems. The control group had had no supervised practice in looking for problems and were not necessarily in a problem-oriented frame of mind when they took the posttest.

Several questions need to be answered before this information can be applied in a practical way to counseling programs for juvenile delinquents. It will be necessary to know if the problem-oriented frame of mind lasts after bibliotherapy is discontinued, and if this frame of mind transfers to situations in the subject's personal life. Is the subject better able to identify personal problems as a result of experiencing bibliotherapy?

Studies could be designed to answer these questions. Replication studies that focused on the problem identification skill could determine if the problem-oriented frame of mind lasts beyond the actual time of bibliotherapy by conducting follow-up posttests at monthly intervals. A different type of study could be designed to determine if the problem identification skill learned during bibliotherapy is useful to the subject in identifying personal problems. The case study approach may have to be used to collect this information.

Insufficient book discussion time may have been one of the reasons that improvement in the subjects' ability to analyze the emotional content of situations did not occur. This was a less concrete task than the identification of problems and may have been difficult for subjects who were not
able to think abstractly. In addition, this skill may be especially resistant to improvement. The ability to analyze other's emotions accurately may be a skill that develops slowly through childhood and adolescence, and it may be closely tied to the thinking patterns and habits practiced within families. If family relationships are confused and unclear and feelings are not expressed, children may develop confused or inaccurate ways of thinking about and understanding emotions. After years of practicing confused thinking patterns, children automatically interpret life situations in terms of this pattern and see other's emotions in terms of it, also. Such thinking patterns are very difficult to change and would involve re-teaching a child about emotions. Bibliotherapy, at least in a short term sense, apparently does not provide enough practice at accurately analyzing emotions and talking about them. Since disrupted and distorted family relationships are not uncommon among children who become delinquent, it is not surprising that the participants in this study did not improve in their ability to analyze emotional content.

It would be important to know whether subjects could have improved in their ability to analyze the emotional content of problem situations if bibliotherapy had been carried out with emphasis on just that skill, over a longer period of time, using more books, and having longer book discussions. A study could be designed to determine which of
these factors might be important in helping subjects to improve their ability to analyze emotions through bibliotherapy. Such a study might focus on just this skill and divide a larger sample among several experimental groups, each group testing one of the variables: longer period of time, more books, longer book discussions. Improvement scores could then be compared. Another possible study might delineate the role that bibliotherapy plays in improving the ability to analyze emotion. This study could compare improvement scores of groups of subjects, one group having discussed the emotions displayed by book characters, and another group having discussed personal experiences in terms of the emotional content.

Improvement may not have occurred in the subjects' ability to analyze the motivations of characters because this, too, is a less concrete skill that may require more time to develop. This skill may be connected to the ability to understand emotion, since motivation flows from feelings. Since there was no significant improvement in the subjects' ability to analyze feelings, no improvement in the subjects' ability to analyze motivations is to be expected.

The book discussions themselves may have set a negative tone for the development of this skill. The questions used to analyze the motivations of characters often began with the word "Why," and this word seemed to make several of the subjects uncomfortable. They exhibited avoidance behaviors:
more body movement away from the bibliotherapist and less eye contact. The questions may have reminded them of the many people who have asked them to explain their own behavior and their inability to do so. The questions may also have given the book discussions a negative, moralistic tone in the sense that subjects may have felt that the bibliotherapist was making a good-bad judgment about the actions of the characters. This tone may have caused some subjects to tune out the discussion and to offer as little as possible in order to progress to the next question. The "why" questioning technique seemed, in general, to be a less productive means of encouraging the subjects to share their ideas during the analysis of motivation phase of the book discussion.

Many questions concerning bibliotherapy and the analysis of character motivation need to be explored. Is there another way to analyze motivation rather than directly asking why characters behave the way they do? Can a right-wrong feeling be avoided when discussing the motivations of characters? Would this skill have improved if the subjects' ability to analyze emotions had improved? How is the ability to analyze motivation affected by experiences within the family? Would this skill improve if bibliotherapy was carried out with a focus on just this skill, over a longer period of time, with more books and longer book discussions?

Studies designed to answer these questions would have to address themselves to the question of the nature of the
relationship between the understanding of emotions and the understanding of motivations. Even more basically, we need to know more about the thinking processes involved in the acquisition of these skills. Studies need to be done to explore the nature of the developmental sequence involved and to identify factors that may disrupt the sequence.

Improvement may not have occurred in the ability of subjects to formulate solutions to problems because of lack of improvement in the analysis of emotion and analysis of motivation skills. These skills may be prerequisites for the skill of formulating a solution, and since subjects did not improve in these skills, they were not able to formulate solutions on the posttest. As with the other skills, the amount of time spent practicing the formulation of solutions may not have been great enough to effect an improvement in this skill.

Another possible factor affecting the subjects' ability to formulate solutions may be these subjects' lack of personal experience in solving problems. They may not have had previous experience that they could draw upon to synthesize solutions to interpersonal problems such as the posttest picture suggested. Their bank of cultural knowledge may not have been sufficient to allow them to choose specific remedies for the pictured problem. In addition, their experiences within the family may not have been of a problem solving nature. The subjects simply may not have seen the
family-oriented problem in the posttest picture as having, or needing, a solution. Possibly, these subjects were conditioned to live with problems rather than to try to solve them.

Some questions about the role of past experience in formulating solutions to problems need to be answered in order to clarify the effectiveness of bibliotherapy. Are persons who have had limited interpersonal or cultural experiences less likely to see problems in terms of solutions than persons who have had greater experience in dealing with other people and situations? What exactly is the role of past experience in problem solving? Do we learn specific solutions to specific types of problems and practice these matches throughout life, or do we learn an attitude toward problems and synthesize solutions as we are confronted with different types of problems? What are the components of the thinking process involved in solving problems? If lack of experience is a limiting factor in the development of the ability to formulate solutions to problems, can reading and discussing characters' life experiences (bibliotherapy) be used to augment real life experience so that a person does have second-hand experience to draw from in putting solutions together? In other words, can fantasy experience be as valuable as real life experience in giving a person specifics to use in formulating solutions to problems? As with the other skills, we need to determine if intensive work on this skill alone would help to develop it, and if the development
of this skill is dependent on prerequisite skills such as the ability to analyze emotion and motivation.

Several studies could be designed to gain information about these questions. One possible study could investigate the difference in generalizability between subjects who have been taught specific solutions to specific problems and subjects who have been taught a problem solving process, or general problem solving skills. Another study might be done to determine the role of past experience in solving new problems. This might be a case study approach in which subjects are asked to solve hypothetical interpersonal problems, and then are guided by a counselor through an analysis of how they solved them. Data would be collected on the various methods used to solve the problems: past personal experience, vicarious experience, fantasy experience, information from other sources, advice, and other methods. Another study could be designed to determine if bibliotherapy can be used to teach vicarious learning of specific solutions to problems. Subjects might read several books in which a similar problem is solved in the same way. Data would be collected as to the frequency with which subjects solved a hypothetical problem using the specific solution learned through bibliotherapy.

The preceding discussion was related to the first five conclusions listed at the beginning of this chapter. These conclusions were based on statistical analysis of the gain
scores. Two additional conclusions were drawn concerning the number of books read by the subjects during the course of the experiment. The following discussion is related to these two conclusions.

It would seem reasonable to predict that the experimental group would read more books than the control group in the light of the personal attention given to the subjects in the experimental group as a result of their reading. This did not seem to be the case in this study. There was no statistical difference between the number of books read by the experimental group and the number of books read by the control group.

One reason for this might be that the grading system used in this study may have acted to limit the amount of reading done. The subjects were graded according to the number of books read during a four week period. A minimum of four books were required for a C, and an A required eight books. The mean number of books read in the control group was 5.2, and the mean number of books read in the experimental group was 5.5. These figures indicate that most subjects read enough books to receive an acceptable grade, but only two control subjects and three experimental subjects read above the maximum number of books required for an A. These subjects may have been motivated by the personal attention received during bibliotherapy, or they may have been motivated by the additional free time they earned for each boo
read over six. Generally, subjects read between the minimum and maximum number of books required by the grading scale.

Another explanation for a lack of increase in the number of books read by the experimental group may be found within individual differences. Reading rates varied among the subjects. The length of the books chosen by the subjects varied, and the "thinking time" between books varied according to the individual subject. Because the reading time was limited to four weeks, these factors may have combined to limit the number of books that particular readers may have been able to finish.

The following questions would help to investigate this area. Would using an open time frame and requiring a specific number of books have changed the results of this study? Would changing or eliminating the grading structure have affected the number of books read? Would the elimination of a grading scale change the type of subject available for the study? If subjects did not receive academic credit for the reading they did, perhaps only subjects who liked reading would participate in a similar study, and those subjects may be more amenable to bibliotherapy than subjects who did not like to read.

A study could be designed to determine if bibliotherapy does act to increase the number of books read by subjects receiving it. In such a study, outside motivating factors would need to be controlled or eliminated. Individual
variables such as reading rate would also need to be taken into consideration. An open time frame would be desirable, with bibliotherapy terminating when the subject expressed a desire to stop reading.

The final conclusion drawn in this study was that the more books read by a subject receiving bibliotherapy, the greater the subject's improvement in problem solving skills. This did not seem to be true for the control subjects. The data supports the conclusion that structured bibliotherapy is an effective means of teaching at least one problem solving skill. Even though there was little group-measured difference between the gain scores for three of the four problem solving skills, it is clear that those persons receiving bibliotherapy improved their problem solving abilities in proportion to the number of books they read and discussed. Perhaps other factors were operating to lessen the statistical significance of the experimental group's improvement in problem solving abilities. These factors may have to do with the time limit set for reading (four weeks) and the time limit set for each book discussion (twenty minutes).

As a group, there was significant change in only one problem solving skill for the experimental subjects. In studying individual scores, however, it is apparent that certain individuals in the experimental group showed a large overall improvement in problem solving skills in proportion
to the number of books they read and discussed. This indicates that bibliotherapy was more effective for some individuals than for others.

This information suggests a need for additional information. For what type of person is bibliotherapy most suited? What are the personality characteristics that affect a person's understanding and analysis of their reading? How important is intelligence in the analysis process? Is there a beneficial match between bibliotherapist and client that facilitates the bibliotherapeutic process? What factors can be manipulated in order to make bibliotherapy more widely applicable to many kinds of readers?

Studies could be designed to explore the characteristics of persons who do and do not benefit from bibliotherapy. Such studies could use various criteria to ascertain improvement or non-improvement after bibliotherapy, and then could compare the subjects on any number of variables: intelligence, reading rate, ability to form mental images, ability to abstract, formal education, age, types of preferred reading, and a wide range of personality characteristics.

Recommendations

Based on the preceding seven conclusions, these recommendations are presented for the use of bibliotherapy with female delinquent adolescents:

1. Bibliotherapy, in a structured book discussion
format, is recommended as an approach in helping clients develop their abilities to identify problems and problem situations.

2. Bibliotherapeutic programs should be designed in such a way as to avoid limiting the number of books read and discussed by clients. Any external motivation provided to encourage clients to read should be open-ended and continuous rather than "credit" or "grades" which set an upper limit on the number of books read.

3. Since the number of books read and discussed affects the improvement of skills of clients receiving bibliotherapy, bibliotherapy should be used with clients who like to read and who are likely to read several books before tiring of the bibliotherapeutic process.

4. The effectiveness of bibliotherapy is an area in which much further study is needed. The following types of studies are suggested in order to gain more knowledge of the ways that bibliotherapy is effective, can be made more effective, and can work toward becoming a science as well as an art:

   a. Studies of the characteristics of clients and bibilothereapists in order to determine which clients may benefit most from bibliotherapy and to determine the most important therapist characteristics affecting the bibliotherapeutic process.

   b. Studies to investigate the nature of the skills
that can be taught through bibliotherapy.

c. Studies involving different populations: male delinquents, public school students, younger or older subjects, students with learning disabilities, the elderly.
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BIBLIOGRAPHY

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APPENDIX A

POLL OF PROBLEMS
Table 12
Poll of Problems

<table>
<thead>
<tr>
<th>Responses*</th>
<th>Frequency</th>
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<td>Getting in trouble (21)</td>
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<tr>
<td>Breaking the law (9)</td>
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<td>Delinquency (2)</td>
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<tr>
<td>Running (17)</td>
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<tr>
<td>Running away (14)</td>
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<tr>
<td>Drugs (15)</td>
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<td>Marijuana (8)</td>
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<td>Speed (3)</td>
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<td>Divorce (8)</td>
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<tr>
<td>Parents splitting up (6)</td>
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<tr>
<td>Broken home (5)</td>
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<td>Parents apart (2)</td>
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<td>Alcoholism (8)</td>
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<td>Getting drunk (4)</td>
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<td>Being fat (4)</td>
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<td>Parents</td>
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<tr>
<td>Having a baby (5)</td>
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</tr>
<tr>
<td>Being pregnant (3)</td>
<td></td>
</tr>
</tbody>
</table>

*All client responses and their frequencies are listed. Some responses were judged by the experimenter to be so closely related that they could be combined into a larger response group.
Table 12 (continued)

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends (3)</td>
<td></td>
</tr>
<tr>
<td>Wrong friends (3)</td>
<td></td>
</tr>
<tr>
<td>Making friends (1)</td>
<td>7</td>
</tr>
<tr>
<td>Foster homes (4)</td>
<td></td>
</tr>
<tr>
<td>Group homes (2)</td>
<td>6</td>
</tr>
<tr>
<td>God (3)</td>
<td></td>
</tr>
<tr>
<td>Church (1)</td>
<td></td>
</tr>
<tr>
<td>Religion (1)</td>
<td>5</td>
</tr>
<tr>
<td>Police</td>
<td>5</td>
</tr>
<tr>
<td>Jobs (3)</td>
<td></td>
</tr>
<tr>
<td>Working (1)</td>
<td>4</td>
</tr>
<tr>
<td>Stealing</td>
<td>4</td>
</tr>
<tr>
<td>Dating</td>
<td>3</td>
</tr>
<tr>
<td>Sadness (2)</td>
<td></td>
</tr>
<tr>
<td>Depression (1)</td>
<td>3</td>
</tr>
<tr>
<td>Bad laws</td>
<td>2</td>
</tr>
<tr>
<td>Being in love with a T.V. star (1)</td>
<td></td>
</tr>
<tr>
<td>Thinking about a T.V. person a lot (1)</td>
<td>2</td>
</tr>
<tr>
<td>Dying (1)</td>
<td>2</td>
</tr>
<tr>
<td>Death (1)</td>
<td></td>
</tr>
<tr>
<td>Prostitution (2)</td>
<td>2</td>
</tr>
<tr>
<td>Abortion</td>
<td>1</td>
</tr>
<tr>
<td>Brothers</td>
<td>1</td>
</tr>
<tr>
<td>Dreams</td>
<td>1</td>
</tr>
<tr>
<td>Getting sick</td>
<td>1</td>
</tr>
<tr>
<td>Spending money</td>
<td>1</td>
</tr>
<tr>
<td>Wars</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>240</strong></td>
</tr>
</tbody>
</table>
APPENDIX B

SUBJECT PROFILE SUMMARY
Table 13
Subject Profile Summary

<table>
<thead>
<tr>
<th></th>
<th>Control Subjects</th>
<th>Experimental Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Range</strong></td>
<td>14 yrs. 2 mos. to 16 yrs. 5 mos.</td>
<td>14 yrs. 0 mos. to 16 yrs. 8 mos.</td>
</tr>
<tr>
<td><strong>Median Age</strong></td>
<td>15 yrs. 3 mos.</td>
<td>15 yrs. 8 mos.</td>
</tr>
<tr>
<td><strong>Reading Score Range—California Tests of Adult Basic Education</strong></td>
<td>Grade Level—6.2 to 10.4</td>
<td>Grade Level—6.4 to 11.1</td>
</tr>
<tr>
<td><strong>Median Reading Score—California Tests of Adult Basic Education</strong></td>
<td>Grade Level—8.3</td>
<td>Grade Level—8.6</td>
</tr>
<tr>
<td><strong>Range of the number of days from commitment date to the first day in reading class</strong></td>
<td>10 days to 93 days</td>
<td>8 days to 71 days</td>
</tr>
<tr>
<td><strong>Median number of days from commitment date to the first day in reading class</strong></td>
<td>25 days</td>
<td>16 days</td>
</tr>
<tr>
<td><strong>Mean number of books read during the four week experimental period</strong></td>
<td>5.2 books</td>
<td>5.5 books</td>
</tr>
</tbody>
</table>
APPENDIX C

THE BOOK LIST
The Book List

Instructions: During the next four weeks, read as many of these books as you can and report on them as we have discussed.

Here is the grading scale:
- 8 books: A
- 7 books: B
- 6 books: B
- 5 books: C
- 4 books: C


This is the diary of a girl who has a drug problem.


This is the story of a girl who runs away from home and becomes involved in prostitution.


This is the story of a girl who tries to get her parents back together when they announce that they are getting a divorce.


This is the story of a girl who becomes involved with drugs as a result of family problems.


This is the story of a group of teenagers who are often in trouble with the police.


This is the story of two friends who change as they grow up. One becomes involved with drugs.

This is the story of a girl who runs away from an abusive home life and from other people who try to help her.


This is the story of a girl who does not want her mother to remarry after a divorce.


This is the story of a girl who runs away from home to Hollywood.
APPENDIX D

TITLES AND FREQUENCIES OF BOOKS READ
Table 14

Titles and Frequencies of Books Read

<table>
<thead>
<tr>
<th>Book Titles</th>
<th>Number of Times Read</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control Group</td>
</tr>
<tr>
<td>Chloris and the Creeps</td>
<td>2</td>
</tr>
<tr>
<td>Dawn: Portrait of a Teenage Runaway</td>
<td>7</td>
</tr>
<tr>
<td>Escape from Nowhere</td>
<td>3</td>
</tr>
<tr>
<td>Go Ask Alice</td>
<td>5</td>
</tr>
<tr>
<td>It's Not the End of the World</td>
<td>4</td>
</tr>
<tr>
<td>The Outsiders</td>
<td>8</td>
</tr>
<tr>
<td>Runaway</td>
<td>6</td>
</tr>
<tr>
<td>Sarah T.: Portrait of a Teen-age Alcoholic</td>
<td>5</td>
</tr>
<tr>
<td>Steffie Can't Come Out to Play</td>
<td>5</td>
</tr>
<tr>
<td>That Was Then, This Is Now</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>
APPENDIX E

BIBLIOThERAPY QUESTIONNAIRE
Bibliotherapy Questionnaire

Please answer the following questions by circling Yes or No.

1. Have you ever been in a class where you read books and discussed them with your teacher?
   - Yes
   - No

2. Have you ever discussed a book with a counselor as part of a counseling program?
   - Yes
   - No
APPENDIX F

PRETEST-POSTTEST PICTURE
APPENDIX G

PICTURE ANALYSIS FORM
Picture Analysis

Please study the picture you have been given. Then answer the following questions about the picture. There are no right or wrong answers. Take as much time as you wish and write as much as you wish.

1. What is happening in the picture? Is there a problem? What are the people talking about?

2. What are these people feeling?

3. Why do these people feel that way? Why are they doing what they are doing?

4. What are they going to do in the future? How will this situation turn out?
APPENDIX H

EVALUATOR RATING SCALES
Evaluator Rating Scales

**Scale I  Identification of Problem**

1. Does not identify problem in picture
2. Identifies problem in general terms; is non-specific
3. Identifies specific problem in terms of one character
4. Identifies specific problem in terms of two or three characters
5. Identifies specific problem in terms of all characters

**Scale II  Analysis of Emotional Content**

1. Does not discuss feelings of characters
2. Discusses feelings of characters in general terms; is non-specific
3. Discusses feelings of one character
4. Discusses feelings of two or three characters
5. Discusses feelings of all characters

**Scale III  Analysis of Motivation**

1. Does not discuss character motivation
2. Discusses motivation of characters in general terms; is non-specific
3. Discusses motivation of one character
4. Discusses motivation of two or three characters
5. Discusses motivation of all characters

**Scale IV  Formulation of Solution**

1. Does not formulate solution
2. Formulates general solution; is non-specific
3. Formulates specific solution involving one character
4. Formulates specific solution involving two or three characters
5. Formulates specific solution involving all characters
APPENDIX I

SAMPLE SET OF RESPONSES
Sample Set of Responses

I. What is happening in the picture? Is there a problem? What are the people talking about?

2. They are having a family problem.
1. I don't see a problem.
4. The boy and the girl are arguing over using the car.
3. The mother wants a vacation, but she can't go.
5. The parents won't let the boy and girl have a party.

II. What are these people feeling?

3. The girl is unhappy.
2. They're all upset.
5. The boy is angry at the father and he's angry back. The daughter wishes it would get better and the mother feels depressed.
1. I don't know how they feel.
4. The mother and father feel guilty about what they've just said.

III. Why do these people feel that way? Why are they doing what they are doing?

3. The father doesn't want to talk because he's tired.
1. It looks like they're sitting down.
2. They're tired.
4. The mother avoids everybody because she doesn't want to live there and the daughter doesn't talk because she wants the mother to leave.
5. The father and mother are feeling guilty because they have neglected the children. The son and daughter feel bad because they have said mean things, too.
IV. What are they going to do in the future? How will this situation turn out?

4 The father and the boyfriend will go to a counselor and they'll get to know each other.

2 They'll work it out by talking.

1 There's nothing anybody can do.

5 The mother and father get together and make up a contract between the four of them. The kids add some ideas and everybody agrees to follow the contract.

3 The daughter will write a letter and explain the problem.
APPENDIX J

EXPERIMENTER-PREPARED TESTS
1. The letter says that there has been a death in the family and the problem is how to get to the funeral. It is 500 miles away. They all are talking about what to do.

2. The father is worried about the cost and the mother is sad that her sister has died.

3. The father is worried that they can't afford to go because he might lose his job. He's not sure if the plant will close or not.

4. They work it out together. The son offers to use his lawn mowing money to help out on the expense. The daughter gives her babysitting money and the mother puts in some money she has saved from her job.
Evaluator Rating Form

Code JH

1. These people are talking about a family problem. The daughter and son want to talk it out. They want to be able to stay out later than 11:00.

2. They are upset. The father is against the idea and feels angry.

3. The son and the daughter want more time to be with their friends.

4. They will work it out by talking. It will turn out all right.
Book Discussion Format

Objective I: To establish rapport with the subject and to focus on the concrete content of the book.

1. Which book would you like to talk about today?
2. Did you like the book?
3. Was it realistic? Could it really have happened?
4. Who were the characters in the book?
5. Where did it take place?
6. Tell me what happened in the book. (Five minute time limit)

Objective II: To lead the subject into more abstract thinking about the book.

1. What was each character's personality like?
2. Who were the heroes and who were the villains?
3. Which characters seemed most real? Did any characters do or say things that seemed phony?
4. Do you know people who remind you of any of the characters?
5. What sorts of feelings did you have as you read the book?
Objective III: To analyze the book in terms of the four specific problem solving skills.

Question 1: What problems did the book characters have to solve?
2: How did each character feel about the problems?
3: Did any of the characters help to create the problems?
4: What did each character do to help get the problems solved?
5: Did any characters work against getting the problems solved? Why?
6: Why did each character do what s/he did to help solve the problems?
7: How did the problem finally get solved?
8: Can you think of some other ways to solve the problems in this book?

Objective IV: To help the subject apply the book to other situations.

Question 1: Have you ever known anyone who was in a similar situation? How did they handle it? What could they have done instead?
2: Could this book teach people anything about how to be happier or how to understand people better? What could it teach?