The Relationship Between Religiosity and Psychological Well-Being

by

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The purpose of this thesis is to examine the relationship between religiosity and mental well-being among a national stratified random sample of 2248 respondents. A number of separate and empirically distinct measures are used to access the multidimensional nature of religiosity and mental well-being. Church attendance, church membership, religious belief, religious experience, attitudes toward religion and prayer are employed as measures of religiosity, and positive affect, psychiatric symptoms, alienation, self-esteem, happiness, life satisfaction, nervous breakdown, treatment or hospitalization for emotional problems and the incidence of suicidal thoughts or actions are used to measure mental well-being.

Religion has traditionally provided the individual with a sense of meaning, belonging and comfort, and is commonly assumed to provide a basis for sound mental health and general well-being. Empirical research supporting this notion has, however, been less than convincing.

The purpose of this thesis is to examine the relationship between religiosity and mental well-being among a national stratified random sample of 2248 respondents. A number of separate and empirically distinct measures are used to access the multidimensional nature of religiosity and mental well-being. Church attendance, church membership, religious belief, religious experience, attitudes toward religion and prayer are employed as measures of religiosity, and positive affect, psychiatric symptoms, alienation, self-esteem, happiness, life satisfaction, nervous breakdown, treatment or hospitalization for emotional problems and the incidence of suicidal thoughts or actions are used to measure mental well-being.
Multiple Classification Analysis (MCA) is used to examine the relationship between religiosity and mental well-being before and after controlling for the effects of denomination, marital status, sex, age, education, and income.

In general, the findings of this study support the notion of a positive relationship between religiosity and mental well-being. Exceptions to this pattern tend to suggest, however, that the rewards and consequences of public and private religious expression may differ for the individual. The distinction between intrinsic and extrinsic religious orientation and its implications for individual mental health is an area in need of further exploration.
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STATEMENT OF THE PROBLEM

Along with increasing research on the quality of life, public attention in America is shifting "from a concentration on being well-off to a concern with a sense of well-being" (Campbell et al., 1976:1). Despite this shift in concern, much is not known about the correlates of subjective well-being in the United States.

"Religion is traditionally seen as giving hope, meaning, security and optimism to the individual" (Hadway & Roof, 1978:639) and is commonly assumed to be conducive to mental well-being, although there is remarkably little convincing empirical evidence upon which to base this notion. Previous research on the nature of the relationship between religion and well-being has produced findings which are inconsistent and often contradictory. Much of this is the result of a variety of methodological flaws in early studies.

Many of the first studies into the relationship between religion and mental well-being looked at community-level rates of religious participation or membership as compared with rates of mental health, psychological adjustment, suicide and various other forms of deviance. Given the crudity of the measures used at the time, and the focus upon ecological, rather than individual, correlations, these studies have proved inconclusive (Hadway & Roof, 1978). Later research, although conducted at a more micro level of analysis, is often riddled with other types of
methodological problems. A great number of studies have employed very small, severely restricted or inappropriate samples. Studies based solely on "samples" of college students, volunteers, members of various religious organizations or patients in mental institutions without comparison groups, makes generalizations of findings difficult, if not impossible.

One consistently documented relationship between religiosity and mental well-being has, however, been the result of a kind of "restricted" sampling procedure. Gerontologists studying personal adjustment in old age have often found a positive relationship between measures of religiosity and mental well-being among the elderly they surveyed.

More recent studies, although somewhat sounder methodologically, have used limited or inadequate measures of religiosity and/or well-being. Studies based on some national survey data, such as the National Opinion Research Center's general social surveys or the Survey Research Center's national election studies, may suffer in that these data sets include only a few subjective items related to life satisfaction and happiness (Hadaway & Roof, 1978). Due to protests from religious minority groups, even the U.S. Census omits any questions related to religion (Stark & Glock, 1968).

Both "religiosity" and "psychological well-being" are multidimensional phenomena which have been operationalized in a number of ways. This fact, although unavoidable inasmuch as no single criterion of religiosity or mental well-being has been established, has nonetheless compounded the
problem of interpreting and generalizing the findings of past research. To further complicate the problem, comparisons of research findings suggest that different dimensions of religiosity are differentially associated with various measures and indices of mental well-being (Nelson & Cantrell, 1980).

Many studies have tended to assume a monotonic relationship between any and all dimensions of religiosity and those of well-being, but inasmuch as the different dimensions of religiosity, like those of psychological well-being, tend to be highly intercorrelated, (Stark & Glock, 1969) their separate effects can only be ascertained if they are jointly analyzed in the same study (Nelson & Cantrell, 1980).

While some studies have reported a positive relationship between religiosity and well-being, and others a negative one, still others suggest that no relationship exists between the two variables. About the only thing that can be concluded from the research literature with any degree of certainty is that a number of studies have found a positive relationship between certain aspects of religiosity and those of mental well-being among persons in the U.S. population who are 65 years of age or older. The question as to the nature of a relationship between religiosity and subjective well-being in the general population is one that has not been adequately addressed.

The purpose of the present study is to explore the relationship between individual religiosity (as the independent variable) and mental well-
being (as the dependent variable). A national sample is employed which is representative of the adult population and adequate in size to allow for a more explicit statement as to the effects of the independent variable on the dependent variable. By utilizing multidimensional and comprehensive measures of religiosity and psychological well-being, and controls for the effects of the numerous social variables confounding the bivariate relationship, it is hoped that this analysis can lend some insight into the interaction of certain aspects of religiosity with those of psychological well-being.
REVIEW OF THE LITERATURE

Theoretically, there are a number of reasons to expect a positive relationship between measures of religiosity and mental well-being. Religion is seen to provide a number of functions potentially conducive to mental health, not the least of which is its frustration reducing function. According to O'Dea, man is universally confronted with problems and dilemmas which can not be dealt with in terms of empirical knowledge alone. "The inherent element of contingency in the human situation brings men to a confrontation with situations in which human knowledge and social forms display a total insufficiency for providing either means of solution or 'mechanisms' for adjustment and acceptance" (1970:206). Things such as suffering, death, disappointment, deprivation and oppression, produce "breaking points" in the socially structured world of mundane existence and at such points arise what Weber calls the "problem of meaning". Left unanswered, such problems call into question the worth of everyday life and the acceptance of institutionalized goals and norms (O'Dea, 1970). It is to the "problem of meaning" which religion is specifically oriented. Religious belief systems provide theodicies or explanations for suffering which allow its adherents to impose meaning on otherwise incomprehensible events (Weber, 1964). Religion also justifies norms that frustrate men by sacralizing them (O'Dea, 1970) and in so doing provides a basis from which to interpret and resolve otherwise dissonant cognitive elements (Benson, 1966). Through such explanations and justifications, religious
believers are assured that there is purpose in everything in life, even if only God knows that purpose (Gray & Moberg, 1962).

Religion also provides the individual with rituals which afford emotional relief. The use of prayer in response to situations over which the individual has little control, for example, may serve to lessen feelings of personal helplessness (Veroff et al., 1981). Ritualized communication with an all-knowing and benevolent God who is believed to hear and answer prayers can provide a strong sense of reassurance. Other types of religious rituals may serve more 'worldly' purposes. Religious rituals surrounding death, for example, function primarily to place the support of the larger social group at the disposal of the bereaved (Nottingham, 1971). Such social aspects of religion are an important part of its benefits for the individual. "Involvement within a religious community can anchor a person within a stable social network" (Hadaway & Roof, 1978:305) and provide the individual with an important source of identity which enhances the value and meaning of his life (Veroff et al., 1981).

A final and important function of religion is in the provision of comfort and compensation. Historically, religion has provided comfort, consolation and emotional support to those who suffer oppression, frustration and deprivation. It is this ability to provide "peace of mind" and "peace of soul" which prompted Karl Marx to characterize religion as the opium of the masses (O'Dea, 1970). By providing "goals beyond this world (religion) serves to compensate people for the frustration they experience in striving to reach socially valued ends" (Davis, 1948:531). The reli-
gious promise of life after death provides man with a sense of hope, while
the assurance of forgiveness of sin can lessen feelings of guilt and
shame. Both are part of what has been termed religion's "ritualization
of optimism".

In a variety of ways, then, religion can be seen as potentially beneficial
for individual mental health; in the expression of an optimistic view of
life, in the provision of explanations for man's ultimate questions, in
public and private rituals which provide for emotional relief, in the
sense of purpose, belonging and support derived from participation in a
religious community, and finally in a reassuring personal relationship
with a transcendental significant other.

A number of researchers have directly or indirectly addressed the role
of religion in individual mental health. Due to problems in defining and
operationalizing variables, results have been difficult to compare and
interpret. Authors reviewing the same body of empirical literature have
reached different conclusions as to the overall relationship between
religiosity and psychological well-being. Stark (1971), for example,
suggests that the findings support the hypothesis that religious commit-
ung and mental illness are negatively related, while Dittes says that
"the trend, if any, is for measures of religion to be (positively) cor-
related with indices of pathology and deficiency" (1969:637). Sanua
(1977), on the other hand, argues that most studies show no relationship
between religiousness and mental health. One reason for the lack of
consensus may be that much past research has utilized limited or re-
stricted samples for which the relationship between religiosity and mental well-being differs.

Several studies have been based on samples of American university students. More religious students have been found to be more anxious and feel less adequate (Dittes, 1969), to have lower self-esteem (Cowen, 1954), and to complain more of tension and fitful sleep (Rokeach, 1960). Graff and Ladd (1971) and Hjelle (1975) found an inverse relationship between religiosity and self-actualization among students.

A second body of research has been based on samples of the elderly. For this segment of the population a clear relationship between public religious activity and psychological well-being has been established (Argyle & Beit-Hallahmi, 1975). Church membership and attendance, for example, have frequently been associated with well-being among the elderly (Edwards & Klemmack, 1973; Palmore & Luikart, 1972; Philbled & Adams, 1972; Moberg, 1970; Spreitzer & Snyder, 1974). The consistency of the findings of studies relating religion to mental well-being in old age helps to establish their reliability. Yet many of these studies looked at religion only incidentally and were limited to small samples of persons from narrow segments of the older population.

In order to ascertain the nature of the broad and complex relationship between religiosity and psychological well-being for the general population it will be necessary to consider research results which are based
on representative samples and measures of the multiple dimensions of religiosity and mental well-being.

The following review deals with empirical studies utilizing measures of religiosity and psychological well-being related to those employed in the present analysis. These include: church attendance, prayer, attitudes toward religion, religious beliefs, church membership, and religious experience (as indicators of religiosity) and positive affect, psychiatric symptoms, alienation, self-esteem, happiness, life satisfaction, nervous breakdown, hospitalization or treatment for emotional problems and suicide (as indicators of psychological well-being). Because findings differ according to the measure of religiosity used each measure will be considered in turn.

**CHURCH ATTENDANCE AND PSYCHOLOGICAL WELL-BEING**

Church attendance has consistently been found to correlate positively with measures of psychological well-being. In terms of psychiatric or psychological symptoms, studies by Hinton (1967) and Glass (1971) find frequency of church attendance and anxiety to be negatively related. Dragastin (1968) reported a direct relationship between church attendance and positive affect but this relationship was evident only for blacks. According to Gurin et al. (1960), people who attend church regularly report less psychological distress. This finding is supported by Stark (1971) who reports a positive correlation between church attendance and subjective mental health before and after controls for gender, age, and
social class. Although Bahar and Martin (1983) found no relationship between church attendance and self-esteem\(^1\), Smith et al. (1979) found the two to be positively correlated among the adolescents they sampled and concluded that religious practice (i.e. church attendance) served as a better predictor of self-esteem than either religious belief or religious experience. Frequent church attendance has also been found to be highly correlated with measures of happiness and life satisfaction in a positive direction both before and after controls (Clemente & Sauer, 1976; Spreitzer & Snyder, 1974). Veroff et al. (1981) found a negative relationship between church attendance and the feeling of an impending nervous breakdown but only among the higher income groups. McNamara and St. George's (1978) findings also suggest that the effects of religiosity on subjective well-being may be greatest among certain status advantaged or nondeprived groups (i.e. married, middle and upper income, college educated). Although Kranitz (1968) found no significant difference in rates of church attendance between a group of individuals who had attempted suicide and a control group (matched for religious affiliation, marital status and race), Stack (1983) suggests that the limited literature on church attendance and suicide tend to support the idea of a negative relationship between the two. Adults who attend church once or more per week were found to have a suicide rate of less than half that of those who did not (Comstock & Partridge, 1972). Although few studies of the relationship between church attendance and suicide have employed control

\(^{1}\) They do however, suggest that other measures of religiosity may be related to self-esteem.
variables, Stack (1983) did find church attendance to be significantly and negatively related to suicide even after controls.

PRIVATE PRAYER AND PSYCHOLOGICAL WELL-BEING

Turning to studies of the relationship between private prayer and psychological well-being, although Veroff et al. (1981) found a negative relationship between prayer and anxiety before controls, and a positive one between prayer and happiness before and after controls, they find no relationship between prayer and self-esteem before or after controlling for the effects of numerous background variables. In what may represent an important distinction, Lindenthal et al. (1973) found measures of psychopathology negatively related to church attendance and church membership but positively related to prayer, and concluded that psychological impairment results in a reduction in "public" religiousness and a simultaneous increase in "private" religious behavior. Psychologically impaired individuals, they tell us, are less likely to participate in religious or any other type of organized community activities but more likely to turn to prayer for help in times of trouble.

ATTITUDES TOWARD RELIGION AND PSYCHOLOGICAL WELL-BEING

Attitudes toward religion have been found to display only a slight relationship with measures of personal adjustment (Havighurst & Albrecht, 1953), but to be significantly related to measures of happiness and

RELIGIOUS BELIEFS AND PSYCHOLOGICAL WELL-BEING

Funk (1955) found religious beliefs unrelated to anxiety, while Glass (1971) reported a slight tendency for those high in religious belief to be low in anxiety, although both of these studies were based on student samples. While Rank (1955) found religious belief unrelated to psychological adjustment (among theological students) many researchers have found religious belief a strong predictor of personal adjustment, at least among the elderly (Britton, 1949, 1951; Schmidt, 1951; Shanas, 1949; Lawton, 1943). Stark (1971) reports a negative correlation between religious belief and mental illness and psychic inadequacy for all denominations and even after controls for sex, age, and social class. Measures of religious belief have been positively related with self-esteem indices (among adolescents) (Smith et al., 1979) and have been shown to be one of the best predictors of happiness (Stenitz, 1980; Stark, 1971) and life satisfaction before and after controls for age, education, race and marital status (Hadaway & Roof, 1978) and regardless of denominational affiliation (Wessman, 1956).

CHURCH MEMBERSHIP AND PSYCHOLOGICAL WELL-BEING

Church membership, like church attendance, a commonly used index of religiosity, has been shown to positively correlate with a number of
measures of psychological well-being. Church members have been found to have lower rates of psychological impairment and mental illness than nonchurch members (Srole & Langer, 1962; Stark, 1971; Lindenthal et al., 1973) and membership in church affiliated groups has been positively correlated with measures of happiness and life satisfaction even after controls (Cutler, 1976). According to one study (Swenson, 1971), church membership was found to serve as an effective deterrent to alienation and as a better one than mere religious affiliation.

**RELIGIOUS EXPERIENCE AND PSYCHOLOGICAL WELL-BEING**

Aside from Smith et al.'s (1979) finding of a slight relationship between religious experience and heightened self-esteem, little, if any, research has been conducted in the area of religious experience but two studies may be of some relevance. Wilson (1972) looked at the effects of religious salvation on a group of 63 adults who by their own admission felt themselves to have been changed by their religious experience and concluded that their affective life was marked by changes toward happiness. A second study (Spellman et al., 1977) examined the relationship between manifest anxiety and religious conversion by comparing three groups: 1) subjects with a sudden conversion experience; 2) subjects with a gradual religious development; and 3) non-religious subjects. While group one produced the highest anxiety scores there was no difference in scores between the second and third groups.
SUMMARY

On the basis of the empirical findings it seems clear that the relationship between religiosity and psychological well-being is not a simple one. Although church attendance and membership, and religious beliefs and attitudes, seem to correlate with most measures of psychological well-being, and almost all measures of religiosity are correlated with life satisfaction and happiness, the relationship between other measures of religiosity and those of mental well-being is not as well defined. Research results are often nonexistent or contradictory.

There simply is no research on the relationship between various measures of religiosity (with the exception of denomination) and rates of hospitalization or treatment for emotional problems and very little on the relationship between individual religiosity and alienation, nervous breakdown or suicide. Findings with respect to the association between measures of religiosity and positive affect, psychiatric symptoms and self-esteem are somewhat contradictory.

In terms of the finding that mental impairment is negatively related to church attendance but positively related to prayer, religion may be more the effect than the cause. Because public religious activities are social activities, involving social interaction, they demand a certain level of interpersonal skill and personal adequacy. Psychologically impaired individuals, lacking in these skills, would be less likely to attend church (Argyle & Beit-Hallahmi, 1975). Prayer, on the other hand, requires no
such interpersonal skills, and represents a coping mechanism of impoverished groups (e.g. low income, socially isolated, poorly educated) (Veroff et al., 1981) for whom a lesser degree of psychological well-being is expected. Presumably the relationship between prayer and psychological impairment would diminish after controls for the effects of income, marital status, education, etc.
METHODS AND PROCEDURES

DEFINITION OF THE VARIABLES

Religiosity

In the past twenty years few topics in the empirical study of religion have received as much attention as the conceptualization and operationalization of religiosity (Roof, 1979). The once debated multidimensional nature of religion is now commonly assumed. "Religiosity" can mean many different things - membership, belief, practice, etc. But while the variety of meanings associated with the term may well be aspects of a single phenomena, they are not merely synonymous (Stark & Glock, 1969).

Several studies have suggested that being religious on one dimension of religiosity does not imply being religious on another (Glock & Stark, 1965). Frequency of church attendance, for example, the most widely employed measure of religiosity in social research (Christenson, 1967), is an index that defines how 'religious' a person is in terms of formal, institutionalized activities only (Gurin et al., 1960). Alone it does not tell us enough about how 'religious' any individual is because "there are active church-goers who do not believe, firm believers among the unchurched and people who both believe and belong" (Stark & Glock, 1969: 253). "In dealing with a subject so complex and concerned with a
range of data so broad as religion, a topic approached for many different purposes, one must give up the idea that there is one definition that is 'correct' and satisfactory of all" (Yinger, 1957:6).

But for purposes of this study, 'religiosity' will broadly be defined as "an individual's beliefs and behavior in relation to the supernatural and/or high intensity values" which encompass "both institutionalized and noninstitutionalized forms of belief and behavior, and church as well as non-church meaning systems" (Roof, 1979:18).

Researchers have come to recognize that there are many diverse forms of religiousness (Roof, 1979) and just as there are many ways of being religious there are many ways in which religiosity can and has been measured. Although similar measures have often been utilized, there are no standardized scales of religiousness (Sanua, 1977). Because religious beliefs and practices are so varied, both between and within religious groups, the development of any one all-embracing and adequate measure of religiosity may never be possible. Increasingly, it is agreed that the phenomena is so complex and convoluted that the use of multiple measures of religiosity is required (Roof, 1979).

This study will therefore utilize a number of separate indicators addressing various dimensions of religiosity, including six which Argyle and Beit-Hallahmi (1975) consider to be the most important indices of religiosity. These commonly used measures include: church attendance, religious belief, the saying of private prayers, attitudes toward reli-
gion, religious experience and church membership. By employing such criteria it will be possible to access religiosity in terms of both attitudinal and behavioral dimensions and public as well as private activities and expressions.

For the first index of religiosity, church attendance, respondents were asked if they had attended religious services in the past month. Although frequency of church attendance is a measure which addresses actual behavior, it is one which may be influenced by factors and motives other than 'religiousness' (Sanua, 1977). It is, however, a dimension by which members of any religious group can be rated and one which "is probably indicative of other aspects of religious involvement, such as intensity of belief in religious teachings or perceptions of the importance of religion for everyday life" (Gurin et al., 1960:238).

A second indicator of religiosity addresses religious belief and includes such things as belief in a supreme being or life after death. Although many surveys have merely asked if the respondent believes in God, Argyle and Beit-Hallahmi (1975) have suggested that this kind of question can be improved upon by specifying different forms or degrees of belief. Because such a vast majority of the general population express a belief in God, even when they may not be religious in any other ways, it becomes important to distinguish between individuals who are more or less 'religious' with respect to the dimension of belief. Respondents were asked if God had greatly affected their life. As worded, such a question presupposes belief in a supreme being and limits those classified as 'religi-
gious' to individuals for whom the holding of such a belief is of particular importance or significance.²

The saying of private prayers (and other forms of private religious acts) represent a good index of genuinely religious activity and one in which non-religious motives are less likely to interfere³ (Argyle & Beit-Hallahmi, 1975). This kind of a measure has been used in accessing religious devotionalism.⁴ Respondents were asked if when upset or having problems they often pray for help. Praying when unhappy also taps a religious mode of dealing with problems (Veroff et al., 1981).

Attitudes toward religion or religious practices serve as another index of religiosity. Respondents were asked how desirable they feel "attending church services at least once a week" is.⁵ Because behavior and attitudes often differ, this attitudinal measure will serve as a comparison with the measure of self-reported frequency of church attendance.

² The question also serves as a measure of religious salience.

³ Duke and Johnson find prayer to be a far different dimension of religiosity than some of the other ones. According to them, groups of people not very likely to attend church (i.e. young, divorced, poor) have high rates of private prayer and people who are otherwise very involved in church life sometimes don't pray.

⁴ defined as involving acts of personal worship which are relatively spontaneous, informal, and private (Glock & Stark, 1965) or direct personal communication with God through prayer (Lenski, 1963).

⁵ Responses were categorized as desirable or undesirable.
Another indicator of religiousness has to do with religious experiences. These have been defined by Stark and Glock as "those feelings, perceptions and sensations which are experienced by an actor or defined by a religious group (or a society) as involving some communication, however slight, with a divine essence, i.e. with God" (Stark & Glock, 1969:259) and which "bear on the individual's sense that life is somewhat in the hands of a divine power in which trust can be reposed" (Glock & Stark, 1965:20,31). Respondents were asked if they turn to God when upset or depressed. The measure 'religious experience' like that of 'private prayer' can also function as a measure of religious devotionalism.

The final measure of religiosity addresses religious affiliation and church membership. Respondents were asked whether or not they belonged to a church and with which denomination they were affiliated.

**Psychological Well-Being**

Psychological or mental well-being is but another label for "mental health", a term which is perhaps the most vague, elusive and ambiguous in social-psychological literature. (Jahoda, 1958) Mental health or well-being has been defined and measured in a variety of ways. Much early research simply equated it with the lack of mental disease. More recent studies, often concerned with quality of life measures and correlates, have focused on individual self-reports of happiness, life satisfaction, or psychological well-being as indicators of mental health (Cherlin & Reeder, 1975).
Studies such as these which utilize subjective evaluations are unified by their parallel objective of accessing the individual's general affective experience in terms of a positive negative continuum. Research employing different conceptualizations and measures has yielded comparable and highly intercorrelated results which justify their consideration in terms of a single summary construct, 'subjective well-being' (Larson, 1978). Other studies have considered maladaptive or disruptive behaviors which represent yet another type of index of mental health, one that is theoretically and empirically distinct from measures of subjective well-being. (Hughes & Gove, 1981).

"It is now very clear that the psychological state of the individual has a number of relatively discrete dimensions and that efforts to measure psychological well-being should use a variety of indices" (Hughes & Gove, 1981:62). Mental health and well-being are relative terms. "An individual may manifest mental health according to one concept but not according to another" (Jahoda, 1958:69).

In an attempt to extend the scope of past research efforts which have defined mental health or well-being in a limited or unidimensional way, the concept of "psychological well-being", for purposes of this study, will be defined in terms of a variety of indices including respondent's subjective evaluations of their own emotional and psychological states and the report of certain behaviors deemed maladaptive and/or indicative of psychological distress.
This study utilizes a number of valid and reliable measures which tap empirically and analytically distinct components of mental health and well-being. While most of these measures are relatively standard ones the 'psychiatric symptom scale', in particular, was developed specifically to overcome limitations and gaps in other measures.

A key component of poor mental health is the experience of psychiatric symptoms. The most popular measures of psychiatric symptoms in survey research have been the 22-item Langer (1962) scale, the Gurin et al. (1960) scale and the Health Opinion Survey (HOS) (1957). Reviews and studies by Seiler (1973), Tousignant et al. (1974) and Schwartz et al. (1973) have, however, demonstrated that these scales suffer from serious problems and conclude that they are inadequate as general measures of mental illness or psychiatric impairment. All of the scales have a large number of items dealing with physical health. Even those items which are psychological in nature measure only one type of impairment (namely certain aspects of neuroticism). (Gove & Geerken, 1977) The three scales deal with only mild forms of impairment. Because of these problems a different measure of psychiatric symptoms is used which: 1) is exclusively psychological in nature, 2) deals with a variety of forms of

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6 The detailed analysis presented in Brocki and Gove (1977) demonstrates this.

7 with the result being, for example, that Dohrenwend and Crandell (1970) find outpatients scoring higher than inpatients on many of the items in these scales.

8 the various indicators were selected from an extensive list of items presented in Dohrenwend and Crandell (1970).
impairment, 3) covers a range in severity and 4) differentiates known groups in an appropriate manner. To access the experience of psychiatric symptoms, respondents were asked if during the past few weeks they had often, sometimes, or never felt "1) that people were saying all kinds of things behind your back, 2) bothered by special fears, 3) that it was not safe to trust anybody, 4) so blue or depressed that it interfered with your daily activities, 5) that you were in low spirits, 6) bothered by nervousness, such as being irritable, fidgety, or tense, 7) bothered by special thoughts, 8) so restless that you couldn't sit long in a chair, 9) as if nothing turned out the way you wanted it to, 10) somewhat apart or alone even among friends, 11) that personal worries were getting you down physically, that is making you physically ill, and 12) that nothing was worthwhile anymore".

Another indicator of poor mental health is the absence of positive affect which is measured by items developed by Bradburn (1969). Respondents were asked if often, sometimes or never during the past few weeks they had felt "1) proud because someone complimented you on something you had done, 2) particularly excited or interested in something, 3) pleased about having accomplished something, 4) on top of the world, and 5) that things were going your way".

Alienation, involving a sense of powerlessness, normlessness and belonginglessness, is another indicator of mental health. Measures of these feelings have been combined into a 'general alienation scale' composed of standard items. Respondents were asked if they agreed or disagreed
with the following statements: "1) the average person can have an influence on governmental decisions, 2) the trouble with the world today is that most people don't really believe in anything, 3) most people really do care what happens to the next fellow, 4) this world is run by the few people in power and there is not much the average person can do about it. 5) there are so many ideas of what is right and wrong these days it is hard to figure out how to live your life, 6) most people are just naturally friendly and helpful, 7) it doesn't matter how hard you try, most of what happens to you is a matter of fate, 8) things are changing so fast these days one doesn't know what to expect from day to day, 9) you hardly ever feel awkward and out of place, 10) you seem to have a lot of control over what happens to you".

Self-evaluation or self-esteem, yet another indicator of mental health, will be accessed by measures based on Rosenberg's items (1965). Respondents were asked which of the following statements applied to them: "1) I feel that I am a person of worth, at least equal to others, 2) at times I think I am no good at all, 3) I wish I could have more respect for myself, 4) I take a positive attitude toward myself, 5) I feel I do not have much to be proud of, 6) on the whole, I am satisfied with myself, 7) all in all, I tend to feel that I am a failure, 10) I feel worthless at times."

Two important and commonly used measures of mental well-being include the 'happiness' and 'life satisfaction' items. Respondents were asked how satisfying they found their lives- "very satisfying, pretty satisfying,
not too satisfying, or not at all satisfying"°and "taking all things together how happy would you say you are these days? - very happy, pretty happy, not too happy or not at all happy".1°

The last index based on the respondents' subjective feelings involves responses to the question "have you ever felt that you were going to or were close to having a nervous breakdown". If the answer was 'yes' they were then asked "how long ago was the last time this occurred". The measure 'nervous breakdown' involves persons who had such an experience in the past year.

In a second category of measures based on more objective criterion, respondents were asked if they had ever been treated by a doctor, psychiatrist or other professional counselor or hospitalized for emotional problems.

Suicidal behavior, by its very nature, is indicative of mental distress if not mental illness. Respondents were asked if they had ever seriously thought about or actually attempted suicide.

° This is the same indicator used by Campbell et al. (1976).
1° This is the 'general happiness' item used by Bradburn (1969) and others.
Control Variables

In an analysis of the relationship between religiosity and mental well-being, a number of variables become important as controls. Marital status, gender, age, education, income and denomination will be employed as control variables in the present analysis. All have been found to be related to both religiosity and mental health. Research related to each of the control variables and their relationship, first to the independent and then to the dependent variables, will be considered in turn.

Based on their review of the research literature, Argyle and Beit-Hallahmi (1975) conclude that widowed individuals are more religious than either single or married ones, although some of this difference may be due to the fact that, on average, the widowed are older than the single or married.

Single people are consistently found to be more religious than married ones. Numerous studies have shown that single individuals have higher levels of church attendance, prayer and religious belief than do married ones. Research by Glock (1959) and Glock, Ringer and Babbie (1967) has suggested that the church serves as a sort of family substitute for unmarried and childless individuals.

The divorced and separated are similar to the married in terms of lower levels of church attendance although they do tend to pray more. Argyle and Beit-Hallahmi (1975) suggest that because some churches condemn or
discourage divorce, divorced individuals may be more likely to engage in private forms of religious expression.

Religion has also been found to vary by gender and according to Argyle "the differences between men and women in their religious behavior and beliefs are considerable" (1968:71). Numerous studies find evidence of greater female participation in, and support of, religion (Gallop & Davies, 1971). Women are more likely to belong to and attend church, believe in God, pray and hold religiously favorable attitudes (Argyle, 1968; Comstock & Partridge, 1972; Veroff et al., 1981). They are, by any measure, more religious than men.

Religiosity is thought to become increasingly important with the onset of late life (Blazer & Palmore, 1976) and in general the elderly are found to be more religious than other age categories (King & Hunt, 1972; McNamara & St George, 1978). Although levels of church attendance begin to decrease for individuals over 60 (Moberg, 1965), other types of religiousness, especially private forms of religious activity, have been shown to increase with age (Veroff et al., 1981; Blazer & Palmore, 1976). The declining frequency of church attendance among the very old is at least partially the result of poor health and decreased energy. Almost all social activities are reduced with age.

Religiousness has also been found to vary by education, income and socio-economic status in general. Although findings have been mixed, most studies show the upper and middle classes to be more religious than the
working class (Demerath, 1969). Both education and income have been found to be positively related to religiosity (Mueller & Johnson, 1975; Glock and Stark, 1965; Lenski, 1963). The vast majority of studies have, however, restricted their definition of religiosity to church attendance. When looking at other measures of religiosity such as prayer, it is the undereducated and low income who score highest (Veroff et al., 1981; Gurin et al., 1960). Based on their review of the research literature Argyle and Beit-Hallahmi (1975) conclude that the middle and upper class score higher on measures of institutional participation (i.e. church attendance and membership) while it is the lower class which is the most religious in terms of belief and private expression.

Attempts to account for the working classes's lower level of church attendance have included a theory of selective recruitment on the part of churches, the idea that the lower class may prefer a more spontaneous religion or that they view religion, but not necessarily church membership, as being important. Regardless, there do appear to be real social class differences not only in level but in type of religious expression.

Somewhat tied in with social class differences are variations in religiosity by denomination (religious affiliation being greatly affected by social class). According to Roof's review of the literature "to date, there have been very little systematic exploration of interfaith comparisons of religious styles. But the explorations we have indicate that significant differences exist" (1979:38). Davidson's (1972) review sim-
ilarly concluded that there are important differences between the religious orientation of the various denominations.

By far the vast majority of research on denominational differences in religiosity have focused on measures of church attendance. A number of studies have found a relationship between denominational affiliation and church attendance. (Hynson, 1975; Starr, 1975; Haden & Evans, 1972; Connors et al., 1968). In general, Catholics are the most frequent church attenders, followed by Protestants, Jews and 'no affiliation', in that order.

Other studies have found Protestants more likely than Catholics to pray (Gurin et al., 1960) and levels of religious belief to be highest for Protestants, followed in order by Catholics, 'no affiliation', and Jews (Hynson, 1975). Although not a great deal is known about variations in specific types of religious expression by denomination, religions do place different emphasis on the importance of various religious beliefs and practices.

Turning now to the relationship between the control and the dependent variables, marital status is considered to be one of, if not the best single predictor of mental illness. It is related not only to the likelihood of becoming mentally ill but to the chances of recovering from it (Gallagher, 1980).
Gove (1972) reviewed 14 studies reexamining the relationship between marital status and mental illness and found married individuals to be in better mental health than the nonmarried in almost all cases.

In addition to differences between married and nonmarried are differences between them and the once-married. In almost all of 22 studies, widowed and divorced individuals were found to have higher rates of mental illness than married individuals (Gove, 1972). In general, married individuals display the best mental health and divorced individuals the worst. The widowed are found to be just slightly better off than the single.

The better mental health of married individuals has been attributed to one of two factors. According to social selection theory, mentally ill individuals are less likely to marry or more likely to divorce if they do. Under the social stress model of mental disorder, married individuals are afforded a source of social and emotional support not available to the single. This support is seen to help mitigate the effects of stress and assist in deflecting tendencies toward psychological difficulties (Cockerham, 1981).

Findings with respect to the relationship between gender and mental health have been somewhat mixed. Although some researchers report higher rates of mental illness among women (Gove, 1972, 1978, 1979) and others no difference between men and women (Dohrenwend & Dohrenwend, 1976) there is considerable agreement that there are significant gender differences in type of impairment.
Females have been shown to have higher rates of anxiety, neurosis and depression while males display more personality disorders and "acting-out" or anti-social behavior (Thio, 1983). Perhaps as a result, men are more likely to attempt suicide (Cole, 1976) and be hospitalized for emotional problems (Goode, 1978). It is women, however, who report more psychological symptoms (Gove & Tudor, 1973). While women may actually experience more of these symptoms, they are also more likely to admit to emotional problems than are men who are stigmatized for appearing weak or in need of help (Gallagher, 1980). Presumably part of the reported differences in mental health between men and women can be attributed to this fact.

Research findings have also differed with respect to the relationship between age and mental illness but in general the two appear to be inversely related. Many studies have shown older people to be more likely to suffer mental impairment than younger people. The psychiatric problems of the aged are often attributed to social neglect and isolation. The elderly in our society are denied meaningful and satisfying roles. As a result of this, their declining health and the loss of significant others through death, they are also often socially isolated (Thio, 1983).

Results relating to other age categories are not as clear cut but because most studies show a minimum rate of mental illness in younger groups "it is safe to assume the chances of becoming disordered increase with age" (Gallagher, 1980:229). Rates of suicide and admission to mental hospitals have been clearly linked with increasing age (Martin, 1972).
One of the strongest and most consistent predictors of mental illness is social class. The two have been found to be significantly and negatively related regardless of the measure of social class used. The Dohrenwends reviewed over 80 studies and consistently found higher rates of overall mental illness among members of the lowest socio-economic group (1973).

Aside from sheer rates of mental illness there are some differences in type of disorder between classes. Psychiatric symptoms and anxiety, for example, are sometimes reported with greater frequency among the upper classes. Serious disorders, however, are far more prevalent among members of the lower socio-economic strata (Goode, 1978).

Three rationales have been used in accounting for the higher rate of serious mental illness among the lower classes. These include inheritance, social stress and social selection. In the first two, genetic or social factors are viewed as contributing to a higher likelihood of mental illness among members of the lower class. In the latter, mentally ill people are seen as being unable to achieve or maintain higher class status.

In terms of the measures of social class used in this analysis (income and education) both have been found to be negatively correlated with mental illness (Meile et al., 1976; Gove & Geerken, 1977; Veroff et al., 1981). The relationship between social class and mental illness would appear to be a true one given the fact that individuals with higher levels of education and income have been shown to be more likely (and more
willing and able) to seek psychiatric help for personal problems (Gallagher, 1980).

Rates of mental illness have also been found to vary by denomination although the results of research have again been mixed. Two studies looking at degree of impairment (Glass, 1971) and personal adjustment scores (Armstrong et al., 1962) found no significant differences by denomination. Other researchers using different measures of mental health have reported denominational variations.

Since the publication of Durkheim's study in 1897 (Suicide) the relationship between religious affiliation and suicide has been an area of considerable research interest. Durkheim found rates of suicide in Europe to be higher for Protestants than either Catholics or Jews and hypothesized that Protestantism did not provide the same degree of social integration as Catholicism or Judaism. In more recent years the rates for Jews have increased while those for Protestants have decreases. When whole nations are compared, however, Catholic countries continue to have lower rates of suicide. Although moral pressure against suicide is greatest in the Catholic church, given their strong norms against suicide, it may be that questionable instances are simply not classified as suicides in the official statistics (Argyle & Beit-Hallahmi, 1975).

Real denominational differences have been found to exist in rates of treatment and type of impairment. Researchers looking at psychiatric populations have found Jews to be overrepresented, Protestants underrep-
resented and the proportion of Catholics to be roughly that of their numbers in the general population. While Jews have the highest rates of treatment, at the same time they are the least severely impaired of the three groups (Roberts & Meyers, 1954; Srole et al., 1978).

The higher rate of treatment for Jews is partially due to the fact that because they are generally of a higher educational and income level they seek and can afford treatment more readily than other groups (Gallagher, 1980). Social class differences between denominations can also be seen to account for some for the variance with respect to degree and type of impairment.

Aside from differences between specific denominational categories are differences between individuals who do and do not express a preference as to religious affiliation. According to Veroff et al. (1981) 'no preference' is clearly correlated with negative well-being.

The effects of the demographic variables on the relationship between religiosity and mental well-being are complex and interrelated. In order to get a truer picture of the nature of the bivariate relationship it will be necessary to control for the effect of these items. Inasmuch as these demographic variables may be related to the independent and dependent variables in a causal way the isolation of their influence should serve to more clearly delineate the association between religiosity and mental well-being.
DEVELOPMENT OF HYPOTHESIS

When considering the relationship between religiosity and psychological well-being several possibilities exist. The first, presented by supporters and promoters of religion, proposes that religiosity is conducive to individual well-being, happiness and 'peace of mind'. The second suggests that religion itself is an expression or reflection of psychopathology or at least a contributing factor in personal maladjustment. A third hypothesis is that emotionally disturbed people turn to religion to help them with their problems (Argyle & Beit-Hallahmi, 1975).

The notion that religiousness can be conducive to mental well-being has been proposed by a number of theorists. Hadaway and Roof, for example, suggest that religion provides two basic benefits for the individual, "that derived from a strong sense of meaning and purpose in life and that derived from belonging to and participating in a fellowship of like minded believers" (1978:305). Rather than viewing these benefits as resources only dissatisfied individuals turn to in despair, they see religious commitment as part of a syndrome of well-being. "Religion offers an individual a psychological resource providing satisfaction, and involvement within a religious community can anchor a person within a stable social network and help to maintain a balanced and wholesome outlook on life" (1978:305). Although the priority of meaning or belonging as functions
of religion has been debated\textsuperscript{11}, both can be seen as potentially conducive to mental well-being. The meaning function of religion may assist the individual in understanding his existence by providing what Berger (1967) termed a "sacred canopy" as a framework for interpretation, while belonging to or attending a church regularly may bond individuals to a group in such a way as to give them a sense of identity and affirmation of self which enhances the value and meaning of their lives (Veroff et al., 1981).

The support and solace offered by religion in the face of crisis and difficulties is another example of its benefits for individual mental well-being. Religion can provide solace in times of distress by making specific resources available to members of church groups and by strengthening personal resources through an internalized set of religious beliefs (Gurin et al., 1960).

In addition to providing meaning, belonging, and comfort\textsuperscript{12}, religion can also serve as an agency for emotional regulation. As Wilson tells us: "In religious acts and occasions, there is the opportunity for the expression of emotion, but by implication the provision of specific contexts and occasions that facilitate emotional expression is also, implicitly, a way of regulating that expression. Ritual in particular is an agency

\textsuperscript{11} There has been a tendency on the part of those who attempt to analyses religion to emphasize one of these aspects over the other (Greeley, 1972). Durkheim (1962), for example, stresses religion's belonging function whereas Weber (1958, 1964) stresses its meaning function.

\textsuperscript{12} These are the three "explanations" or functions of religion according to Greeley (1972).
for the regulation, as well as for the facilitation, of the expression of emotion... Religious ritual stimulates, often in a relatively gentle way, certain types of emotional expression. Response is elicited, expression is encouraged, and the means of the assuagement of emotions is then provided... Men's emotional needs may arise in the conduct of their individual daily lives, in coping with the untoward, or in dealing with puzzling and distressing contingencies; in religion these emotions are elevated, solemnized, and assuaged in symbolic action" (1982:34).

Turning to the hypothesis that religion is an expression of psychopathology or a factor in personal maladjustment, it has long been asserted by some theorists that religiosity is pathological per se or stems from a pathological state of mind. "The notion that there is a positive association between psychopathology and religious commitment is a hoary proposition handed down from the founding fathers even unto the nth generation of social scientists" (Stark, 1971:165). William James (1958) believed much religiosity was psychopathological in origin while Freud (1953) argued that it was a kind of universal obsessional neurosis if not an outright delusion. According to Stark (1971), these kinds of assertions and the evidence upon which they are based often bear on the psychopathological basis of religious innovation. Many scholars, he tells us, have studied the lives of famous religious leaders, saints, and mystics and argue that deep-seated mental pathologies are common to most of them. This can, however, be true without having any bearing on the general question of religiousness. A second basis for the connection between mental illness and religiousness is that religious imagery and
preoccupation are common among persons in asylums (Strunk, 1959). But, as Stark informs us, these arguments are uniformly faulty. "The incidence of religiousness among psychotics without a comparison with the incidence among non-psychotics tells us nothing" (1971:166). Finally, the most critical objection to attributing religiousness to psychopathology is "that pathological conditions logically cannot account for the predominate behavior of stable social groups" (Stark, 1971:166). If normal behavior is explained by postulating an underlying pathological condition, then the concepts of normal and pathological have no useful meaning. "By definition, pathologies (abnormalities) cannot be sufficiently common to account for normalities" (Stark, 1971:166).

As for the hypothesis that emotionally disturbed people are especially likely to turn to religion for help with their problems, if this were true a negative relationship between religiosity and psychological well-being would be expected. Turning to Stark (1971) again, in our society, religiousness, he tells us, is above all conventional as a viewpoint and mode of behavior. The distinguishing feature of the mentally ill (or less than healthy) is their estrangement from and/or inability to utilize conventional means for finding meaning and purpose in life. Far from expecting that psychological impairment will typically motivate people toward increased religious commitment, it must be expected, as is the case with other conventional activities and institutions, that psychopathology will motivate toward (and perhaps partly stem from) religious isolation, estrangement, and apathy (Stark, 1971). It becomes important, Stark tells us, to distinguish between what could best be called conventional reli-
igious commitment and pathological (or extremist) forms of commitment. While this study addresses conventional forms of religiosity, the type most often examined in support of psychopathological theories is that of the extreme, unusual and sometimes pathological per se (Stark, 1971).

It seems likely, based on the variables under consideration in this study and the research literature, that if a correlation between religiosity and psychological well-being exists it will be in a positive direction. It is therefore hypothesized that religiosity and psychological well-being will be positively related\textsuperscript{13} and, as such, it is expected that:

1. Individuals who have attended church in the past month, when compared with individuals who have not attended church in the past month, are expected to have:

- greater positive affect
- less psychiatric symptoms
- less alienation
- greater self-esteem
- greater happiness
- greater life satisfaction
- lower rates of feeling close to having a nervous breakdown

\textsuperscript{13} No assumptions are implied about causal priority since very likely religiosity and psychological well-being are reciprocally related (Hadaway & Roof, 1978).
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts

2. Individuals who claim God has greatly affected their life, when compared with individuals who do not claim God has greatly affected their life, are expected to have:

• greater positive affect
• less psychiatric symptoms
• less alienation
• greater self-esteem
• greater happiness
• greater life satisfaction
• lower rates of feeling close to having a nervous breakdown
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts

3. Individuals who pray for help when upset or having problems, when compared to individuals who do not pray for help when upset or having problems, are expected to have:

• greater positive affect
• less psychiatric symptoms
• less alienation
• greater self-esteem
• greater happiness
• greater life satisfaction
• lower rates of feeling close to having a nervous breakdown
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts

4. Individuals who consider church attendance desirable, when compared with individuals who do not consider church attendance desirable, are expected to have:

• greater positive affect
• less psychiatric symptoms
• less alienation
• greater self-esteem
• greater happiness
• greater life satisfaction
• lower rates of feeling close to having a nervous breakdown
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts

5. Individuals who turn to God when upset or depressed, when compared to individuals who do not turn to God when upset or depressed, are expected to have:
• greater positive affect
• less psychiatric symptoms
• less alienation
• greater self-esteem
• greater happiness
• greater life satisfaction
• lower rates of feeling close to having a nervous breakdown
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts

6. Individuals who belong to a church, when compared to individuals who do not belong to a church, are expected to have:

• greater positive affect
• less psychiatric symptoms
• less alienation
• greater self-esteem
• greater happiness
• greater life satisfaction
• lower rates of feeling close to having a nervous breakdown
• lower rates of hospitalization and treatment for emotional problems
• lower rates of suicidal attempts and thoughts
SAMPLE AND METHOD OF ANALYSIS

The data which will be analyzed were collected from interviews of a stratified random sample of 2248 respondents in the 48 contiguous states during the winter of 1974-75. The interview schedule was developed by Walter Gove, and sampling, interviewing, and coding were done by Leiberman Research, Inc.

Aside from the initial attempt to contact potential respondents, two follow up call-backs were made if no one was at home. The average interview lasted 80 minutes. There was an initial refusal rate of 8.8% at the time of the screening interview (11,397 households were screened), and an additional 14.5% refusal rate (including break-offs during the interview) after the household member to be interviewed had been randomly selected.

The sample included 1139 men and 1109 women. Because one of the original purposes of the survey was to collect data on the relationship between sex roles, marital status and mental health, the widowed and divorced (particularly males) were oversampled. In the analysis presented here this oversampling will be corrected for by the utilization of a weighting

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14 as reported in Gove and Geerken (1977).

15 "Leiberman Research, Inc., is a relatively small, high quality survey research company which in the past has done surveys primarily for foundations, the government, and marketing organizations" (Gove & Greeken, 1977).
procedure so that the data are representative of the nation as a whole. The categories of divorced and widowed men and women will be assigned a fractional weight so that their sample sizes correspond to the proportion in which each of the four categories occurs in the national population.

In an analysis of the relationship between religiosity and psychological well-being, if a potential control variable can be shown to be related to religiosity and potentially to psychological well-being, it should be included as a control. Accordingly, the data will be analyzed using the Multiple Classification Analysis (MCA) program, a dummy regression technique developed by Andrews et al. (1967). This procedure allows for the examination of independent-dependent variable relationships within categories of the independent variable while simultaneously controlling for the effects of other independent variables and presents the results in a clear and comprehensive manner.
PRESENTATION OF FINDINGS

The grand means and standard deviations for each of the six independent and nine dependent variables are presented in table 1. Because the religiosity variables were coded as 0 for 'no' and 1 for 'yes', the mean scores represent the percentage of the total sample classified as "religious" on these measures.

Forty-nine percent of the respondents claimed that God had greatly affected their life. The same percentage reported that when really upset or having serious problems, they pray for help. Only a slightly smaller percentage of those sampled (47%) reported that they turn to God when upset or depressed. Thirty-seven percent of the respondents belong to a church and 53% have attended church at least once in the past month. It is the measure 'desirability of church attendance', however, upon which the largest percentage of those surveyed may be classified as "religious". Seventy-one percent of the sample expressed the attitude that regular church attendance is desirable.16

16 Preliminary analysis was done to determine the strength of the relationships between individual measures of religiosity. While related, the variables were not so strongly correlated as to warrant their examination in separate analysis.
### TABLE 1

**MEAN SCORES AND STANDARD DEVIATIONS ON MEASURES OF RELIGIOSITY AND MENTAL WELL-BEING**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\bar{X}$</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>God has greatly affected life</td>
<td>.49</td>
<td>.50</td>
</tr>
<tr>
<td>Pray</td>
<td>.49</td>
<td>.50</td>
</tr>
<tr>
<td>Turn to God when upset or depressed</td>
<td>.47</td>
<td>.50</td>
</tr>
<tr>
<td>Church membership</td>
<td>.37</td>
<td>.48</td>
</tr>
<tr>
<td>Church attendance</td>
<td>.53</td>
<td>.50</td>
</tr>
<tr>
<td>Desirability of church attendance</td>
<td>.71</td>
<td>.46</td>
</tr>
<tr>
<td>Positive affect</td>
<td>5.82</td>
<td>1.96</td>
</tr>
<tr>
<td>Psychiatric symptoms</td>
<td>5.09</td>
<td>4.04</td>
</tr>
<tr>
<td>Alienation</td>
<td>4.17</td>
<td>2.06</td>
</tr>
<tr>
<td>Self esteem</td>
<td>6.65</td>
<td>1.47</td>
</tr>
<tr>
<td>Happiness</td>
<td>3.25</td>
<td>.72</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>3.30</td>
<td>.67</td>
</tr>
<tr>
<td>Nervous breakdown</td>
<td>.11</td>
<td>.31</td>
</tr>
<tr>
<td>Treated or hospitalized</td>
<td>.15</td>
<td>.36</td>
</tr>
<tr>
<td>Suicide</td>
<td>.07</td>
<td>.26</td>
</tr>
</tbody>
</table>
Standard deviations for the variables 'God has affected life', 'prayer', 'turn to God when upset', 'church membership', and 'desirability of church attendance' are .50, .50, .50, .48, .50 and .46 respectively.

Turning now to the dependent variables, 'positive affect', 'psychiatric symptoms', 'alienation', 'self-esteem', 'happiness', and 'life satisfaction' have means of 5.82, 5.09, 4.17, 6.65, 3.25, 3.30 and standard deviations of 1.96, 4.04, 2.06, 1.47, .72 respectively. The variables 'nervous breakdown', 'treated or hospitalized' and 'suicide' are coded like the religiosity variables with 'no' as 0 and 'yes' as 1. Here again the mean scores are representative of the percentage of the sample answering affirmatively to these items. As can be seen in table 1, 11% of the sample has felt close to having a nervous breakdown, 15% have actually been treated or hospitalized for emotional problems, and 7% have seriously thought about or actually attempted suicide. The standard deviations for these three dependent variables are .31, .36 and .26 respectively. Higher scores on the dependent variables 'positive affect', 'self-esteem', 'happiness', and 'life satisfaction' represent better mental health, while higher scores on 'psychiatric symptoms', 'alienation', 'nervous breakdown', 'treatment' and 'suicide' are indicative of poor mental health.

Table 2 presents mean scores by category of the independent variable for each of the mental health measures. The corresponding etas and significance levels are given.
All measures of religiosity were found to vary directly with positive affect. Individuals who claim God has greatly affected their life, who pray when really upset or having serious problems, who turn to God when upset or depressed, who belong to a church and who attend church, were found to score higher on positive affect than individuals who are not religious in these kinds of ways. The associated etas for these relationships are .12, .05, .10, .06 and .05 respectively. All were found to be significant at the .05 level or less. The correlation between 'desirability of church attendance' and 'positive affect', while positive, was not found to be statistically significant (eta = .02, p > .05).

All measures of religiousness, with the exception of 'prayer' and 'turn to God' were found to be significantly related to a lower incidence of psychiatric symptoms. (God has affected life, eta = .07, p < .001; church membership, eta = .14, p < .001; church attendance, eta = .09, p < .001; desirability of church attendance, eta = .09, p < .001). In terms of the two non-significant relationships (p > .05), while turning to God when upset was associated with lower rates of psychiatric symptoms (eta = .01), prayer was associated with higher rates (eta = .01).

All measures of religiousness were found to be negatively related to alienation. Claiming that God has greatly affected one's life, turning to God when upset or depressed, belonging to a church and feeling that church attendance is desirable, were found to be significantly correlated with lower alienation scores. The measures of association and significance
## Table 2

**Relationship Between Religiosity and Mental Well-being: Before Controls**

<table>
<thead>
<tr>
<th>Positive Affect</th>
<th>Psychiatric Symptoms</th>
<th>Alienation</th>
<th>Self Esteem</th>
<th>Happiness</th>
<th>Life Satisfaction</th>
<th>Nervous Breakdown</th>
<th>Treated or Hospitalized</th>
<th>Suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
<td>X eta</td>
</tr>
<tr>
<td>God has greatly affected life</td>
<td>No 5.58</td>
<td>5.37</td>
<td>4.36</td>
<td>6.62</td>
<td>3.17</td>
<td>3.25</td>
<td>.11</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>Yes 6.07</td>
<td>4.80</td>
<td>3.96</td>
<td>6.70</td>
<td>3.32</td>
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<td>3.56</td>
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*p < .05
**p < .01
***p < .001
for these relationships are $\eta = .10$, $p < .001$; $\eta = .07$, $p < .001$; $\eta = .09$, $p < .001$; and $\eta = .50$, $p < .05$ respectively. The relationship between prayer and alienation ($\eta = .01$), and church attendance and alienation ($\eta = .03$), while negative, were not found to be statistically significant ($p > .05$).

Only prayer ($\eta = .05$, $p < .05$) and church membership ($\eta = .05$, $p < .05$) were found to correlate significantly with self-esteem. Church members were found to have higher self-esteem scores than nonmembers, while individuals who pray reported slightly lower scores than who do not. With respect to the non-significant relationships ($p > .05$), claiming that God has greatly affected one's life ($\eta = .03$) was found to be positively correlated with self-esteem while turning to God ($\eta = .01$) was found to be negatively correlated. No differences in mean self-esteem scores exist between the 'yes' and 'no' categories of 'church attendance' ($\eta = .00$) and 'desirability of church attendance' ($\eta = .00$).

All measures of religiosity were significantly and positively correlated with happiness (God has greatly affected life, $\eta = .10$, $p < .001$; prayer, $\eta = .07$, $p < .001$; church membership, $\eta = .08$, $p < .001$; church attendance, $\eta = .10$, $p < .001$; desirability of church attendance, $\eta = .10$, $p < .001$).

All measures of religiosity were also found to be significantly and positively correlated with life satisfaction. (God has greatly affected life, $\eta = .09$, $p < .001$; prayer, $\eta = .07$, $p < .001$; turn to God, $\eta$
= .09 p < .001; church attendance, eta = .09, p < .001; desirability of church attendance, eta = .12, p < .001).

Church membership (eta = .06, p < .01), church attendance (eta = .07, p < .001) and desirability of church attendance (eta = .06, p < .01) were all found to be significantly related to lower rates of feeling close to having a nervous breakdown while individuals who pray when upset or depressed were significantly more likely to report feeling this way than those who don't. (prayer, eta = .07, p < .001). No difference in mean nervous breakdown scores were found between the 'yes' and 'no' categories of 'God has affected life' (eta = .01, p > .05) or 'turn to God' (eta = .00, p > .05).

In terms of rates of treatment or hospitalization for emotional problems, individuals who claim God has greatly affected their life (eta = .07, p < .001), who pray (eta = .07, p < .001) or who turn to God when upset (eta = .05, p < .05) reported significantly higher rates of treatment than those who did not. 'Church membership,(eta = .03), 'church attendance' (eta = .03), and 'desirability of church attendance' (eta = .02) were all found to be negatively related to 'nervous breakdown' although none of the relationships were statistically significant (p > .05).

The situation reverses somewhat with respect to the suicide variable. Here, church membership (eta = .09, p < .001), church attendance (eta = .09, p < .001) and desirability of church attendance (eta = .09, p < .001) were found to be significantly related to lower rates while the variables
'God has affected life', 'prayer', and 'turn to God when upset' were found to be statistically unrelated ($p > .05$). For each of these three measures there were no differences in mean suicide scores between the 'yes' and 'no' categories (etas = .01, .00 and .00 respectively).

Table 3 presents analysis of the relationship between the control and the dependent variables. Mean scores by category of the independent variables are presented for each of the mental health measures. Etas and levels of significance for each relationship are given.

Significant differences were found to exist between the mean scores of denominational categories for the variables 'psychiatric symptoms' (eta = .10, $p < .001$), 'alienation' (eta = .09, $p < .01$), 'happiness' (eta = .08, $p < .01$), and 'suicide' (eta = .08, $p < .01$). The relationship between denomination and the other measures of mental health (positive affect, self-esteem and nervous breakdown) were not found to be statistically significant ($p > .05$). Protestants appear to be in somewhat better mental health than other groups. They reported the least psychiatric symptoms and alienation and the greatest happiness. Jews, on the other hand, were among those scoring lowest on the various mental health measures. They reported the most psychiatric symptoms and the least happiness and life satisfaction. As might be expected Catholics were found to be the least likely to seriously think about or actually attempt suicide.
<table>
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<tr>
<th>Denomination</th>
<th>Married</th>
<th>Marital Status</th>
<th>Sex</th>
<th>Education</th>
<th>Income</th>
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<td>Some College</td>
<td>20,000</td>
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<table>
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<tr>
<th>Positive Affect</th>
<th>Psychiatric Symptoms</th>
<th>Alienation</th>
<th>Self Esteem</th>
<th>Happiness</th>
<th>Life Satisfaction</th>
<th>Nervous Breakdown</th>
<th>Treated or Hospitalized</th>
<th>Suicide</th>
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<td>eta</td>
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<td>eta</td>
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<td>0.15</td>
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<td>4.06</td>
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<td>0.14</td>
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<td>4.16</td>
<td>6.81</td>
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*p < .05  **p < .01  ***p < .001
Marital status was found to be significantly related to all measures of mental health (positive affect, $\eta = .14$, $p < .001$; psychiatric symptoms, $\eta = .15$, $p < .001$; alienation, $\eta = .12$, $p < .001$; self-esteem, $\eta = .10$, $p < .001$; happiness, $\eta = .19$, $p < .001$; life satisfaction, $\eta = .16$, $p < .001$; nervous breakdown, $\eta = .07$, $p < .05$; treated or hospitalized, $\eta = .08$, $p < .01$; suicide, $\eta = .09$, $p < .001$) with married individuals tending to be in the best mental health and the separated or divorced in the worst.

Gender significantly correlated with all measures of mental health except positive affect, alienation and life satisfaction (psychiatric symptoms, $\eta = .07$, $p < .01$; self-esteem, $\eta = .08$, $p < .001$; happiness, $\eta = .06$, $p < .01$; nervous breakdown, $\eta = .10$, $p < .001$; treated or hospitalized, $\eta = .09$, $p < .001$; suicide, $\eta = .05$, $p < .01$). Males were found to score higher on self-esteem and lower on psychiatric symptoms, nervous breakdown, treatment and suicide, while females reported greater happiness.

There were significant differences in mean scores by age for all mental health variables except happiness and life satisfaction (positive affect, $\eta = .17$, $p < .001$; psychiatric symptoms, $\eta = .25$, $p < .001$; alienation, $\eta = .12$, $p < .001$; self-esteem, $\eta = .08$, $p < .05$; nervous breakdown, $\eta = .11$, $p < .001$; suicide, $\eta = .12$, $p < .001$). Younger respondents (18-25 and 26-34 years) reported higher positive affect, while psychiatric symptoms, alienation, feeling close to having a nervous breakdown, and thinking about or attempting suicide generally tended to
decrease with age. The youngest (18-25 years) and the oldest (65 and over) age categories reported the lowest rates of treatment for emotional problems but these two groups also exhibited the lowest levels of self-esteem.

In terms of education, again, the relationship was not always a linear one, but statistically significant differences were found between the mean scores of the various age categories for all measures of mental health (positive affect, eta = .26, p < .001; psychiatric symptoms, eta = .13, p < .001; alienation, eta = .24, p < .001; happiness, eta = .13, p < .001; life satisfaction, eta = .10, p < .001; nervous breakdown, eta = .09. p < .01; treated or hospitalized, eta = .08, p < .05; suicide, eta = .09, p < .01). In general, alienation was found to decrease with education, while positive affect, happiness and life satisfaction tended to increase with additional years of schooling. Although those respondents with the most education were almost always found to be in the best mental health, those with the least education were not always found to be in the poorest mental health. Individuals with eight years of education or less actually reported the lowest incidence of suicidal thoughts or actions and lower rates of psychiatric symptoms and treatment than did several of the categories with more years of education.

Income was found to be significantly related to all measures of mental health except suicide (positive affect, eta = .19, p < .001; psychiatric symptoms, eta = .08, p < .01; alienation, eta = .20, p < .001; self-esteem, eta = .19, p < .001; happiness, eta = .15, p < .001; life satis-
fraction, eta = .15, p < .001; nervous breakdown, eta = .10, p < .001; treated or hospitalized, eta = .10, p < .001). Although the relationships were not always linear, higher income was generally associated with better mental health. The one exception was for rates of treatment. Here, two of the middle income categories scored somewhat lower than did the highest income group. It was still the two lowest income groups, however, who reported the highest rates of treatment.

Relationships between the control and dependent variables were also examined. Table 4 presents the results of this analysis. Mean scores by category of the control variables are presented for each of the religiosity measures. Etas and levels of significance are shown for each of the relationships.

Denomination was found to be significantly related to all measures of religiosity. (God has affected life, eta = .11, p < .001; prayer, eta = .15, p < .001; turn to God, eta = .12, p < .001; church membership, eta = .15, p < .001; church attendance, eta = .20, p < .001; desirability of church attendance, eta = .27, p < .001). As might be anticipated, those expressing no denominational affiliation were found to be the least religious on a number of measures. These individuals were the least likely to turn to God when upset, attend church, belong to a church, or express the belief that church attendance is desirable. It was the Jewish respondents, however, who were the least likely to pray when upset or claim that God had greatly affected their life. Those expressing a denominational affiliation other than Catholic, Protestant or Jewish were
<table>
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<th></th>
<th>Sex</th>
<th>Turn to God When Upset</th>
<th>Church Membership</th>
<th>Church Attendance</th>
<th>Attitude Toward Church Attendance</th>
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<td>Mean</td>
<td>Standard Error</td>
<td>Mean</td>
<td>Standard Error</td>
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<td>.05</td>
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<td>.01</td>
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<td>.05</td>
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<td>(1182)</td>
<td>.35</td>
<td>.01</td>
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<td>.01</td>
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<td><strong>Age</strong></td>
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<td>(415)</td>
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<td>.02</td>
<td>.42</td>
<td>.02</td>
</tr>
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<td>26-34</td>
<td>(605)</td>
<td>.43</td>
<td>.02</td>
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<tr>
<td>35-44</td>
<td>(408)</td>
<td>.53</td>
<td>.02</td>
<td>.49</td>
<td>.02</td>
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<tr>
<td>45-54</td>
<td>(370)</td>
<td>.50</td>
<td>.02</td>
<td>.51</td>
<td>.02</td>
</tr>
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<td>(279)</td>
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<td>.02</td>
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<td>.02</td>
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<td>.48</td>
<td>.02</td>
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<td><strong>Income</strong></td>
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<td>4,999</td>
<td>(378)</td>
<td>.45</td>
<td>.02</td>
<td>.52</td>
<td>.02</td>
</tr>
<tr>
<td>5-8,999</td>
<td>(422)</td>
<td>.51</td>
<td>.02</td>
<td>.52</td>
<td>.02</td>
</tr>
<tr>
<td>9-11,999</td>
<td>(356)</td>
<td>.55</td>
<td>.02</td>
<td>.53</td>
<td>.02</td>
</tr>
<tr>
<td>12-15,999</td>
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<td>.02</td>
<td>.44</td>
<td>.02</td>
</tr>
<tr>
<td>16-19,999</td>
<td>(260)</td>
<td>.65</td>
<td>.02</td>
<td>.65</td>
<td>.02</td>
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<td>&gt;20,000</td>
<td>(347)</td>
<td>.48</td>
<td>.02</td>
<td>.41</td>
<td>.02</td>
</tr>
</tbody>
</table>

* p < .05  
** p < .01  
*** p < .001
the most likely to say that God had greatly affected their life and that they pray or turn to God when upset or depressed. Protestants were the most likely to feel that church attendance is desirable.

Marital status, like denomination, significantly correlated with all measures of religiosity (God has affected life, \( \eta = .17, p < .001 \); prayer, \( \eta = .17, p < .001 \); turn to God, \( \eta = .13, p < .001 \); church membership, \( \eta = .14, p < .001 \); church attendance, \( \eta = .14, p < .001 \); desirability of church attendance, \( \eta = .23, p < .001 \)). Widowed respondents were found to be the most religious, followed in order by the married, the separated or divorced and the single who were found to be the least religious on all measures. Only the variable 'prayer' were the separated or divorced found to be slightly more religious that the married group.

Gender was also found to correlate significantly with all measures of religiousness (God has affected life, \( \eta = .13, p < .001 \); prayer, \( \eta = .22, p < .001 \); turn to God, \( \eta = .15, p < .001 \); church membership, \( \eta = .10, p < .001 \); church attendance, \( \eta = .16, p < .001 \)). Women were, by any measure, more religious than men.

Age was found, again, to be significantly related to all measures of religiosity (God has affected life, \( \eta = .14, p < .001 \); prayer, \( \eta = .17, p < .001 \); turn to God, \( \eta = .12, p < .001 \); church membership, \( \eta = .26, p < .001 \); church attendance, \( \eta = .17, p < .001 \); desirability of
church attendance, \( \eta = .24, p < .001 \). Older individuals tended to be more religious than younger ones.

Education was found to be significantly related to all measures of religiosity except 'God has greatly affected life' (prayer, \( \eta = .09, p < .01 \); turn to God, \( \eta = .08, p < .01 \); church membership, \( \eta = .10, p < .001 \); church attendance, \( \eta = .08, p < .05 \); desirability of church attendance, \( \eta = .11; p < .001 \)). In general, those with less education tended to be somewhat more religious. The direction of the relationship reverses, however, for church membership and church attendance with college educated individuals exhibiting the highest rates of both.

Mean scores by income were found to differ significantly for rates of prayer (\( \eta = .12, p < .001 \)), turning to God (\( \eta = .08, p < .05 \)), and church attendance (\( \eta = .07, p < .05 \)). Respondents in the lower income groups tended to score lower on all three. Relationships between income and other measures of religiosity (God has affected life, church membership and desirability of church attendance) were not found to be statistically significant (\( p > .05 \)).

Table 5 presents the mean mental health scores by category of the independent variables after adjusting for the effects of denomination, marital status, age, gender, education, and income. Associated betas and levels of significance are given.
The control variables seem to have been acting to partially suppress the relationship between measures of religiosity and positive affect. After controls, the strength of the relationships between all measures of religiosity and positive affect increase and all of the measures of religiousness were found to be significant predictors of positive affect (God has greatly affected life, beta = .13, p < .001; prayer, beta = .08, p < .001; turn to God, beta = .11, p < .001; church membership, beta = .01, p < .01; church attendance, beta = .06, p < .01; desirability of church attendance, beta = .05, p < .05).

The relationship between some measures of religiosity and 'psychiatric symptoms' diminished or disappeared after controls. The negative correlations between 'God has affected life' and 'psychiatric symptoms' (beta = .03) and 'desirability of church attendance' and 'psychiatric symptoms' (beta = .04) were no longer significant while the predictive power of 'turn to God' (beta = .00, p > .05) was totally eliminated after adjusting for the effects of the control variables. Church membership (beta = .06, p < .01) and church attendance (beta = .06, p < .01) were still found to be significant predictors of psychiatric symptoms after controls although the strength of the relationships were somewhat reduced. Individuals who pray for help when upset or having serious problems were found to have a slightly, albeit significantly, higher incidence of psychiatric symptoms than those who don't (beta = .05, p < .05).

Only two measures of religiousness remain significantly related to alienation after controls. Individuals who claim God has greatly affected
<table>
<thead>
<tr>
<th>God has greatly affected life</th>
<th>Pray</th>
<th>Turn to God when upset or depressed</th>
<th>Church Membership</th>
<th>Church Attendance</th>
<th>Desirability of church attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>5.59</td>
<td>6.09</td>
<td>5.73</td>
<td>5.71</td>
<td>5.67</td>
</tr>
<tr>
<td>Yes</td>
<td>5.17</td>
<td>4.94</td>
<td>5.26</td>
<td>5.32</td>
<td>5.31</td>
</tr>
<tr>
<td><strong>beta</strong></td>
<td>.13***</td>
<td>.03 n.s.</td>
<td>.08***</td>
<td>.07**</td>
<td>.05*</td>
</tr>
<tr>
<td>Psychiatric Symptoms</td>
<td>Positive Affect</td>
<td>Alienation</td>
<td>Self Esteem</td>
<td>Happiness</td>
<td>Life Satisfaction</td>
</tr>
<tr>
<td>X</td>
<td>5.17</td>
<td>4.28</td>
<td>6.64</td>
<td>3.20</td>
<td>3.26</td>
</tr>
<tr>
<td>X</td>
<td>4.94</td>
<td>4.04</td>
<td>6.68</td>
<td>3.31</td>
<td>3.34</td>
</tr>
<tr>
<td>X</td>
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<td>4.15</td>
<td>6.70</td>
<td>3.21</td>
<td>3.26</td>
</tr>
<tr>
<td>X</td>
<td>1.05</td>
<td>4.17</td>
<td>6.61</td>
<td>3.29</td>
<td>3.35</td>
</tr>
<tr>
<td>X</td>
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<td>4.05</td>
<td>6.65</td>
<td>3.29</td>
<td>3.35</td>
</tr>
<tr>
<td>X</td>
<td>0.05 *</td>
<td>4.00</td>
<td>6.65</td>
<td>3.29</td>
<td>3.35</td>
</tr>
<tr>
<td>X</td>
<td>0.05</td>
<td>4.11</td>
<td>6.67</td>
<td>3.23</td>
<td>3.27</td>
</tr>
<tr>
<td>X</td>
<td>0.06**</td>
<td>4.19</td>
<td>6.63</td>
<td>3.23</td>
<td>3.36</td>
</tr>
<tr>
<td>X</td>
<td>0.06**</td>
<td>4.14</td>
<td>6.67</td>
<td>3.18</td>
<td>3.36</td>
</tr>
<tr>
<td>X</td>
<td>0.06**</td>
<td>4.18</td>
<td>6.65</td>
<td>3.31</td>
<td>3.36</td>
</tr>
<tr>
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<td>4.21</td>
<td>6.66</td>
<td>3.15</td>
<td>3.16</td>
</tr>
<tr>
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<td>4.14</td>
<td>6.66</td>
<td>3.29</td>
<td>3.35</td>
</tr>
<tr>
<td>X</td>
<td>0.12***</td>
<td>4.14</td>
<td>6.66</td>
<td>3.29</td>
<td>3.35</td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
*** p < .001
their life or who turn to God when upset reported significantly less alienation than those who do not (beta = .06, p < .01 and beta = .05, p < .05 respectively) although the predictive power of both these measures decreased with controls. In terms of the non-significant relationships (p > .05), after the imposition of control variables, 'church membership' (beta = .02) and 'desirability of church attendance' (beta = .01) remain negatively associated with 'alienation' while 'prayer' (beta = .03) and 'church membership' (beta = .03) were found to be positively related.

No statistically significant relationships (p > .05) were found between any measure of religiosity and self-esteem after adjusting for the effects of the control variables. In terms of the direction of correlations, 'God has affected life' (beta = .01) and 'church membership' (beta = .03) were found to be positively associated with self-esteem, while 'prayer' (beta = .03), 'turn to God' (beta = .01) and 'church attendance' (beta = .01) were found to be negatively associated with self-esteem. There were no differences in mean self-esteem scores by 'desirability of church attendance' (beta = .00).

All measures of religiosity continue to significantly and positively correlate with happiness (God has greatly affected life, beta = .08, p < .001; prayer, beta = .05, p < .05; turn to God, beta = .06, p < .01; church membership, beta = .04, p < .05; church attendance, beta = .09, p < .001, desirability of church attendance, beta = .09, p < .001) and life satisfaction (God has greatly affected life, beta = .06, p < .01; prayer, beta = .07, p < .01; turn to God, beta = .07, p < .001; church membership, beta
= .07, p < .01; church attendance, beta = .08, p < .01; desirability of
church attendance, beta = .12, p < .001), although the strength of the
correlations between church attendance and life satisfaction did, how-
ever, remain constant even after adjusting for demographic factors.

After controls, the relationships between 'turn to God' and 'nervous
breakdown' (beta = .00, p > .05) and 'desirability of church attendance'
and 'nervous breakdown' (beta = .06, p < .01) are unchanged. The negative
correlation between 'prayer' and 'nervous breakdown' (beta = .04) and the
positive one between 'church membership' and 'prayer' (beta = .03) are
no longer statistically significant (p > .05). The relationship between
'God has affected life' and 'nervous breakdown' (beta = .02) becomes
negative but remains statistically non-significant (p > .05), while the
positive relationship between 'church attendance' and 'prayer' (beta = .06),
p < .01) is only slightly reduced after adjusting for the effects
of background variables.

The positive relationships between 'God has affected life' (beta = .08,
p < .001), 'prayer' (beta = .07, p < .01) and 'turn to God' (beta = .05,
p < .05) and rates of treatment or hospitalization for emotional problems
were virtually unchanged. Only the strength of the relationship between
'God has affected life' and 'treatment' and the statistical significance
of the relationship between 'turn to God' and 'treatment' varied. 'Church
attendance' continues to be associated with lower rates of treatment (beta = .02), while differences in mean treatment scores by 'church membership'
(beta = .01) and 'desirability of church attendance' (beta = .01) are
eliminated. None of these three relationships are statistically significant \((p > .05)\) after controls.

After controls, church membership \((\beta = .06, p < .01)\), church attendance \((\beta = .07, p < .001)\) and desirability of church attendance \((\beta = .06, p < .012)\) continue to be significantly correlated with a lower rate of suicidal thoughts or actions. There continue to be no differences in mean suicide scores by the measures 'God has affected life' \((\beta = .00, p > .05)\), 'prayer' \((\beta = .01, p > .05)\) or 'turn to God' \((\beta = .02, p > .05)\).
DISCUSSION

Overall, there was little change between the zero order relationships presented in table 2 and the relationships after controls as seen in table 5. For the most part, measures of religiosity which were good predictors of mental health prior to controls remained so afterward and where there were no significant relationships before the introduction of control variables, adjusting for their effects often made little, if any difference.

As hypothesized, all measures of religiosity were positively and significantly related to feelings of positive affect, happiness and life satisfaction after controls. Religiosity was not, however, always found to be such a consistent predictor of some of the other measures of mental health.

With respect to psychiatric symptoms, the results of the analysis are similar to those found by Lindenthal et al. (1973). Looking at the relationship between three measures of religiosity and psychiatric symptoms, they found that while church membership and church attendance were related to lower levels of psychiatric symptoms, individuals who pray during times of crisis reported a significantly higher rate than those who do not. The relationship between psychiatric symptoms and the other measures of religiosity employed in this study did not hold up after controls. The associations between measures of religiosity and psychi-
Psychiatric symptoms may largely be a function of selectivity in that the mentally impaired are found to be more likely than the non-impaired to pray (Lindenthal et al., 1973) while at the same time less likely than the non-impaired to belong to or attend church (Stark, 1971; Lindenthal et al., 1973). Regarding the relationship between prayer and psychiatric symptoms in particular, as was previously mentioned, prayer is found to be a far different dimension of religiosity than others (Duke & Johnson, 1984). The measure "turn to God", which would seem to be very similar to "prayer" was not found to be significantly correlated with higher rates psychiatric symptoms. Individuals who turn to God when upset, in fact, report slightly less psychiatric symptoms than those who do not. At any rate, the finding of a positive relationship between prayer and psychiatric symptoms is probably more a reflection of the effect of mental health than religiosity.

In terms of alienation, after controls, it appears that only those individuals with a personal, one-to-one relationship with their God score significantly lower. It is not surprising that individuals who say that God has greatly affected their life and who turn to this God whenever they are upset or depressed feel less alienated than others. Having such an available and significant other to whom one can turn for guidance and support would seem to provide a sense of reassurance and lessen feelings of isolation and estrangement.

Religiosity was found to bear almost no relationship to self-esteem. Although individuals classified as religious by some measures report
higher self-esteem, and those classified as religious by other measures report lower self-esteem, none of these relationships are significant after controls. Many religions emphasize the virtues of humility and the sublimation of self and while this could be one reason why religious individuals might not be expected to exhibit higher self-esteem, more probably, although self-esteem is a commonly used indicator of mental health, it may not be a particularly valid one. While low self-esteem may often be associated with poor mental health, high self-esteem is not necessarily indicative of good mental health. Certainly individuals can regard themselves in high esteem even to the point of grandiose delusions of self, but the man who thinks he is Napoleon may not be among the most mentally stable. What significant correlations were found to exist between measures of religiosity and self-esteem, that of a negative relationship between prayer and self-esteem and a positive one between church membership and self-esteem, disappeared after controls. The fact that previous studies sometimes reported a correlation between self-esteem and religiousness, be it a positive or a negative one, was most likely the result of a failure to employ control variables.

The overall pattern of relationships between religiosity and 'nervous breakdown' and 'suicide' look very similar. In both cases, it is the more institutional and social, as opposed to the more private and intrinsic aspects of religion which were seen to exert a prophylactic effect with respect to feeling close to having a nervous breakdown or seriously thinking about or attempting suicide. While church attendance and desirability of church attendance were associated with lower rates of
nervous breakdown and suicide, neither 'God has affected life', 'prayer',
or 'turn to God when upset' were significantly related to either variable
after controls.

Although it was hypothesized that religiosity would be related to better
mental health, the opposite was sometimes found to be true in the case
of rates of treatment or hospitalization for emotional problems. It was
thought that the imposition of the control variables would eliminate the
relationships, but claiming that God has affected one's life, prayer and
turning to God continue to be associated with higher rates of treatment
even after adjusting for the effects of denomination, marital status,
gender, age, education and income. As in the case of the relationship
between religiosity and psychiatric symptoms, however, selectivity may
again be a factor.

Claiming that God has greatly affected one's life, praying when upset or
having serious problems and turning to God when upset or depressed are
suggestive of the more private, intrinsic dimensions of religiosity and
at least prayer and turning to God, of a religious mode of dealing with
problems. Either these kinds of behavior are leading to increased psy-
chological impairment and rates of treatment or people who are treated
or hospitalized for emotional problems become more religious in these
kinds of ways.

Individuals who are very dependent on God or religion as a solution to
their problems may be "putting all their eggs in one basket" so to speak.
Things may be fine until they have serious problems or troubles for which praying or turning to God offer no real solution. Individuals who excessively rely on their religion and 'faith' to see them through difficult times may do so at the expense of other more realistic sources of help. This line of reasoning forms the basis of Freud's criticism of religion, which he sees as fostering a sense of false security and overdependency.

Lindenthal et al. (1973) alternatively suggest that mental health influences religious expression and that psychological impairment results in an increase in "private" religious activity and a simultaneous reduction in "public" kinds of religious behavior. They also found that the increase in private religious behavior as a result of psychiatric impairment is much greater than the concurrent decrease in public religious behavior and so offer some explanation for the fact that church membership and church attendance were found to be unrelated to treatment rates. According to the authors, the two basic types of religiosity— the more external, extrinsic and social on the one hand and the more internalized, intrinsic and personal on the other, while not mutually exclusive, tend to serve different needs for the individual. "Persons whose needs are mainly social or external may partake in the institutional aspects of religious life, ignoring or not fully appreciating the internal aspects of religious behavior; and those who look to religion for help in main-

17 Empirically, measures of religiosity have been found to cluster into these two dimensions. A preliminary factor analysis of the present data found the measures of 'God has affected life', 'prayer' and 'turn to God' to form one factor and 'church membership', 'church attendance' and 'desirability of church attendance' to form another.
taining psychological stability may turn to prayer and other private be-
behavior, but not partake in institutionalized behavior" (1973: 240).

The present findings and those generally, of a strong positive association
between public religious expression and mental well-being and a negative
one between private religious expression (especially prayer) and some
measures of mental well-being, while likely due in part to the effects
of mental health on religious expression, may also lend some support to
Durkheim's argument for the primacy of religion's social functions (Duke
& Johnson, 1984). While religion has different meanings to individuals,
and some may seek it in answer to a psychological need, in general, re-
ligion is not merely something individuals seek out in reaction to misery
(Hadaway, 1979). For the majority, religion's primary function lies in
the provision of social rewards. It is true, however, that in times of
personal crisis it is the participants of organized religion who have the
greatest resources at their disposal. By practicing religion in solitude,
individuals are denied an important source of help and support in other
worshipers.

Another explanation for the differential association between public and
private forms of religiosity and mental well-being derives from a labeling
perspective. In our society religion is largely practiced within a social
and collective context. The devout worship together, sing together and
pray together. Beyond the ritualistic and routinized aspects of religion,
even many of the more expressive and personal dimensions of religious
behavior are often integrated into a larger social setting. Being
"saved", "accepting Christ", "testifying" and "healing" usually take place before the congregation or in interaction with other 'believers'. To the extent that religion is most appropriately defined and experienced within a social context, the individual who chooses to practice it in a private and non-routinized manner may be viewed as somewhat deviant. Presumably, individuals defined as religiously deviant may be more likely to be defined as mentally deviant as well (merely by preferring solitary activities to social ones they may be considered odd).

Societal definitions of mental health are also often cast in a social configuration. The individual in good mental health is one who is socially well-adjusted, integrated into the social community and able to interact with others in an acceptable manner. It is interesting to note that individuals adhering to a more solitary and non-social religious orientation (i.e. praying, turning to God and claiming that God had greatly affected one's life) were only seen to score worse on measures of mental health which involve normative criteria. They were not found to be subjectively less happy or satisfied, only more likely to be classified as mentally ill.

A final factor that may be bearing on the relationship between religiosity and rates of treatment is that of time. Whereas the items pertaining to religiosity are of a more immediate time frame, individuals were asked if they had ever been treated or hospitalized for emotional problems. Presumably individuals who were once treated or hospitalized may have been more or less religious at the time. It is impossible to know if they were
as religious as they are currently or if their mental problems and experience resulted in their becoming more religious. In the case of individuals who may have recovered after treatment or hospitalization, religion could have been a contributing factor. The problem here, as in the study as a whole, is that of establishing causal priority. Because the study is not of a longitudinal nature it is impossible to know with certainty the direction of effects. Future research, conducted over time, would be necessary to determine any causal relationships between variables.

Despite the problem of causality inherent in any correlational analysis, the present study does overcome some of the limitations of past research. It is one of the few studies to employ a large national sample, to control for the effects of background variables, and to utilize multi-dimensional measures of both religiosity and mental well-being, and perhaps the only one to do so simultaneously. To date no other study has addressed the entire religious constellation of the individual and its relationship to his overall state of mental well-being within the context of the general population.

The present findings tend to confirm those of earlier research and so provide greater support for the existence of a generally positive relationship between religiosity and mental health. The exceptions reported in the present analysis suggest, however, that the distinction between the more institutionalized and social modes of religiosity and the more private and intrinsic type may be more important than has been
previously believed. Although the distinction between the two basic "types" of religious orientation has long been articulated in the theoretical literature, the social-psychological implications of this religious dichotomy for the individual and his mental well-being has yet to be fully explored.
CONCLUSION

At the present time the relationship between religiosity and mental well-being has not been fully delineated. There is, however, growing opinion that the relationship between the two should be studied (Gallagher, 1980).

Despite the many ways that religion can be seen as being potentially conducive to mental health, until very recently the relationship between the two has gone almost totally ignored (Moberg & Brusek, 1978; Hadaway & Roof, 1978). There are a number of reasons for this.

The study of religion as a whole has been described as a 'taboo topic' in Psychology and a neglected area in Sociology. After a golden age of theory and research around the turn of the century interest in the area of religion almost vanished until about twenty years ago (Beit-Hallahmi, 1973).

Due to the concern of governmental agencies over separation of church and state, religion as a research topic has gone virtually unfunded. Much of what empirical knowledge does exist comes from analysis of data collected for other purposes\(^1\) (Stark & Glock, 1969).

\(^1\) Such is the case in the present study.
According to Stark et al. most social scientists do not 'believe' in religion and because they judge it to be false they assume it can't do anything for people and exclude it from study. As these authors tell us though, "one hardly needs to believe in religion to suppose it has effects" (1983:125). Like W. I. Thomas' admonishment that things people define as real have real consequences, social scientists must realize that for believers faith is real.

A further problem in the study of religion has been the lack of valid, reliable and theoretically relevant measures. Virtually every review article over the last 15 years has come to this same conclusion (Carroll & Roozen, 1973). But according to Moberg "to continue to ignore spiritual variables in studies of life satisfaction, wholistic well-being and many areas of religious research just because research tools are not fully perfected will constitute a dysfunctional self-fulfilling prophecy" (1984:360).

Although religion has been a neglected topic it represents an important source of well-being for many. While religion is not important to everyone it is of considerable significance to large sectors of our society. Thousands of Americans are influenced by their faith and for many, religious interpretations represent a crucial resource insofar as personal values and outlook are concerned. "If for no other reason, this is enough to lead us to explore further the interrelations among these variables" (Hadaway & Roof, 1978).
Evidence shows that Americans are becoming increasingly religious (Allport, 1973). Further research, especially that relating to the causal direction of variables, is necessary to determine the implications of this phenomena for the mental health of our society.
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