PERSONAL RELATIONSHIP WITH GOD

AS A FACTOR IN CARDIAC ADJUSTMENT

by

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CHAPTER I

INTRODUCTION

The seriously ill person faces an increasing array of treatment procedures which may include involved diagnostic tests, complicated and lengthy medical regimens, and high-risk surgeries. These factors compromise already taxed coping abilities and place increased demands on psychological resources. This is especially true for the patient with cardiovascular disease. Because cure is unlikely, the patient must make life-style changes that will continue long after the acute illness is past.

For health-care professionals to assist cardiovascular patients to achieve an optimal state of adjustment, it is important for them to recognize and to strengthen sources of psychological support available to the patient. Efforts to identify psychological characteristics contributing to satisfactory adjustment and recovery, have focused on factors such as locus of control, dependency and depression (Crayshaw, 1974; Mone, 1970; Wishnie, Hackett, & Cassem, 1971).

The religious faith of the patient is one internal characteristic seldom discussed in the literature. It may have considerable effect on the recovery process. Religious leaders consider faith in God as a source of strength and confidence sustaining the individual in times of personal crisis. The present study attempted to assess the

quality of personal religious experience in a sample of cardiac patients and to determine if there were relevant aspects of religious faith which could aid in their adjustment to this chronic illness.

Review of the Literature

The theoretical and empirical literature related to the role of religious experience in the recovery process of cardiac patients are presented under the following headings; (a) Cardiac Adjustment, (b) Religion as a Factor in Adjustment, and (c) Religiosity: Its Dimensions and Measurement.

Cardiac Adjustment

As usually defined, the concept of adjustment implies either a complete return to an earlier healthy state after an illness or the attainment of optimal function within permanent limitations imposed by the illness. Adjustment may refer to physical, social, or psychological processes. The degree and method of adjustment occuring is influenced by the coping style of the individual. Although individual coping methods tend to become habitual, the way one handles a given situation depends upon the perception of the total situation, the self-concept, and the interaction of the two (Lazarus, 1963). Especially in illness, adjustment is influenced by the patient's perceptions of the whole situation and the meaning seen in the illness (Braceland, 1966; Lipowski, 1971). Because faith in God is believed to sustain the person in crisis, it seems reasonable to expect personal religious

beliefs and attitudes to be significant factors in adjustment.

Cardiac conditions vary in severity, in relationship to personal living habits, degree of disability, type of onset and prognosis. All cardiovascular patients share an awareness of the major insult that has occurred to an essential organ. Additionally, because the heart has considerable symbolic meaning, the patient's cognition of his situation often extends beyond the need for change of physical habits, to changes of self-image and personal value systems as well. (Abram, 1966; Kellerman, 1968; Resnik, 1971; Wintner, 1974).

Even more significant is the growing evidence that the manner in which the cardiac patient has previously adjusted to life may contribute to, or even cause, his disease. The problem of a coronary-prone personality has been explored by several investigators, including Jenkins (1966,1971), Dreyfuss, Shanan and Sharon (1966), van der Valk and Groen (1967), Rosenman and Jenkins (1970), and Friedman, Rosenman, and Straus (1968). Specific personality traits that have been identified as typical of the coronary-prone include frustration of high achievement needs (Christenson, 1968), depression, (Bruhn, Chandler & Wolf, 1969; Hellerstein & Hornsten, 1966; Klein & Parsons, 1968), and hopelessness (Morgan, 1971).

The well-known "Type A Personality" is characterized by competitiveness, restlessness, habitual sense of pressure or urgency and tendencies to work long hours vigorously and drive both self and others (Friedman & Rosenman, 1974; Kiester, 1973). The handling of aggressive impulses may be a special problem according to Bastiaans (1968), who

observes that the cardiac-prone seem to live simultaneously in a state of fight and flight. Bastiaans contends that myocardial infarctions occur at a point of special frustration between the tendency to fight and the tendency to flee. These views suggest that the cardiac patient may have a special adjustment problem, for they imply that the patient may have to work toward a more satisfactory adjustment to life than he has previously attained. Thus, adjustment may not only be required to the cardiovascular condition, but to all life relationships.

Cardiovascular patients have been characterized as anxious, tense, frustrated and fatigued (Bonami, Blesin, Ledecq & Mertens, 1970; Mertens & Meulans, 1970; Trimble & Wilson-Barnett, 1974; Wishnie, Hackett & Cassem, 1971), as hypochondriacal (Mone, 1970), as frightened (Crayshaw, 1974), and as having considerable discrepancy between the real and ideal self (Barry, Dunteman & Webb, 1968). A number of studies note a particularly high level of anxiety (Abram, 1965; Leary, Columbaro, Schwab & McGinnis, 1968; Paley, Paley & Koschene, 1969; Priest & Zaks, 1969; Zaks, 1959).

It is evident that there is considerable concern about the manner in which patients with cardiovascular disease have coped with the demands for adjustment in daily living, and how they will handle the extra demands brought by illness.

Indicators of Satisfactory Cardiac Adjustment. In order to study cardiac adjustment, it is necessary to operationally define satisfactory adjustment. Rumbaugh (1966) described satisfactory adjustment in terms of attitudes held by convalescent cardiovascular patients. To measure

adjustment, he developed a scale identifying problem areas cardiac patients might experience. Norms for "satisfactory" or "ideal" cardiac adjustment were established.

Other criteria of adjustment include return to work (Anderson, 1973; Brown & Rawlinson, 1976; Garrity, 1973; Jones, 1959; Sharland, 1964), morale (Brown & Rawlinson, 1976; Garrity, 1973), and willingness to relinquish the sick role (Brown & Rawlinson, 1975, 1977). Of these three criteria, return to work has received the most attention, and is often regarded as a major, if not the primary, goal in the therapeutic program (Ball, 1967; Nolan, 1966; Segall, 1968; Smallbone, 1971; Turrell, 1965).

Each of these investigators has focused on one part of adjustment. While the possession of desirable attitudes and high morale, willingness to relinquish the sick role and return to work are probably among the important indicators of satisfactory adjustment, it is generally acknowledged that these parameters of the quality of life are not exhaustive of the domain.

Programs Designed to assist in Adjustment. Many cardiac rehabilitation programs are broad and include diet control, regulation of physical activity and work, adjustment of interpersonal relationships, temperate and relaxed habits, and recreation (Gambier, 1974; Semmler & Semmler, 1974). Others study but one facet of the therapeutic regimen such as physical reconditioning (Hellerstein, 1965; Kellermann, 1972, economic problems (Helander, 1970), or family relationships (Jefferson, 1966). Programs designed to deal with the internal

adjustments involving the self-image have been advocated by Bonney (1960) and Houser (1973). Researchers emphasize the need for the patient to see himself as on the way to normal activity (Evans, 1972; Hall & Alfano, 1964). Both Mone (1970) and Gruen (1975) found brief psychotherapy useful during the immediate convalescent period. Gruen considered some of his patients to have sufficient inner resources and they did not need psychotherapeutic counseling. In that Gruen did not further explore the nature of those inner resources, it is not known whether or not religious faith was a factor. No program appears to have considered the patient's religious practices as a factor in adjustment.

Summary. In addition to adequate coping mechanisms, adjustment to illness is affected by the patient's perceptions of the total situation, self-concept and the interaction of the two. The presence of cardiovascular disease may require particularly complex and wide-reaching adjustments in all aspects of life. Programs designed to assist the cardiovascular patient in adjustment recognize the need to utilize and strengthen the person's available inner resources. While acknowledging their importance, the nature of those inner resources has not been fully explored. Religious faith as an inner resource for the person with chronic illness in general and cardiovascular disease in particular has received little attention.

Religion as a Factor in Adjustment

One of the contributions of religion is personal support in time of crisis. Johnstone (1975) studied the role of religion in a variety of personal crisis situations. He found that religion often helped persons to meet crises with more equanimity, and assisted them to maintain a more normal social function through times of crisis. Gurin, Veroff, and Feld (1960) surveyed over 300 subjects who had sought help in dealing with some personal crisis. Forty-two percent of such contacts were made with clergymen. The remaining 58% were divided among medical doctors, psychiatrists and psychologists, lawyers, and marriage counsellors. It appears that many persons expect and seek help and support from their religious faith. Moreover, 65% of those contacting the clergy felt that this contact had "helped a lot". The study did not explore in what way the clergy had helped. Conceivably, the help could vary from meeting spiritual or psychological needs to handling socioeconomic problems through the services of the church's social welfare programs.

Earlier it was noted that adjustment is affected by the patient's perceptions of the total situation, of himself as an individual and of his place in the whole of the circumstances in which he finds himself. It is in this context that one would expect the religious faith of the person to influence his response to illness. Tournier (1960) has given a degree of validation to this view. He

observed that patients frequently try to find reasons for illness beyond the physiological; some accepting disease as a "warning" or "punishment" and others expecting illness to continue until some "guilt" is "put right". Tournier cites cases wherein recovery seemed directly related to an experience of accepting, or extending forgiveness, to a relinquishing of bitterness or grudge, or to the yielding of selfish desire.

Tournier suggests that patients without religious faith not only suffer from the physical disability of disease, but also from a sense of life-interruption or disruption. On the other hand, he concludes that a religious patient searches to find a meaning tending toward ultimate good. Furthermore, the focal point of his life, his communion with God, is not interrupted, but may even be enhanced by having more time to contemplate and meditate during the enforced suspension of work routine.

An opposite view is offered by Campbell, Converse, and Rodgers (1976) in comparing various personal resources. Their findings suggest that religiosity is not an especially useful resource when compared to others. Their findings may be questioned on methodological grounds as religiosity was measured by only one question, "In general, how religious minded would you say you are?" In that the term "religious minded" was not operationally defined, the subjects in the study were free to interpret it in a variety of unknown ways. Additionally, the single question used does not adequately sample the religious domain. Since the sub-

jects' religious experiences and beliefs were not directly studied as useful personal resources, the results can not be considered conclusive.

Religious services are often available in rehabilitation facilities (Rusalem & Acciabatti, 1969). However, the nature of the religious service that is most helpful has not been explored.

Persons tend to pray more frequently in situations involving health, catastrophe, and relocation than in other types of personal crisis (Lindenthal, Myers, Pepper, & Stern, 1970). Since in the study by Lindenthal et al. prayer habits in the time of crisis were not studied in relationship to habitual prayer patterns before the time of crisis, the role of an established religious faith as an inner resource is not clear.

Persons with an intrinsic religious orientation tend to fear death less than those with an extrinsic religious orientation (Kahal & Dunn, 1975). This would suggest that persons do gain from an inner religious experience some measure of equanimity with which to face crisis situations. Stark (cited in Beit-Hallahmi, 1973) hypothesized that as persons aged and death became imminent, religiosity would increase, but this hypothesis was not supported. The only change found with increasing years, was a strengthening of belief in immortality. This finding may be questioned since the study was comparative rather than longitudinal.

In summary to this point, little mention in the literature relates the role of religion to adjustment in illness. There has

been little attention given to the question of whether or not religion is a commonly used psychological resource, and if so, what kind of religious experience is most helpful.

Religion and Health. There are some writers who assert that religion contributes to the state of total well-being, of complete health. (Bonstedt, 1968; Dunkin, 1958; Simpson, 1968; Sr. Mary Crown of Thorns, 1957; White, 1905). From this viewpoint, it might be inferred that religion could aid in a return to health, or to normal functioning, for those experiencing illness.

The ability to accept life's circumstances without undue resentment is somewhat related to religious faith. Acceptance was the particular trait studied by Mason, Clark, Reeves and Wagner (1969) as it related to the rate of healing in patients undergoing surgery for retinal detachment. They found that the degree to which the patient accepted his circumstances had a significant effect on the rate of healing. They found faith in God to be a valuable support to their patients. They further differentiated between a faith which states, "If I pray hard enough He'll do what I want," (which was not helpful) and that faith which believes, "Whatever happens, He'll be with me and help me through. I'll still be within His loving care," (which proved very helpful). One wonders if retinal healing is hastened by faith and acceptance, then might not other physical healing, including that of cardiac tissues, also be facilitated.

A few writers imply that there could be some relationship

between religious faith and cardiac health. Friedman and Rosenman (1974) comment:

> Admittedly, millions of Americans are church-goers, but fewer and fewer of them 'live with their God' in any meaningful way. We cannot say positively that the increase in Type A behavior pattern has been directly influenced by the continuing loss of religious faith. . . . We can declare, however, with considerable certainty, that we have rarely encountered this behavior pattern in any person whose religious. . . beliefs take precedence over his preoccupation with the accumulation of 'numbers' or the acquisition of personal power. (p. 228)

A similar observation is noted in another publication (McQuade & Aikmann, 1974), which states that "religion in the devout believer has little equal as an allayer of stress." (p. 8) Such observations suggest a relationship, but only a few investigators have looked at the relationship between a person's faith and its effect on cardiovascular disease. Investigators studying this relationship were not concerned with personal religion, but the possible etiological factors related to religious affiliation (Broen & Ritzmann, 1967; Friedman & Hellerstein, 1968; Lehr, 1969; Shapiro, Weinblatt & Frank, 1969; Wardwell, Hyman & Bahnson, 1964,1968). These were sociological studies, comparing the incidence of cardiovascular disease in Catholic, Protestant, and Jewish groups. It must be acknowledged that the teachings of Catholic, Protestant and Jewish doctrine might predispose their adherents to characteristic types of personal religious experience. However, conclusions can not be drawn about the role of personal faith on affiliation categorization, since individual experiences within each group are too varied.

In describing the life style associated with increased incidence

of cardiovascular disease, Russek (1974) includes "unfilled spiritual needs in youth" along with such factors as competitive environment and physical inactivity. Although Croog and Levine (1972) included three religion-oriented questions, they made no attempt to evaluate the personal religious experience.

It can be seen that there is very little known about personal religion as a resource for the cardiovascular patient. No studies were found in the literature which explored this relationship.

Religion and the Psychological Problems Common to Cardiac Patients. It seems reasonable to anticipate that if religious faith were to affect cardiac adjustment, it might do so by its effect on either personality traits or coping style. Three psychological variables were suggested in the earlier section of the review of the literature as being significant to the patient with heart disease. These were anxiety, depression, and dependency (reluctance to relinquish the sick role). There is some evidence relating religiosity to these traits.

Anxiety and religiosity were studied by Glass (1971) and Funk (1955). Glass (1971) found anxiety increased in persons who did not practice their religion; while Funk (1955) found anxiety increased in persons experiencing conflict in their religious beliefs. Funk did not find a relationship between anxiety and religious preference, orthodoxy, lack of religion or change in religion. Mowrer (cited in Spielberger, 1966) states that as one's behavior becomes more congruent with religious convictions, anxiety decreases. This view

supports the findings of Glass and Funk.

Spellman, Byrne, and Baskett (1971) noted a greater amount of anxiety in people with sudden religious conversion experiences, and less in those with stable, well developed religiosity. This finding might indicate that the religious experience tended to decrease anxiety, or simply that those with well-established religious practices were more comfortable with their life style than those experiencing change in living patterns. Both Ellens (1975) and Jackson (1975) take the position that religion should decrease anxiety, although Wilson and Miller's study (1968) seemed to find little relation between specific religious attitudes and anxiety.

In regard to depression Andreason (1972) considers that normal and wholesome religion contributes to the control of depression. Powell (1977) reports cases where this would seem to be verified. Oates (1973) in discussion of psychology and religion, observes that the main psychological component of effective religion is hope. Depression is the antithesis of hope. He sees the task of effective religion as teaching how joy in living can be experienced, primarily through strengthening hope.

Dependency in terms of adjustment carries rather negative implications. Some writers take the view that religion fosters dependency in the individual. Pais (1971) takes the position that religion is the working through of dependency needs of the individual, a stance which has negative overtones. In contrast, Curran (1972) sees deep religiosity as occurring only in the mature

and secure personality. Here it is assumed that the more secure would be less dependent. Studying the relationship from an opposite point of view, Williams and Cole (1968) lend support to Curran (1972) with their findings that the least religious were the least secure.

Summary. Researchers have hypothesized that religion might be one of the valuable psychological resources, that persons pray more in times of crisis, and that religiosity might increase in the aged as they face death. It has been suggested that religious background might have an effect on the occurrence of cardiovascular disease, and that religion might have an effect on anxiety, depression and dependency, three factors of importance in cardiac adjustment.

However, no study which dealt with the variable of religion evaluated the personal religious experience of the individual with cardiovascular disease and its relationship to his degree of adjustment.

Religiosity: Its Dimensions and Measurement

Religious faith has only recently become a subject for scientific research. Thus it is not surprising that there is not yet a great deal known about the function of religious faith in assisting the individual through times of crisis or readjustment. Within the field of religious research, some studies focus only on church affiliation (Mechanic, 1963; Croog, 1961). Church attendance

patterns have also received attention from sociologists (Rosten, 1955). Although these aspects of religiosity are more accessible for scientific study than the personal inner experience, they fail to increase understanding of what religious experience means to the person.

Dimensions of Religiosity. A major problem in studying religious faith as a personal resource is the complexity of religious experiences. Although some view religiosity as a unitary concept (Wearing, 1972), there seems to be fairly general agreement that a definition which implies multiple dimensions is preferable (Brown, 1966; Fukuyama, 1961; Glock & Stark, 1965). There has been some work attempting to define the various facets of religiosity.

Among those who have endeavoured to isolate religiosity factors are Glock and Stark (1966). They suggest the following four dimensions of religiosity; belief, practice, experience, and knowledge. Similarly, Faulkner and deJong (1965) identify a group of five factors which are: ideological, intellectual, ritualistic, experiential, and consequential. Lenski (1961) added the factor of group ties and participation, while King (1967) defined a total of nine factors. Simpler sets of dimensions were used by Amon and Yela (1972) and Dittes (1971). It appears that the dimensions defined would not have equal value in sustaining the individual through a time of personal crisis. There is no documentation found in the literature as to which dimension(s) provides psychological strength to the individual, although it has been observed that .

strengthening religion is "internal" in nature rather than "external" (Field and Wilkerson, 1973). Lenski (1961) found only a low correlation between the "doctrinal orthodoxy" and "devotionalism" areas of religiosity he had defined for his study.

A continuum of experience between intrinsic-extrinsic religious orientations was defined by Allport and Ross (1967). The intrinsic experience was defined as a "true" religion, one that draws full commitment from a person and affects all his activities. Extrinsic types of religion, on the other hand, affect his behavior very little, but focus on the appearance of religiosity (Allport, 1960). Their work formed the basis of several other studies, such as Feagan's (1964), and from these some question has arisen as to whether or not the intrinsic-extrinsic poles represent a continuum, or perhaps two separate dimensions. For the present study it was assumed that religious experiences which provide strength and resources for coping with taxing circumstances, would be experiences of the intrinsic sort, rather than of the extrinsic.

Studies Relating to Intrinsic Religious Experience. Nelson and Dynes (1976) emphasize the need for careful definition of the inner religious experience. Yet they asked their subjects to indicate their relationship to religion only as "deeply, moderately, not very, or not at all" religious. Devotionalism was measured by three questions: "Do you say grace at meals?" "How often do you pray?" and "How important is prayer in your life?" Although these measures do give a somewhat quantitative

measure, they do not fully explore the inner religious experience.

The fact that research tends to focus on the external forms of religion which are more easily measured influences the conclusions reached (Becker, 1971). Commenting on the paucity of research related to the devotional or experiential aspect of religiosity, Becker states,

> Whether the quantification and measurement of inner experiences can be accomplished remains to be discovered. Unless more empirical attention is turned to this aspect of religion, the study of religion and personality will be unduly limited to the more superficial dimensions of both. (p. 406)

Another weakness of many religious studies, is that they are limited to active church members, persons who are involved in the external activities of religion. Such sampling ignores people who might have a pronounced intrinsic religious faith, but who are not involved with external social church activity. Wuthnow and Glock (1974) surveyed a large sample of Americans in regard to their attitudes regarding religion. They identified a group who professed, "I believe in God, but I don't believe in the way religions handle worship."

An interesting approach to the study of what religion means to the individual is found in Vernon's work (1961). He asked subjects to respond with 20 "I am . . . " statements to the question, "Who am I?" and then looked for responses with religious reference, e.g. "I am a child of God". Subjects were then asked to indicate whether they viewed religion as being very, moderately, slightly, very slightly, or not at all important. His results

imply that the public appearance of worship is more important to many persons than the inner experience since three-fourths of those who made no religious reference in the 20 statements stated that religion was either moderately or very important.

In the search for studies evaluating the inner religious experience, very little was found except the acknowledgment of the need for such study. One such comment is taken from the 1959 Symposium of the Academy of Religion and Mental Health (1961).

> Because the statistical relation between religion and mental health. . . does not indicate very much, Dr. Allport had suggested that the whole research area should be broken down on the basis of what religion means to the individual, Dr. Klineberg recalled. The important distinction Dr. Allport had made between a kind of intrinsic or 'true' religious attitude and an extrinsic one. . . was one way of attacking the problem. The kind of research Dr. Sills had been talking about raised the same problem. Lumping together all forms of religious association or identification resulted in mixing up very different kinds of behavior. Instead of looking for statistical correlations between religious behavior and mental health, researchers should look more carefully at the nature of religious experience. . . .
>
> It is an elementary mistake to assume that everything bearing the semantic label of 'religion' can be dealt with as one phenomenon. One must get inside the personality and find out what religion really means to the person before he can make any intelligible correlations. (p. 9)

Religiosity Scales. Robinson and Shaver (1973) included in their collection of social-psychological attitude measures a section dealing with religiosity scales. They selected 17 scales and commented that others were not included as they seemed to duplicate those selected. Review of more recent literature failed to locate any scales that were substantially different.

Seven of the 17 scales (Thurstone & Chave, 1929; Survey Research Center, 1969; Gorsuch, 1968; Martin & Westie, 1959; Brown, 1962; Brown & Lowe, 1951; Poppleton & Pilkington, 1963) probe intellectual beliefs about the church, the Bible and God's nature. Dynes (1957) was concerned with scaling Church/Sect oriented attitudes, while Thouless (1935) was concerned with the degree of certainty with which the particular beliefs were held when compared with the degree of certainty expressed regarding natural and political facts.

The intrinsic-extrinsic continuum concept of religiosity developed by Allport formed the basis of scales by Allport and Ross (1967), Feagin (1964), Hunt and King (1971), and Wilson (1960). Of these scales, only three items referred to the relationship with God and devotional experience. These were, "Quite often I have been keenly aware of the presence of God or the Divine Being," "The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services," and "It is important to me to spend periods of time in private religious thought and meditation."

The remaining six instruments selected by Robinson and Shaver (1973) attempt to measure the total religious experience through dimensional subscales developed by each investigator. All six include two or three items referring to the relationship between the individual and God as developed through the devotional experience. Questions relating to this experience deal with a sense of God's

nearness, amount of time spent in reading the Bible, frequency of prayer, and seeking guidance in decision making. No one scale covers more than three of these areas, and some cover only two. (Glock & Stark, 1966; Lenski, 1963; Faulkner & deJong, 1966; King, 1967; Putney & Middleton, 1961; Broen, 1956).

Among the religiosity instruments available, none focused on the personal relationship with God, and none explored the devotional experience beyond the superficial level of two or three general questions.

Summary. Researchers in the field of religiosity generally regard religiosity as having several dimensions. There is no scientific evidence available that one dimension is any more helpful than any other as a personal resource in time of illness. More studies are available on extrinsic aspects of religiosity than on intrinsic aspects, and more comprehensive instruments are available for evaluating external aspects of religiosity than intrinsic. No study or instrument was found which explores in depth the personal relationship with God dimension of experience.

Purpose of the Study

This study was based on the assumption that perception of a close personal relationship with God may be the aspect of religiosity of greatest value to persons who are in the process of coping with the personal crisis of physical illness. In order to explore this supposition, an instrument was developed to tap the domain of

relationship with God as perceived by the patient, and to further differentiate the types of religious experience that are more meaningful in terms of coping with illness.

The general purpose of this study was to determine if persons having heart disease viewed religious faith as an important inner resource contributing to their ability to cope with this crisis. For those who so affirmed, the most useful aspect of their religious faith was explored. Finally, the patient's perception of his relationship with God, and its relationship to the degree of cardiac adjustment was compared.

The major hypothesis of this study stated: there will be a positive relationship between cardiac adjustment and the perception of a close relationship with God in patients recovering from cardiovascular disease.

A secondary purpose of this study was to explore the association of a close relationship with God and of cardiac adjustment to selected (a) demographic variables of age, education, and income, (b) psychological variables of anxiety, depression, and dependency, and (c) physical variables of duration of anginal symptoms, presence of previous myocardial infarction, and treatment regimen (medical or surgical).

CHAPTER II

METHODOLOGY

Subjects

The subjects of this study were persons who are participants in a larger study in progress at the University of Oregon Health Science Center. These persons have been randomly assigned to either medical or surgical treatment groups, after having been assessed as suitable candidates for aorto-coronary bypass surgery. Patients were from either the University of Oregon Medical School Hospital, or the Portland Veterans' Administration Hospital. Subjects met the following criteria: chronic disability from angina pectoris during the past 6 months, no cardiomegaly or congestive heart failure, no other disabling disease, and willingness and availability to participate in a long-term study. For the purposes of the present investigation, one further criterion was imposed. Subjects must have held their religious attitudes from a point in time antedating their present illness.

Subjects in the larger study are being investigated, not only for physiological response to the medical or surgical therapeutic regimen, but also for psycho-social factors of the adjustment during the rehabilitation period. Data regarding their psychological and social adjustment were obtained at least 9 months after entry

into the study in order to allow time for adjustment to take place.

There were 45 persons on whom data were available at the time of this investigation. Mail questionnaires were sent to these 45 persons, and 40 responded (89%). Reasons for non-return included unknown address, and termination from the primary study. Seven of these 40 persons indicated that they did not wish to participate. Five more were eliminated for the following reasons: one could not read or write, two reported a change in religious views during the time of illness and/or hospitalization for surgery, and the final two had not fully completed all the required forms. Hence the study is based on a total of 28 (62%).

Design and Procedure

This was a descriptive and correlational study. Although data regarding the demographic and psycho-social variables were available from the subjects in the larger study, it was necessary to re-contact the subjects to obtain data regarding the religious variable which was of primary concern. In order to compensate for the fact that data were collected at separate points in time, subjects were asked to indicate how long they had held the expressed religious views. Only those subjects were included who reported their present views as identical to those held at the time of participation in the previous study.

Data Collection

A structured interview served as the major source of data

for the larger study. The interview in its entirety included information not directly pertinent to this study. However, data of interest were extracted from the interview responses for the present investigation. (For the Interview Schedule, see Appendix G.) These data included age, sex, marital status, annual income, education, presence of angina and/or myocardial infarction before entry, form of treatment (medical/surgical), scores on the Rumbaugh Cardiac Adjustment Scale, and selected scales from the Minnesota Multiphasic Personality Inventory.

Data regarding the religiosity variable were collected by a mail questionnaire. Subjects who did not respond to the first mailing were sent a second set of forms. Further follow-up included both re-mailing and telephone contacts.

Data Collection Instruments

Six instruments were used in the study. Four were developed by the investigator; the Relationship with God Scale, the Cantril Ladder for Importance of Experience with God, the Relative Salience for Illness of Five Religiosity Dimensions, and the Religious Information Form. Two were standardized instruments; the Cardiac Adjustment Scale, and the Minnesota Multiphasic Personality Inventory.

Relationship with God Scale (RWGS). The Relationship with God Scale was prepared by the investigator since no adequate tool was available. The researcher began with 26 statements drawn from informal discussion with patients and others who found strength

from their experience with God. Thirteen of these statements reflected the attitudes of a person believed to have a close relationship with God, and for each of these a statement was derived which reflected an opposite or widely differing attitude.

These statements were presented to a convenience sample of persons who served as a panel representing heterogenous religious views. The panel of 16 (including hospital patients, practicing nurses, and graduate nursing students) responded indicating either agreement or disagreement with the statements. As anticipated, on some items, the subjects consistently agreed with one statement and disagreed with its paired opposite. In these cases, one statement was removed; the use of the paired opposites would be redundant. However, in the case of other pairs, one or more of the respondents indicated agreement (or disagreement) with both statements, although they had been thought to be opposite. In these cases, both statements were retained for further testing.

The panel was also encouraged to add items regarding helpful aspects of personal religious experience that were not included in the instrument. Several statements were added from these suggestions. Panel members were also asked to indicate statements that were confusing or poorly worded and appropriate adjustments were made.

On the basis of these revisions, a second list of 31 statements was prepared, and similarly presented to a second panel of nine graduate nursing students and hospital patients, also selected

for divergent religious attitudes. After they had indicated agreement or disagreement, 10 statements were eliminated because of low discriminatory value. The final scale included 21 statements considered to measure the personal relationship with God variable of religious experience.

The RWGS is the principal measure of the independent variable of the study. Each item of the RWGS is a single statement to which the subject chooses from among six response categories. This Likert-type scale provides response options ranging from strongly agree to strongly disagree. For scoring purposes, those statements indicating a close relationship with God receive 1 point for strong disagreement and 6 points for strong agreement. The order of scoring is reversed for statements reflecting a remote relationship with God. The scale has a theoretical range of 21-126 points. Twenty-one points represents the most distant relationship with God. The statements probe such aspects of the relationship as the nature of the personal prayer life, expectancy of response to prayer, confidence in God's wisdom and love in controlling circumstances of one's life, seeking divine guidance in making decisions, and the expectancy of benefit from the relationship with God. (See Appendix B.)

Cantril Ladder for Importance of Experience with God (CLIEG). To validate the RWGS, a 10-step Cantril-ladder was prepared. Subjects were asked to indicate how important they felt their experience with God was, ranging from 0 (having no importance) to 9 (having the greatest possible importance). The RWGS statements

were devised to define the aspects of one's relationship with God that are helpful and valuable. In order to establish concurrent validity of the RWGS, the Cantril Ladder scores were correlated with the RWGS scores. (See Appendix C.)

Relative Salience for Illness of Five Religiosity Dimensions (RSIFRD). For the purposes of this study, religiosity was considered to have five dimensions: intellectual beliefs, humanitarian good deeds, ritual involvement, social involvement, and relationship with God. Because it was not assumed that religion would be of equal significance to all subjects, the RSIFRD was developed. The RSIFRD is a scale of nine items. The first four items were the options for those who did not find religion a major source of help. The fifth statement indicated that strength was primarily received from the ritual-involvement dimension. Item 6 suggested that strength derives from the relationship with God. Item 7 implied that strength comes from the good deeds/humanitarian dimension, while item 8 addressed the intellectual dimension. The last, item 9, represented the dimension of social involvement. (See Appendix D.) The scale was pre-tested on 10 patients to make certain that the wording was clear, and that the presentation of the options was not confusing.

Religious Information Form (RIF). The first item on this form was of special importance. It read, "How long have you held religious views pretty much as you express them in the answers to these questions?" Responses to this question were used to estimate the religious attitude probably held by the patient at

the time of his illness/surgery and entry into the primary study. This was of importance, as the data collected to measure the religious variables took place considerably later than the data on the other variables had been collected. The response to this question indicated which subjects might fail to meet the criterion for the study of a consistent religious attitude antedating the present illness. Several items were included describing the extent of the subject's participation in external forms of religious activity. By comparing the responses to these items with the RWGS scores, it would be possible to determine whether or not external religiosity and inner religious experience were closely related.

Subjects were asked to respond to questions regarding the relationship they felt existed between their religious faith and their illness, and also regarding their church affiliation and activity. These questions, however, were of only descriptive interest to the study. (See Appendix E.)

Cardiac Adjustment Scale (CAS). The dependent variable, cardiac adjustment, was measured by the scale developed by Rumbaugh (1964). A copy of this scale is in Appendix F. This instrument was developed to assess and counsel cardiac patients during the rehabilitation period. The instrument consists of 160 items. Subjects respond with "yes", "no", or "?" with possible scores ranging from 0 (the least desirable attitudes for adjustment) to 160 (the most desirable attitudes for adjustment). The items were validated by a panel of physicians and psychologists. The Cardiac Adjustment

Scale has proved to be a particularly good predictor of cardiac patients most likely to return to work.

Over a period of 3 years, Rumbaugh, Knapp, and McCarty (Rumbaugh, 1966) studied a group of 94 male patients with heart disease. The subjects were primarily from the middle socio-economic levels. The investigators found the scale effective in predicting which patients would return to work. ($r_{\text{point biserial}} = .37$, $p < .01$). They also found that the CAS scores correlated with particular psychological traits. Thus it is suggested that the CAS measures at least in part, such factors as emotional stability, objectivity, and cooperativeness.

Measurement of Other Variables. Religious experience was also related to other variables of secondary interest. Data for these variables were provided from the Interview mentioned above. (See Appendix A.) Data extracted from this interview were age, sex, marital status, income, and education. Certain physical variables were also used from the previous study. In an effort to relate the helpfulness of the religious experience to the type of life crisis the subject had experienced, certain variables regarding their physical condition were selected as follows:

1. time between onset of angina and entry into the study, as an indicator of long-term chronic illness in the past experience.
2. presence or absence of myocardial infarction, as an indicator of acute crisis in the past experience.
3. type of treatment (surgical or medical) as indicators

of treatment experiences that offer either hope of dramatic improvement with surgical risk, or hope of gradual, moderate improvement without surgical risk.

Scores for the psychological traits of trait anxiety, dependency, and depression were obtained from the MMPI included in the interview schedule. The Taylor Manifest Anxiety Scale (At) was used to measure anxiety. Scores range from 1 to 49, the lower score representing the least trait anxiety. Dependency was scored using the Navran scale, which has possible points from 1 to 57 also scored so that the lowest score represents the least dependency. The MMPI Clinical Scale 2 (D) to measure depression, has a possible range of 0 - 60. Low scores again indicate a low level of depression.

CHAPTER III

RESULTS

Description of Subjects

The characteristics of the 28 subjects who participated in this study are summarized in Table 1. The group is predominantly male, married, and middle-aged. The subjects are mainly from the lower income levels, with 24 of the 28 subjects reporting an annual family income of less than $12,000. The 1976 Statistical Abstract of the United States of America reports a median family income for 1975 of $13,719. The latest year for which the median family income for Oregon is available is 1969, and at that time it was very near the median family income for the U.S.A. It is therefore assumed that in 1975 the median family income in the State of Oregon would be near that of the nation.

Twelve of the sample were patients at the Veterans' Administration Hospital in Portland, while the remainder were from the University Hospital. All but two of the subjects were classified as New York Functional Index Class III at the time of entering the larger study. At the time of the present study, all but seven had shown improvement, being currently classified as Class I or Class II. There was one subject for whom no Functional Class assessment was recorded. Fifteen of the sample were treated medically and

Table 1

Characteristics of Subjects

Variable	Value
Sex (number)	
Male	25
Female	3
Marital Status (number)	
Married	27
Widowed	1
Age (years)	
Mean	54.4
Standard Deviation	7.3
Education (years)	
Mean	10.7
Standard Deviation	3.3
Education (number)	
Not beyond grade school	10
Not beyond high school	9
University, 1 year or more	9
Annual Family Income (dollars)	
Median	6,599.50
Employment Status (number)	
Employed, at least part time	7
Unemployed	21
Religious Affiliation (number)	
No affiliation	13
Protestant	13
Catholic	2
Jewish	0

13 surgically. While all had suffered angina pectoris for some time before entering the study, only four indicated that they had suffered angina pectoris for more than 5 years before entry. About one-half (14) had suffered previous myocardial infarctions. Data regarding angina and previous myocardial infarction were missing for one subject.

Of the 28 subjects, 10 indicated only a grade school education. Of the 9 attending high school, 5 graduated. Of the 9 who attended college, 2 graduated; one had pursued graduate studies.

All who participated indicated that their attitudes about their religion antedated their present illness. Thirteen did not consider themselves active church members, had no religious affiliation, and did not take part in any church activity. One of these was involved in the philosophical study of ancient religious thought. Another four did not consider themselves active members, but were associated with a religious group, attending services, at least occasionally. The remaining 11 indicated active church membership in Christian faiths.

Thus the sample may be characterized as predominantly married, middle-aged, unemployed men tending to fall in the lower educational and income brackets. The sample is divided quite evenly in regard to formal church membership, treatment regimen, and hospital of treatment.

Testing Underlying Assumptions

One preliminary step of the study was to establish the correctness of the assumption that Relationship with God was the dimension of religiosity of particular helpfulness during illness. Fifteen subjects indicated that religion was a major source of help during their illness. Of these 15, seven selected the relationship which they felt existed between themselves and God as the dimension of most helpfulness. The probability of seven out of 15 selecting one dimension from among five by chance is slight ($z = 2.7$, $p < .01$). The relative salience for each of the five dimensions is found in Table 2. It should be noted that there were five who selected the intellectual belief dimension, which, although not statistically significant ($z = 1.3$, n.s.) represents the second dimension of religious experience found to be helpful during illness.

It was concluded that for those who found religion a major source of help, the relationship with God was the most salient dimension. The assumption on which the study was based therefore finds support. (See Table 2.)

Descriptive Data of the Major Variables

Cardiac Adjustment. Scores on the Cardiac Adjustment Scale ranged from 87 to 148, from a less satisfactory to a more satisfactory adjustment. The mean score was 125.35 with a standard deviation of 16.21.

Table 2

Relative Salience for Illness of Five Religiosity Dimensions

Dimension	Number (N=15)
Ritual-involvement	0
Humanitarian/Good Deeds	1
Social Involvement	2
Intellectual Belief	5
Relationship with God	7

Both Rumbaugh (1964) and Rawlinson (1970) found that employed subjects obtained higher CAS scores than the unemployed. Rumbaugh's study obtained a mean score of 132 for the employed group, contrasted with a mean score of 121 for the unemployed. Rawlinson's results are similar; mean score of 137 for the employed and mean score of 124 for the unemployed. The mean score of 125 for this entire group is as would be expected since the subjects are predominantly unemployed. Divided according to work status, this group obtained a mean score of 131 for the seven employed persons, and a mean of 123 for the 21 unemployed, which approximates the results of the two studies previously mentioned.

Relationship with God. Scores on the Relationship with God Scale ranged from 45 to 116 with a mean of 85.00 and a standard deviation of 21.75. The scale was scored so that the higher score indicated a closer relationship with God. The majority of the scores separated into high and low groups, with one half falling above a score of 93, and one half falling below a score of 78 and only one score between.

Since the scale had not been used previously, the Cantril Ladder for Importance of Experience with God (CLIEG) was designed to serve as a validity check for the RWGS. It was anticipated that those who ranked their experience as the more valuable would obtain the higher scores on the RWGS. Fifteen subjects placed their relationship with God on the top rung of the Cantril Ladder (9); nine valued the relationship in the middle portion of the

ladder (4-7); four chose the bottom step (0). Scores on the ladder were compared with RWGS scores and a significant positive relationship was found ($r = .77$, $p < .001$), which suggests validity of the scale. It is interesting to note that all seven persons who chose the Relationship with God dimension as the most helpful indicated that they valued that relationship on Step 9 of the CLIEG.

A further validity check was attempted by comparing the mean RWGS scores of the seven persons choosing the Relationship with God as the most helpful dimension of religiosity with the mean RWGS scores of all other subjects. There was some tendency in the anticipated direction, in that the mean RWGS score of those selecting the Relationship with God dimension was 95.43, as contrasted with a mean RWGS score of all other subjects of only 81.52. However, the t of 1.47 was not statistically significant.

Responses to the RWGS items were well scattered across the six options available for each question with nearly all options being chosen by at least one subject. No item elicited a response of either agreement or disagreement from all subjects. It was also noted that there was a tendency for those with high scores to express themselves as more strongly in agreement or disagreement than those with low scores, suggesting a greater sense of certainty in their conviction. A majority agreed on five items, with responses to the remaining items being divided fairly evenly. (See Table 3.)

Table 3

RWGS Items with Majority Agreement

RWGS Item	Percent Agreement (N=28)
I believe God has a definite plan for my life which will be best fulfilled only with my cooperation.	93
I have, on occasion, acted specifically in response to a sense that God was particularly directing me.	85
I believe that God answers all prayers for the best good of those concerned.	85
I have chosen to put my life completely under God's control.	85
All things work together for good to those who love God.	82

The distribution of the responses suggested that each item was a statement subject to varied opinions. Five of the 21 items proved to be particularly good discriminators. The seven patients with the higher total scores tended to one position and the seven patients with the lowest total scores tended toward the opposite position. Item analysis was done by inspection, which is an appropriate technique for N of less than 100 (Downie & Heath, 1974). See Table 4 for a list of high discriminator items.

Descriptive Data of Psychological Variables

Anxiety was measured by the Taylor Manifest Anxiety Scale. Subjects obtained scores from 3 to 38 with a mean score of 18.60 and a standard deviation of 8.20. This was only slightly higher than the mean of 16 which Taylor obtained on a group of normal controls (Dahlstrom & Welsh, 1960).

Depression was measured by the MMPI Clinical Scale 2 (D). The mean score for normal males is 17. Scores ranged from 14 to 36, with a mean of 25.4 and a standard deviation of 5.62. Although three of the subjects were females, none of the women obtained a score higher than 29, so it is clear that they did not elevate the mean to any great extent. Inspection of the mean values suggested that this group was depressed to a greater extent than a normal population.

Dependency was measured by the Navran Dependency scale. This sample obtained scores between 10 and 37, with a mean of 22.8, and

Table 4

RWGS High Discriminator Items

RWGS Item	Percent Agreement Upper Quartile (N=7)	Lower Quartile (N=7)
I seek divine guidance in making personal decisions.	100	0
To me, a major source of peace and strength is my daily meditation and prayer.	100	14
I usually pray about problems before discussing them with anyone else.	75	0
God is not particularly concerned with supplying material "blessings."	12.5	86
I have never felt that God particularly indicated what I should do other than in the general teachings of Sacred Writings.	0	72

a standard deviation of 8.56. This mean score approximates the mean for the general population which Navran reports as 19 (Dahlstrom, Welsh, & Dahlstrom, 1975).

The RWGS scores were tested for their relationship to the psychological variables of anxiety, depression and dependency. Results of the chi-square analysis showed no significant relationship; the chi-square values were .30, 2.49, and .90, respectively. (See Table 5.)

Testing the Hypothesis

The hypothesis stated that there would be a positive relationship between cardiac adjustment and the perception of a close relationship with God in patients recovering from cardiovascular disease. A scatterplot showed a lack of homoscedasticity, therefore the Pearson r was considered inappropriate as a test of significance. Scores for both RWGS and CAS instruments were dichotomized at the mean to form a 2 x 2 contingency table. A significant relationship was found using chi-square ($\chi^2 = 5.2$, $p < .05$). The hypothesis was, therefore, accepted that persons having a closer relationship with God would have higher scores on the Cardiac Adjustment Scale.

Inspection for Secondary Relationships

The data were inspected for secondary relationships between the RWGS scores and the demographic, physical, and psychological factors, as well as between the CAS scores and demographic, physical

Table 5

Relationships of the Psychological Variables with the CAS and RWGS

Variables	Scale	
	CAS[a]	RWGS[b]
Anxiety	-.66 **	.30
Depression	-.46 *	2.40
Dependency	-.47 *	.90

[a]Pearsonian r values

[b]Chi-square values

*$p < .05$

**$p < .01$

and psychological factors.

Since the subjects were essentially homogenous, the dimensions of sex, marital status, and employment were not analyzed in relationship to the dependent variable. The annual family income was not related significantly to the RWGS scores (χ^2 = .90, df = 1, n.s.). The Pearson r was used to measure the association between RWGS and age (r = .10), and RWGS and education (r = .30). The correlations obtained were not significant.

The associations between RWGS scores and the presence of past myocardial infarction, time since onset of angina before entry into the study, and treatment regimen (medical/surgical) were assessed by means of chi-square tests. The chi-squares were 2.30, 1.40, and .80, respectively, indicating no significant relationships between RWGS scores and these physical variables.

As in the case of RWGS, no significance was found between the CAS and the demographic variables of education (r = .22), age (r = .19), and annual family income (χ^2= .21). Neither did the CAS scores vary systematically with type of treatment (medical vs surgical), time since onset of angina before entry into the study, and presence of previous myocardial infarction (χ^2= .00, .70, and .08, respectively).

However, unlike the RWGS, scores on the CAS were significantly and negatively related to scores on the psychological tests for anxiety, depression, and dependency. Evidence for this assertion is presented in the form of Pearson r's in Table 5.

Religious Information Form Responses

In response to the question, "Has your illness affected your religious experience?": 12 said "no", while 13 indicated that they felt the experience had increased their faith, their sense of God's presence, or appreciation of His power. One subject made the comment that "My illness has caused me to detest the vultures called ministers, who have approached me while I was in the hospital. . . . "

It is of interest that 23 of the 28 subjects stated that they felt God had something specific to do with their recovery. Comments ranged from one who said that he felt God was involved "slightly"; others reported "He guided the doctors," "He pulled me through," and one credited God "in spite of" the doctors. One did not answer and another said "I could swing both ways." Only three stated that God had nothing to do with their recovery.

This sense of God's participation, acknowledged by 23 subjects, did not lead to a general change in living habits. Only 10 responded that an adjustment in life style resulted from an awareness of God's presence during illness. These 10 indicated that they had stopped drinking, stopped swearing, become kinder or more appreciative of life, read the Bible more, worried less, or were being led into new vocational fields. All but one of these subjects scored above the mean on the RWGS.

Subjects were asked to indicate church membership and activity, and these items were compared with the RWGS scores. The significant

positive relationship was not unexpected ($\chi^2 = 14.9$, df = 1, N = 28, $p < .01$). It was noted, however, that there were four who scored above the mean on the RWGS who were not actively involved in church activities. In fact, three of these gave no church affiliation at all. In this sample, therefore, there were those who had a close relationship with God and who practiced their religious faith outside organized religion. Such a group would have been missed, if the study had focused only on active church members.

Five subjects wrote in comments making reference to having come near death at the time of their illness or surgery. These comments emphasize the earlier observation that the cardiac patient is acutely aware of insult to an essential organ. Another five subjects reported that God had saved them, and eight commented that they felt nearer to God than ever before. It is interesting to note that in the spontaneous comments, two of the four subjects mentioned above as having a close relationship with God without church affiliation took care to call attention to this position. They explained the value they placed on their faith, and why they wished to worship outside of organized religion.

About one-third of the sample were active church members, attending weekly services. The 1973 Yearbook of American Churches reports that 40% of the American population attend church weekly (Jacquet, 1973).

Summary

In this sample, the hypothesis found support that a close relationship with God as measured by the instrument developed for this study was associated with a more satisfactory cardiac adjustment, as measured by the Rumbaugh scale. A more satisfactory cardiac adjustment was also negatively related to the presence of anxiety, depression, and dependency. The search for other significant relationships among the data failed. The results of the study affirm the assumption that the relationship with God is the most important aspect of religiosity to support the sick, and that there were a few persons who benefited from this aspect of religiosity outside of the organized church associations.

CHAPTER IV

DISCUSSION

The findings will be discussed under the following headings: Relationship with God and Cardiac Adjustment, and Instrument Development.

Relationship with God and Cardiac Adjustment

The major focus of this study is directed to the problem of adjustment to cardiac illness and the role that religious faith may play in providing psychological support to the person during the adjustment period. The findings of the study suggest that religious faith is, indeed, among the inner resources of value to the patient. Item analysis suggests that the most discriminating items on the RWGS scale are those relating to communication between God and man, not only in prayer habits, but in perceptions of response to prayer. Concepts regarding God's existence, or the existence of an overall plan for good under God's control discriminated less well.

The findings of the study agree with those of Johnstone (1975) that religion does indeed help through time of crisis and, it may be noted, the religious faith of the subjects had not weakened during the stresses of chronic illness, past myocardial infarction, or surgical treatment. In fact, several found their faith had strengthened. This fact is in harmony with Tournier's (1960) observation that the

relationship with God may increase during illness with more time for meditation and prayer. As a large majority of the subjects (82%) found religious faith somewhat or very helpful, it would be of interest to replicate the Campbell, Converse, and Rodgers (1976) study using the RWGS to measure the variable of religiosity. Replication of the study using the RWGS could provide more discriminating data as to the relative placement of religion as one of several personal resources for coping in times of crisis.

Since there was a significant negative relationship between the psychological variables of anxiety, depression and dependency and the CAS, it had been anticipated that the same negative relationship would exist between the psychological variables and the RWGS. This did not prove to be the case. A plausible explanation may be found in the multidimensionality of cardiac adjustment. Among the components of cardiac adjustment are, no doubt, the variables of anxiety, depression, and dependency. However, it appears to be a more inclusive concept which requires additional factors for a complete explanation. In the present study, the traits of anxiety, depression, and dependency were significantly related with the CAS, confirming the findings of other investigators as to their importance in cardiac adjustment. But, including only these three psychological variables, still leaves a large portion of unexplained variance in the CAS. It appears that it is in this area of unaccounted for variance that the religiosity dimension of RWGS most strongly operates.

Instrument Development

In so far as relationship with God was defined as a separate dimension within the domain of religiosity, this study rejected the idea of religiosity as a unitary concept. The findings suggest that religiosity should be considered as having several dimensions. On the other hand, relationship with God was treated as a unitary concept. It is possible that the items utilized on the scale were measuring various sub-dimensions of the relationship with God. It is of interest to note that the statements on which the group agreed all spoke to a sense of underlying purpose in life which tends toward good. Those items which were discriminators dealt with matters such as the nature of God, valuing of communications between man and God, and a sense of communion between man and God.

When the tool was developed, it began with pairs of statements thought to be opposites, some of which were eliminated, and some of which were retained. The results of this study showed that a majority agreed with the statement, "I have on occasion acted specifically in response to a sense that God was particularly directing me." It was surprising, then, that the majority did not disagree with its supposed opposite, "I have never felt that God particularly indicated to me what I should do other than in the general teachings of Sacred Writings." Some refinement of wording is apparently necessary, as well as further testing.

In this sample, the scores showed an unexpected tendency to

polarize toward high and low scores with very few in the center of the range. This distribution may be simply a function of the small sample size. On the other hand, it may be that in regard to religious matters, persons tend to avoid a neutral middle ground. The tendency to avoid the middle ground was also noted in the responses of the persons with high RWGS scores, who expressed their opinions as strong agreement or strong disagreement more frequently than those in the lower scoring group.

Among the 12 who were excluded from the study, there were nine people who did not choose to complete the principal measure (the RWGS). The reason for this refusal is not clear and subjects were not urged to participate after making their decision. Religion is a personal matter, and relationship with God is a very personal dimension of religiosity. It might be suggested that those with active religious faith would be more ready to respond and that those who refused had less interest in religious matters. One refusal, however, was accompanied with a note stating that "I believe in God and in the Bible. I don't like that page of statements because there is no way of measuring the love that I have for God or the help He gives me." Therefore, it cannot be assumed that it was only the irreligious who refused.

The tool, it is hoped, after further refinement and testing may prove to be valuable in that most difficult area of religiosity measurement, i.e., the inner meaning of religion to the individual. However, it certainly is not a comprehensive measure, and there

is a great need for further work in this area.

Limitations of the Study

The small number in the sample is an obvious weakness of the study. Certainly the study should be replicated on a larger sample of similarly selected cardiovascular patients. The results obtained in this study are promising, but not conclusive. As has been stated, all data should be collected, if possible, at one time. If all data can not be collected at once, certainly the data for the CAS, religious variables and psychological variables should be collected at the same point in the rehabilitation process. To compensate for this weakness, subjects were asked to state the length of time they had held the views described. Since there were no other scales exploring relationship with God, it might have been helpful to give a total religiosity scale and to compare the results with the RWGS scores.

It is recognized that mail questionnaires may be less well understood and are more easily ignored than personal interviews. However, the benefits in saving time and expense justified the use of mail questionnaires. Also, more convenience is provided for the subject who can fill out the instruments at his leisure. Additionally, since religion is such a personal and sensitive area, allowing the person to participate within the confines of his home and with the guarantee of anonymity, encouraged more open and honest responses.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Although considerable study has focused on the problems of adjustment to cardiovascular conditions, the role of personal religious faith as an inner resource available to the patient has received very little attention. It was hypothesized that the personal religious faith of the patient would prove to be a valuable psychological resource to aid in adjustment, and that the relationship with God was the particular dimension of faith which would prove salient.

A sample of 28 subjects was tested. Subjects were participants in a previous study conducted at the University of Oregon Health Science Center, and selected for suitability for coronary-aorto bypass surgery.

Using the Cardiac Adjustment Scale (Rumbaugh, 1966) to operationalize satisfactory adjustment, and the Relationship with God Scale (developed by the investigator) to operationalize the relationship with God, a positive correlation of significance was found ($\chi^2 = 5.2$, $p < .05$). The underlying assumption that relationship with God is the dimension of religious faith of salience, was supported by the selection of that dimension from among five dimensions of religion presented to subjects who found religion a major source of help.

A search for secondary relationships showed that cardiac adjust-

ment is negatively related to the presence of trait anxiety, depression, and dependency, while relationship with God is not so related. The presence of a group with a close relationship with God who are not included in organized religious denominations was demonstrated.

Conclusions

It was concluded that religious faith is indeed a valuable psychological support for use during adjustment, and that the relationship with God is that aspect of faith which provides the greatest help. It is not to be inferred that relationship with God is the only dimension of value, however it is felt that persons in time of crisis find help in the more intrinsic aspects of their religious experience. In this study, it appeared that the use of a single dimension of religiosity had value in its ability to predict adjustment, but its superiority over a total religiosity measure was not studied.

As more holistic approaches to medicine are becoming popular increased attention should be given to the spiritual status of the patient on the psychological level, rather than on the "church affiliation" level. Some form of spiritual assessment might well be a useful part of the initial nursing assessment. From the results of this study, it appears that " no church" on the admission sheet does not necessarily mean "no religious faith." Neither does church membership necessarily indicate the presence of a useful inner faith, although there is a tendency for these to be associated.

In nursing patients through the period of acute illness/surgery

and the recovery period afterwards, the nursing profession will find it important to support the patient's faith, recognizing that the meaning which the patient will find in his illness will reflect his orientation to religion. Support may be provided through fostering an atmosphere that allows the patient to optimally use the inner resources at his disposal. This may be accomplished by facilitating his access to clergy and friends in the religious community. When it is appropriate from the patient's perspective, it may also be helpful for the health provider to share their own faith and trust in God with the patient.

As the sample did not include believers of the Oriental religions, or of the Jewish faith, the results are not generalizable to members of these groups, or of any other groups not represented in the sample. Further study including more religious groups is indicated.

Recommendations

The almost total lack of studies relating to personal intrinsic religion and coping with physical illness problems and adjustments should invite a variety of further studies not only replicating this study, but also focusing on other patient groups, such as cancer patients, or those with renal problems. This study has focused on a group, living at home, well into the rehabilitation period. Very useful studies could be designed to explore the role of the relationship with God during hospitalization experiences, and in extended care facilities.

The RWGS will need to be tested on much larger groups, and on varied groups to establish its value, and would doubtless undergo a refining process with such further testing. Other attempts to qualitatively assess the relationship with God would be very valuable.

If, from the viewpoint of optimal adjustment and recovery, certain religious concepts prove to be beneficial while their absence proves to hinder the rehabilitative process, it would be important to identify these concepts. Helping interventions may then be designed to assist those who wish to explore religious faith as an additional coping method.

There is little known in the religious realm about the inner personal faith and its effects in coping with physical illness. The field is open for creative and innovative efforts to define the relevant issues, and to plan strategies for fully utilizing the resources of religious faith.

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APPENDICES

APPENDIX A

Correspondence and Instructions to Subjects

SCHOOL OF NURSING

Area Code 503 225-7793

Portland, Oregon 97201

UNIVERSITY OF OREGON

HEALTH SCIENCES CENTER

May 18, 1977

Dear

You and many others have been participants for some time in a study of patients with coronary artery disease. In some interviews, patients have suggested to us that their religious faith played an important part in adjusting to the illness.

In response, Rilla Ashton, a graduate nursing student at the University of Oregon Health Sciences Center, is planning a study concerned with the role of religious faith as a source of help in coping with illness. Dr. Frank E. Kloster, Professor of Medicine and Head of the Division of Cardiology, has approved of this study and has given us permission to write to you.

A questionnaire is enclosed to collect such information. We would be most grateful for your cooperation in this study by completing this questionnaire which will take about 30 minutes of your time. Do not sign the questionnaire; code numbers will be used as the only means of identification. Should you have questions, you may write or call Dr. May Rawlinson, Professor of Nursing, (225-7838) at the University of Oregon Health Sciences Center.

If you refuse to participate in this study, it will not affect your medical treatment or relationship with the University Hospital and Clinics or the Veterans Administration Hospital.

If you do choose to participate, please sign in the space provided and send it back with your completed questionnaire in the enclosed stamped, self-addressed envelope. We would appreciate your response within the next week or two.

Thank you for your consideration of this request.

Sincerely yours,

[redacted]

May E. Rawlinson, Ph.D., R.N.

[redacted]

Rilla Ashton, B.S., R.N.

Please sign here to indicate your consent.

Date_____ Patient's Signature:_____

INSTRUCTIONS:

Please read the questions carefully before marking an answer. It would be appreciated if you will answer each question. Even if you are not sure of the answer, please make an educated guess.

Because we are interested in your own opinion, we would prefer that you not discuss the questions with others before you have finished marking your answers. The questions deal with matters that you will have your own beliefs and opinions about. You will find it easier to answer the questions if you can find a time and place where it is quiet and you will not be disturbed. You will find that you can answer all the questions in half an hour or less.

Please notice that on the first page, you will make only one mark. The second page, also, is answered with only one mark. On the third page, you will need to place one mark for each sentence. On the last page you may write as much or as little as you please and may add any comments you wish to make.

It will be very much appreciated if you can return the questionnaire promptly - within a week, if possible.

Thank you very much for taking your time to help in this study. It is very much appreciated, and we hope it will provide the information needed to plan more helpful services to patients in the future.

Dear Mr.

We appreciated very much your prompt reply to the survey regarding the role of religious faith in helping patients who must cope with serious illness. The answers are coming in, and we are learning from the thoughtful replies.

We noticed that you had not filled out one page. We would appreciate it very much if you could help us just a little more by indicating your feelings about the statements written there. Just indicate if you agree or do not agree with the statement by making a check in the appropriate box after each statement. We are studying the replies carefully, and the answer of each one is important. This is the reason we are returning it to you for completion.

Thank you again for your assistance.

Sincerely,

If, for any reason, you do not wish to participate in this study, please sign this paper and return it in place of the forms. Your answers to the questions would be a great help in our research, but if you do not wish to reply, we do not want to bother you with more letters. This is the reason we are asking you to return either the completed forms, or this refusal form. We hope you will choose to return the completed forms.

Thank you very much for your time and consideration.

I prefer not to take part in this study at this time.

_____

(signed)

APPENDIX B

Relationship with God Scale

low are some statements which refer to the relationship tween an individual and God. Please indicate how you el about each statement by marking in the correct box.

	Strongly AGREE	Somewhat AGREE	Slightly AGREE	Slightly DISAGREE	Somewhat DISAGREE	Strongly DISAGREE
1. I have chosen to put my life completely under God's control.						
2. I have, on occasion, acted specifically in response to a sense that God was particularly directing me.						
3. I cannot see how a good God could let so much evil happen to good people.						
4. Although God has communicated through sacred writings, He does not communicate His will to specific persons these days - at least, not to my knowledge.						
5. If we knew the end from the beginning, we ourselves would choose the very life experiences that come to us.						
6. God's concern for my welfare is focused more on my spiritual condition than on my social or physical condition.						
7. I believe God has a definite plan for my life which will be best fulfilled only with my cooperation.						
8. I pray about any or all of the various aspects of my life.						
9. I usually pray about problems before discussing them with anyone else.						
0. God will not withhold any good thing from those who love Him.						
1. I cannot think of any instance wherein God has answered my prayer specifically.						
2. I believe that God answers all prayers for the best good of those concerned.						
3. All things work together for good to those who love God.						
4. God is not particularly concerned in supplying material "blessings."						
5. Life's experiences seem so inconsistent that I find it hard to think God has any particular plan in their occurence.						
6. I believe God will do what He will with my life whether I want Him to or not.						
7. I have never felt that God particularly indicated to me what I should do other than in the general teachings of Sacred Writings.						
8. I seek divine guidance in making personal decisions.						
9. Prayer is not a very important part of my daily life although I sometimes pray.						
0. I have at times felt that I was directly in the presence of God.						
1. To me, a major source of peace and strength is my daily meditation and prayer.						

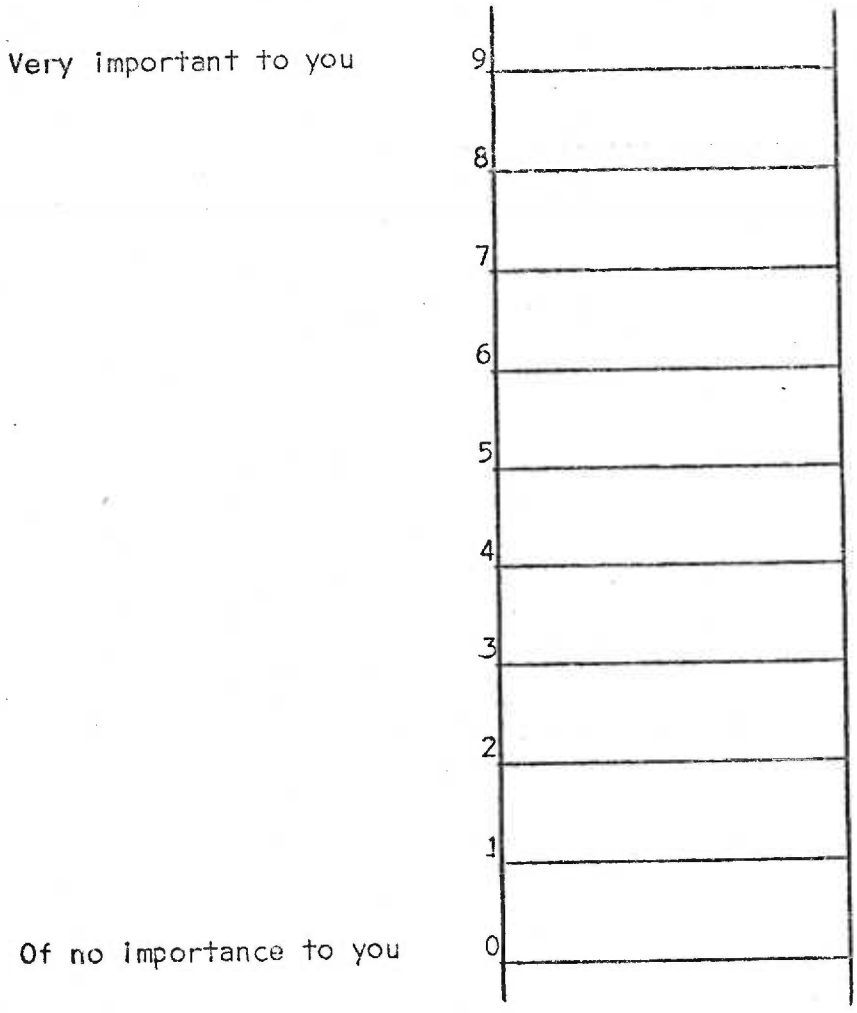
APPENDIX C

Cantril Ladder for Importance of Relationship with God

Some persons feel that they experience a very close and personal relationship with God. They feel that He is always present, knows them intimately, and is available to give help when necessary. They talk easily and frequently with Him, and feel that He answers, guides, protects, and cares for their needs. They feel that their relationship to Him is very important and very rewarding.

Other persons are not even sure that there is a God. If there is a God, they are not sure whether or not He knows them personally. They would feel that they have little or no relationship at all with God, and that any relationship with Him is very distant, having little to do with their daily living. Whatever relationship there is, it would not be important to them.

If we were to represent these two views as being opposite ends of a ladder, on which step would you place your own experience with God?



APPENDIX D

Relative Salience for Illness of Five Religiosity Dimensions

Please read the following statements carefully. You may feel that two or three to some extent describe your experience. You may feel that none completely describes your experience. However, you are asked to mark one box and only one box indicating which statement best describes your experience.

Please indicate, by checking in one box and one box only, which statements best describe your experience.

During my illness I did not find religion to be particularly helpful. I do not concern myself with religious matters.

During my illness, I did not find religion to be particularly helpful, although I feel that I am a religious person.

During my illness, my religious experience was somewhat helpful. However, I wished that I had previously developed a stronger religious life.

During my illness, my religious experience was somewhat helpful. Other factors were equally helpful in facing my sickness.

During my illness, my religious experience was a major source of help. The knowledge that I have been faithful in the religious exercises of my church was particularly helpful.

During my illness, my religious experience was a major source of help. I particularly drew strength from the relationship that I feel exists between myself and God.

During my illness, my religious experience was a major source of help. I felt that all would be well, as I have always followed the Golden Rule in my relations with others.

During my illness, my religious experience was a major source of help. I found strength from my knowledge of the teachings and doctrines of my religion.

During my illness, my religious experience was a major source of help. I found strength and support from the prayers and visits of my fellow church members and leaders.

APPENDIX E

Religious Information Form

How long have you held religious views pretty much as you express them in the answers to these questions?

Has your illness affected your religious experience? If so, in what way?

Do you feel that God had anything specific to do with your recovery? Explain, please.

Has your belief about God's influence on your recovery affected your living habits or life style in any way? How?

Do you consider yourself an active church member?

Of what religious group?

About how often have you attended religious services during the past month?

Do you take part in any religious services during the past month?

Do you take part in any religious groups - study groups, choirs, welfare societies, youth programs, or any others? If so, which?

If you would care to comment about any particular way that your religious faith was helpful to you that was not covered by the questions, please feel free to write such comments here and on the back of the page if more space is required.

APPENDIX F

Cardiac Adjustment Scale

CARDIAC ADJUSTMENT SCALE

by
Duane M. Rumbaugh

NAME _____ AGE ____ SEX ____

PERMANENT ADDRESS _____

CURRENTLY EMPLOYED YES ____ NO ____ PRESENT OCCUPATION _____

INSTRUCTIONS

This scale has been devised in order to gain a better understanding of cardiacs.

It is NOT a test which can be passed or failed. There are no "right" or "wrong" answers. Therefore, you should not hesitate to freely record your reactions to the items.

Please keep the following points in mind as you take this scale:

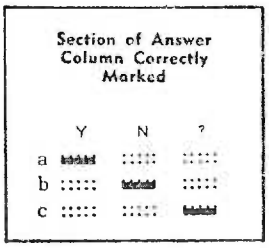
Read and answer EACH item in the scale. It is important that you respond to all of them.

Answer each item quickly with your first reaction after having read the item. You should be able to complete the entire scale in approximately fifteen minutes.

All items are to be answered "Yes", "No", or "?" by blackening in the space under the column headed "Y" for "Yes", "N" for "No", or "?".

If a given item is either wholly or for the most part TRUE of you, you should blacken the space under "Y" for "Yes" as in example item "a" in the box to the right.

If a given item is either wholly or for the most part NOT TRUE of you, you should blacken the space under "N" for "No" as in sample item "b".



If you can not truthfully respond with either a "Yes" or "No" answer, you should blacken the space under "?" as in sample item "c". The "?" answer means "I don't know" and should not be used any more than absolutely necessary.

Be sure to answer every question.

EDUCATIONAL AND INDUSTRIAL TESTING SERVICE SAN DIEGO, CALIFORNIA 92107

Mark your answers in column A →

		A		
		Y	N	?
1.	My legs ache	:::::	:::::	:::::
2.	I like to persuade others	:::::	:::::	:::::
3.	I have had a good life	:::::	:::::	:::::
4.	I worry about the effect which my heart condition might have upon my loved ones	:::::	:::::	:::::
5.	It bothers me when people look at me	:::::	:::::	:::::
		Y	N	?
6.	Life is a bitter struggle for a cardiac	:::::	:::::	:::::
7.	I like to meet new people	:::::	:::::	:::::
8.	My breathing gives me much trouble	:::::	:::::	:::::
9.	I feel extreme guilt about something	:::::	:::::	:::::
10.	Cardiacs are not capable of self-support	:::::	:::::	:::::
		Y	N	?
11.	I often feel overwhelmed by my problems	:::::	:::::	:::::
12.	I am treated like a child	:::::	:::::	:::::
13.	I would like to work within my limitations	:::::	:::::	:::::
14.	I could be much worse off than I am	:::::	:::::	:::::
15.	I am not able to accept death	:::::	:::::	:::::
		Y	N	?
16.	My heart condition is always uppermost in my mind	:::::	:::::	:::::
17.	I have new interests to occupy my time since I developed heart trouble	:::::	:::::	:::::
18.	I don't want other people to help me	:::::	:::::	:::::
19.	I feel severely handicapped	:::::	:::::	:::::
20.	The prospect of working again scares me	:::::	:::::	:::::
		Y	N	?
21.	The State should do more for me	:::::	:::::	:::::
22.	My doctor is not sincerely interested in me	:::::	:::::	:::::
23.	I worry about whether I shall live until tomorrow	:::::	:::::	:::::
24.	I have time to do the important little things since my heart ailment	:::::	:::::	:::::
25.	I am a failure	:::::	:::::	:::::
		Y	N	?
26.	Doctors give me many kinds of pills because they really don't know which pill is the right one for me	:::::	:::::	:::::
27.	I like to be doing things	:::::	:::::	:::::
28.	I am afraid of the least bit of excitement	:::::	:::::	:::::
29.	I have a long productive life to live	:::::	:::::	:::::
30.	I am not like other people	:::::	:::::	:::::
		Y	N	?
31.	I love children	:::::	:::::	:::::
32.	I have a lot of trust in my doctor	:::::	:::::	:::::
33.	Things will be better tomorrow	:::::	:::::	:::::
34.	I have yet to find a good doctor	:::::	:::::	:::::
35.	My friends have deserted me	:::::	:::::	:::::
		Y	N	?
36.	I am too tired to do anything much of the time	:::::	:::::	:::::
37.	I frequently tell others that they should be more considerate of me because of my heart condition	:::::	:::::	:::::
38.	I feel that there is little research being done to help cardiacs	:::::	:::::	:::::
39.	There is nothing so terrible as being a cardiac	:::::	:::::	:::::
40.	Little things bother me more than they used to	:::::	:::::	:::::
		Y	N	?
41.	Nobody needs me	:::::	:::::	:::::
42.	I hate some people	:::::	:::::	:::::
43.	At times I feel like killing something	:::::	:::::	:::::
44.	I like people	:::::	:::::	:::::
45.	I am bitter about being a cardiac	:::::	:::::	:::::
		Y	N	?
46.	Heart ailment is the worst kind of sickness	:::::	:::::	:::::
47.	If I had the right kind of pill, I would be free of my heart trouble	:::::	:::::	:::::
48.	When I feel a new pain in my body, it frightens me	:::::	:::::	:::::
49.	Cardiacs have much for which to be thankful	:::::	:::::	:::::
50.	I am tired most of the time	:::::	:::::	:::::

Turn the page and go on.

		Y	N	?
51.	I truly appreciate what my doctor has done for me	:::::	:::::	:::::
52.	I like to read	:::::	:::::	:::::
53.	At times I feel I am no good to anybody	:::::	:::::	:::::
54.	Doctors don't know what they are doing most of the time	:::::	:::::	:::::
55.	Many people are worse off than I am	:::::	:::::	:::::

		Y	N	?
56.	Cardiacs are unable to live normal lives	:::::	:::::	:::::
57.	I wish I had never been born	:::::	:::::	:::::
58.	I have pains in my right arm	:::::	:::::	:::::
59.	When one lives within his limitations, it is not so bad being a cardiac	:::::	:::::	:::::
60.	Life still holds much reward for me	:::::	:::::	:::::

		Y	N	?
61.	People make me nervous	:::::	:::::	:::::
62.	If it weren't for my loved ones, I wouldn't want to live	:::::	:::::	:::::
63.	Life has been cruel to me	:::::	:::::	:::::
64.	Sick people should be put out of their misery	:::::	:::::	:::::
65.	There is nothing worse than a heart condition	:::::	:::::	:::::

		Y	N	?
66.	Doctors take a real interest in me	:::::	:::::	:::::
67.	I become very anxious when I discuss my heart condition with anyone	:::::	:::::	:::::
68.	I often dream about not being a cardiac	:::::	:::::	:::::
69.	I am a "fussy" eater	:::::	:::::	:::::
70.	I have pain in the pit of my stomach	:::::	:::::	:::::

		Y	N	?
71.	I can't do anything useful	:::::	:::::	:::::
72.	I tire easily	:::::	:::::	:::::
73.	Life has taken on new significance since my heart trouble	:::::	:::::	:::::
74.	Doctors are dedicated men	:::::	:::::	:::::
75.	I keep knowledge of my heart condition from my loved ones	:::::	:::::	:::::

		Y	N	?
76.	I am interested in hobbies that do not call for much physical activity	:::::	:::::	:::::
77.	I can't do anything that I really enjoy	:::::	:::::	:::::
78.	Work would endanger my cardiac condition	:::::	:::::	:::::
79.	I hate myself	:::::	:::::	:::::
80.	When I do things, I must be able to finish a job without interruption	:::::	:::::	:::::

		Y	N	?
81.	No one loves me	:::::	:::::	:::::
82.	I am not interested in things	:::::	:::::	:::::
83.	I frequently take my pulse	:::::	:::::	:::::
84.	I am very weak as a result of my cardiac condition	:::::	:::::	:::::
85.	I am "easy going"	:::::	:::::	:::::

		Y	N	?
86.	Most jobs aggravate me	:::::	:::::	:::::
87.	People wish I would die	:::::	:::::	:::::
88.	I often feel sorry for myself	:::::	:::::	:::::
89.	Employers should give special consideration to the kind of jobs given to cardiacs	:::::	:::::	:::::
90.	It is so difficult to admit to myself that I am a cardiac	:::::	:::::	:::::

		Y	N	?
91.	I enjoy being sick at times	:::::	:::::	:::::
92.	I have stomach trouble	:::::	:::::	:::::
93.	I feel cheated because of my heart condition	:::::	:::::	:::::
94.	I feel sorry for myself	:::::	:::::	:::::
95.	My cardiac condition has made me appreciate life more	:::::	:::::	:::::

		Y	N	?
96.	I have a hard time going to sleep at night for fear I won't wake up	:::::	:::::	:::::
97.	I deserve special attention because of my heart	:::::	:::::	:::::
98.	I feel "let down" most of the time	:::::	:::::	:::::
99.	My doctor doesn't give enough attention to me as an individual	:::::	:::::	:::::
100.	I am afraid that people will find out about my heart condition	:::::	:::::	:::::

		Y	N	?
101.	The sound of my heart beat bothers me when I try to sleep	:::::	:::::	:::::
102.	I will soon die	:::::	:::::	:::::
103.	There is really no good food for me to eat	:::::	:::::	:::::
104.	I like to talk with other cardiacs about heart trouble	:::::	:::::	:::::
105.	I wish I would die	:::::	:::::	:::::

Continue next column

		Y	N	?
106.	I am afraid to do anything active	:::::	:::::	:::::
107.	Most of all, I wish I could move about without pain	:::::	:::::	:::::
108.	I often feel that death would be a blessing	:::::	:::::	:::::
109.	The world owes me a living	:::::	:::::	:::::
110.	I don't participate in groups for fear that I will hold them back	:::::	:::::	:::::
		Y	N	?
111.	Food doesn't taste as good to me now as it used to	:::::	:::::	:::::
112.	Cardiacs can live a full life	:::::	:::::	:::::
113.	My family doesn't understand me	:::::	:::::	:::::
114.	Doctors want my money rather than to help me	:::::	:::::	:::::
115.	Life isn't worth living	:::::	:::::	:::::
		Y	N	?
116.	I wish I were dead	:::::	:::::	:::::
117.	I am prejudiced	:::::	:::::	:::::
118.	Someone caused my heart condition	:::::	:::::	:::::
119.	If I had led a better life, I would not be a cardiac	:::::	:::::	:::::
120.	I would like to help others in my condition	:::::	:::::	:::::
		Y	N	?
121.	I worry about things	:::::	:::::	:::::
122.	My illness has ruined my life	:::::	:::::	:::::
123.	I don't know how to adjust to my heart trouble	:::::	:::::	:::::
124.	Cardiacs should not have to work	:::::	:::::	:::::
125.	I am afraid I am going to die	:::::	:::::	:::::
		Y	N	?
126.	I am worthless	:::::	:::::	:::::
127.	I am easily offended by what others say or do	:::::	:::::	:::::
128.	It bothers me when people ask about my heart	:::::	:::::	:::::
129.	I feel helpless	:::::	:::::	:::::
130.	I would like to help others	:::::	:::::	:::::
		Y	N	?
131.	Doctors are a bunch of cheats	:::::	:::::	:::::
132.	There are a lot of "phony" doctors	:::::	:::::	:::::
133.	I am self-conscious about being a cardiac	:::::	:::::	:::::
134.	People would prefer not to be bothered with me	:::::	:::::	:::::
135.	Finances bother me	:::::	:::::	:::::
		Y	N	?
136.	The world would be better off without me	:::::	:::::	:::::
137.	I can trust my life to my doctor	:::::	:::::	:::::
138.	There is little left for me in life	:::::	:::::	:::::
139.	Other people pity me	:::::	:::::	:::::
140.	I am more irritable than I used to be	:::::	:::::	:::::
		Y	N	?
141.	Noise bothers me	:::::	:::::	:::::
142.	Life is not worth living	:::::	:::::	:::::
143.	My heart condition makes me nervous	:::::	:::::	:::::
144.	Cardiacs are hopeless cases	:::::	:::::	:::::
145.	A cardiac can't do anything	:::::	:::::	:::::
		Y	N	?
146.	I deserve no special consideration from others	:::::	:::::	:::::
147.	I am just another "bill" to my doctor	:::::	:::::	:::::
148.	My heart gives me stomach trouble	:::::	:::::	:::::
149.	At times I feel like exerting myself so that I will have a heart attack and die	:::::	:::::	:::::
150.	I think of my heart every time I move and walk	:::::	:::::	:::::
		Y	N	?
151.	Stairs frighten me	:::::	:::::	:::::
152.	I like animals	:::::	:::::	:::::
153.	My heart condition is punishment for my wrong doings	:::::	:::::	:::::
154.	I need to change doctors	:::::	:::::	:::::
155.	Medicine is of no help to me	:::::	:::::	:::::
		Y	N	?
156.	Little things have so much more meaning since my heart ailment	:::::	:::::	:::::
157.	Being handicapped has its advantages	:::::	:::::	:::::
158.	I am easily swayed by others	:::::	:::::	:::::
159.	I don't do things with others for fear I will hold them back	:::::	:::::	:::::
160.	I have to do certain things or I feel uncomfortable	:::::	:::::	:::::

APPENDIX G

Items Used from the Interview Schedule

1. Sex: Male Female

2. Date of Birth: Age: (at last birthday) _____

3. Present marital status (check)

   1. Married: living with spouse
   2. Married: not living with spouse
   3. Divorced or separated legally
   4. Widowed
   5. Never married

8. Highest grade of school completed (circle)

   1 2 3 4 5 6 7 8 9 10 11 12

   College: 13 14 15 16

   Postgraduate: 17+ Highest degree attained:

13. Since your heart operation, have you been gainfully employed?

14. Are you presently gainfully employed?

   1. Full-time
   2. Part-time
   3. Not at all

19. Would you please try to estimate your total income (including spouse's income, if any) from all sources for the past 12 months?

   1. $50,000 or more
   2. $25,000 to $49,999
   3. $15,000 to $24,900
   4. $12,000 to $14,999
   5. $10,000 to $11,999
   6. $9,000 to $9,999
   7. $8,000 to $8,999
   8. $7,000 to $7,999
   9. $6,000 to $6,999
   10. $5,000 to $5,999
   11. $4,000 to $4,999
   12. $3,500 to $3,999
   13. $3,000 to $3,499
   14. $2,500 to $2,999
   15. $2,000 to $2,499
   16. $1,500 to $1,999
   17. $1,000 to $1,499
   18. Less than $1,000

AN ABSTRACT OF THE CLINICAL INVESTIGATION

of

RILLA DEE ASHTON

for the

Master of Nursing

Date of receiving this degree: June 9, 1978

Title: PERSONAL RELATIONSHIP WITH GOD AS A FACTOR IN CARDIAC ADJUSTMENT

Approved: _____
(Professor in Charge of Clinical Investigation)

Although considerable study has focused on the problems of adjustment to cardiovascular conditions, the role of personal religious faith as an inner resource available to the patient has received very little attention. It was hypothesized that the personal religious faith of the patient would prove to be a valuable psychological resource to aid in adjustment. Using the Cardiac Adjustment Scale (Rumbaugh, 1966) to operationalize satisfactory adjustment, and the Relationship with God Scale (developed by the investigator) to operationalize the relationship with God, a positive correlation of significance was found. ($\chi^2 = 5.2$, $p < .05$).

The underlying assumption that relationship with God is the dimension of religious faith of salience, was supported by the

selection of that dimension from among five dimensions of religion presented to subjects who found religion a major source of help. The 28 subjects of the present study were part of a larger research project conducted at the University of Oregon Health Science Center. They had been selected for suitability for coronary-aorto bypass surgery and then randomly assigned to medical or surgical treatment.

A search for secondary relationships showed that cardiac adjustment is negatively related to the presence of trait anxiety, depression and dependency, while relationship with God is not so related. The presence of a group with a close relationship with God who are not included in organized religious denominations was identified. It was concluded that religious faith is indeed a valuable psychological resource, and that the relationship with God is an aspect of faith which is favorably related to cardiac adjustment. Recommendations for further study were suggested.