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Stressful Life Events and Coping Methods in Mental-Illness and Wellness Behaviors

Janice M. Bell

Abstract

STRESSFUL LIFE EVENTS AND COPING METHODS
IN MENTAL-ILLNESS AND WELLNESS BEHAVIORS

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A descriptive-comparative study was done to examine the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior.

Data collection included the use of the Social Readjustment Rating Scale and a coping scale administered to the experimental and control samples. The experimental group consisted of thirty psychiatric in-patients of three general hospitals who were oriented in three spheres. Subjects of the control group had no history of psychiatric illness, were currently not receiving medical treatment, and were adequately functioning in a socially accepted role. They were randomly selected to match the patient on the basis of age range (plus or minus two years), sex, and county of residence.

The experimental group of mental-illness behaviors reported significantly more stressful life events occurring in the last six months than the control group. The experimental group also reported significantly more short-term coping methods than long-term methods when compared with the

healthy controls. Sex differences were noted between the two groups. Notable differences also existed when age groups within the experimental and control sample were compared. A significant association was found between high stress scores and more short-term methods reported for coping with life stress by subjects within both groups.

The concept of change as it relates to stress and its effect on health is an important consideration for health care professionals whose goal is health maintenance and illness prevention of people.

LOMA LINDA UNIVERSITY

Graduate School

STRESSFUL LIFE EVENTS AND COPING METHODS IN MENTAL-ILLNESS AND WELLNESS BEHAVIORS

by

Janice M. Bell

A Thesis in Partial Fulfillment of the Requirements for the Degree of Master of Science in the Field of Nursing

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Each person whose signature appears below certifies that this thesis in her opinion is adequate, in scope and quality, as a thesis for the degree of Master of Science.

Esther E. Sellers, Chairman
Esther Sellers, Assistant Professor of Nursing

L Frances Pride
Frances Pride, Professor of Nursing

Marilyn Kueffner
Marilyn Kueffner, Professor of Nursing

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CHAPTER I

INTRODUCTION

Stress is becoming an important theme in society as man encounters adaptation problems to an environment which he himself has created. Leininger (1973, p. 3) states:

> The multiplicity of actual stresses related to new forms of mass-communication media, rapid transportation, use of technological equipment, shifts in family relationships, economic crises, complex organizational structures, highly time-bound societal demands, sudden and tragic death incidents, unexpected personal encounters and constant changes in our environment make us realize that Americans are living in a potentially stressful world that is noticeably influencing the mental health of its citizens.

Stress can generate symptoms of depression and anxiety and other mental illness. Statistics indicate that severe depression or anxiety may involve 20% of Americans at some time in their lives (U. S. News & World Report, 1973). Faced with a stressful life event, the individual must adjust to changing circumstances, to new complexities and to new challenges. The methods used in this adjustment remain individualistic, varied and vague. The development of coping skills is, however, paramount to maintaining equilibrium and a state of well being.

THE PROBLEM

Need for the Study

Nursing theory, teaching (Davidhizar, 1973), research (Andersen and Pleticha, 1974; Volicer, 1974), and practice

have increasingly focused on physiological and psychological stress, actual or potential. Consideration is being given to the effect stress has on the health of individuals and groups. Theoretically, emphasis is placed on prevention of illness rather than treatment after illness occurs.

People coping with stress is a natural, human process and is important to the health maintenance and wellness behavior of man. Therefore, it would appear important to determine the kinds of psycho-social stress experienced in the lives of individuals, both ill and well, and how these individuals cope with stress, with the goal of preventing illness behavior. Brown et al. (1973) in making recommendations about such a comparative study, advocates a sample group of "healthy" people free from any mental or physical illness and preferably drawn from the same community as the ill persons. A study of the precipitating life stresses also retains the potential of providing a better understanding of mental illness (Smith, 1971; Hudgens et al., 1970).

Purpose of the Study

The purpose of this study was to examine the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior. There was also an intent to gather empirical evidence to determine if a relationship between short-term coping methods and mental-illness behavior exists.

Problem Statement

Is there a difference in the amount and/or quality of stressful life events experienced by mentally ill versus mentally well persons? Is there a difference in the coping methods used by persons in each group?

THEORETICAL FRAMEWORK

Concept of Stress

There are many competing definitions and theoretical constructs proposed by various researchers in the field of stress. Therefore a discussion of the concept of stress as utilized in this study is essential.

The theoretical background of this study is built on Selye's (1973, p. 692) concept of stress as the "nonspecific response of the body to any demands made on it." He further states that it is immaterial whether the event creating the demand is pleasant or unpleasant. The change component of the demand, however, appears to be the critical factor (Dohrenwend, 1973). The degree of change influences the intensity of the demand made upon the adaptive potential of the body. Every stressful event evokes an adaptation response.

Janis (1958, p. 13), a prominent researcher in the field of stress, defines psychological stress which includes the change component as "those changes in the environment which

typically induce a high degree of emotional tension and interfere with normal patterns of response."

Engel (1962, p. 264) supports this view with his definition of psychological stress as referring to:

> all processes, whether originating in the external environment or within the person, which impose a demand or requirement upon the organism, the resolution or handling of which necessitates work or activity of the mental apparatus before any other system is involved or activated.

Concept of Coping

The work of adaptation as mentioned above, is the coping method. "Adaptability is probably the most distinctive characteristic of life" (Selye, 1950, p. xii). Selye (1974) comments on this demand for adaptation by saying it isn't what happens to a person, it's the way he takes it. Crisis theory (Caplan, 1964) postulates that various life stresses provide pivotal points for mental health. If the crisis or stressful life event is managed by effective coping, the individual learns new coping behaviors and strengthens his emotional and problem-solving ability. If insufficient or inadequate coping methods are involved, deterioration in psychological functioning is likely. According to Rapoport (1965), stress has a great potential for reducing the individual's level of mental health. Equilibrium and maintenance of wellness are therefore dependent upon the nature of the stressful event, the person's resources, and his coping methods.

Hypothesis Guiding the Study

1. Persons exhibiting mental-illness behaviors will have had experienced more stressful life events within the last six months than people exhibiting wellness behaviors.

2. Persons exhibiting mental-illness behaviors will report more short-term coping methods than persons exhibiting wellness behaviors.

Definitions

1. The term "stressful life event" refers to those events experienced within the last six months that are identi- by Holmes and Rahe (1967) as requiring some degree of change or alteration in the person's life situation.

2. "Coping method" is the specific way or ways a person attempts to reduce stress to a tolerable limit. These have been categorized into two groups:

a. "Long-term" coping methods include those ways of coping with stress that are constructive, realistic, and can effectively relieve stress for long periods of time. They include talking it out with others, trying to find out more about the situation, belief in a supernatural power who cares about the individual, taking some definite action on the basis of present understanding, drawing on past experiences, working it off by physical exercise, and making alternate plans for handling the situation.

b. "Short-term" coping methods are those which may reduce stress and tension to a tolerable limit temporarily, but which, carried on for long periods of time, do not deal with reality and may have a destructive or detrimental effect on the person. These have been identified as using alcoholic beverages, daydreaming, trying to see the humorous aspects of the situation, not worrying about it with the belief that everything will work out fine, sleeping more, using food and food substitutes (smoking, chewing gum, eating more), getting prepared to expect the worst, cursing, using drugs, becoming involved in other activities to keep one's mind off the problem, and crying.

3. "Mental-illness behavior" is any inadequate or inappropriate behavior that has resulted in psychiatric hospitalization and in-patient treatment.

4. "Mental-wellness behavior" is used to describe behavior by a person who is not currently receiving any medical treatment, who has no history of mental illness or psychiatric treatment and who adequately functions in a socially accepted role in society.

Assumptions

For the purpose of this study, the following assumptions were made:

1. A time limit of six months in reporting stressful life events will provide data representative of the stress

experienced by the population studied.

2. Persons admitted to psychiatric in-patient facilities come from diverse socio-economic backgrounds, races, and religions.

Scope and Limitations

1. Three general hospital in-patient psychiatric units were chosen for the experimental group (mental-illness behaviors).

2. The control group (mental-wellness behaviors) was chosen from two groups of people who were residents of the same general geographical location (San Bernardino or Riverside county) as represented in the experimental group.

3. The experimental group and control group were matched on the basis of age range (plus or minus two years), sex, and county of residence.

4. An age limit of 18 to 65 years was set for the sample.

5. The study was limited by the individual's perception and honesty in reporting recent stressful life events and individual coping methods.

METHOD OF STUDY

Conduction of the Study

This was a descriptive-comparative study using two questionnaires to determine recent stressful life events and methods

of coping with stress. Descriptive research consists of the collection of data for the purpose of describing existing conditions, whereas a comparative survey involves the collection of data from different conditions and concludes with a comparison made of the findings (Sax, 1968; Fox, 1966).

Data was collected in three general hospitals using their psychiatric in-patients for the experimental group representing mental-illness behaviors. Admissions to the in-patient units from April 5, 1975 to April 12, 1975 were included in this group.

A well person was matched to each patient on the basis of age range, sex, and county of residence to represent the control group of mental-wellness behaviors. Employees from the City of Riverside were randomly selected to match the experimental group of Riverside County patients. The San Bernardino patients were matched to well persons selected from the lobby of a general hospital from April 17, 1975 to April 23, 1975 who fulfilled the necessary criteria.

Two data collection tools were utilized. Information about recent life events was obtained through the use of a life stress questionnaire (Holmes and Rahe, 1967). A second tool to determine coping methods was developed with information abstracted from the literature review. These tools facilitated the collection of information from the individuals in the sample concerning stressful life events and ways of coping with stress.

Data Analysis

Each individual in the both experimental and control groups received a score based on the type and amount of stressful life events reported. A score was also obtained for each of the coping methods reported by the individual.

Means were computed for age, sex, and total stress score. Percentages of frequency were analyzed for each stressful life event reported as well as for the coping methods used so comparisons could be made between the experimental and control group, men and women and age groups in each sample.

A chi-square test was used to determine differences in the amount of stressful life events experienced by the experimental group as compared to the control group. Coping methods were divided into long-term and short-term methods. Analysis consisted of a paired t-test and McNemar's test to determine if short-term methods were used more frequently by the experimental group.

A chi-square test was also used to test for association between stressful life event scores and short-term versus long-term coping methods for both groups.

SUMMARY

This is a descriptive-comparative study using two questionnaires to determine stressful life events and coping

methods experienced by psychiatric in-patients (experimental group) and mentally well persons (control group) within two counties in Southern California.

The frequency and type of stressful life events as well as the coping methods used to reduce stress were examined and the two groups compared.

CHAPTER II

REVIEW OF THE LITERATURE

Before investigating the relationship between stressful life events and coping methods in mental-illness and wellness behaviors, a review of the literature was conducted. Included in this review are the most relevant and important studies related to this subject. Areas of discussion include stressful life events and physical illness, stressful life events and mental illness, and stress and coping methods.

Stressful Life Events and Physical Illness

Stress cannot be seen as an entity, but its effects can be observed. The psychological processes of stress affect both states of health and illness.

Research began, several decades ago, to attempt to understand illness in the perspective of the person's life circumstances. Adolf Meyer first developed the concept of a "life chart" which included events that cause change:

> ...changes of habitat, of school entrance, graduations or changes or failures; the various jobs; the dates of possible important births and deaths in the family, and other fundamentally important environment conditions. (Lief, 1948, p. 420)

This provided a unique method of summarizing significant life events that cause change and their relationship to health and illness.

Many reports followed regarding studies done on stressful life experiences as related to physical illness (Wolff, 1953; Holmes and Wolff, 1952). In 1967, Holmes and Rahe developed the Social Readjustment Rating Scale which measures the amount of readjustment required by each life event. Rahe and his associates (1968; 1967) found that in individuals with higher readjustment scores, the more likely they were to develop illness within the subsequent six-month period than those with lower scores. They also reported a direct relationship between stressful life events and illnesses of all types as well as a clustering of life events subsequent to illness.

Wyler et al. (1971) found that the quantity of life change within the previous two years was highly, positively correlated to the seriousness of the illness. Nursing researchers, Andersen and Pleticha (1974), also found a significant association between life changes and the degree to which the subject perceived the severity of his presenting medical problem in an emergency unit.

Another study by Spilken and Jacobs (1971) further supports that situations of life change preceded the onset of illness behavior (treatment-seeking behavior rather than actual illness) in 79 male college students. Research on life events and etiology of disease in children has supported the relationship as well (Apley, 1974; Coddington, 1972).

Other studies on stress and physical illness, including cardiac disease (Rahe et al., 1973), myocardial infarction (Rahe and Paasikivi, 1971), tuberculosis (Rahe et al., 1964), leukemia and lymphoma (Greene and Miller, 1958; Greene et al., 1956; Greene, 1954), and abnormalities of pregnancy (Gorsuch et al., 1974) showed a positive correlation between stressful life events and subsequent physical illness.

Stressful Life Events and Mental Illness

The role of life change and stress in bringing about psychiatric disorders has increasingly become the focus of recent psychiatric research.

A recent review of the existing literature by Hudgens et al. (1970) concluded that a causal relationship between life change and mental illness has never been convincingly established. Earlier studies by the same authors reported no significant relationship existed (Morrison et al., 1968; Hudgens, et al., 1967). Forrest et al. (1965) found only a partial relationship.

However, the majority of recent studies concluded there is a substantial and positive relationship between change in life experiences and psychological impairment (Brown et al., 1973; Paykel, 1970; Cooper and Shepherd, 1970; Steinberg and Durell, 1968; Parkes, 1964).

Employing a matched control sample, Brown and Birley (1968) and Paykel et al. (1969) reported that mentally ill

hospitalized patients have more stressful life events than nonhospitalized persons. Other interesting correlations have been found by Myers et al. (1971) where "undesirable" life events were strongly associated with psychological impairment than "desirable" ones. They also found that the greater the number of changes in life events reported in the previous two-year period, the more likely was the mental status of the individual to have changed substantially.

A recent study by Weinstein (1974) reports that patients reported and connected to mental illness recent difficulties (economic, family, and social problems) more often than difficulties occurring earlier in life. A statistically significant relationship was found between the number of problems the patients believed were responsible for their illness and the patient's age, marital status, diagnosis, and length of hospitalization.

Morrice (1974) attempted to identify the crisis which led to admission in an in-patient psychiatric facility. The majority of crises fell into two categories: interpersonal difficulties in the family and work problems.

Stress and Coping Methods

While a substantial amount has been written on stressful life events and illness, little has been done on how people cope with stress--what specific ways do they maintain their equilibrium?

It is difficult to abstract general coping principles because coping methods are developed in many ways and from many sources and are different for each person. However, they are crucial in determining and maintaining equilibrium (Aguilera and Messick, 1974).

The way the individual copes is related to his perception of the stressful event and the way he interprets it and defends against it (Katz et al., 1970).

Lazarus' (1966) concept of coping involves cognitive activity where the threat is first perceived and appraised by the individual followed by consideration of the consequences of his coping behavior.

Wolf and Goodell (1968) have proposed that individual differences in response to threat are based upon hereditary, socio-cultural milieu, individual needs and desires, and early conditioning. The way a threat is perceived depends upon the harm it signifies to personal values and needs. Thus, what may be very threatening to one person may elicit an opposite response in another.

Hamburg (1974, p. 14), reporting on coping behavior, states:

> Coping functions involve not only containing distress within tolerable limits but also maintaining self-esteem and interpersonal relationships and meeting environmental conditions.

The coping methods involve choice and thus are flexible and purposive. How an individual utilizes his coping methods depends on whether he chooses to avoid the situation, confront it, or use a variety of self-deceptive activities. Strategies may range from the classical mechanisms of defense (repression, denial, rationalization, etc.) to seeking information, turning to religious beliefs for support, and feeling hopeful (Hamburg, 1974).

Coping methods first investigated were those of persons involved in acute crises: severe burn victims (Hamburg et al., 1953; Cobb and Lindemann, 1943); grief (Lindemann, 1944); surgical patients (Janis, 1958); and parents of children with malignant diseases (Chodoff et al., 1964; Friedman et al., 1963).

Fontana et al. (1972) delineated symptomatic and non-symptomatic coping styles in his study of 99 hospitalized psychiatric patients and their matched controls. His theoretical model conceptualizes behavior prior to hospitalization as well as hospitalization itself as instrumental in the coping process.

The rationale of his model recognizes that relationships between and among people involve mutual expectations with regards to physical support and/or psychological gratification and interpersonal intimacy. When an event or events change a person's expectations of another, several

alternatives are available: people may cope by direct negotiation of their mutual expectations or they may cope indirectly by acting in such a way as to make others change. This indirect coping method utilizes symptomatic and non-symptomatic behaviors and may eventually be defined as indicative of illness. Hospitalization may then occur and thus legitimize the sick role of the person and his behavior.

Fontana and his colleagues reported a dramatic rise in events that had occurred in the patient group over the preceding year as compared to the control group. These events may have been brought about by the acting-out behavior of the individual. The model therefore focuses attention on the meaning of hospitalization and identifies it as an action taken to influence another to change his expectations. This form of coping may continue through the hospitalization and beyond if there is no satisfactory resolution of the original, mutual expectation conflict.

Another study by Spilken and Jacobs (1971) found that maladjustive coping situations of life change, as measured by the Boston University Personality Inventory, reflected a style of faulty coping manifested by defiance, impulsivity, and danger seeking.

Sidle and his associates (1969) designed a relatively structured scale to assess coping methods in an effort to identify general coping principles. Administered to college

students, the questionnaire included several problem situations and strategies which the student was asked to rate on his likelihood of using each strategy. The researchers found that the ten strategies identified were relatively independent ways of coping and that there were sex differences in the coping styles chosen among the male and female sample. The ten strategies included trying to find out more about the situation (seeking additive information); talking with others about the problem (friend, relative, professional person); trying to see humorous aspects of the situation; not worrying about it; becoming involved in other activities in order to keep one's mind off the problem; taking some positive, concerted action on the basis of one's present understanding of the situation; being prepared to expect the worst; making several alternate plans for handling the situation; drawing upon one's past experience perhaps having been in a similar situation before; and trying to reduce tension by drinking, eating, smoking more, and exercise.

Menninger (1963) has also identified several ways people cope with stress: food and food substitutes, alcoholic beverages, laughing and crying and cursing, boasting, sleep, talking it out, thinking through including rationalization, working off (physical exercise), acting to alter the situation, pointless overactivity, fantasy formation and

daydreaming, and self-discipline.

SUMMARY

In this review of pertinent literature, a sampling of the most relevant studies and statements of opinion related to stressful life events and coping methods in mental-illness and wellness behaviors were included. The areas of discussion include stressful life events and illness, both physical and mental, and stress and coping methods.

Numerous researchers indicate that a significant relationship exists between stressful life events and subsequent illness of various kinds, including psychological impairment.

Several coping methods have been identified by various authors; however, the actual choice is dependent upon the individual, his perception of the stressful event, and his appraisal of the coping method he chooses to use.

CHAPTER III

METHODOLOGY

The main purpose of this study was to obtain information about the frequency and quality of stressful life events experienced by mentally ill persons as compared to persons exhibiting mental-wellness behaviors. A comparison was also made of the coping methods used by individuals in both groups.

This chapter will consider the setting of the study, research design, method of data collection, and analysis of the data employed in this study.

Setting

Three general hospitals within two counties in Southern California were chosen for the setting of this research. The counties of San Bernardino and Riverside were utilized.

Admission to the psychiatric in-patient units of all three hospitals included various admitting diagnoses such as schizophrenia (chronic and acute), depression, drug dependency, and alcoholism.

Persons exhibiting wellness behaviors were chosen from employees of the City of Riverside and the lobby of a general hospital.

Permission was requested from each facility utilized (Appendix A) and a copy of the research proposal was submitted

to the University Research Advisory Committee on Human Experimentation. Permission to proceed with the study was granted.

RESEARCH DESIGN

Because of the comparative nature of the study, subjects were divided into two groups--experimental and control. A discussion of each group follows.

Experimental Group

Subjects of the experimental group participating in this study were a sample of 30 patients admitted to in-patient psychiatric units during a one-week period between April 5, 1975 and April 12, 1975 who were:

1. Ages 18-65, male and female
2. Willing to consent to the study
3. Able to read, write, and comprehend English
4. Admitted to the in-patient psychiatric facility within the previous 48-hour period
5. Oriented to time, place, and person.

The staff on each unit were first consulted as to the advisability of including the patient in the sample. The patient was then approached individually by the researcher and asked if he or she would participate in a program of nursing research.

In the initial interview, the patient was asked his age, county of residence, and questions to determine orientation such as, "What day is it today?", "Where are you?", and "What is your name?" If the subject was able to answer correctly, a consent form (Appendix B) was signed by the patient and co-signed by the researcher and a witness.

Six patients who refused to participate in the research were excluded and other patients were selected as replacements. One patient terminated the interview by refusing to continue to fill out the questionnaires. Two patients' questionnaires were not accepted as the patients were observed to be disoriented in their thought processes. These were not included in the total sample.

Control Group

Control data was obtained from subjects who fulfilled the following criteria for wellness behavior:

1. Ages 18-65, male and female
2. Willing to consent to the study
3. Presently not receiving medical treatment
4. No history of psychiatric illness or treatment
5. Able to read, write, and comprehend English
6. Oriented to time, place, and person.

These individuals were chosen from two groups of people and matched to the patient on the basis of age range (plus or minus two years), sex, and county of residence.

City of Riverside employees were used as healthy controls for patients residing in Riverside County. Using a table of random numbers, persons were chosen from an employee computer list to match the patient on the basis of age range and sex. Home addresses were obtained and the two questionnaires were mailed to each chosen person along with a consent form. Follow-up, to insure response, was made by phone contact.

The patients living in San Bernardino County were matched to persons chosen from the lobby of one of the general hospitals employed in this study. Random times were selected by the researcher to visit the lobby between April 17, 1975 and April 23, 1975. If the person matched the necessary criteria for mental-wellness behavior, the questionnaires and consent form were given them to complete.

DATA COLLECTION

The research tools used to collect the data included a questionnaire to determine stressful life events and a second questionnaire to determine methods of coping with stress used by the individual.

Following the initial interview to determine the subject's suitability to participate in the study, the subject was given the two pencil and paper questionnaires and asked to complete them according to the directions which were read

aloud and discussed. The subject then proceeded to answer the questionnaires by himself. The researcher remained with the subject and assisted him with any of the items which the subject requested be clarified or explained. Emphasis was placed on the individual's own perception of the item in question. Clarification was given in a reflective way so as not to bias the subject's response.

Questionnaire I

Social Readjustment Rating Scale. The Social Readjustment Rating Scale (SRRS) developed by Holmes and Rahe (1967) lists 43 life events which are either indicative of or require some change (positive or negative) and consequent coping behavior in the life of the individual. The emphasis is on change from existing steady state and not on psychological meaning, emotion, or social desirability.

Each event has been assigned a life change unit (LCU) value depending on how much social readjustment was judged necessary to adapt to each event. LCU values range from 11 (minor violations of the law) to 100 (death of spouse). The findings of Holmes and Rahe indicate that scores of 150-199 LCU indicate mild stress; 200-299 LCU indicate moderate stress; and scores of 300+ indicate high stress and major life crisis.

The SRRS has been used as a research tool in a variety of studies to evaluate the relationship of life stress and

the onset of illness including psychiatric, medical and surgical diseases (Rahe et al., 1970; Rahe et al., 1967).

Cross-cultural studies done by several researchers indicate a similar rank ordering of events in diverse cultural settings with regards to the amount to readjustment required by each event (Rahe et al., 1971; Harmon et al., 1970; Rahe, 1969; Komaroff et al., 1968; Masuda and Holmes, 1967).

Another study done by Ruch and Holmes (1971) added increased validation to the tool by reporting a high coefficient of correlation between the responses of a group of college students and the responses of the original group (older, more settled, less educated persons) who were involved in rating the events.

Use of the SRRS in this Study. The subjects of both experimental and control groups indicated on a Yes or No checklist whether the event had occurred to him in the last six months (Appendix B). Scoring was done by totalling the number of LCU's for the events that each person reported occurring in the last six months. This score was used in the analysis of stressful life events.

Questionnaire II

Coping Scale. A tool to obtain information regarding individual coping methods was developed following the review of the literature.

Sidle et al. (1969) developed a coping scale and results of their research indicate that a pencil and paper test is capable of eliciting information about coping including less socially approved ways of dealing with stress.

Several independent ways of coping have been identified and these strategies were included in an 18-item questionnaire (Sidle et al., 1969; Menninger, 1963).

A discussion of the individual items follows:

1. "I use alcoholic beverages" may be a comforting symbol of the primal "bottle" and its effects as a central nervous system depressant entice many persons to forget their problems for a short-lived time. While alcohol may temporarily reduce stress and tension, it denies reality, impairs judgment and may become habit forming (Menninger, 1963).

2. "I talk it out with others (friend, relative or professional)" is the basic modality of human relationships and the medium for most psychiatric therapy. Used effectively, the method can reduce stress through the discovery of new ideas and solutions that occur in the talking/listening interaction. There is also great therapeutic value in "getting it off one's chest" (Morgan and Moreno, 1973).

3. "I try to find out more about the situation" involves information seeking to discover additional facts and viewpoints about the conflict situation. As more of reality is perceived, tension is often relieved.

4. "I daydream" has value as:

> daydreams are not merely escapes from the routines of daily life; they represent a working over of emotional problems and conflicts that results in a variety of solutions (Smith, 1974).

They are not, however, considered as long-term coping methods as they are not effective when used solely to the point of exclusion of other methods.

5. "I believe in a supernatural power who cares about me" is an item included by the researcher's own creation. Hamburg (1974) reports a turning to religious beliefs for support in a stressful situation. The idea that there is an entity who has personal concern for the individual may have great reassuring value.

6. "I work it off by physical exercise" includes any large-muscle activity that dissipates tension. Efficient relief may be obtained when the muscular activity is directed toward changing the situation.

7. "I try to see the humorous aspects of the situation" is a way of temporarily discharging tension in the form of laughing either at one's own or at someone else's expense.

8. "I don't worry about it. Everything will probably work out fine." This method may be considered to be a denial of reality. While excessive worry is not to be condoned, there must be some action taken to relieve the stressful situation if the method chosen will suffice on a long-term basis.

9. "I sleep more" is another method of withdrawal from the reality of the stressful situation.

10. "I take some definite action on the basis of my present understanding" is an intelligent and effective way of confronting the conflict situation and discharging tension.

11. "I draw on my past experiences" may have significant value as one relates old guidelines for behavior in stressful situations to the present one.

12. "I use food and food substitutes" is a coping method based upon the fact that there are psychologically restorative effects from eating food and using food substitutes such as cigarettes, pipes, cigars, and chewing gum. Originating from the fact that loving and being loved centered around food, many people still employ this method to reduce tension and restore a feeling of well-being (Menninger, 1963).

13. "I get prepared to expect the worst" is characterized by passivity and pessimism. No concrete action is taken and the stress and tension remain.

14. "I curse" brings about relief from tension but may be easily and frequently abused. This method is classed as a short-term mechanism.

15. "I make several alternate plans for handling the situation" involves a high level of cognition in determining choices of coping and considering priorities involved in the alternate methods.

16. "I use drugs" is a short-term method similar to the use of alcohol where one seeks to escape the tension and stress by temporarily finding relief from the stressful situation.

17. "I become involved in other activities to keep my mind off the problem" is also classed as short-term as it may relieve tension but is not goal-directed to the resolution of the stress-producing situation.

18. "I cry" is probably most recognized as a safety valve device perhaps the most universal of all coping methods. When the situation becomes overwhelmingly stressful, weeping restores equilibrium by releasing tension and pent-up emotions and is most effective when accompanied by other concerted actions of coping.

Use of the Coping Scale in this Study. The subject was asked to rate himself on a scale of 1 to 5 (never to always) as to his likelihood of using each item when feeling stress and tension (Appendix B). The point circled on the questionnaire served as the subject's rating for that method. This score was used in the analysis of coping methods used by persons of the experimental and control group.

ANALYSIS OF DATA

The data used in the statistical analysis included the subject's age, sex, individual responses on the 43 items of

the Social Readjustment Rating Scale (SRRS), and total SRRS score. Individual ratings on each of the items of the coping scale were also used.

Means and standard deviations were computed for age and SRRS scores for the experimental and control groups as well as for men and women and age groups (under 30, 31-45, and 46 and over) of both groups.

Comparison of the experimental and control group regarding total SRRS scores was achieved by using a chi-square test to determine whether the experimental group experienced more stressful life events than the control group as hypothesized in Chapter I.

Percentages were computed to compare individual reporting of each item on the SRRS and to compare the experimental and control group in addition to men and women and age groups of both samples.

The 18 coping methods of Questionnaire II were divided into long-term and short-term methods based on the reality oriented, constructive effect each has in dealing with stress. The subject received a rating on each item depending on the number circled regarding his likelihood of using each coping method. A paired t-test was done to analyze the difference in coping methods used by the experimental versus control group. This was accomplished by a comparison of the percentage of short-term methods chosen (rated as sometimes, usually,

always) to the total number of coping methods chosen. The purpose of this analysis was to determine if the experimental group used more short-term coping methods than the control group.

Additional analysis of differences in coping methods between the two groups was done. Each individual was assigned a plus if more short-term than long-term methods were reported. The coping methods of the experimental and control group were then compared using McNemar's test.

Percentages of frequency for each coping method were computed for the experimental versus control group; men versus women of the experimental and control group; and comparison of age groups of the experimental versus control group.

Finally, a chi-square test was used to determine if a relationship existed between total SRRS scores and coping methods chosen.

SUMMARY

A descriptive-comparative study has been done to determine stressful life events and coping methods in an experimental (mental-illness behaviors) and control (mental-wellness behaviors) group. Psychiatric in-patients of three general hospitals were compared to healthy persons obtained from the City of Riverside employees and persons from the lobby of a

general hospital. Matching was done on the basis of age range, sex, and county of residence.

The Social Readjustment Rating Scale (SRRS) was used to determine recent stressful life events. A questionnaire to determine coping methods was developed following a review of the literature.

Data was programmed on computer cards and means and tests for differences between the two groups were analyzed with respect to answering the problem statements of this study. Analysis and interpretation of the results follow in Chapter IV.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

At the conclusion of data collection, analysis was facilitated by the computational facilities at Loma Linda University. The results of this study including significance and interpretation of the data are presented in this chapter.

PRESENTATION OF THE DATA

The central questions guiding the collection and analysis of the data were:

1. Is there a difference in the amount of stressful life events reported by mentally ill persons as compared to mentally well persons? Is there a difference in the quality of stressful life events experienced by each group?

2. Is there a difference in the coping methods used by mentally ill persons as compared to mentally well persons?

In analyzing the data, additional questions considered were:

1. Is there a difference in the stressful life events experienced and coping methods used by men and women of both groups?

2. Is there a difference in the coping methods used by different age groups of the sample (below 30, 31-45, 46 and over)?

3. Is there an association between the amount of stressful life events and the type of coping methods used?

ANALYSIS AND DISCUSSION OF THE DATA

Sample Data

The sample consisted of 30 psychiatric in-patients (experimental group) who were matched to 30 mentally well persons (control group) on the basis of age range, sex, and county of residence. Ages ranged from 19 to 60 and included 14 males and 16 females. Mean age for the experimental group was 34.90 (Standard Deviation 12.24) and the control group's mean age was 35.03 (SD 11.96).

Stressful Life Events of the Experimental Group Versus Control Group

The Social Readjustment Rating Scale (SRRS) (Holmes and Rahe, 1967) was used to measure stressful life events. Each event has been assigned a life change unit (LCU) value depending on the amount of readjustment required by each event. Table 1 displays a listing of events showing the respective LCU value for each item.

The LCU total has been divided into three categories: 0-199 indicating mild stress, 200-299 indicating moderate stress, and 300+ indicating a high level of stress.

In a comparison of mean SRRS scores, the mentally ill persons had higher scores than the mentally well persons

Table 1

Social Readjustment Rating Scale

Life Event	LCU Value
Death of spouse	100
Divorce	73
Marital separation	65
Detention in jail or other institution	63
Death of close family member	63
Personal injury or illness	53
Marriage	50
Fired at work	47
Marital reconciliation	45
Retirement	45
Change in health/behavior of family member	44
Pregnancy	40
Sex difficulties	39
Gain of new family member	39
Business readjustment	39
Change in financial state	38
Death of close friend	37
Change to different line of work	36
Change in # of arguments with spouse	35
Mortgage over $10,000	31
Foreclosure of mortgage or loan	30
Change in responsibilities at work	29
Son or daughter leaving home	29
Trouble with in-laws	29
Outstanding personal achievement	28
Wife begin or stop work	26
Begin or end school	26
Change in living conditions	25
Revision of personal habits	24
Trouble with boss	23
Change in work hours or conditions	20
Change in residence	20
Change in schools	20
Change in recreation	19
Change in church activities	19
Change in social activities	18
Mortgage or loan less than $10,000	17
Change in sleeping habits	16
Change in number of family get-togethers	15
Change in eating habits	15
Vacation	13
Christmas	12
Minor violations of the law	11

(see Figure 1).

	Mean	SD	Range
Experimental Group	335.90	173.95	78-881
Control Group	158.97	113.73	12-458

Figure 1

Comparison of SRRS Scores

A chi-square test was used to compare the total LCU scores reported by the experimental and control groups (see Table 2). The difference between the two groups in the amount of stress experienced was found to be significant at the .0003 level indicating that the experimental group experienced more stressful life events than the control group. This finding supports the hypothesis which states that persons exhibiting mental-illness behaviors will experience more stressful life events in the last six months than persons exhibiting mental-wellness behaviors.

An item analysis of the stressful life events reported by 20% or more of the sample indicated differences in the frequency of the items reported by each group (see Table 3).

The items of "detention in jail or other institution" (LCU=63) and "major personal injury or illness" were reported by the experimental group of mentally ill persons more frequently. Fourteen of the 30 patients or almost 50% of the experimental group seem to have perceived their

Table 2

Chi-square Test of SRRS Scores
Between Experimental and Control Groups

		Mild 0-199	Moderate 200-299	High 300+
Expt	Observed	7	6	17
	Expected	14.5	5	10.5
Control	Observed	22	4	4
	Expected	14.5	5	10.5

Table 3

Comparison of SRRS Items Reported ≥ 20%

LCU	SRRS Item	Expt	Control
65	Marital separation	6	2
63	Detention in jail/institution	14	0
53	Personal injury or illness	15	2
47	Fired at work	6	1
44	Change in health/behavior of family member	14	9
39	Sex difficulties	9	0
38	Change in financial state	19	10
37	Death of close friend	6	2
35	Change in number of arguments with spouse	10	6
29	Change in responsibilities at work	6	7
28	Outstanding personal achievement	7	3
26	Wife begin or stop work	6	1
25	Change in living conditions	7	3
24	Revision of personal habits	11	3
20	Change in work hours or conditions	12	7
20	Change in residence	16	8
19	Change in recreation	10	6
19	Change in church activities	11	3
18	Change in social activities	14	5
17	Loan of less than $10,000	2	12
16	Change in sleeping habits	23	7
15	Change in number of family get-togethers	14	6
15	Change in eating habits	25	9
13	Vacation	6	4
12	Christmas	20	17
11	Minor violations of the law	9	8

current illness and hospitalization as a "detention in an institution" and "major illness." This group may have included persons admitted to psychiatric units for the first time. The Lanterman-Petris-Short Act for the State of California legislates that a person may be involuntarily held for a maximum period of 72 hours for evaluation and treatment. Thus, the hospitalization itself may be perceived as a stressful life event. Chronic psychiatric patients who have been in-patients on previous occasions may not have perceived hospitalization as a stressful event.

Change in health or behavior of a family member was reported frequently in both groups. The San Bernardino County residents of the control group were chosen from the lobby area of a general hospital, thus a higher frequency of this item may have been reported than might be expected in the general population.

The general economic instability reflected by a current unemployment rate of 8.9% for the nation and 10% for the State of California combined with rising inflation may account for the frequent reporting by both groups of a change in financial state. It is also interesting that 12 persons of the control group reported a loan of less than $10,000 as compared to 2 persons in the experimental group.

It should be noted that the total SRRS score may be a cumulation of events generated by one major change. As

previously mentioned, the hospitalization itself may create other changes in the life pattern of the individual. Another example such as marital separation may also effect change in the behavior of a family member, financial state, arguments with spouse, residence, and many other changes associated with the separation.

Differences between men and women and the several age groups in reporting stressful life events were also considered.

Women of the experimental group reported more stressful life events than men of the experimental group. However, men of the control group reported more stressful life events than the women of the same group (see Figure 2).

	Experimental	Control
Women	384.69	155.25
Men	280.14	163.21

Figure 2

Sex Comparison of Mean SRRS Scores

Holmes (1970) reported that no significant difference was displayed in the average number of life changes per person comparing men and women.

All age groupings of the experimental group reported more stressful life events than the control group. Looking at the experimental and control groups separately, the age

group under 30 of the experimental group reported the most stress followed by the 31-45 age group. The control group of ages 31-45 reported the highest SRRS score with the under 30 age group following with the next highest score (see Figure 3).

	Experimental	Control
46 and over	316.25 N=8	92.43 N=7
31-45	324.75 N=8	200.89 N=9
Under 30	353.50 N=14	165.29 N=14

Figure 3

Age Group Comparison of
Mean SRRS Scores

This differs from the results reported by Holmes (1970) where patients between 20 and 30 years old reported 50% more life changes than those between 45 and 60.

Coping Methods of Experimental and Control Group

An 18-item questionnaire abstracted from the literature was used to determine coping methods utilized when feeling stress and tension. The items were divided into long-term and short-term methods based on the reality oriented, constructive effect each has in dealing with stress for a long

duration of time (see Table 4).

The individual was asked to score himself from 1 to 5 (never to always) on his likelihood of using each method.

Scores from 3 to 5 including the categories of sometimes (3), usually (4), and always (5) were considered in the analysis of data. A comparison of the percentage of short-term methods reported to the total number of coping methods chosen was made for the experimental and control groups (see Table 5).

A paired t-test analyzed the difference between the groups. The results showed a significant difference of .0003, supporting the hypothesis which states that persons exhibiting mental-illness behaviors will use more short-term coping methods as compared to persons exhibiting mental-wellness behaviors.

Additional analysis using McNemar's test was done on the coping methods. A plus (+) was assigned to each person if more short-term methods than long-term methods were used to cope with stress; a zero (0) was assigned if there were an equal number of short-term and long-term methods reported; and a minus (-) was assigned if more long-term methods than short-term methods were reported. These were tallied, comparing the experimental group to the control group (see Figure 4).

Table 4

Coping Methods

Short-term Methods	Long-Term Methods
1. I use alcoholic beverages.	2. I talk it out with others (friend, relative, or professional).
4. I daydream.	3. I try to find out more about the situation.
7. I try to see the humorous aspects of the situation.	5. I believe in a supernatural power who cares about me.
8. I don't worry about it. Everything will probably work out fine.	6. I work it off by physical exercise.
9. I sleep more.	10. I take some definite action on the basis of my present understanding.
12. I use food and food substitutes (smoking, chewing gum, eating more).	11. I draw on my past experiences.
13. I get prepared to expect the worst.	15. I make several alternate plans for handling the situation.
14. I curse.	
16. I use drugs.	
17. I become involved in other activities to keep my mind off the problem.	
18. I cry.	
Total = 11	Total = 7

Table 5. Comparison of Short-Term Methods to Total Coping Methods Reported by Experimental and Control Groups

Expt #	#ST*	#LT**	Total # CM	%***	Control #	#ST*	#LT**	Total # CM	%***
101	7	6	13	53.8	201	4	4	8	50.0
102	4	4	8	50.0	202	3	5	8	37.5
103	6	2	8	75.0	203	2	6	8	25.0
104	5	4	9	55.6	204	4	6	10	40.0
105	6	6	12	50.0	205	5	7	12	41.7
106	6	4	10	60.0	206	6	6	12	50.0
107	7	6	13	53.8	207	4	7	11	36.4
108	6	5	11	54.5	208	6	6	12	50.0
109	3	2	5	60.0	209	4	6	10	40.0
110	9	6	15	60.0	210	5	6	11	45.5
111	9	5	14	64.3	211	5	6	11	45.5
112	5	4	9	55.6	212	6	6	12	50.0
113	6	6	12	50.0	213	5	5	10	50.0
114	6	1	7	85.7	214	4	6	10	40.0
115	6	5	11	54.5	215	6	3	9	66.7
116	8	7	15	53.3	216	8	5	13	61.5
117	8	1	9	88.9	217	5	4	9	55.6
118	3	6	9	33.3	218	4	7	11	36.4
119	4	7	11	36.4	219	3	6	9	33.3
120	8	4	12	66.7	220	3	5	8	37.5
121	9	6	15	60.0	221	6	6	12	50.0
122	9	7	16	56.3	222	6	6	12	50.0
123	7	6	13	53.8	223	4	7	11	36.4
124	10	4	14	71.4	224	5	5	10	50.0
125	7	6	13	53.8	225	6	4	10	60.0
126	8	7	15	53.3	226	4	7	11	36.4
127	6	6	12	50.0	227	7	5	12	58.3
128	9	7	16	56.3	228	6	4	10	60.0
129	6	7	13	46.2	229	6	6	12	50.0
130	6	5	11	54.5	230	2	6	8	25.0

* #ST - Refers to the number of short-term methods reported.

** #LT - Refers to the number of long-term methods reported.

*** % - Refers to the percentage of number of short-term methods reported compared to the total number of coping methods reported.

	+*	0**	-***
Experimental	23	4	3
Control	6	9	15

Legend:

*+ More short-term than long-term coping methods reported.

**0 Equal number of short-term and long-term methods reported.

***- More long-term than short-term coping methods reported.

Figure 4

Comparison of Coping Methods
Experimental and Control Group

A comparison of the experimental and control group using McNemar's test was made (see Table 6). The results showed that there is a significant difference between the experimental and control group ($p < .001$) thus giving further support to the hypothesis.

Itemization of the raw data indicated the various percentages of the sample using each method (see Table 7). The experimental group utilized alcoholic beverages, daydreaming, food and food substitutes, cursing, drugs, and crying more often than the control group.

Additional analysis was done to determine sex differences of both groups as well as differences between age groups. Tables 8 and 9 show a comparison of percentages of coping methods used by men and women of both groups.

Table 6

McNemar's Test Comparing Coping Methods
for Experimental and Control Groups

		Control: +*	Control: 0** or -***
Experimental	+	11111 N=5	11111111111111 1111 N=18
	0 or -	1 N=1	111111 N=6

Legend:

*+ More short-term than long-term coping methods reported.

**0 Equal number of short-term and long-term methods reported.

***- More long-term than short-term coping methods reported.

Table 7. Comparison of Percentages
Using Each Coping Method

	Item	Experimental			Control		
		Sometimes	Usually	Always	Sometimes	Usually	Always
1.	Use alcoholic beverages	40.00	6.67	10.00	40.00	0	0
2.	Talk it out with others	40.00	16.67	10.00	16.67	46.67	0
3.	Find out more about situation	23.33	20.00	30.00	13.33	53.33	30.00
4.	Daydream	33.33	6.67	20.00	30.00	6.67	6.67
5.	Belief in supernatural power	10.00	13.33	50.00	13.33	10.00	43.33
6.	Work off by exercise	43.33	23.33	3.33	43.33	16.67	0
7.	See humor of situation	30.00	16.67	23.33	23.33	33.33	13.33
8.	Don't worry about it	30.00	13.33	13.33	20.00	26.67	3.33
9.	Sleep more	10.00	10.00	13.33	23.33	6.67	0
10.	Take definite action	40.00	26.67	13.33	33.33	53.33	6.67
11.	Draw on past experiences	33.33	16.67	23.33	23.33	40.00	30.00
12.	Use food and food sub.	16.67	23.33	36.67	13.33	16.67	13.33
13.	Prepare to expect worst	36.67	20.00	23.33	33.33	20.00	13.33
14.	Curse	20.00	13.33	20.00	23.33	6.67	3.33
15.	Make alternate plans	36.67	26.67	6.67	43.33	33.33	10.00
16.	Use drugs	10.00	3.33	16.67	0	0	0
17.	Involved in other activities	40.00	20.00	20.00	43.33	23.33	0
18.	Cry	36.67	16.67	13.33	30.00	0	0

Table 8

Percentage Using Coping Methods
for Experimental Group

	Men N=14			Women N=16		
Item #	Sometimes	Usually	Always	Sometimes	Usually	Always
1*	50.00	7.14	14.29	31.25	6.25	6.25
2	35.71	7.14	21.43	43.75	25.00	0
3	7.14	28.57	35.71	37.50	12.50	25.00
4*	28.57	7.14	7.14	37.50	6.25	31.25
5	7.14	7.14	57.14	12.50	18.75	43.75
6	21.43	28.75	7.14	62.50	18.75	0
7*	42.86	0	28.57	18.75	31.25	18.75
8*	28.57	21.43	14.29	31.25	6.25	12.50
9*	0	14.29	14.29	6.25	18.75	12.50
10	28.57	21.43	28.57	50.00	31.25	0
11	21.43	14.29	14.29	43.75	18.75	31.25
12*	21.43	14.29	28.57	12.50	31.25	43.75
13*	35.71	14.29	28.57	37.50	25.00	18.75
14*	21.43	7.14	21.43	18.75	18.75	18.75
15	21.43	35.71	14.29	50.00	18.75	0
16*	7.14	7.14	28.57	12.50	0	6.25
17*	50.00	0	21.43	31.25	37.50	18.75
18*	42.86	14.29	0	31.25	18.75	25.00

* Short-term Methods

Table 9

Percentage Using Coping Methods
for Control Group

	Men N=14			Women N=16		
Item #	Sometimes	Usually	Always	Sometimes	Usually	Always
1*	50.00	0	0	31.25	0	0
2	14.29	21.43	0	18.75	68.75	0
3	7.14	57.14	35.71	18.75	50.00	25.00
4*	35.71	7.14	14.29	25.00	6.25	0
5	7.14	14.29	35.71	18.75	6.25	50.00
6	50.00	21.43	0	37.50	12.50	0
7*	35.71	21.43	21.43	12.50	43.75	6.25
8*	14.29	42.86	0	25.00	12.50	6.25
9*	28.57	0	0	18.75	12.50	0
10	35.71	42.86	14.29	31.25	62.50	0
11	28.57	35.71	28.57	18.75	43.75	31.25
12*	0	14.29	0	25.00	18.75	25.00
13*	28.57	28.57	7.14	37.50	12.50	18.75
14*	28.57	7.14	0	18.75	6.25	6.25
15	28.57	35.71	21.43	56.25	31.25	0
16*	0	0	0	0	0	0
17*	28.57	28.57	0	56.25	18.75	0
18*	0	0	0	56.25	0	0

* Short-term Methods

Comparing men versus women of the experimental group, there is a noticeable difference in several of the coping methods. More men use alcoholic beverages and drugs while more women cope by daydreaming, working it off by physical exercise, drawing on past experiences, and crying. Women of the control group used talking it out with others, belief in a supernatural power, food and food substitutes, becoming involved in other activities, and crying more frequently than the men of the same group.

Another comparison was made between the men of the experimental group versus the men of the control group. A noticeable difference was seen where more men of the control group used long-term methods such as trying to find out more about the situation, working it off by physical exercise, and drawing on past experience. Men of the experimental group seemed to rely on short-term methods more frequently. These included alcoholic beverages, food and food substitutes, cursing, drugs, and crying. However, they reported talking it out with others more frequently than the men of the control group.

Women of the experimental group were compared to the women of the control group. Again, the women of the control group chose long-term methods of talking it out with others, trying to find out more about the situation, and making alternate plans more frequently than the women of the

experimental group. The experimental group reported day-dreaming, working it off by physical exercise, using food and food substitutes, cursing, using drugs, and crying more frequently than the women of the control group.

In a comparison of the age group under 30, the experimental group used the items "I don't worry about it," "I use food and food substitutes," and "I cry" twice as often as the control group. Notable differences were also seen in the belief in a supernatural power, seeing the humor of the situation, cursing, use of drugs, and involvement in other activities to keep one's mind off the problem. The control group more frequently reported seeking additional information about the situation (see Table 10).

The 31-45 age group revealed similar differences with the experimental group reporting use of drugs twice as often as the control group. The control group in this age group identified long-term methods #3, 10, 11, and 15 more frequently (see Table 11).

The most noticeable difference of age group 46 and over was the use of alcoholic beverages. Psychiatric in-patients admitted because of alcoholism were included in the experimental sample, thus perhaps accounting for this difference. The control group differed with respect to #10--taking some definite action on the basis of present understanding which was reported more often (see Table 12).

Table 10

Comparison of Percentage Using Coping Methods for Age Group Under 30

	Experimental N=14			Control N=14		
Item #	Sometimes	Usually	Always	Sometimes	Usually	Always
1*	28.57	0	21.43	50.00	0	0
2	28.57	28.57	14.29	7.14	50.00	0
3	21.43	14.29	35.71	21.43	35.71	35.71
4*	21.43	14.29	28.57	42.86	7.14	0
5	7.14	7.14	57.14	14.29	0	35.71
6	35.71	14.29	7.14	50.00	7.14	0
7*	28.57	14.29	35.71	21.43	28.57	7.14
8*	35.71	14.29	21.43	14.29	21.43	0
9*	14.29	0	28.57	28.57	7.14	0
10	57.41	35.71	7.14	42.86	35.71	7.14
11	42.86	14.29	21.43	28.57	42.86	14.29
12*	28.57	28.57	28.57	21.43	14.29	7.14
13*	42.86	7.14	28.57	35.71	21.43	14.29
14*	14.29	21.43	28.57	28.57	7.14	7.14
15	42.86	21.43	7.14	50.00	28.57	7.14
16*	7.14	7.14	21.43	0	0	0
17*	42.86	14.29	21.43	42.86	14.29	0
18*	35.71	7.14	28.57	42.86	0	0

* Short-term Methods

Table 11

Comparison of Percentage Using Coping Methods for Age Group 31-45

	Experimental N=8			Control N=9		
Item #	Sometimes	Usually	Always	Sometimes	Usually	Always
1*	37.50	12.50	0	44.44	0	0
2	50.00	12.50	12.50	33.33	55.56	0
3	37.50	25.00	12.50	11.11	55.56	33.33
4*	37.50	0	25.00	0	11.11	11.11
5	12.50	0	50.00	22.22	11.11	44.44
6	75.00	12.50	0	33.33	22.22	0
7*	37.50	12.50	25.00	22.22	33.33	22.22
8*	25.00	0	12.50	22.22	33.33	0
9*	0	37.50	0	11.11	0	0
10	50.00	12.50	12.50	22.22	66.67	11.11
11	37.50	0	37.50	22.22	55.56	22.22
12*	12.50	37.50	37.50	11.11	11.11	22.22
13*	37.50	37.50	12.50	33.33	11.11	22.22
14*	25.00	12.50	12.50	33.33	0	0
15	37.50	12.50	12.50	44.44	44.44	11.11
16*	25.00	0	25.00	0	0	0
17*	12.50	25.00	37.50	66.67	22.22	0
18*	37.50	25.00	0	22.22	0	0

* Short-term Methods

Table 12

Comparison of Percentage Using Coping Methods for Age Group 46 and Over

	Experimental N=8			Control N=7		
Item #	Sometimes	Usually	Always	Sometimes	Usually	Always
1*	62.50	12.50	0	14.29	0	0
2	50.00	0	0	14.29	28.57	0
3	12.50	25.00	37.50	0	85.71	14.29
4*	50.00	0	0	42.86	0	14.29
5	12.50	37.50	37.50	0	28.57	57.14
6	25.00	50.00	0	42.86	28.57	0
7*	25.00	25.00	0	28.57	42.86	14.29
8*	25.00	25.00	0	28.57	28.57	14.29
9*	12.50	0	0	28.57	14.29	0
10	0	25.00	25.00	28.57	71.43	0
11	12.50	37.50	12.50	14.29	14.29	71.43
12*	0	0	50.00	0	28.57	14.29
13*	25.00	25.00	25.00	28.57	28.57	0
14*	25.00	0	12.50	0	14.29	0
15	25.00	50.00	0	28.57	28.57	14.29
16*	0	0	0	0	0	0
17*	62.50	25.00	0	14.29	42.86	0
18*	37.50	25.00	0	14.29	0	0

* Short-term Methods

Association of Stressful Life Events and Coping Methods

To determine whether a relationship existed between high SRRS scores and short-term coping methods, a plus (+) was assigned to each individual if more short-term than long-term coping methods were used (see Table 13). A chi-square test was used to test for association between the stress score and the type of coping methods used. Analysis showed a significant (.01) association between high scores and the use of short-term coping methods (see Table 14). The determination of "high" score was arbitrarily set at 250 LCU and over.

This finding supports the concept of life change and subsequent illness. Holmes and Masuda (1973) state:

> It is postulated that life-change events, by evoking adaptive efforts by the human organism that are faulty in kind and duration, lower "bodily resistance" and enhance the probability of disease occurrence.

The use of short-term methods when dealing with many life changes therefore enhances the possibility of illness, including mental dysfunction.

SUMMARY

This chapter has presented the results obtained from a descriptive-comparative survey using psychiatric in-patients and healthy controls to determine differences in the amount of stressful life events experienced and coping methods used

Table 13

Association Between SRRS Score
and Coping Methods

SRRS Score	#ST*	#LT**	Symbol***
881	10	4	+
662	9	6	+
582	6	5	+
547	9	5	+
458	6	6	0
449	6	6	0
448	9	6	+
439	7	6	+
434	6	2	+
426	6	7	-
393	5	4	+
384	6	5	+
382	8	1	+
380	7	6	+
367	7	6	+
364	3	2	+
360	4	7	-
342	6	6	0
332	8	7	+
332	8	7	+
319	5	6	-
287	6	1	+
241	6	3	+
238	6	6	0
237	4	7	-
234	7	6	+
234	3	6	-
222	6	6	0
210	5	4	+
204	9	7	+
202	2	6	-
197	6	4	+
196	7	5	+
187	6	6	0
185	6	4	+
183	5	4	+
177	4	4	0
168	9	7	+
160	5	7	-
154	5	5	0
146	6	6	0

Table 13 (Continued)

SRRS Score	#ST*	#LT**	Symbol***
131	4	7	-
129	6	6	0
124	4	7	-
108	6	5	+
104	3	5	-
99	2	6	-
95	4	7	-
94	3	6	-
90	8	5	+
79	4	4	0
78	8	4	+
69	5	6	-
63	6	6	0
61	4	6	-
60	4	6	-
51	6	4	+
51	5	5	0
45	4	6	-
12	3	5	-

*#ST Refers to total number of short-term methods reported.

**#LT Refers to total number of long-term methods reported.

***Symbol: + More short-term than long-term coping methods reported.

0 Equal # of short-term and long-term coping methods reported.

- More long-term than short-term coping methods reported.

This indicates the actual # of short-term and long-term methods reported by individuals ranked by SRRS score.

Table 14

Chi-square Test of SRRS Scores
and Coping Methods

		+*	0**	-***
High SRRS 250+	Observed	16	3	3
	Expected	10.6	4.77	6.6
Low SRRS 0-250	Observed	13	10	15
	Expected	18.4	8.2	11.4

*+ More short-term than long-term coping methods reported.

**0 Equal number of short-term and long-term coping methods reported.

***- More long-term than short-term coping methods reported.

This indicates actual number of persons reporting coping methods.

by each person.

Results of this study showed that the psychiatric in-patients representing mental-illness behaviors showed significantly more stressful life events experienced in the last six months than persons exhibiting mental-wellness behaviors. It was noted that the psychiatric in-patients reported the items "detention in jail or other institution" and "major personal injury or illness" more frequently than the control group. Therefore, the hospitalization itself was perceived as a stressful life event.

In the analysis of the differences in coping methods used by each group, it was found that the experimental group used significantly more short-term methods than long-term methods as compared to the healthy control group.

There were also notable differences in coping methods used by men versus women in the experimental and control groups. Differences were also seen in the comparison of age groups in both experimental and control samples. Generally, the individuals of the experimental group more frequently reported using short-term methods.

A significant association was found between the stress score and the type of coping methods used. Persons with high SRRS scores (250 LCU and over) used more short-term ways of dealing with stress. This finding supports the concept that inadequate coping, in adapting to life changes, may increase the probability of illness occurrence.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter contains the summary and a discussion of the conclusions and recommendations that were derived from this descriptive-comparative study that examined stressful life events experienced and coping methods used by persons exhibiting mental-illness and wellness behaviors.

SUMMARY

The central purpose of the study was to examine the relationship between stressful life events and mental-illness and wellness behaviors. In addition, the coping methods used by individuals of both groups were examined and compared.

A review of the literature indicated a significant relationship exists between stressful life events and subsequent illnesses of all kinds, including mental illness. Limited research has been done on how people react to life stresses they experience. Few coping methods have been identified.

Thirty psychiatric in-patients from three general hospitals were asked to complete two questionnaires relating to stressful life events experienced in the last six months (Social Readjustment Rating Scale) and coping methods used when feeling stress and tension. Thirty healthy controls were randomly selected to match the patient on the basis of

age range (plus or minus two years), sex, and county of residence. The same pencil and paper tools were administered. The data collection occurred in April, 1975.

Statistical analysis comparing the two groups indicated significant differences in stressful life events experienced and coping methods used.

CONCLUSIONS

1. The experimental sample of psychiatric in-patients, representing mental-illness behaviors, reported significantly more stressful life events occurring in the last six months than the control group of mental-wellness behaviors. This supports Hypothesis 1.

2. The experimental group used significantly more short-term methods when compared with the healthy controls (non-hospitalized persons with no history of psychiatric treatment or current medical treatment), thus lending support to Hypothesis 2.

3. Sex differences were found in coping methods chosen by men and women of the experimental and control group. Notable differences also existed when age groups within the experimental and control group were compared.

4. There was a significant association between high stress scores obtained from the totalling of stressful life events experienced and more short-term coping methods reported for coping with life stress.

RECOMMENDATIONS

The following recommendations were made after considering the results of this study:

1. That other studies using various methodology be undertaken to examine further the stress and coping methods of mental-illness and wellness behaviors. The following approaches could be utilized in further study:

(a) This study might be repeated using a larger sample obtained over a longer period of time, and considering further matching variables to include such social groups as poverty, races, religions and rural versus urban groups.

(b) Using the same methodology as this research, a study might be done to determine the relationship of stressful life events and coping methods used by people experiencing frequent physical illnesses.

(c) In a similar study, use additional criteria for determining "mental-wellness" such as the Minnesota Multiple Personality Inventory and State-trait inventories. These tools could also be used to determine if coping methods change from methods used prior to stress to those utilized while experiencing stress. Exploration could also be made as to whether certain personalities use common coping methods.

(d) An experimental study could be used to develop a reliable and valid coping scale.

(e) An exploratory study might be used to determine "real coping" observing actual behavior in a stressful situation rather than obtaining theoretical information through paper and pencil methods.

(f) The same type of study might be done using later follow-up to ascertain whether the individual did develop subsequent physical or mental illness associated with increased stressful life events.

(g) A similar study might be done with the purpose of identifying common life stresses for various groups of people in a variety of settings. Developmental age groups, for example, may experience different stresses relating to that particular age.

(h) This study might be repeated to determine the effects of no change when in ordinary life cycles, change would be expected. Examples include the effect of not getting married, not getting promoted at work, etc., and their relation to mental-illness and wellness behaviors.

2. That the concept of change as it relates to stress and health be emphasized to a greater extent in all fields of health care, with particular focus on mental health professionals.

Implications for Nursing

As constant and rapid technological and social change continues in our society, nursing is involved in helping

people deal with stress and its effects on health.

People can, in many situations, select changes which occur to them. Possessing a knowledge of the current stressful life events being experienced by the individual, the nurse can help the person contain present stress within limits and prevent additional stress before he becomes overwhelmed by it. The inclusion of a stressful life events questionnaire and coping scale in a nursing assessment can assist the nurse with this type of preventive teaching. Teaching patients to cope with stress more effectively by using other coping strategies and alternatives is a significant step in the prevention of illness.

The concept of stress is challenging nursing practitioners, educators, and theorists to consider the relationship of stress to the health maintenance and illness prevention of people.

Theorists contributing concepts such as trust, anxiety, fear, and depression have increased nurses' understanding of mental health principles. The relationship of stress to these concepts may provide further insight and knowledge into human dynamics.

The emphasis on stress in nursing curriculums can provide the student and future practitioner an opportunity to identify stress in all types of patients and learn ways to assist these persons to cope more effectively with the

stresses they experience.

From patients encountered in acute hospitals to those persons cared for in community health facilities, stress is a common theme: pre-surgical anxiety, denial of terminal illness, unwanted pregnancy, adjustment to self-care of diabetes, rehabilitation following myocardial infarction or stroke, birth of a new family member, care of a retarded child, family difficulties and many others.

The nursing student can gain valuable experience in assessing the stresses and needs of the patient as well as determining coping methods used, practicing therapeutic communication and interviewing techniques, planning alternate coping strategies with the patient, and evaluating the nursing intervention in meeting the patient's needs.

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BIBLIOGRAPHY

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APPENDIX A

LETTERS

1476 Smiley Heights Drive
Redlands, California
March 14, 1975

Miss G. Haussler
Director of Nursing Service
Loma Linda University Medical Center
Loma Linda, California

Dear Miss Haussler:

There has been an increasing interest in the role of life change and stress in bringing about illness. I am investigating the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior. This study is to meet part of the requirements for a Master's degree in nursing at Loma Linda University.

With your permission, selected psychiatric in-patients will be asked to answer two questionnaires to ascertain what stressful life events they have experienced and how they cope with them. (See enclosed research proposal.)

It is estimated that it will take two weeks to obtain the necessary sample. I would like to begin gathering data on April 1, 1975.

This study has been approved by the University Research Advisory Committee on Human Experimentation and safeguards are built to protect the privacy of the individual. I will be working closely with Esther Sellers, Assistant Professor of Nursing; Dr. Frances Pride, Professor of Nursing; and Dr. Marilyn Kueffner, Professor of Nursing.

May I have your permission to include the psychiatric in-patients of Loma Linda University Medical Center in this study? If you have further questions, I will be glad to make an appointment to talk with you about the study. A stamped envelope is enclosed for your convenience.

I am looking forward to hearing from you soon.

Sincerely,

Janice M. Bell, R.N.
Graduate Student
Loma Linda University

1476 Smiley Heights Drive
Redlands, California
March 14, 1975

Ms. Greene, Director of Nursing Service
Riverside County General Hospital
Riverside, California

Dear Ms. Greene:

There has been an increasing interest in the role of life change and stress in bringing about illness. I am investigating the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior. This study is to meet part of the requirements for a Master's degree in nursing at Loma Linda University.

With your permission, selected psychiatric in-patients will be asked to answer two questionnaires to ascertain what stressful life events they have experienced and how they cope with them. (See enclosed questionnaires and proposal.)

It is estimated that it will take two weeks to obtain the necessary sample. I would like to begin collecting data on April 1, 1975.

This study has been approved by the University Research Advisory Committee on Human Experimentation and safeguards are built to protect the privacy of the individual. I will be working closely with my advisors: Esther Sellers, Assistant Professor of Nursing; Dr. Frances Pride, Professor of Nursing; and Dr. Marilyn Kueffner, Professor of Nursing.

May I have your written permission to include the patients of Riverside County General Hospital in this study? If you have further questions, I will be glad to make an appointment to talk with you about the study. A stamped envelope is enclosed for your convenience.

I am looking forward to hearing from you soon.

Sincerely,

Janice M. Bell, R.N.
Graduate Student
Loma Linda University

1476 Smiley Hieghts Drive
Redlands, California
March 14, 1975

Ms. Eileen Noon
San Bernardino County Hospital
San Bernardino, California

Dear Ms. Noon:

There has been an increasing interest in the role of life change and stress in bringing about illness. I am investigating the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior. This study is to meet part of the requirements for a Master's degree in nursing at Loma Linda University.

With your permission, selected psychiatric in-patients will be asked to answer two questionnaires to ascertain what stressful life events they have recently experienced and how they cope with them. (See enclosed research proposal.)

It is estimated that it will take two weeks to obtain the necessary sample. I would like to begin gathering data on April 1, 1975.

This study has been approved by the University Research Advisory Committee on Human Experimentation and safeguards are built to protect the privacy of the individual. I will be working closely with my advisors: Esther Sellers, Assistant Professor of Nursing; Dr. Frances Pride, Professor of Nursing; and Dr. Marilyn Kueffner, Professor of Nursing.

May I have your written permission to include the psychiatric in-patients of San Bernardino County Hospital in this study? If you have further questions, I will be glad to make an appointment to talk with you about the study. A stamped envelope is enclosed for your convenience.

I am looking forward to hearing from you soon.

Sincerely,

Janice M. Bell, R.N.
Graduate Student
Loma Linda University

1476 Smiley Heights Drive
Redlands, California
March 14, 1975

Mr. Jim Judge
City of Riverside
Personnel Director
Riverside, California

Dear Mr. Judge:

There has been an increasing interest in the role of life change and stress in bringing out illness. I am investigating the relationship between stressful life events and mental-illness and wellness behaviors, and the coping methods used by individuals exhibiting each behavior. This study is to meet part of the requirements for a Master's degree in nursing at Loma Linda University.

With your permission, selected city employees will be asked to answer two questionnaires to ascertain what stressful life events they have experienced and how they cope with them. (See enclosed questionnaires.)

It is estimated that it will take approximately two weeks to obtain the necessary sample. I would like to begin gathering data on April 8, 1975.

This study has been approved by the University Research Advisory Committee on Human Experimentation and safeguards are built to protect the privacy of the individual. I will be working closely with my advisors: Esther Sellers, Assistant Professor of Nursing; Dr. Frances Pride, Professor of Nursing; and Dr. Marilyn Kueffner, Professor of Nursing.

May I have your permission to include the city employees of Riverside in this study? If you have further questions, I will be glad to make an appointment to talk with you about the study. A stamped envelope is enclosed for your convenience.

I am looking forward to hearing from you soon.

Sincerely,

Janice M. Bell, R.N.
Graduate Student
Loma Linda University
(Home Phone: 792-6346)

memorandum

TO: Janice M. Bell

FROM: Gertrude Haussler

DATE: 3/24/75

SUBJECT: RESEARCH STUDY

You have my permission to conduct your research study on patients on 4300 as far as Nursing Service is concerned. Because of the type of patients you will be interviewing, I suggest you obtain the consent and approval of the attending physician of the patients you choose.

The head nurse on 4300, Pat Morris will be able to help you in finding patients for your study.

Gertrude Haussler

Gertrude Haussler
GH:llm

DEPARTMENT OF PUBLIC HEALTH

COUNTY OF RIVERSIDE

Jerrold L. Wheaton, M.D., M.P.H.
Director of Public Health
and Mental Health

Health-Finance Building
3575 11th Street Mall
P.O. Box 1370
Riverside, California 92502

May 1, 1975

Janice Bell
1476 Smiley Heights Drive
Redlands, California

Dear Mrs. Bell:

The Riverside County Mental Health Services Research Committee has approved your collection and analysis of data obtained from clients at the Department of Psychiatry, Riverside General Hospital. It is assumed that you will arrange or already have arranged your data collection schedules with Dr. Palmer and Ms. Greene at Riverside General Hospital.

The members of the Committee wish you success in obtaining the coveted Master's Degree and a stimulating career after the degree has been awarded. As indicated in our April 25 meeting, we are interested in your bibliography and would appreciate a copy of your final research report.

Sincerely,

J. A. Sprunger

J. A. Sprunger, Ph.D.
Chairman, Research Committee

JAS:djc

Health Care Services Agency
County of San Bernardino

DEPARTMENT OF MENTAL HEALTH
700 East Gilbert Street · San Bernardino, CA 92415 · (714) 383-3232

ANDREW G. ROBERTSON
Director of Mental Health

March 28, 1975

Mrs. Janice M. Bell
1476 Smiley Heights Drive
Redlands, CA 92373

Dear Mrs. Bell:

I am happy to inform you that permission has been granted for you to include the psychiatric in-patients of San Bernardino County Hospital in your study relative to your work for a Master's degree in nursing.

Please keep in mind that your questioning must not interfere with the normal processing and therapy to which each patient is subject.

May I wish you success in your research project.

Sincerely yours,

Robert King MD

Robert King, M.D.
Program Manager
In-patient Unit

LD/rll

CITY OF Riverside PERSONNEL DEPARTMENT
3770 Ninth Street • Riverside, California 92501 • 714/787-7571

AMES B. JUDGE
ersonnel Director

9 May 1975

Mrs. Janice M. Bell
1476 Smiley Heights Drive
Redlands, California

Dear Mrs. Bell:

In response to your request, permission was granted by the Acting Assistant City Manager, Larry Paulsen, for you to engage in a survey of City employees on a volunteer basis in connnection with your Master's thesis on individuals' reactions to stress.

We hope that this study has proved fruitful for you.

Sincerely,

James B. Judge

JAMES B. JUDGE
Personnel Director

JBJ/bad

APPENDIX B

RESEARCH INSTRUMENTS

QUESTIONNAIRE I

Each item describes an event which may or may not have occurred to you. Please read each item carefully and decide whether you have had that experience within the last 6 months. If it has happened to you within the last 6 months, circle "Yes." If it has not, circle "No." When in doubt, circle "yes." Do not leave any events unanswered.

Events Experienced in the Last 6 Months

1. Marriage..... Yes No
2. Had trouble with the boss..... Yes No
3. Death of spouse..... Yes No
4. Major change in sleeping habits (a lot more or a lot less sleep, or change in part of day when asleep)..... Yes No
5. Divorce..... Yes No
6. Took on a mortgage or loan greater than $10,000 (e.g., purchasing a home, business, etc.)..... Yes No
7. Major change in usual type and/or amount of recreation... Yes No
8. Retired from work..... Yes No
9. Changed to a new school..... Yes No
10. Foreclosure on a mortgage or loan..... Yes No
11. Sexual difficulties..... Yes No
12. Wife began or ceased work outside the home..... Yes No
13. Change in residence..... Yes No
14. Major change in working hours or conditions..... Yes No
15. Vacation..... Yes No
16. Major change in social activities (e.g., clubs, dancing, movies, visiting, etc.)..... Yes No
17. Major personal injury or illness..... Yes No
18. Revision of personal habits (dress, manners, associations, etc.)..... Yes No

QUESTIONNAIRE I (continued)

19.	Death of a close friend.....	Yes	No
20.	Changed to a different line of work.....	Yes	No
21.	Began or ceased formal schooling.....	Yes	No
22.	Took on a mortgage or loan less than $10,000 (e.g., purchasing a car, TV, freezer, etc.).....	Yes	No
23.	Gained a new family member (e.g., through birth, adoption, oldster moving in, etc.).....	Yes	No
24.	Major change in the number of arguments with spouse (e.g., either a lot more or a lot less than usual regarding childrearing, personal habits, etc.).....	Yes	No
25.	Marital reconciliation with mate.....	Yes	No
26.	Son or daughter left home (e.g., marriage, attending college, etc.).....	Yes	No
27.	Minor violations of the law (e.g., traffic tickets, jay walking, disturbing the peace, etc.).....	Yes	No
28.	Major change in the number of family get-togethers (a lot more or a lot less than usual).....	Yes	No
29.	Major change in church activities (e.g., a lot more or a lot less than usual).....	Yes	No
30.	Christmas.....	Yes	No
31.	Marital separation with mate.....	Yes	No
32.	Major change in eating habits (a lot more or a lot less food intake or very different meal hours or surroundings).....	Yes	No
33.	Detention in jail or other institution.....	Yes	No
34.	Fired at work.....	Yes	No
35.	Major business readjustment (e.g., merger, reorganization, bankruptcy, etc.).....	Yes	No
36.	Had a pregnancy.....	Yes	No
37.	Death of a close family member.....	Yes	No

QUESTIONNAIRE I (continued)

38. Outstanding personal achievement..... Yes No

39. Trouble with the in-laws..... Yes No

40. Change in living conditions (e.g., building a new home, remodeling, deterioration of home or neighborhood)..... Yes No

41. Major change in responsibilities at work (e.g., promotion, demotion, lateral transfer)..... Yes No

42. Major change in financial state (e.g., a lot worse off or a lot better off than usual)..... Yes No

43. Major change in the health or behavior of a family member..... Yes No

QUESTIONNAIRE II

A number of ways people react to stress and tension are given below. Please indicate your own rating on each item by circling one of the five numbers at the right of each item. Please do not skip any items. You may take as much time as necessary. There are no right or wrong answers.

WHEN I AM FEELING STRESS AND TENSION:

		Never	Seldom	Sometimes	Usually	Always
1.	I use alcoholic beverages.....	1	2	3	4	5
2.	I talk it out with others (friend, relative, or professional).....	1	2	3	4	5
3.	I try to find out more about the situation.....	1	2	3	4	5
4.	I daydream.....	1	2	3	4	5
5.	I believe in a supernatural power who cares about me.....	1	2	3	4	5
6.	I work it off by physical exercise.....	1	2	3	4	5
7.	I try to see the humorous aspects of the situation.....	1	2	3	4	5
8.	I don't worry about it. Everything will probably work out fine.....	1	2	3	4	5
9.	I sleep more.....	1	2	3	4	5
10.	I take some definite action on the basis of my present understanding.....	1	2	3	4	5
11.	I draw on my past experiences.....	1	2	3	4	5
12.	I use food and food substitutes (smoking, chewing gum, eating more).....	1	2	3	4	5
13.	I get prepared to expect the worst.....	1	2	3	4	5
14.	I curse.....	1	2	3	4	5

QUESTIONNAIRE II (continued)

		Never	Seldom	Sometimes	Usually	Always
15.	I make several alternate plans for handling the situation.....	1	2	3	4	5
16.	I use drugs.....	1	2	3	4	5
17.	I become involved in other activities to keep my mind off the problem.....	1	2	3	4	5
18.	I cry.....	1	2	3	4	5

FACE SHEET:

To determine if the randomly selected person is eligible to participate in the study, the following questions will be asked by the interviewer:

Experimental Group:

Age:

Sex:

Resident of what county:

Name of facility:

Orientation: (Assessed by interviewer by questions like: What day is it? Where are you? What is your name?)

Control Group:

Age:

Sex:

Resident of what county:

Are you presently receiving any medical treatment?

Have you ever received any psychiatric treatment?

Orientation: (Assessed by interviewer.)

RESEARCH CONSENT FORM

I agree to participate in this study by answering two questionnaires as requested by Janice M. Bell, graduate student in nursing.

I understand the purpose of this research is to learn more about stressful life events and how people react to the stress and tension they experience in their daily living.

I further understand that my name will not be used, the information collected will be held in strict confidence, and that any identifying information will not appear in print.

Date_____ _____
Signed

_____
Janice Bell, Graduate Student

_____
Witness