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The Relationship Between Religious Beliefs/Attitudes and Psychopathology in an Evangelical Seminary Sample

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by

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ABSTRACT

This study sought to measure the relationship between religiosity and psychopathology in an evangelical seminary. A sample of 55 randomly selected male Masters of Divinity students was selected from the first through third year classes at a prominent evangelical seminary during the spring quarter of 1984. This study was one facet of a larger research project which addressed adjustment in this seminary population from different perspectives (Neder 1985; Powers 1985).

The sample was given a demographic questionnaire, the Minnesota Multiphasic Personality Inventory (MMPI) and three measures of religiosity. These were the Spiritual Well-Being Scale (SWB), the Spiritual Maturity Index (SMI), and the Religious Orientation Scale (ROS). The analysis of the data was primarily correlational in nature with some use of multiple and stepwise regressions.

Statistical analysis of the data produced several interesting results. No positive correlations between religiosity and psychopathology were found in the highly religious sample. This finding suggests that the preconception that religious interests contribute

to psychopathology needs to be reassessed. Additionally, the Existential Well-Being (EWB) subscale of the SWB and the demographic question Wife's Perceived Attitude About Seminary Involvement (WAS) were found to have an ability to predict psychopathology as measured by MMPI code-type T-scores. This suggests that in addition to several variables studied by Neder (1985) and Powers (1985), EWB and WAS may be helpful in the assessment and training of seminarians.

An implication of the findings is that when dealing with clients, both the clinical student and practitioner need to respect the viability of their client's religious world view as well as being sensitive to their own.

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CHAPTER 1

INTRODUCTION

For some time now, attempts have been made to measure the subjective well-being of Americans as a means of evaluating their quality of life. According to Ellison (1983) these endeavors show some promise and represent a more accurate appraisal of the collective and individual state of people than previous objective, economically-oriented indicators have allowed. Though this is the case, this "quality of life movement" as it has been called, has virtually ignored the religious dimension of life.

Ignoring the role of religion in quality of life seems regrettable in light of Bergin's (1983) observation that there is a current preconception that religiousness contributes to psychopathology. On the basis of this preconception psychologists might be disposed to conclude that religious individuals have poorer subjective well-being than non-religious individuals, or that religion in an individual's life contributes to the development of psychopathology.

However, Bergin's (1983) study showed inconsistent support for this notion and, in fact, showed a slight positive correlation between religiosity and mental health.

Campbell, Converse and Rodgers (1976) in a study of well-being reported that religious faith was highly important to the quality of life of 25% of the American population. McNamara and St. George (1979), in a re-analysis of Campbell's et al. (1976) data, found that satisfaction from religion actually ranks as a much more accurate predictor of well-being than the surveyors reported. It appears, therefore, that while religiosity is related to the well-being and mental health of Americans, the nature of the relationship is not clearly understood. To acquire a more complete understanding of the subjective well-being of Americans, it is necessary to further study the relationship between religiosity and mental health.

This seems especially true in light of Bergin's (1983) study. Bergin (1983) conducted a meta-analysis of 24 studies pertinent to the relationship between religiosity and mental health. He discovered that like the ambiguities characteristic of earlier studies

of psychotherapy, these 24 studies were full of contradictions and unreplicated findings. Commenting on these results he states:

> Better specifications of concepts and methods of measuring religiosity are alleviating this problem, (the contradiction and unreplicated studies) which suggests that ambiguous results reflect a multidimensional phenomenon that has mixed positive and negative aspects (p. 170).

Thus using instruments which more precisely measure the construct of religiosity also seems warranted in any new study of the relationship between mental health and religiosity.

This study, then, represents an attempt to further the understanding of the relationship between religiosity and mental health and to enhance the understanding of the utility of instruments designed to better measure and define the construct of religiosity. It represents an attempt to better understand the impact religiosity has on mental health, and specifically to discover if religiosity is truly associated with psychopathology as some have suggested (Freud 1953, Ellis 1980). Three measures of religiosity were used: the Spiritual Well-Being Scale (SWB), the Spiritual Maturity Index (SMI), and finally

the Religious Orientation Scale (ROS). The relationship between these scales and psychopathology as measured by Minnesota Multiphasic Personality Inventory (MMPI) code-types were explored.

This introductory section of the study is divided into four parts as follows: (a) review the literature relating to the history of psychology and religion; (b) a review of background literature dealing with the Spiritual Well-Being Scale (SWB), the Spiritual Maturity Index (SMI) and the Religious Orientation Scale (ROS); (c) a review of the literature relating to the MMPI and religious correlates; and (d) defining the research questions and related hypotheses.

A Brief History of the Psychology of Religion

Religion has permeated and seasoned human experience throughout recorded history and it continues to make its presence felt today (Walker, 1970). Worldwide estimates indicate that somewhere over two billion people have religious commitments. Zimbardo (1979), suggests that religious commitment plays a critical part in how these people choose to live and experience life. The 1980-1981 Gallup survey Religion in America (1981) reveals that the general population places substantial investment in religion. This survey

indicates that 93% of Americans state a religious preference, 69% belong to a synagogue or church, 40% have attended a religious service within 7 days prior to being surveyed, 55% consider religion to be very important in their lives, and 31% consider their religious beliefs to be the most important element in their lives. On the basis of this data alone it would seem reasonable to conclude that studying the impact that religion has on the mental health and well-being of Americans would be an important priority of the psychological research community. However, the recent history of psychological research seems to suggest, that for the most part, this topic has been virtually ignored. Beit-Hallahmi (1974) for example, suggested that it appeared to him as though the study of the impact of religion amongst psychologists was "dead."

In contrast to more recent history, early investigators of human behavior seriously attempted to study the impact of religiosity on human experience and behavior. Among the most prominent of these was the founder and first president of the American Psychological Association, G. Stanley Hall. Strunk states, "Hall was able to promote the field under the authority of not only his stature as founder of and first president of the American Psychological

Association, but because he was also the chief administrative officer of an American university" (Strunk, 1970, p.91).

In addition to Hall, possibly the most notable pioneer of psychology to examine religious phenomena was William James. In his classic work Varieties of Religious Experience (1902), James theorized that basic personality differences accounted for different expressions of religiosity.

Still, though certain notable pioneers in the field of psychology attempted to scientifically study religiosity in America, their numbers were small. Strunk (1970) states:

> In the United States, where behaviorism already was beginning to get a throathold on the psychological profession, the psychology of religion could be entertained only by a handful of eminent psychologists-G. Stanly Hall, James H. Leuba, E. D. Starbuck, and of course, William James. (p. 91)

The minimal but significant interest generated in the early 1900's, began to decay during the 1920's and 1930's. Among the prominent indicators of the decay were: (1) the absence of yearly reviews of the research done in the area of the psychology of religion in the

Psychological Bulletin, and (2) the decrease of college course offerings in the psychology of religion (Beit-Hallahmi, 1974). Among the more significant causes for the decay were the following: (1) the nonreligious orientation of social scientists during the period, (2) the lack of well defined religious constructs, (3) the lack of a firm theoretical footing for the field, (4) the inability of prominent researchers to clearly separate themselves from other disciplines such as theology and philosophy, and (5) the diverse methodology characteristic of the early investigative period (Malony, 1977).

Recently there have been increasing attempts and some success in reviving the field of the empirical study of religion (Bergin, 1983). Bergin (1983) asserts that the topic is far from "dead." The appearance and growth of journals such as the Journal of Psychology and Theology, together with the appearance of graduate programs in clinical psychology associated with seminaries and Christian colleges, represents the present re-emergence of academic interest in the psychology of religion. The absence of a significant amount of empirical research did not stop

psychology's theoreticians from developing theories as to the nature of religion and its relationship to psychopathology.

Religiosity, Personality, and Psychological Health

Several influential theorists of the twentieth century, have addressed religion and its relationship to psychopathology. The views of James, Freud, Ellis, Erikson, Jung, and Allport will be examined to see what theoretical basis exists for understanding the relationship between religion and psychopathology.

James: Religion as a Benefit to Mankind

The theories of James (1902) are representative of the early views of the psychology of religion which reflected the contemporary zietgiest in suggesting that religion in general was of benefit to mankind and his psychological well being. James (1902) states, "...the life of religion in the broadest and most general terms possible, consists of the belief that there is an unseen order, and...our supreme good lies in harmoniously adjusting ourselves thereto" (p. 53). Yet, as Bertocci (1971) points out, James also believed that religion could manifest both a "healthy-mind" or a "sick soul." In James' (1902) own words "What comes

(from religion) must be sifted and tested, and run the gauntlet of confrontation with the total context of experience just like what comes from the outer world of sense. Its value must be ascertained by empirical methods..." (p. 427-428).

Bertocci (1971) points out that James's analysis of religious experience ends with five conclusions about its place in human experience. First "...the life of it as a whole is mankind's most important function and a man's religion is the deepest and wisest thing in his life. It is valuable if for no other reason than because it brings power to him that would not otherwise be available" (Bertocci, 1971, p. 8). Second, that though the intensity and personal value of religious experiences will always remain private and difficult to prove, they offer hypotheses about man and life in general, which should always provoke thought. Third, "an impartial science of religions might sift out from the midst of their discrepancies a common body of doctrine and recommend this for general belief" (James 1902, p.510). Fourth, that religious experience suggests not only that there is something more to life but also that there is something "wrong about us as we naturally stand." He suggests that this awareness can lead to health as the individual who can criticize

his/her wrongness "is to that extent consciously beyond it and is in at least possible touch with something higher, if anything higher exists" (James 1902, p. 508). Finally, James suggests that there is a struggle in man between the "wrong" part and the "better." However weak this "better" part is perceived to be, James suggests that man identifies his own being with it (Bertocci, 1971). For James, then, religious experience in general is of benefit to mankind. However, he notes that its expression at times can manifest a "sick soul."

Freud: Religion as a Flight from Frustration to Illusion

Unlike James, who believed that religion could not be reduced to psychological processes alone, Freud suggested it could be. Though he did not deny that religion could have tremendous power in an individual's life, he believed that an intellectual equivalent needed to be found so that man could be saved from his own weakness (Bertocci, 1971). According to Freud, the concept of God "...is nothing but an insubstantial shadow and no longer the mighty personality of

religious doctrine" (Freud, 1953, p.57). Bertocci (1971) points out that for Freud "The equivalent must be education to reality" (p. 12).

For Freud, religious feeling is a human response to human helplessness and insignificance. In the individual child reason is impotent and might makes right. The function of culture is to provide enough satisfaction for the instinctual demands. However, man cannot trust ultimately in culture or the natural world to protect him because at any time they can become arbitrary and destroy him. For Freud belief in God allows man to both be rewarded for his instinctual renunciations and to be protected from the dangers of nature. Bertocci (1971) suggests that for Freud:

> Man's deepest wish... is for a Power who gives him what he wants, who in ultimate terms will not deprive him who renounces properly. Nothing less will do than a cosmic Father who incorporates both the power of a father and the protective concern of a mother...In God the Father, accordingly, man finds as nowhere else what may well be called the illusion of a Being that combines power, justice, and mercy. (p. 13)

For Freud, the will to survive with power and to

control dominates his treatment of the origin of religion in child and culture.

> I have tried to show that religious ideas have sprung from the same need as all the otheother achievements of culture: from the necessity for defending itself against the crushing supremacy of nature. And there was a second motive: the eager desire to correct the so painfully felt imperfections of culture" (Freud, 1953, pp. 36-37).

For Freud, however, man in following this "infantile prototype" is creating an illusion that will keep him in his infancy.

Bertocci (1971) points out thhe real battle for Freud is between reason and instinct not reason and faith. Reason for the child is powerless against passion. Faith, then, is the illusion which is used to make renunciation acceptable. Bertocci (1971) states, "What comes to mind is a primitive creature who, alas, is condemned to seducing himself--seductions are so pleasant and comforting!--but whose seductions will become obstacles to a growth and maturity that his nature otherwise allows" (p. 14). For Freud, then, religion represents an anti-rational and infantile solution to feelings of helplessness and

insignificance. At best this leads to arrested maturity and at worst to psychopathology of a more significant nature.

Ellis: Religiosity as Irrational Thinking

Ellis's (1980) position on religion seems similar to Freud's. The following quote serves to illustrate this point:

> Religiosity is in many respects equivalent to irrational thinking and emotional disturbances . . . The elegant therapeutic solution to emotional problems is to be quite unreligious . . . the less religious they are, the more emotionally healthy they will be. (p.637)

While a detailed discussion of the differences between Freud and Ellis is beyond the scope of this study, suffice it to say that both theorists view religion as contributing to psychopathology.

Erikson: Religion and the Earliest forms of Trust

Erikson's position on the relationship between religiosity and psychopathology is somewhat vague. Bertocci (1971) states, "Whether the system of Erik H. Erikson finds room for the noble guest, religion, in

the dynamics of developmental crisis is a difficult question for the present writer to answer with confidence" (p.16). Like Freud, Erikson sees religious development as a way of achieving inner unity and integrity which neither nature nor society can assure. In speaking about the personality development of Martin Luther he states, "I have implied that the original faith which Luther tried to restore goes back to the basic trust of early infancy inspired by Luther's mother and then threatened by Luther's father. In so doing, I have not, I believe, diminished the wonder of what Luther calls God's disguise" (Erikson, 1958, p.265). It appears that for Erikson, faith, will, conscience and reason are determined in part by the way in which the conflict of basic trust and mistrust is initially resolved and subsequently developmentally recapitulated and processed. The question of whether the religious resolution of the struggle is seen as a creative and positive response or primarily pathological is posed by Erikson (1958) himself.

> But must we call it regression if man then seeks again the earliest encounters of his trustful past in his efforts to reach a hoped-for and eternal future? Or do religions partake of man's ability, even as he regresses, to recover

> creativity? At their creative best, religions retrace our earliest inner experiences, giving tangible forms to vague evils, and reaching back to the earliest individual sources of trust; at the same time, they keep alive the common symbols of integrity distilled by the generations. (p. 264)

While it remains unclear exactly what role religion plays in the development of psychopathology in general, it appears that Erikson, unlike Freud, allows for both a positive and a negative influence. For Erikson, the answer to the question of whether or not religion leads to pathology appears to be found in whether or not it is creatively used in the individual's psychic economy. It is at this point that Erikson becomes vague. Bertocci (1971) states:

> The problem this perspective must face is: given the ingredients in human nature and in the human situation as envisioned in this humanistic naturalism, in what does creativity reside? Freud places his trust in a scientific reason that faces a godless reality. If Erikson's answer is different, where does this difference reside? (p. 16)

Jung: Religion as Symbolic Creativity in the Psyche's Economy

James believed that religion had basically a positive impact on man and was not reducible to psychic explanations alone. Freud, on the other hand, viewed man as a creature spawned as a phase of purposeless biological evolution. This allowed Freud to reduce religious experience to a comfortable but maladaptive illusion. Erikson seems to suggest that religion could be used by the individual in either a creative or maladaptive way for psychic survival. Jung's theory of personality, and thus his understanding of the impact religion has on the psychic life of man, conceptualizes man's psychic nature in a way unlike the above theorists.

Jung's theory is affected from the beginning by his desire to provide a probable account of human symbols as a search for meaning (Bertocci, 1971). The complexity of Jung's thought precludes a detailed discussion of his theory, but the writer will discuss briefly his conception of the function of religious symbolism and myth. First, for Jung the question is not whether a specific religious belief is actually true or an illusion. Bertocci (1971) states, "...the problem is to discover the part which both the original

religious experience and its manifestations play as each man gives expression to certain historic, universal, 'archetypal' motives that are in his collective unconscious" (p. 18). For Jung, persistent mysteries about the meaning of existence which man has pondered throughout his history are lodged deep within this collective unconscious as religious archetypes. Jung (1938) states, "The suffering God-Man may be at least 5,000 years old and the Trinity is probably even older" (p. 57). For proper psychic development to occur, the individual must deal creatively with these archetypes. In fact, neurosis may be the result of the individual's mismanagement of the this basic problem of existence (Bertocci, 1971).

In this context it is important to note that rather than thinking that man's religious symbols, rituals and creeds are at the heart of his dealing creatively with the archetypes, Jung believes that though expressive of the larger struggle for meaning, they can distort and even stifle what man seems to crave. Unlike Freud, who suggests that the notion of God the Father is a projection of the infantile situation, Jung suggests that the fatherhood of God is a response to an even deeper thrust in the psychic strivings of man. Thus, institutionalized religion

must not allow any ritual or creed or dogma to kill the struggle of dealing with this inner regenerating need (Bertocci, 1971).

For Jung, the value of religion and religious truth is found, in the final analysis, in the way it helps the individual live. As Jung (1938) states:

> Nobody can know what the ultimate things are. We must, therefore, take them as we experience them. And if such experience tends to make your life healthier, more beautiful, more complete and more satisfactory to yourself and to those you love, you may safely say: This was the grace of God (p. 114).

Bertocci (1971), in summarizing Jung's thought concerning God and religion, states:

> If we wish for some definite criterion of what the work of God is in life, Jung does not provide it. But Jung leaves no doubt that the religious pilgrimage takes place in persons who undergo in every level of their being a struggle for meaning and value. They escape superficiality and shallowness only as they undergo an intense and awesome awareness that expresses itself both in symbol and action. In any case, better to suffer with a religious

neurosis created by creedal and symbolic cramping than to have no neurosis and feel no religious creativity. (p. 20)

Allport: Religion as Creative or a Crutch

As with the other theorists considered thus far, the purpose of this section is to briefly review Allport's theory of personality in terms of what it has to say about the relationship between religiosity and psychopathology. Bertocci (1971) states, "Crucial is his (Allport's) thesis that personality is never to be understood solely by its beginnings or by its environment. These can never be disregarded, of course, but a personality should always be understood in the light of its contemporary environment" (p. 28). As a result, in his theory Allport in general resists relatively inflexible lists of instinctual needs such as is characteristic of Freud, Jung, and Erikson. For Allport, religion represents an individual's current response to his situation in life. Religious experience and practice for Allport, does not stem from unconscious needs alone. Allport (1950) states, "The roots of religion are so numerous, the weight of their influence in individual lives so varied, and the forms of rational interpretation so endless that uniformity

of product is impossible" (p. 26). Bertocci (1971) states, "The religious sentiment in a personality does not issue from one particular need or strain; (for Allport) there is no specific idea, emotion, or need that guarantees its appearance" (p. 29).

When the religious sentiment appears in the individual's life, its form reflects the emotional and ideational basis of that person's value system. According to Allport, these formulations are sometimes arresting, security ridden, cautious, and sometimes dramatically creative, but always they are seen as ways of finding personal meaning and value (Bertocci, 1971).

For Allport (1950) then, personality is a "...patterned, complex product of biological endowment, cultural shaping, cognitive style, and spiritual groping" (p. 572). As the individual develops in life, an "ego" or unifying inner core of the personality comes into being. If, when this happens, the individual's religious orientation is a formative factor in the ego's development, then the religious attitude will be what Allport calls "intrinsic," if not then the religious orientation will become "extrinsic." Allport and Ross (1967) suggests that "...the extrinsically motivated person uses his religion, whereas the intrinsically motivated person lives his"

(p.434). Most individuals fall somewhere along the extrinsic-intrinsic continuum according to Allport.

For Allport, religious sentiment may be weak or strong, rational or irrational, protective or brash, searching or closed. It may help to create the maladaptive and authoritarian personality or the democratic personality structure. That is, it may foster mental health or help stifle it. For example, Allport believes that when the religious sentiment is "extrinsic" that is, when its function is to give certainty, to rid one of insecurity, provide one with preferred status among "God's" children, the personality is more maladaptive. Religiosity for this individual becomes a fortress against any factor that reduces one's preferred status or challenges one's security. In addition, Allport believes that this extrinsic orientation helps to create a "cognitive style" which is both religious and prejudiced, and which helps provide the insecure person who cannot cope with the world the needed security and status. Thus for Allport and Ross (1967), "...to know that a person is in some sense `religious' is not as important as to know the role religion plays in the economy of life" (p. 442). For Allport then, religiosity can be both a source of pathology and the source of well being.

In summary, it is clear that there is disagreement and controversy among the major theoreticians concerning the relationship between religiosity and psychopathology. Freud and Ellis suggest that religiosity produces pathology. While James appears to be the only theorist who believes that religiosity has a generally positive effect on mankind's mental health, he believes, along with Erikson, Jung, and Allport, that religiosity can produce pathology as well as contribute to mental health.

Two questions emerge from the above discussion. First, is there any evidence, as Freud and Ellis suggest, that religiosity is associated with psychopathology? And second, is there evidence of a type of religiosity that is associated with pathology and one that isn't? For answers to these questions, a survey of the existing studies relating religiosity and pathology is needed.

Empirical Studies of Religiosity and Pathology

After the 1920's lassitude and malaise afflicted the empirical studies of the psychology of religion. Currently, however, interest in the field is being renewed. The more recent appearance of a number of studies which attempt to correlate elements of

religiosity with pathology give evidence of this. In fact, a National Institute of Mental Health bibliography on the subject is now available (Summerlin, 1980). On the one hand some researchers continue to argue that religiosity is antithetical to emotional health (Ellis, 1980; Wallis, 1980). Other researchers, like Stark (1971) in his review of the literature on religion and mental functioning through the 1960s and middle 1970s, conclude that theories that presume psychopathology to be a primary source of ordinary religious commitment are false.

The literature concerning the relationship between religiosity and psychopathology through the 1970s has been reviewed by various authors (Sanua, 1969; Dittes, 1971; Becker, 1971; Spilka and Werme, 1971; Argyle and Beit-Hallahmi, 1975). While these studies reveal inadequacies in data bases as well as other deficiencies, they also manifest a steady progress in understanding the complexity of the topic. However, Bergin (1983) points out that the diverse measures of religion and the diverse criteria of mental functioning used in these studies have led to conflicting results. Though conclusions as to the relationship between religiosity and psychopathology cannot be made on the basis of this literature, more

recent literature does appear to allow for the suggestion of some possible hypotheses (Bergin, 1983).

During the 1950's studies of the relationship between religiosity and pathology painted a rather bleak picture of the religious individual. Martin and Nichols (1962), in their summary of nearly a dozen articles suggest that the religious believer can be characterized as being emotionally distressed, conforming, rigid, prejudiced, unintelligent, and defensive. Rokeach (1960) suggests a similar profile for the religious believer. Comparing him/her to the nonbeliever Rokeach (1960) suggested that the believer is more tense, anxious, and symptomatic, especially as indicated by the Welsh Anxiety Index. However, Bergin (1983), suggests that these conclusions may reflect the zietgiest rather than clear empirical fact. "This 'sick' portrait is perhaps a measure of how much research results in behavioral science conform to the intellectual ethos of the time" (Bergin, 1983, p. 172).

Bergin (1983) suggests that since the 1950's religion gradually attained a more positive status and at the same time empirical studies placed it in a more favorable light. For example, Martin and Nichols (1962) attempted to replicate the negative correlations

they had reviewed. They used similar measures of personality and religiosity on a new sample of 163 Purdue University students. While they did not find data suggesting that religiosity enhanced mental health, they also found no support for the earlier negative findings. They reported that their correlations critical of religious influence distributed themselves around the median of zero, and suggested that prior studies had spuriously reported on a few significant correlations that were probably chance figures from many intercorrelations (Bergin, 1983).

Contradictions in results characterize the findings of empirical studies in the years that followed, especially those findings relating to manifest anxiety and psychopathology as measured by the MMPI. While Wilson and Miller (1968) reported a positive correlation (r.=.20) between the Taylor Manifest Anxiety Scores and religiosity among 100 students at the University of Alabama, Bohrnstedt, Borgatta, and Evans (1968), found no differences between religious and nonreligious subjects at the University of Wisconsin in terms of MMPI scores. Williams and Cole (1968) found that highly religious subjects were less anxious on MMPI and galvanic skin

response scores. However, they discovered that a subgrouping of sudden converts had higher manifest anxiety scores than regular church attenders.

Tennison and Snyder (1968) examined patterns of Murray-type needs as a function of religiosity among 299 Protestants at Ohio University. The authors reported a correlation of .15 between 15 Edwards Personal Preference Schedule (EPPS) needs and a mean religiosity index. In addition, it was found that religiosity correlated positively with Deference (.16), Affiliation (.29), Abasement (.27) and Nutrient (.26), but negatively with Achievement (-.15), Autonomy (-.35), Dominance (-.15) and Aggression (-.15). In a similar cross cultural study conducted in Japan, Ushio (1972) used the EPPS and found no correlation between religious activity or religious consciousness and measures of dependency and anxiety. However, the author did discover that religiosity was positively related to the need for Affiliation (.35 and .19), Abasement (.17 and .27), and Nutrient (.52 and .39).

Bergin (1983) in his study of religiosity and mental health suggests that studies such as these are seen by some as supporting the theories of Freud and Ellis concerning the nature of religion. However,

Bergin (1983) is quick to point out that such conclusions do not seem warranted based on the empirical evidence.

> These two studies the two mentioned above . . . are the types of data from which broad and severe interpretations of religion are often made. For instance, Tennison and Snyder (1968) believe that their psychodynamic notions are supported by Freud and Fromm, who felt that conventionally religious people adopt an infantile prototype in their perceived relationship to an omnipotent God. Thus, Tennison and Snyder suggest that such persons tend to be dependent, submissive, self-abasing and intellectually impoverished. Such views may have more to do, however, with the procrustean constructs of researchers than with phenomena. To make so much of 5% variance overlaps between personality and religiosity is not good theorizing. (Bergin, 1983, p. 173)

An interesting study by Chamber, Wilson and Barger (1968) illustrates Bergin's (1983) point. The researchers used a semiprojective test rather than the EPPS to examine the same Murray-type needs as studied by Tennison and Snyder (1968) and Ushio (1972). They

used as subjects in their study some 2,844 University of Florida students. Correlations of religiosity and the projective measures contradicted the results of Tennison and Snyder (1968) and Ushio (1972). In fact, they reported that the less religious subjects were "ineffectual in the expression and satisfaction of needs as a result of inner conflicts caused by the simultaneous arousal of incompatible or opposed needs" (Chambers, Wilson, & Barger, 1968, p. 209).

It is clear from the literature reviewed thus far that there exists much confusion and contradictory evidence among the empirical studies of religion and mental health. Bergin (1983) suggests that this conflict is the result of the different views of the investigators and because of the different personality and religiosity measures used. Additionally such inconsistencies may be the result of weak or spurious relationships or limited generality due to differences among populations. Bergin (1983) states, "In a field marked by a plethora of inconsistent measures, few common standards, and divergent prejudices, these contradictory results happen all too often" (p. 174).

Beit-Hallahmi (1974) suggests that it is important not to underestimate the impact that researcher bias has on the results of religiously-

oriented empirical studies. He warns that because much of the recent research on the relationship between religiosity and psychopathology has been conducted by those who have ". . . an interest in the preservation of religion as a social institution . . . " that we are in danger of creating a " . . . religious psychology of religion . . . " (p.389). However, Bergin (1983) points out that it is equally true that those who view religion in a negative light may also allow their bias to influence the research design and conclusions drawn from results.

> One researcher views a worshipful life-style positively in terms of reverence, humility, and constructive obedience to universal moral laws, whereas another researcher views the same life-style negatively, as self-abasing, unprogressive, and blindly conforming. The researcher's construct system may then guide the choice of measure and the interpretation of results to confirm his or her predilections. (p. 174)

While it appears true that researcher bias may account for many of the conflicting results seen thus far by unconsciously influencing sample selection, measures used, conceptual definitions, and even causing some researchers to draw causal conclusions from only

correlational data; it is equally true that careful consideration of possible bias can help to reduce similar mistakes in the future.

In an attempt to reduce some of the ambiguities of the empirical evidence, Bergin (1983) conducted a meta-analysis (Glass, McGraw, and Smith, 1981) of the literature which used at least one measure of religiosity and at least one clinical pathology measure, such as the MMPI or comparable scale. Table 1 is a reproduction of his findings. Bergin's (1983) intent was to include studies which analyzed clinical traits, and, as a result, studies of nonclinical traits such as dominance-submission, introversion-extroversion etc., were omitted.

Table 1

Studies Used in Religiosity and Mental Health Meta-Analysis

Study	Year	N (9,779)	Subjects	Measures	Pearson r.
Bohrnstedt Borgatta, & Evans	1968	3,666	Students	Religiosity (Rel.) and MMPI (M of 18 r.'s)	.08
Boren	1955	140	Students	Rel. and MMPI (Mdn of >30 r.'s)	.00
Brown	1962	203	Students	Belief indexes vs. MAS and neuroticism (M of 11 r.'s)	.00
Brown & Lowe	1951	108	Students	Rel. belief & MMPI (Mdn t on subscales)	.00
Fehr & Heintzelman	1977	120	Students	Rel. & MAS	.05
				Rel. & Self-esteem	-.13

Table 1 (continued)

Study	Year	N (9,799)	Subjects	Measures	Pearson r.
Funk	1956	255	Students	Orthodoxy & MAS	.00
Heintzelman & Fehr	1976	82	Students	Orthodoxy & MAS	.07
				Orth.& hostility	.29*
				Orth. & Self-esteem	.06
Hood	1974	82	Students	Rel. & ego strength	-.16
				Rel. & psychic adequacy-inadequacy	.28*
Jolish	1978	66	Jewish Temple members	Rel. & Ellis irrational beliefs	.00
Joubert	1978	137	Students	Church activities & Ellis beliefs	.00
Keen	1967	250	Urban Adults	Rel. factors & neuroticism	.00

Table 1 (continued)

Study	Year	N (9,799)	Subjects	Measures	Pearson r.
Maranell	1974	109	Students (South)	Rel. & MAS or maladjustment	-.11
		96	Students (Midwest)	Rel. & MAS or maladjustment	-.05
Martin & Nichols	1962	163	Students	Belief inventory & MMPI Pa	.12
Mayo, Puryear, & Richek	1969	166	Students	Rel. & MMPI (4/5's favor Rel.)	+*
Moberg	1956	219	Adults >65	Rel. activity & adjustment	.59*
Panton	1979	234	Male Prisoners	Rel. ident. & adjustment	.82*
Rokeach	1960	202	Students (Michigan)	Cath. & Prot. vs. non-believer on anxiety	-.25*
		207	Students (N.Y.)	Cath. & Prot., & Jews vs. non-believers on anxiety	-.32*

Table 1 (continued)

Study	Year	N (9,799)	Subjects	Measures	Pearson r.
Smith, Weigert, & Thomas	1979	1,995	Cath. adolescents	Rel. and self-esteem (M of 12 correlations)	.19
Spellman, Baskett, & Byrne	1971	60	Rural adults	Rel. & MAS	.00
Swindell & L'Abate	1970	135	Students	Rel. attitudes and repression sensitization	.08
Weltha	1969	565	Students	Rel. attitudes & adjustment	.00
Williams & Cole	1968	161	Students	Rel. and insecurity & MMPI anxiety	+*
Wilson & Kawamura	1967	164	Students	Rel. attendance & participation & neuroticism (M of 4 r.'s)	.02

Table 1 (continued)

Study	Year	N (9.799)	Subjects	Measures	Pearson r.
Wilson & Miller	1967	100	Students	Rel. & MAS	-.20
Bergin (1983)					

Note: MMPI = Minnesota Multiphasic Personality Inventory; MAS = Manifest Anxiety Scale.

* Statistically significant.

Bergin (1983), in summarizing the results of the analysis (Table 1), observes that of the 30 effects tabulated, only 7, or 23%, evidenced the negative relationship between religion and mental health assumed by Freud, Ellis and others. Forty-seven percent of the studies indicated a positive relationship and 30% zero relationship. When these results are combined, 77% of the obtained results are seen to be contrary to the negative effect of religion theories (Bergin, 1983). Further, 23 of the outcomes showed no significant statistical relationship, 5 showed a positive relationship, and only 2 showed a

statistically significant negative relationship. Bergin (1983) states, "although the findings...provide no support for an Ellis-type theory, they also do not provide much more than marginal support for a positive effect of religion" (p. 176).

Bergin (1983) cites several other studies from the fields of sociology and social psychiatry which support and extend his meta-analysis findings. Lindenthal, Myers, Pepper, & Stern (1970) studied nearly 1,000 individuals. Their findings indicated that psychiatric evaluations of degree of mental impairment showed a negative relationship between impairment and church affiliation and attendance. Stark (1971) gathered data through the Survey Research Center at Berkeley and the National Opinion Research Center at the University of Chicago which showed that on all four measures of religiosity, the mentally ill were less religious than the normal controls. Stark (1971) concluded that theories that suggest that psychopathology is a primary source of religious commitment are false.

From a brief review of some of the sociological studies which relate religiosity to social problems, it appears that there is considerable evidence that religious involvement is negatively correlated with

social problems. Religious involvement has been shown to be negatively correlated with sexual permissiveness, drug abuse, alcohol use, and has been show to be slightly negatively correlated with deviant or delinquent acts (Burkett & White, 1974; Cardwell, 1969; Gorsuch & Butler, 1976; Rohrbaugh & Jessor, 1975).

Recent studies of religious converts indicate that converts in general are as functional as or better off than nonconverts (Parker, 1977; Srole, Langer, Michael, Opler & Rennie, 1962; Stanley, 1965; Williams & Cole, 1968). Bergin (1983) commenting on these studies states, "Although some converts may be disturbed, the studies are consistent in indicating that conversion and related intense religious experience are therapeutic, since they significantly reduce pathological symptoms" (p. 178). While acknowledging that behavioral scientists may correctly be skeptical of the durability of these changes, and that converts may simply be exchanging psychiatric symptoms for identification with a more extremist fundamental subculture, Bergin (1983) states:

> But it has been observed that some of these people have made fundamental changes and enhanced their reality contact, that the gradual converts to more

conventional religiosity are sometimes superior in their life adjustment, and that the effects of psychotherapy are not any better by comparison. (p.178)

Summary

The psychology of religion went from a viable and potentially fruitful area of research in the early 1900's, to an ignored and neglected area of research by the the 1940's and 1950's. However, this lack of research interest did not stop various theorists from developing theories as to the nature of religion and its relationship to psychopathology. Freud and Ellis represent the view that religiosity has a negative impact on mental health. James, Erikson, Jung and Allport, on the other hand seem to suggest that religion could have a positive and/or negative impact on mental health.

In contrast to this earlier decline in research, the last 20 years have been marked by an increase of interest in the study of the psychology of religion. A germane example of this is seen in the increase in the number of studies examining the relationship between pathology and religiosity. A review of this literature reveals little support for theories which suggest that religiosity is associated with psychopathology, and appear to support the theoretical positions which

suggest that different types of religiosity can be associated with both mental health and psychopathology. However, it is also clear that this important area of research warrants further study in which measures of religiosity are more clearly defined. As was seen in the above discussion, conflicting results in the literature were common and appear to be due in part, to the use of different measures of personality and religiosity. This study, then, represents an attempt to further examine the relationship between religiosity and psychopathology in which the measures of religiosity are more clearly defined.

Measuring Religiosity: the SWB, SMI, and ROS

Toward a Definition of Religiosity

As was seen in the above discussion, the literature which attempts to deal empirically with the relationship between religiosity and psychopathology is full of conflicting results. One explanation for this is that religiosity is a multi-faceted construct that has not been precisely and consistently defined in the research. Hunt and King (1971) for example, identified 21 factors in their study of religiosity. Bergin (1983) points out that many of the studies

appear to conceptualize religion in terms of "good" or "bad" religiosity. Allport and Ross (1967) called it intrinsic (good) versus extrinsic (bad), Allen and Spilka (1967) defined it as committed (good) versus consensual (bad), and as it has already been shown, James (1902) referred to the religion of "healthy-mindedness" and the "sick soul."

Reviews of the various measures used to study religiosity such as Basset, Sadler, Kobischen, Skiff, Merrill, Atwater and Livermore's (1981) study, indicate that while other methods have been used, most of the self-report measures concerning religiosity are constructed from a deductive approach as opposed to external or inductive approaches. Gorsuch (1984) points out that this means that the choice and definition of constructs precedes the formulation of items. The crucial question then becomes, how to determine what construct(s) is the whole or part of the religious variable.

The issue of dimensionality of constructs is just now being settled in favor of multidimensionality. The first form of multidimensionality implies a diversity of separate parts that have no specific relationship to the whole. Often these parts are conceived of as

"good" or "bad" religiousness. Bergin (1983) points out that Allport and Ross's Religious Orientation Survey (ROS) is a good example of this type.

According to Bergin (1983), results using a simple dichotomy like the ROS appear to demonstrate that there are different kinds of religiosity and that their correlations with other criteria differ. Kahoe (1974) using the ROS with its extrinsic and intrinsic dimensions, showed divergent patterns of correlations between the two orientations. In a study of 518 college students, Kahoe (1974) showed that while intrinsic scores correlated positively with responsibility, internal locus of control, intrinsic motivational traits, and grade point average, extrinsic scores correlated positively with dogmatism and authoritarinism but negatively with responsibility, internal control, intrinsic motives, and grade point average. Bergin (1983) suggests that findings such as these indicate that " . . . conflicting results in many studies may be due to the failure to distinguish discrete subgroups whose scores correlate divergently with the same criterion" (p. 179).

Bergin (1983) suggests that the multiplicity of factors in religion make it unlikely that it can be simply divisible into "healthy" and "unhealthy" sub-

groups. Glock (1962) for example redefined religiosity into five basic factors: ritual, experiential (religious emotional experience), ideological (belief system), intellectual (knowledge of tenets and scripture), and consequential (good works). DeJong, Faulkner, and Warland (1976) identified six different factors. In general it can be said that the concept of multidimensionality ranges from simple dichotomy to multiple factors. However, in this model, multiple factors have no specific implication as to the relationship of the factors to the whole concept of religiosity.

A second conceptual form is much like the construct of the G factor in intelligence. Bergin (1983) suggests that many of the discrepancies in some of the factor analytic studies could be resolved if religiosity, like intelligence, involves a general or G factor and several specific or S factors. Thus the resolution of the unidimensionality vs. multidimensionality issue could be both/and rather than either/or.

It is clear from the foregoing discussion that when the word religiosity is used, it can mean many different things. Some theorists believe that the term religiosity is synonymous with neurosis and poor mental

health while others associate it with enhanced personal adjustment. For purposes of this study religiosity as a construct will be defined as follows. First, as Bergin (1983) has suggested, religiosity will be conceived of as a single phenomenon with several specific factors. When the varieties of religious expression are examined, it is evident that the details of the expression are extremely varied. However, as Stark and Glock (1974) point out beyond the differences in specific beliefs and practices, there seems to be considerable consensus among most religions on the general ways that religiosity is manifested.

For purposes of this study then, the specific factors comprising the construct of religiosity will include the following components defined within a monotheistic context: practice, experience, and consequences. Religiosity defined as practice includes acts of worship and devotion. Within Christianity, the religion with which the present study is concerned, some of these formal practices include attendance at worship services, taking communion, baptism, and weddings. In addition to the more ritualistic forms of practice, the dimension also includes activities referred to as devotional. Devotionalism among Christians is manifested through a variety of means

including private prayer, Bible reading, and even more spontaneous acts such as impromptu hymn singing.

The experience dimension of religiosity deals with that aspect of religion that concerns the subjective awareness of and relationship to God. This dimension is concerned with those religious feelings, perceptions, and sensations that the individual perceives as resulting from his/her relationship with God. It is clear that different religious traditions have different expectations about the nature and intensity of any type of religious encounter with God but it is equally clear that all religious traditions within a monotheistic context place at least minimal value on some variety of subjective religious experience as a sign of individual religiosity.

The third broadly defined dimension of religiosity is the dimension of consequences. This dimension identifies the effects of practice and experience on the person's day-to-day life. This includes what importance religion has in the individual's life and how it is integrated into daily life. It includes an individual's sense of satisfaction with life and direction in life. In summary, religiosity in this study, is conceptualized

as a single phenomenon with several specific factors- practice, experience, and consequences- defined within a monotheistic context.

It is clear from this discussion that the definition and measurement of religiosity is as complicated as describing psychopathology, which currently requires a 494 page book: The Diagnostic and Statistical Manual of Mental Disorders (3rd ed.; Spitzer, 1980). Bergin (1983) points out that as a result:

> . . . generalizations about the psychological causes and consequences of religious involvement need to be tentative and subject to further investigation. The mixed or insignificant results of many studies are conceivably due to the kind of imprecision that once afflicted psychotherapy research . . . As in psychotherapy, greater specificity and precision in defining and measuring the religious factor would likely alleviate this problem. (p. 180)

No matter which model one uses for defining the construct of religiosity (the dimensional approach vs. the G factor approach), Gorsuch (1984) argues that three conditions should be met in the use and

development of measures of religiosity: (a) no comparable scale should exist, (b) a new measure should be developed only if it can be argued to represent a new and unrelated construct, and (c) adequate resources for scale construction must be available. Thus legitimacy should be granted to new scales which are based upon a unique epistemology or theory. This would be true of the Paloutzian and Ellison's (1982) Spiritual Well-Being Scale (SWB) which is based in large part on Moberg's (1971, 1974, 1978, 1979) concept of spiritual well-being. In addition Ellison's recently developed Spiritual Maturity Index (SMI) could be granted legitimacy if shown to be measuring a different dimension than the SWB.

In conclusion religiosity may be best understood as a multi-dimensional construct which needs to be carefully defined. It can tentatively be said that the three measures used in this study (SWB, SMI, and ROS) represent three legitimate measures of religiosity as conceptualized in this study. It is now time to turn to a more detailed description of the religious constructs measured by the three scales.

The Spiritual Well-Being Scale (SWB)

According to Ellison (1982), attempts to measure the subjective well-being of Americans soon led to the discovery that economic indicators alone were simply not a sufficient measure of the quality of American life. The convergence of this discovery with the lessening impact of behaviorism's exteriorizing concept of human beings led to what Ellison (1983) called, "the social indicators or quality of life movement". This movement proposed that the noneconomic subjective measures of well being are valid and essential if the true condition of people is to be known.

Although the quality of life movement represented a more comprehensive approach to the study of well-being, Ellison (1983) noted that psychologists concerned with the study of subjective well-being had for the most part still failed to deal with the spiritual dimension of human welfare. For example, Campbell (1981) whose research indicated that income and material goods had become much less clearly linked to positive well being, failed to include in his later study any indicator of spirituality. This failure to include a measure of spirituality came in spite of the fact that the Gallop Poll stated that 86% of Americans reported that their religious faith was

very important and Campbell's own research (Campbell, Converse, & Rogers; 1976) which indicated that 25% of the American population believed that their life quality was contingent on their religious faith.

To the three basic needs Campbell (1981) suggested should be studied to acquire and accurate picture of well-being, --the need for having, relating, and being--, Ellison (1983) suggested a fourth, the need for transcendence. According to Ellison "this refers to the sense of well-being that we experience when we find purposes to commit ourselves to which involve ultimate meaning for life" (Ellison 1983, p. 330). Believing this fourth dimension to be an important component to the construct of well being, and in an attempt to measure this transcendent quality of life, Paloutzian and Ellison (1982) began the development of an instrument that would provide a general measure of what they called "spiritual well-being". They have called this instrument the Spiritual Well-Being Scale (SWB).

In order to scientifically study spiritual well being, the term must be defined as clearly as possible. Ellison, commenting on the importance and difficulty of the task, states, "It is probably because such terms as "spiritual" and "well-being" appear to have subjective

meanings which are impossible to operationalize that behavioral scientists have avoided the study of spiritual health and disease" (Ellison 1983, p.331). Yet, while acknowledging that questions of validity must be recognized in any study which measures phenomena which cannot be directly observed, Ellison suggests that we should still " . . . be able to systematically and scientifically develop indicators of this hidden dimension" (Ellison 1983, p. 331).

In an attempt to move toward a clearer definition of the construct of spiritual well-being, Ellison (1983) relies heavily on the theory of Moberg (1979) and Blaikie and Kelsen (1979). According to Moberg (1979), spiritual well-being involves both a vertical and horizontal component. Paloutzian and Ellison (1982) state that the vertical dimension refers to one's sense of well-being in relation to God while the horizontal dimension refers to one's sense of life purpose and life satisfaction, with no reference to anything specifically religious. Having a sense of existential (the horizontal dimension) well-being is "to know what to do and why, who (we) are, and where (we) belong" (Blaikie and Kelsen, 1979, p.137) in relation to ultimate concerns. According to Ellison (1983) each of these dimensions involve a stepping back

from and a moving beyond what is; Ellison calls this the transcendent function.

In an attempt to sharpen the existing conceptualization of spiritual well-being, Ellison (1983) adds three clarifying concepts. First, he suggests that spiritual well-being may not be the same thing as spiritual health. Rather it is the expression of health "much like the color of one's complexion and pulse rate are expressions of good health" (Ellison 1983, p.332). The significance of this for Ellison is that "We are freed to consider the reported expressions of spiritual well-being as general indicators and helpful approximations of the underlying state" (Ellison 1983, p.332). Secondly, Ellison (1983) suggests that spiritual well-being does not appear to be the same thing as spiritual maturity. This means that a person may experience his/her life as being on track in terms of the vertical and horizontal dimensions, yet be anywhere from very immature to very mature spiritually. Third, Ellison (1983) suggests that spiritual well-being should be conceptualized as a continuous variable rather than dichotomus. The question is not whether or not one has it, rather it is a question of how much one has and how that may be increased.

In constructing the Spiritual Well-Being Scale, Paloutzian and Ellison (1982) wished to provide a general measure of spiritual well-being that would not be confounded by " . . . specific theological issues or a priori standards of well-being which would vary from one religious belief system or denomination to another" (p. 332). As a result they constructed a scale designed to measure the vertical and horizontal dimensions of well-being mentioned above, within a broad monotheistic context. In addition, it is also recognized that "...although distinct to a degree, Ellison and Paloutzian acknowledge that religious and existential well-being are nonetheless overlapping dimensions at a conceptual level; the empirical data support such a view" (Bufford 1984, p.4).

The Spiritual Well-Being Scale then, is an instrument designed to be used as a general measure of spiritual well-being in which the construct of "spiritual well-being" is conceptualized as a continuous variable. The construct could thus be defined as the "spiritual dimension of human welfare" and reflects the human need for "transcendence" (Ellison, 1983, p. 330).

The scale consists of 20 items responded to on a six point scale ranging from strongly agree to strongly disagree with no neutral point. Ten items measure the vertical scale and ten items measure the horizontal scale. The vertical scale is called the Religious Well-being scale (RWB), while the horizontal scale is called the Existential Well-being Scale (EWB). The primary distinction between the subconstructs is the presence of a reference to God in the RWB items. No reference to God is present in the EWB items. The SWB scale produces three scores: (1) a summed score for religious well-being (RWB), (2) a summed score for existential well-being (EWB) items, (3) a total SWB score consisting of the sum of the RWB and EWB scores. Factor analysis revealed two factors: "a single factor which comprised the Religious Well-being subscale and two sub-factors, one measuring life direction and one measuring life satisfaction which loaded together on the Existential Well-being subscale" (Bufford 1984, p.4). Reliability has been demonstrated with test-retest coefficients at .93 (SWB), .96 (RWB), and .86 (EWB). Coefficient alphas, an index of internal consistency were also reported at .89 (SWB), .87 (RWB), and .78 (SWB) (Paloutzian & Ellison, 1982).

Results of the limited number of validity studies have revealed that SWB is negatively related to loneliness, and value orientations emphasizing individualism, success and personal freedom. The SWB has been shown to be positively related to purpose in life, self-esteem, self-report of the quality of the person's relationship with parents, family togetherness as a child, peer relations as a child, and social skills (Campise, Ellison, & Kinsman, 1979) . Paloutzian and Ellison's (1979a) study revealed that SWB, RWB, and EWB positively correlated with intrinsic religious orientation, the Purpose in Life Test (Crumbaugh & Maholic, 1969) and self-esteem and social skills. In addition SWB and extrinsic orientation were negatively correlated. Similar results were also discovered by Bufford (1984). The SWB, RWB, and EWB were also negatively correlated with the UCLA Loneliness Scale (Ellison & Paloutzian, 1982).

Ellison and Economos' (1981) study indicated that SWB and its sub-scales were significantly related to a number of variables including, self-esteem, doctrinal beliefs affirming the valuing of the individual, worship orientations and devotional practices which promote a sense of personal acceptance and communion with God, one's own positive self-evaluation of God's

acceptance, the average number of Sunday services attended each month, and the average amount of time spend in daily devotions. The authors also concluded that "born again Christians" had higher levels of spiritual, religious and existential well being than "ethical Christians".

Quinn (1983) found that there was a significant positive relationship between SWB and marital satisfaction as measured by the Marital Satisfaction Inventory; however, no relationship was found between the religious well-being subscale and marital satisfaction. Campbell's (1983) study of 28 patients with renal failure who were undergoing hemodialysis found that there was a positive correlation between spiritual well-being scores and adjustment. It was found that SWB had a significant negative correlation with depression as measured by the Beck Depression Inventory. In addition, significant positive correlations were found between SWB and measures of acceptance of disability, assertiveness, and religious coping.

To date little research has been conducted which relates SWB to MMPI scores. In a recently completed study, Parker (1985) examined the relationship between the SWB and the validity and clinical scales of the

MMPI in a seminary sample. Parker (1985) found that L, K, and 8 were all positively correlated with SWB scores while F, 5, and 0 were negatively correlated. Franz (1985) who studied the relationship between MMPI REL scores and scores on the SWB in a psychological outpatient setting, reported a significant positive correlation at $p<.05$ between the REL and the EWB after the effects of education, Christian belief, sex, and marital status had been separated out. In the same study similar results were found when the relationship between RWB and REL was examined.

It has been seen that researchers have for the most part ignored the spiritual dimension when studying quality of life. In response to this void Paloutzian and Ellison (1982) developed the SWB scale. The reliability of the scale appears strong, and measures of validity are promising. More importantly, the SWB represents a serious attempt to measure a unique dimension of religious experience in an individual's life, a dimension frequently ignored by researchers.

The Spiritual Maturity Index (SMI)

Ellison recently developed the Spiritual Maturity Index (SMI) as a companion to the already discussed SWB. " . . . the Spiritual Maturity Scale is intended

to measure the state of development of the individual's spiritual life . . . " (Bufford 1984, p.5). The latest revision of the scale is comprised of 30 items and uses basically the same format as the SWB. However, it differs from the SWB in that it attempts to measure the degree of maturity rather than well-being in general. Bufford (1984) states:

> The Spiritual Well-Being Scale is roughly analogous to a measure of physical health, while the Spiritual Maturity Scale is roughly analogous to a measure of physical development. The two measures are thus intended to measure dimensions which are somewhat related, but distinct. (p. 7)

An 18 point description of Ellison's basic conceptualization of the scale is provided in Appendix A.

It should be noted that the Spiritual Maturity Index (SMI) originally consisted of 20 items; this version was used in the present study. Subsequently the SMI was expanded to a 30 item scale. Using a factor analysis of the 30 item scale, Clarke, Clifton, Cooper, Mueller, Sampson, and Sherman (1985) showed that the added items did not comprise a new factor. In addition, Clarke et al. (1985) found that social

desirability as measured by the Edwards Social Desirability scale was not a significant predictor of the scale. Clarke, Clifton, Mishler, Olsen, Sampson, and Sherman (1985) found similar results in their study.

At the present time little is known about the reliability and the validity of the Spiritual Maturity Index. Bufford (1984), however, found the Spiritual Maturity Index to be highly correlated with the RWB subscale of the SWB and suggests that this fact casts some serious doubts on Ellison's initial hypothesis that the scales measure significantly different aspects of the spiritual life. In addition to the above findings, Bufford (1984) also found SMI to have significant positive correlations with intrinsic religiosity, frequency of family devotions, importance of religion, and religious knowledge, and to be negatively correlated with extrinsic religiosity.

As we have seen then, the SMI is a questionable companion to the SWB and has yet to be thoroughly analyzed. It is included in this study as a way of further understanding the relationship between the SWB, SMI, and ROS scales.

Religious Orientation Scale (ROS)

The Religious Orientation Scale (ROS) was developed by Feagin (1964) and Allport and Ross (1967). Though originally conceptualized as a unidimensional scale measuring intrinsic and extrinsic religious orientations, the results from a number of studies have led to the conclusion that the subscales are relatively unrelated. Bufford (1984), in summarizing the impact of the research states:

> The Extrinsic dimension measures the individual's tendency to view religion as an activity which is instrumental in accomplishing other personal goals; persons high on this dimension tend to "use their religion" and to be characterized by a variety of prejudices. Individuals high on the Intrinsic dimension tend to focus their lives around their religion and view their other activities as instrumental in accomplishing religious goals; these individuals are low in prejudice. (p.8)

In addition to the above categories, individuals who are high on both the intrinsic and extrinsic dimensions are described as "indiscriminately pro-religious" and are more prejudice than persons high on the extrinsic dimension alone. On the other hand, individuals who

score low on both the intrinsic and extrinsic dimensions can be termed indiscriminately anti-religious (Hunt & King, 1971).

Numerous studies have been conducted which compare ROS scores with other correlates. Strickland and Shaffer (1971) used the ROS in their study of three groups of volunteer male and female members from two large churches. The subjects were evaluated as to their intrinsic-extrinsic religious orientation and belief in internal vs. external control of reinforcement and athoritarianism. Authoritarianism was not found to be related to either religious orientation or locus of control.

Maddock, Kenny, and Middleton (1973) studied active members of Episcopalian congregations. Subjects were asked to indicate preferences for a set of questionnaire items composed of personality characteristics and typical role activities of clergymen. The subjects also completed the ROS. Preference for personality characteristics was found to be significantly greater than for the role activity items; however, the intrinsic-extrinsic orientation of the respondents was not significantly related to these choices.

Crandall and Rasmussen's (1975) study of psychology students examined the relationship between scores on the Purpose in Life Test and religious values. Perceived purpose in life was correlated with intrinsic religious orientation but was not found to be significantly correlated with extrinsic orientation.

In a similar study Bolt (1975) found comparable results. In this study individuals displaying an intrinsic religious orientation, when compared to subjects with an extrinsic orientation, reported a significantly higher sense of purpose or meaning. Soderstrom and Wright's (1977) study also found that intrinsically motivated individuals scored significantly higher on degree of purpose in life than extrinsically motivated subjects.

Paloutzian, Jackson, and Crandall (1978) in two different studies assessed the relationships between the type of religious belief system (ethical vs. born again Christian), type of conversion experience (sudden vs. gradual vs. unconscious), and four attitudinal dependent variables including the ROS. In both studies the same basic pattern of results was found. "Born-again Christians" were significantly more intrinsically motivated in their religious beliefs and higher in social interest than the "ethical

Christians." "Sudden converts" were found to be significantly more intrinsic in religious orientation than "unconscious converts."

Death perspectives and religious orientation as a function of Christian faith was studied by Cerny (1978). The construct validity of the Death Perspective Scales (DPS) was evaluated through administering the ROS, Spilka's Committed-Consensual Religious Orientation Scale, the DPS, and a personal data questionnaire. The battery was given to undergraduate students who were described as born-again Christians, and non-Christians. "Born-again" Christians had a more positive death perspective and a more committed intrinsic religious orientation than the non-Christians.

The religious values of 91 Christian and 100 public school 8th graders were studied by Tjart and Boersma (1978). Christian school students were found to have a more positive orientation to the concepts of God and prayer, more intrinsic religious orientation, and a greater preference for moral (interpersonal) behaviors than the public school subjects.

Various other studies have found other significant results relating to the ROS. Intrinsically oriented individuals devalued rape victims less than

extrinsically oriented ones (Joe, McGee, and Dazey; 1977). In addition, intrinsically religiously oriented people have been noted to score significantly higher on self-control, personal and social inadequacy, and stereotyped femininity (McClain, 1978). Baither and Saltzberg (1978) found that intrinsically oriented individuals were more rational than extrinsics on the Rational Belief Test. Paloutzian and Ellison (1979b) and Bufford (1984) showed that intrinsics also scored significantly higher than extrinsics on the SWB scale. Bahr and Gorsuch (1982) found that intrinsics were less anxious than nonintrinsics. It is important to add that these researchers noted that using a general measure of religiousness in studies may lead to findings of a positive correlation with anxiety if the sample contains more extrinsics than intrinsics.

In a study of marital satisfaction and religious orientation conducted by Quinn (1983), a positive correlation between extrinsic religious orientation and marital dissatisfaction as measured by the Marital Satisfaction Inventory, was found. However, no significant relationship was found between intrinsic religious orientation and marital satisfaction. Franz (1985), in his study of the REL scale of the MMPI in an

outpatient clinic sample, found that REL scores were negatively correlated with the extrinsic scale of the ROS.

Finally, Bradford (1978) in his doctoral dissertation, studied the relationship between the ROS and the MMPI. The sample consisted of 136 undergraduate students from East Texas State University who were given the ROS and the 173 item Hugo (1971) short form of the MMPI. Four religious orientations were constructed on the basis of median scores. The religious orientations included intrinsic religious (IR), extrinsic religious (ER), indiscriminately proreligious (IP), and indiscriminately antireligious (II). Median MMPI profiles were constructed for each of the four categories, with 2 point code type interpretations of characteristic personality patterns. Mental abnormality was defined in the study as one standard deviation above or below the mean of 50 T-points. Though males score significantly higher than females in mental abnormality, no significant differences between the religious orientations or interaction of religious orientation and gender were found. Additionally it was found that the IR and the ER orientations were not significantly different on any of the MMPI scales, but the IP and II orientations

differed significantly from each other and from the IR and ER orientations. Bradford (1978) noted that these differences occurred primarily on the D, Pa, Sc, and Si scales. Because his study found that IR and ER orientations were not significantly different, Bradford (1978) concluded " . . . that this result does not support Allport's view that a unified belief promotes mental health" (p. 123).

The rationale for including the ROS in this study is to provide further data concerning the relationship between intrinsic religiosity and the SWB and SMI. Bufford (1984) found that Intrinsic Religiosity was positively correlated with high SWB and SMI scores and it is expected that these results will be replicated in this study.

It has been shown that the SWB, SMI, and the ROS are related measures of religiosity. In particular the SWB and SMI have been constructed to fill a void in the existing research on the quality of American life.

The MMPI and MMPI Code-Types

According to the Users Guide for the Minnesota Report (Hathaway and McKinley, 1982), early in the MMPI's history it became apparent that the test responses of many clinical patients produced mixed

patterns with more than one scale elevated in the clinical range T > 70. In addition, clinicians observed that many clients that evidenced similar pathology also evidenced similar MMPI profiles. Today there are many well researched descriptors for a large number of MMPI code types (Graham, 1973). Mauger (1984) in a presentation to a recent CAPS convention has suggested that code-types provide a better index of pathology in a sample (or population) than mean profiles. The latter practice tends to nullify significant pathological trends by averaging extreme highs and lows. Thus it appears that using the mean code-type score is a good way to acquire the best possible measure of psychopathology from the MMPI.

According to Butcher and Graham (1985) there are three types of MMPI code-types. The simplest code types are high points and low points. The high point/ low point codes do not suggests anything about the absolute level of the highest scale, only that relative to other scales in the profile one is particularly high or low. Two-point codes indicate which two clinical scales are the highest in the profile and for the most part are interchangeable. Again, as with high and low point codes, two-point codes say nothing about the absolute level of scores for the two scales in the

code. Three-point codes indicate which three clinical scales are the highest in the profile. As with the other codes, they are interchangeable and indicate nothing about the absolute level of the scores.

"Currently, there seems to be a moving away from interest in complex rules for classifying profiles and a resurgence of interest in the simpler two-scale approach for classification of MMPI profiles" (Graham, 1983, p.63). According to Graham (1983) reliable extra-test correlates can be identified for profiles that are classified according to their two highest clinical scores (not including 5 and 0). In addition, Butcher and Graham (1985) suggest that code-types are interpretable even if no scale in the code is above T = 70. However, the authors caution that the more pathological symptoms and behaviors are less likely to apply than are the personality descriptors. Finally, Graham (1983) points out that if the two-point codes are used interchangeably, there are 40 possible two point combinations of the 10 clinical scales. Though this is the case, Graham (1983) suggests that about 22 occur frequently enough to be considered in his interpretive guide.

Religiosity and the MMPI

To date no research beyond Bradford's (1978) study, has been discovered which relates MMPI code-types to specific measures of religiosity such as the ROS, SWB, or SMI. However, a significant number of studies have been generated which relate various MMPI scale scores with certain religious attitudes, beliefs, and practices. It is important to note that most of these studies have used samples from student and psychiatric populations. The discussion that follows therefore will be broken down into three parts, student samples, seminary samples, and finally, psychiatric samples.

Student Samples

Brown and Lowe (1951) studied the MMPI profiles of Bible College students and University of Denver students. An attempt was made to compare the MMPI profiles of a group of "believers" with a group of "non-believers". The two groups were determined on the basis of extreme scores on the Inventory of Religious Belief scale. Tests of significance were applied to the mean differences of the groups. Though several significant differences were noted, the majority of differences were attributed to chance variation. However, there were several observed differences which

were found to be significant at the .05 level of confidence or beyond. Lie (L) scale scores for male Bible College students were significantly higher than similar scores for nonbelievers. Male nonbelievers scored higher than believers on the Depression (D) scale (2). The most significant difference between the groups occurred on the Masculinity/Femininity Mf (5) scale. Male nonbelievers scored significantly higher than the believer groups. Female subject groups, however, were not significantly different on the same (Mf) scale.

Boren (1955) studied the religiosity of University of Minnesota freshman male students. He divided 140 students into three groups or levels of religiosity. Boren identified the groups on the basis of a religiosity index which was defined as the sum of an individual's standard scores on three Thurstone Religious Attitude scales: attitude toward the Bible, attitude toward God, and attitude toward Sunday observance. Personality characteristics of the groups were evaluated through the use of the MMPI and the Welsh Anxiety Index and Internalization Ratio. The "religious" group scored significantly higher than the "non-religious" group on the Parnoia Pa (6) scale. No difference was found among the groups on Welsh's

Anxiety Index and Internalization Ratio. However, significant correlations were found of -.24 between the Attitude Toward the Bible scale and the MMPI D scale, and +.20 between Attitude Toward Sunday Observance scale and the MMPI Psychasthenia Pt scale. In addition, Boren (1955) offered evidence that the two attitude subscales with positive belief content (attitudes toward God and the Bible) correlated with each other much more than with the "thou shalt not" content of the Attitude Toward Sunday Observance scale. This led to the hypothesis that separate positive and negative religious factors may exist.

Mayo, Puryear, and Richek (1969) compared 166 religious and nonreligious college students on the MMPI L, K, F validity scales, the ten clinical scales, and on the special scales of R (repression), A (anxiety), and ES (ego strength). The authors used the answer to the question "Do you consider yourself to be a religious or nonreligious person?" as their measure of religiosity.

Mayo et al. (1969) began their study by contrasting the current psychoanalytic views of religion. They contrasted Freud's view that religion is an illusion which functions to skew reality in the direction of the believer's wishes with Jung's belief

that religion actually performs a positive function in the life of the believer. Other examples of differing beliefs about the utility of religion were discussed with special emphasis being given to Ostrow and Scharfstien's (1954) book The Need to Believe. These latter authors suggested two hypotheses in their book: (1) that the religiously devout suffer less from guilt and depression and (2) that religion reinforces schizophrenic tendencies. Mayo et al. (1969) attempted to test these hypotheses in their study. The results indicated that in comparison to non-religious males, religious males were significantly less depressed, schizophrenic, and psychopathic. They found that the two male groups were significantly differentiated on four MMPI variables; religious males scored significantly lower on F, 2, Psychopathic deviant Pd (4), and Schizophrenic Sc (8) scales than did nonreligious males. Additionally, they found that nonreligious females scored higher on ego strength than their religious counterparts.

It should be noted that Mayo et al. (1969) caution that:

> . . . it would be presumptuous to interpret the findings as either substantiating or disconfirming any theoretical stand on the

> psychology of religion. The operational definition of religiosity utilized here might justifiably be labeled-in research argot-a "quick and dirty" one. (p.384)

With the above limitations of the study in mind, the findings generally show more favorable results for religious males than older studies. Also the data is inconsistent with Boren's (1955) study which suggested that religious individuals tend to have higher Sc scale scores than nonreligious. In fact this study supports just the opposite conclusion, viz. that religious males tend to have lower Sc scale scores than nonreligious males.

Johnson (cited in Dahlstrom & Welsh, 1960) studied 150 male and 50 female students' scores on a scale of religiosity with their MMPI single scale scores and their profile configurations. Religiosity was found to correlate negatively with D and Mf. The students who participated in church activities were found to be less likely to have primed codes (scores significantly above average) than students who expressed strong feelings against religious beliefs.

Martin and Nichols (1962) studied 163 male and female college students using measures of religiosity and the L, Pa, and Mf scales from the MMPI. Positive

correlations were found between religious belief and church attendance, church membership, rural background, church membership of student's parents, and rated attitude of parents toward religion. Correlations between religious belief and the above mentioned MMPI scales were not significant for the total group. When the 50 highest and lowest scores on the religious information test were compared on the MMPI scales, no significant differences were found. However, the low religious information group was found to have a significantly negative correlation with the Pa scale, and the high religious information group correlated negatively with the Mf scale for male subjects.

Bohrnstedt, Borgatta and Evans' (1968) study of the relationship of MMPI scores to measures of religiosity is notable for the size of the sample. The sample consisted of 1,851 men and 1,815 women entering as freshman at the University of Wisconsin. Religious affiliation was acquired from a simple questionnaire and religiosity was defined as the score on a true-false conventional religiosity scale.

Several findings were reported by the authors. In terms of religious affiliation, the most numerous differences occurred on the Mf scale for both sexes. On this scale Jews and those students identified as "No

Religious Identification" (NRI) scored the most feminine. Significant differences were found for both sexs on the F scale with the NRI's scoring the highest followed by the Jews. Jews and NRI's also scored higher on the Hysteria (3) Hy and Pd scales than students identified as Protestants and Catholics. However, the authors pointed out that all scales in the study fell within the "normal" range, thus they conclude that psychopathology was not found to be associated with specific religious identifications. In addition, the measure of conventional religiosity was found to have significant negative correlations with D, Hy, Pd, Mf, Sc, and F scales for both sexes.

Bohrnstedt et al. (1968) observed that the highest correlations between religiosity and MMPI scales occurred on the scales with the greatest number of religious items (D, Mf, and F). As a result the authors urged caution in relating religiosity to MMPI scales with religious content.

Gynther, Gray and Strauss (1970) studied the relationship of religious affiliation, religious involvement, and sex with the social desirability ratings of 19 MMPI religious items among university student volunteers. Protestant subjects rated items significantly more favorable than Catholics, while

Catholic subjects rated items significantly more favorable than Jews. In this study religious involvement was seen to be related to the social desirability ratings of the religious MMPI items, but not as strongly as with religious affiliation. The sex of the subjects impacted the ratings of only a few items, and in those cases did so to a lesser degree than the above factors.

Gynther et al. (1970) also studied what impact subjects' concerns about invasion of privacy from MMPI religious items had on the scoring of the items. Their results indicated that the MMPI items themselves were the most significant determinant of how they were perceived. The favorablity or unfavorablity of endorsing these items was found to be no different than for other nonreligious MMPI items. The subjects' reactions to test items were found to be influenced by individual differences in religious variation and background.

Seminary Samples

Dittes (1971) states that, "the MMPI has been given to far more seminarians than any other personality measure and has generated far more research reports" (p. 454). As the sample used in this study comes from a distinctly conservative evangelical

seminary population, it is important to know in what ways, if any, seminarians differ from others in terms of characteristic MMPI scores. Most of the studies have been conducted in mainline seminary populations. Only a few studies have been conducted among conservative evangelical Seminarians.

Neder (1985) in his review of the literature concerning the differences between college and seminary populations states that the only consistent difference between the two groups was that the seminarians were higher on the Pd (4) scale. In addition, Strunk (1957) found that an elevated Mf (5) scale was characteristic of seminarians.

Dittes (1971) suggests that seminarians in general produce distinguishable scores on K, Hy (3), Mf (5), and possibly Si (8). Vaughan (1965) discovered that as students progress in seminary training their scores on the Pt (7) scale tend to increase. Pino (1980) in his study of diocesan seminarians, found that their MMPI norm had T scores in the 51-67 range on Mf (5), Pt (7), and Sc (8). It is important to ask the question whether these differences are based indiscriminately on all items in these scales, or if they are based on selected items. If the former then it would be correct to interpret the level of pathology indicated by the

score in the same manner as suggested by the MMPI manual. If only particular items produce the difference, then the scores may reflect a particular set of personal attributes which are not necessarily indicative of psychopathology.

Mf (5) is a scale on which seminarians notoriously show a high score. For a normal male, elevations on this scale indicate departure from the traditional masculine role (Graham, 1983). However, Cardwell (1967) noted that in her seminary sample the largest component of the Mf score came from the altruism subscale. This finding has also been supported by Webb and McNamara (1983). They indicate that high scores on the Mf (5) are to be expected in samples of educated men or those with aesthetic interests. Newmark (1979) suggests that high Mf scores in educated males indicate that they are imaginative, introspective, idealistic, sensitive to interpersonal needs and are quite socially perceptive in comparison with those having more mid-range scores. It seems clear, then, that high scores on Mf (5) for graduate level seminarians are more a reflection of educational level and possibly religiously based altruism than of pathology within their sexual identification processes. Any interpretation of level or nature of pathology in

seminary samples in which the Mf (5) scale is used, then, needs to be sensitive to this possibility.

As noted above, there is also a tendency for K to be elevated in seminary populations. Kania (1965, 1967) suggests that for seminary samples, the elevated K can best be interpreted as measuring a "healthy defensiveness" and personality integration rather than pathological defense against anxiety provoking weaknesses. It appears, then, that both Mf (5), and K scales may not be as useful as other MMPI scales in determining level of pathology in seminary samples.

No studies have been found which study reasons for high Hy (3) and Sc (8) among seminary populations. For purposes of this study, elevations on these scales will be considered indicative of level of pathology.

Finally, Cardwell (1967), in studying the norms for evangelical seminaries, found that of the clinical scales K, Hy (3), Pd (4), Pa (6), Pt (7), Sc (8), Hypomania Ma (9) were all over a half a standard deviation above the general population means and one and a half above on Mf (5). It is clear, then, that seminarians, both mainline and evangelical, differ from the general population in terms of MMPI scale scores. Whether these elevations are associated with measures of religiosity however, remains to be examined.

Psychiatric Samples

Studies investigating the influence of religiosity on MMPI scales in psychiatric populations are extremely limited. In general, of the few studies conducted so far psychopathology does not appear to be significantly correlated with religiosity (Strauss, Gynther, and Kneff, 1971; Goresch and Davis, 1977; Devries, 1966; Campbell, 1958).

Two recent studies support these earlier findings. Penner (1982) in his study of the REL scale in an inpatient sample found an absence of significant relationship between REL and patients' level of psychopathology. Franz (1985) in a similar study of outpatients also found no significant relationship between REL scores and level of psychopathology or psychiatric diagnosis.

Summary

In general, studies examining the influence of religious correlates on the standard validity and clinical scales of the MMPI have shown inconclusive results. Studies of college students which indicated significant findings often were contradicted or left unreplicated by later findings. Measures of religiosity used in these studies varied widely, increasing the problem of comparison with other similar

and dissimilar samples. It is clear that further study is required to clarify the complex relationship between religiosity and MMPI scores in samples of this type.

Though the results of studies of inpatients seem more consistent, the fact that there are few studies in this area makes conclusions about the influence of religiosity on MMPI scores difficult. However, preliminary indications are that religiosity may not be associated with psychopathology as measured by the MMPI or psychiatric diagnosis.

Though the lack of data prevents definitive conclusions at this point, it appears that subjects in seminary samples score higher on several MMPI scales than the general population. Cardwell (1967) for example, has shown that the clinical scales of evangelical seminarians K, Hy (3), Pd (4), Pa (6), Pa (7), Sc (8), and Ma (9), were all over a half a standard deviation above the general population. Whether these elevations are associated with religiosity or other variables however, has yet to be adequately studied.

In summary, this study will employ three measures of religiosity, the SWB, SMI, and ROS, and a measure of clinical psychopathology, the MMPI, as

instruments through which the relationship between religiosity and psychopathology within a seminary sample can be studied.

Hypotheses

The hypotheses are stated in the null form. However, the following relationships are predicted: (1) that there will be no relationship between one and two-point code-type scores and each of the SWB, SMI, and ROS scales, (2) that scores on the SWB scales will be positively correlated with the Intrinsic religious orientation subscale of the ROS and negatively correlated with the Extrinsic subscale, (3) that the SMI scores will be positively correlated with all subscales of the SWB and the ROS-I, and (4) that SMI scores will be negatively correlated with the ROS-E.

1. There will be no relationship between MMPI one-point code-types and each of the SWB, SMI, and ROS scales.
2. There will be no relationship between MMPI two-point code-types and each of the SWB, SMI, and ROS scales.
3. There will be no relationship between scores on the SWB scales and the Intrinsic and Extrinsic religious orientation subscales of the ROS.

4. There will be no relationship between SMI scores and all of the subscales of the SWB, and the Intrinsic and Extrinsic subscales of the ROS.

CHAPTER 2

METHODS

Introduction

This chapter will detail the method used in this study of the relationship of religiosity and psychopathology in a Christian evangelical seminary. The chapter will be divided into three parts: (a) a brief demographic description of the sample, (b) instruments used, (c) and finally the procedure used to gather and analyze the data.

Subjects

The subjects in this study consisted of 55 randomly selected male Master of Divinity students at Western Conservative Baptist Seminary. The subjects were selected from the first through third year classes in the spring quarter of 1984. This was done so that students who had a minimum of two quarters would be the only ones studied. The data was collected as the part of a larger study conducted by Neder (1985) and Powers (1985).

As a sample, the subjects ranged in age from 23-48 years; 42 or 76% were married and 13 or 24% were single. The mean number of quarter hours completed by the members of the sample was 62. One-hundred and forty-four quarter hours were required for the completion of the M. Div. program.

Originally, Neder (1985) and Powers (1985) selected 100 subjects without replacement using student mailbox numbers and a random numbers table. The final goal was securing 60 students who met the selection criteria of being male M. Div. students. Each student selected using the above method was evaluated in terms of the above criteria in the order drawn by the random table. If they met the criteria they were added to the sample, if not they were deleted. This process was repeated until sixty persons had been chosen who met the criteria.

Instruments

This section will be divided into the following six parts: (a) a description of the background inventory, (b) the MMPI, (c) level of pathology, (d) the Spiritual Well-Being Scale, (e) the Religious Orientation Survey, (f) and Spiritual Maturity Index.

Background Inventory

The background inventory was developed by Neder (1985) and Powers (1985). The inventory was designed to collect data pertaining to age, total number of completed credit hours, previous seminaries attended, marital status, church attendance, devotional life, religious leadership experience, financial condition, and social relationships, (see Appendix B).

Minnesota Multiphasic Personality Inventory

The Minnesota Multiphasic Personality Inventory (MMPI) is an objective self-report personality inventory consisting of 566 true/false questions. It has been the object of a great many research studies. Buros' (1978) Eighth Mental Measurements Yearbook cites over 5,000 studies on the MMPI. Dahlstrom, Welsh, and Dahlstrom (1975) list over 6,000 references on its clinical and research applications. Although it has failed to live up to its initial intent of categorizing patients into discrete psychiatric disorders according to single scale elevations, it has proved useful in generating behavioral descriptions and inferences about individual's psychopathology on the basis of their profiles as a whole (Graham, 1983). King (1978) states:

> Although a great deal of the research literature on the MMPI is easily criticized, it remains an objective test with an extremely diverse and relatively sound research literature, all of which contributes to its versatility and power as a predictive instrument. The MMPI still holds the place as the sin qua non in the psychologist's armamentarium of psychometric aids. (p. 938).

Typically, reliability of the individual scales of the MMPI ranges from .60 to .90. Graham (1983) states that the coefficients of stability compare favorably with those of other personality instruments. Validity studies on the MMPI have been conducted on numerous populations using a wide range of criteria. Graham (1983) indicates that though it is difficult to reach definitive conclusions about the validity of the MMPI, the current data leads him to believe that the MMPI is the most valid personality instrument of those that have been studied empirically.

The MMPI has three validity scales and ten standard clinical scales. In addition, over 100 other scales have been developed from the 566 item pool. Early in the history of the use on the instrument it became apparent that many clients that evidenced

similar pathology also evidenced similar MMPI profiles. Today, there are many well researched descriptors for a large number of MMPI code-types (Graham, 1973). Though there are various ways in which code-types have been determined, Graham (1983) states that "Currently there seems to be a moving away from interest in complex rules for classifying profiles and a resurgence of interest in the simpler two-scale approach for classification of MMPI profiles" (p. 63).

Validity scales consist of the L, F, and K scale. The L scale was developed to measure the degree to which the person admits or denies having very common human failings. The F scale consists of 64 items which less than 10% of the general population have been found to answer in the scored direction. The F scale is designed to detect deviant or atypical ways of responding to test items. The K scale consists of 30 items, and is designed to detect an individual's tendency to present himself/herself in a favorable or unfavorable light. Together, the L,F, and K scale present an overall picture of the subject's test taking attitude.

Clinical scales are referred to by number, descriptive name, and abbreviation of name as follows: (1) Hypochondriasis Hs, (2) Depression D, (3) Hysteria

Hy, (4) Psychopathic deviant Pd, (5) Masculinity/Femininity Mf, (6) Paranoia Pa, (7) Psychasthenia Pt, (8) Schizophrenic Sc, (9) Hypomania Ma, (0) Social introversion Si.

Scale (1) reflects the level of concern about health and the tendency to report a variety of somatic symptoms. Scale (2) measures the amount of pessimism or general dissatisfaction a person is experiencing in their life as well as the amount of psychological pressure. Scale (3) is comprised of questions dealing with denial of physical health and a variety of somatic complaints as well as general denial of problems relating to psychological, emotional, and social issues. Scale (4) taps into an individual's lack of ability to feel deeply, assume responsibility, or to abide by social norms. Scale (5) measures the degree to which an individual identifies with traditional sex roles.

Scale (6) identifies people who are suspicious, overly sensitive, and inclined toward delusions of persecution. Scale (7) measures obsessional ideation, compulsive behavior, rigidity or perfectionism. Scale (8) measures bizarre schizophrenic type thinking as well as major disturbances in mood, behavior and thought. Scale (9) identifies individuals with a

marked over-productivity of thought or action and the tendency to become involved in a large number of projects that are often left incomplete. The final scale, scale (0), measures the degree to which the person is comfortable in interacting with others. Individuals with low scores tend toward extroversion and those with high scores tend toward introversion (Graham, 1983).

According to Graham (1983), reliable extra-test correlates can be identified for profiles that are classified according to their two highest clinical scores (not including 5 and 0). If the two point codes are used interchangeably, there are 40 possible two point combinations of the 8 clinical scales. However, Lewandowski and Graham (1972) suggest that in a psychiatric setting protocols can be classified into a relatively small number of two-point codes. In their study, they found that 19 code types were able to account for 84% of their sample. Lachar (1968) found that 13 code types could account for approximately 67% of his sample. Graham (1983) believes that as many as 22 code-types occur frequently enough to warrant inclusion in his interpretative guide. A detailed description of frequently occurring code types is

beyond the scope of this study, and the reader is referred to guides such as Graham's (1983) for a more complete description.

Spiritual Well-Being Scale

The Spiritual Well-Being scale (SWB) is a 20 item self-report questionnaire. Items on the scale are scored from 1-6 with the higher number representing greater well-being. To control for a response set, half of the items are worded negatively and the scoring is reversed. Ten odd numbered items assess existential well-being and ten even numbered items assess religious well-being. The Religious Well-Being (RWB) items all make reference to God while the Existential Well-Being (EWB) items have no such reference. (See Appendix C)

The SWB generates the following three scores: (1) a RWB score made up of the sum of the RWB items and (2) an EWB score consisting of the sum of the EWB items and a (3) SWB score comprised of the sum of the RWB and EWB scores. The correlation between the RWB and the EWB subscales has been reported at .32 at the .001 significance level by Ellison (1983). Paloutzian and Ellison (1979b) report test-retest reliability coefficients as follows: .93 for the SWB, .96 for the RWB, and .78 for the EWB and alpha coefficients of internal consistency suggest that the SWB scale and its

subscales posses high internal consistency. Additionally, when the items themselves are examined, face validity for the SWB as a whole is suggested. Paloutzian and Ellision (1979b) in their factor analysis of the scale report that the SWB loads on three factors; a religious factor corresponding to the RWB and two subfactors on the EWB which they called the life satisfaction factor and life purpose factor.

Religious Orientation Scale

The Religious Orientation Scale (ROS) is a twenty item self report questionnaire. Items on the scale are scored on a 6 point Likert type scale with responses ranging from strongly agree (1) to strongly disagree (6). Numerous studies investigating the psychometric properties of the scale have been reported since Allport developed the scale. Hood (1973) evaluating two scoring techniques developed by Feagin (1964) and Allport and Ross (1967) reported that both were adequate. Hood (1973) also reported that Feagin's and Allport's subscales could not be combined to form a single unidimensional scale.

Robinson and Shaver (1978) note that studies indicate that the instrument appears to classify subjects' item responses into four categories rather

than two. One is the intrinsically religious category in which agreement with intrinsic items and disagreement with extrinsic items is the criterion. Paloutzian and Ellison (1979a) state that persons falling into this category "live their faith." A second category of response is the extrinsically religious response. The criterion for this type of response is agreement with extrinsic and disagreement with intrinsic items. Parker (1985) states that this orientation is best described as utilitarian. Paloutzian and Ellison (1979a) state that these persons are said to use their faith. The third and fourth categories have been called indiscriminately proreligious and indiscriminately antireligious (Hunt & King, 1971). The indiscriminately proreligious and antireligious types express total support or lack of support (respectively) for all religious items.

Feagin (1964) reported item-to-scale correlations ranging from .22 to .54 when the entire scale was given one score. In addition, two orthogonal factors were seen with the intrinsic factor accounting for 18% of the variance and the extrinsic factor accounting for 11% of the variance. Allport and Ross' (1967) study produced item-to-subscale correlations ranging from .18

to .58. Robinson and Shaver (1978) in their study of the ROS conclude that research studies have demonstrated this instrument's construct validity.

Spiritual Maturity Index

The Spiritual Maturity Index (SMI) was developed by Ellison as a companion to the already discussed SWB. The scale originally consisted of a 20 item self-report questionnaire with items scored in the same way as the SWB. However, in an apparent attempt to extend the utility of the scale Ellison added 10 items making the revised SMI a 30 item scale. Clarke, Clifton, Cooper, Mueller, Sampson, & Sherman (1985), in a study of church attenders and seminarians, found that the additional 10 items added no significant dimension to the scale. The 20 item scale was used in this study because the data was collected before the 30 item scale was available.

The SMI used in this study consists of 20 items, scored by a six point Likert format ranging in response from "strongly agree" to "strongly disagree". The scale generates only one score which is the sum of the scores on each of the 20 items. Reliability information has been reported by Bressem (1985) at .82

for coefficient alpha. The SMI has face validity and some predictive validity (Ellison, et al., 1982; Bufford, 1984). There is a reported correlation of .623 ($p<.05$) between the SMI and SWB (Bufford, 1984).

Procedure

Administration

As stated above, the data collected in this study was collected as part of a larger research project. The package administered as part of this larger project consisted of three adjustment scales developed by Neder (1985) and Powers (1985), the Tennessee Self-Concept Scale (TSCS), Spiritual Well-Being Scale (SWB), 20 item version of the Spiritual Maturity Index (SMI), Religious Orientation Scale (ROS), and the MMPI.

Before the subjects were selected a general school wide announcement was made concerning the project by the Dean of Students in a chapel service in April, 1984. This announcement included a brief statement regarding the project and that approximately 60 members of the student body would be contacted to participate. A brief statement appeared shortly afterward in the school paper which consisted of statements indicating

that the school was conducting a normative study on the MMPI and TSCS and that participation of each person selected was essential for valid results.

The subjects were then selected according to the procedures described above and mailed a letter signed by the Dean of Students on school letterhead. This letter informed the students that they had been randomly selected to participate in the study and that their participation was essential. Additionally, the letter offered them five scheduled times for the administration of the test packet. The students were asked to select one and return the letter to the Dean of Students mailbox.

All of the testing periods were scheduled for the third week of the Spring quarter of 1984. Because it was generally felt that the beginning of Spring quarter required the least academic effort, sessions were scheduled for this week with the intent of making it easier for students to participate. The testing periods were selected by using a class schedule to obtain blocks of time with the least number of classes. Special testing sessions were offered to those who could not attend any of the five sessions. A sample of the letter and the general announcements made are included in Appendix D.

Data Collection

As each testing session began a set of standardized instructions was read to the participating students. The instructions encouraged participants to answer all the questions openly and honestly. Additional instructions requested the participants to answer the questions from a present tense perspective, and stated that many of the questions would be difficult to totally affirm or deny since they were dichotomus. Confidentiality was also assured at this time, and the number-name coding system to which only the researchers had access was explained. At this time the packet with the material described above was passed out and the participants were instructed to begin. No time limit was placed on the sessions. A copy of the standardized instructions read to the students is found in Appendix D.

Initially a total of 35 students signed up for one of the five testing periods. Twenty-three of these students actually completed the test packet at one of the originally scheduled testing sessions. The researchers working on the project then contacted the remaining students by telephone and offered them two additional testing sessions. Seven additional students completed the packet at one of these sessions.

By this time three weeks had elapsed since the initial chapel announcement by the Dean of Students. The researchers again contacted the remaining students and suggested that they take the packet home to complete. The subjects contacted agreed to return the packets within seven days. The names of those who could not be contacted were given to the Dean of Students for the Dean to contact. At this point one subject declined to participate and it was discovered that another had withdrawn from school. These subjects were replaced with numbers 61 and 62 from the replacement pool.

One week later 18 of the packets had yet to be returned and these individuals were again contacted. Announcements were also made in the school's newsletter which requested the return of the completed packet. A list of those who still had failed to return their packets was again given to the Dean of Students office for subsequent contact. Approximately 12 weeks after the first announcement of the project in April of 1984 the data collection process was terminated; 55 subjects had completed the packets.

Research Design and Statistical Procedures

This study was primarily correlational in nature and used multiple regression and step-wise regressions when appropriate. The following procedure was used to analyze the data:

The overall level of pathology for the sample was described using a frequency distribution with MMPI one and two-point code-type T-scores being grouped into three levels of psychopathological elevation. Level I was given a range of 50-64 and titled "None", level II a range of 65-69 and titled "Moderate" and level III a range of $\geq$ 70 titled "Pronounced".

The relationship between the sample's level of psychopathology and the three measures of religiosity was explored by examining the correlations between the two pathology indices and the measures of religiosity. The level of psychopathology scores were the dependent variables, the independent variables were the religiosity scores.

The relationships among the three measures of religiosity were explored through a correlational analysis.

A Multiple Regression was performed to examine the impact of demographic variables on the relationship between religiosity scores and level of pathology. In

this analysis, each of the following demographic variables for which a significant correlation existed were controlled through a forced removal process: age, number of seminaries attended without degree completion, marital status, financial condition, wife for/against seminary, wife for/against career.

A step-wise regression was performed to discover the linear combination of the above demographic variables and religiosity measures, which best predicted psychopathology as determined by the one and two-point code-type scores respectively.

Profile Validity.

The validity of the individual MMPI profiles were evaluated using generally accepted methods of interpretation (Graham, 1983). Graham (1983) states that any test with more than 30 items omitted should be considered invalid. Additionally he states that though some suggest that a validity scale score (L,F,K) of T>70 is indicative of an invalid profile, "(this) represents an oversimplified view of profile validity and causes many valid profiles to be discarded (p. 25).

Graham (1983) suggests that profiles should be evaluated for possible deviant response sets in which the pattern of the L,F,K is evaluated along with the

elevations of the individual scales. He states that there are generally five types of invalid profile patterns; 1) in the random response set the F scale T-score is greater than 100 and scales L and K are both at or slightly above 50, 2) in the all true response set the F T-score is extremely elevated while L and K are below a T-score of 50, 3) in the all false response set the T-scores of L,F, and K cluster between a 80 and 90 and there is a neurotic-like slope to the clinical scales, 4) in the "faking bad" profile the profile is characterized by a very elevated F T-score with the L and K T-scores slightly below the mean, 5) finally the "faking good" profile is indicated when the L and K scales are elevated above a T-score of 70 while the F scale T-score is between 40 to 50.

Level of Pathology.

Two different approaches were used to determine the level of pathology in the sample: one and two-point code-types.

One-Point Codes

The first approach used the T-score of the highest clinical scale (disregarding 5 and 0) as a measure of psychopathology.

Two-Point Code

The second measure of pathology was determined by the following process. First, the MMPI code-type was determined by finding the two highest clinical scales without concern for the order of elevation (disregarding 5 and 0). Then the average of these two clinical scales T-scores was computed. For example, if subject 1 had a 3 (T-score=65)/ 9 (T-score=71) code-type, then the level of overall psychopathology would be 68 ((65+71)/2).

There is no consensus measure noted in a review of the literature for level of pathology derived from the MMPI (Shafferm, Ota, and Hanlon, 1964; Sines and Silver, 1963). Some studies have used the average of the clinical scale scores (Graham, 1983; Penner, 1982). However, Franz (1985) points out that this may result in obscuring the impact of high single scale scores by averaging them with scale scores in the more moderate range.

CHAPTER 3

RESULTS

Introduction

In this chapter the results of the data analysis will be presented in the following sections: (a) the presentation of the descriptive statistics for the sample in terms of the demographics, the three measures of religiosity, and the MMPI, (b) a description of results concerning the relationships between the measures of religiosity and MMPI code-types, and (c) the presentation of results pertaining to hypothesis 1-4.

The measures of religiosity were scored utilizing a scoring program developed by Dr. Gerry Breshears, and run on an Eagle PC computer system. MMPIs were scored using the Aaranson MMPI scoring program on an IBM XT computer system. All statistical procedures were calculated using SPSS/PC as the computational package on an IBM XT computer system. All correlations were

calculated using a Pearson's r formula; a two tailed test of statistical significance was utilized with $p \leq .05$.

Missing Data

The statistical aspect of missing data will be addressed in this section.

Since 55 of the original 60 test packets were returned in time for the original data analysis (Neder, 1985; Powers, 1985) Neder (1985) considered the statistical effect of the missing data. In his analysis the last five test packets returned were duplicated and correlations rerun with a N of 60. The net result of the analysis revealed a maximum difference of plus or minus seven percent from the sample of 55. Neder (1985) concluded that the results of the sample of 55, which represented a final return of 91.6%, was accurate and representative of the school.

Unfortunately four additional cases were lost, reducing the present sample size to an N of 51. Three cases were lost due to improper assembly of the religiosity instruments and one additional subject failed to answer any of the religiosity questions. The final return for the sample used in this study, then,

is 85%. This suggests that the sample used in the present study also should be considered an accurate and representative sample of male M.Div. students attending the school. Finally, it is also important to note that only one of the MMPI profiles in the sample was judged invalid according to the procedure outlined in the previous section. This case (case #4) was included in the analysis of the relationship among the measures of religiosity but was excluded from procedures analyzing the relationship between psychopathology and religiosity.

Descriptive Statistics

Demographic Questions

The mean age of the sample was 29.35 (SD 5.37) with a range of 23 to 48 years. Of the 51 subjects, 39 (76.5%) were married and 12 (23.5%) were single. A set of descriptive statistics for the interval-level demographic questions are presented in table 2. Additional demographics including, number of credits, frequency of church attendance, frequency of personal devotions, frequency of family devotions, duration of personal devotions, duration of family devotions, years of religious leadership experience, capacity of

religious service, importance of religion, and nature of social relationships have been analyzed for this sample by Neder (1985) and Powers (1985).

Table 2

Descriptive Statistics for the Demographics

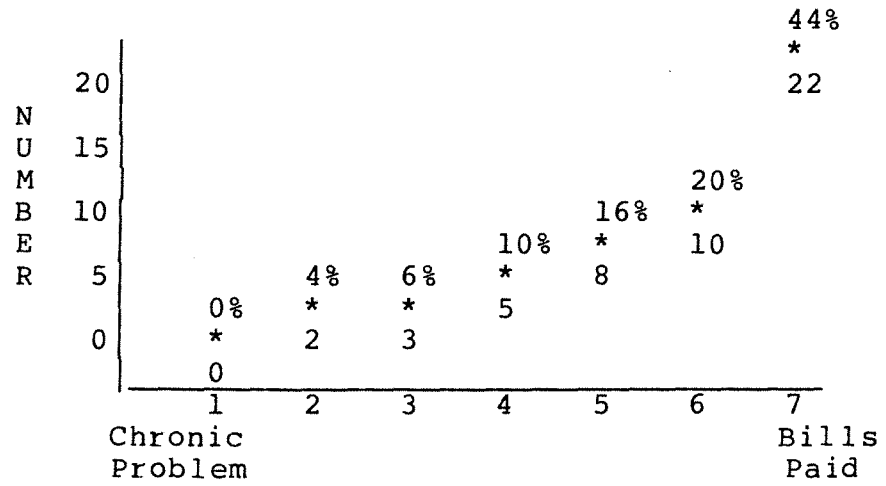
	Mean	Std. Dev.	Range	Min.	Max.	N
Variable						
AGE	29.35	5.37	25.00	23	48	51
FC	5.74	1.47	5.00	2	7	51
WAS	6.00	1.54	6.00	1	7	50
WAC	6.59	.94	6.00	3	7	39

Note: (FC) Financial Condition, (WAS) Wife's Perceived Attitude About Seminary Involvement, (WAC) Subject's Perception of Wife's Attitude Toward Career Plans. For FC, WAS, and WAC 1 is low and 7 high.

Financial Condition (FC)

On a seven point scale where one means chronic problems and seven means all bills paid, persons in the sample generally rated their financial condition as good. As figure 1 indicates, 44% of the subjects answered seven, 20% answered six, 16% answered five, 10% answered four, 6% answered three, and 4% answered two.

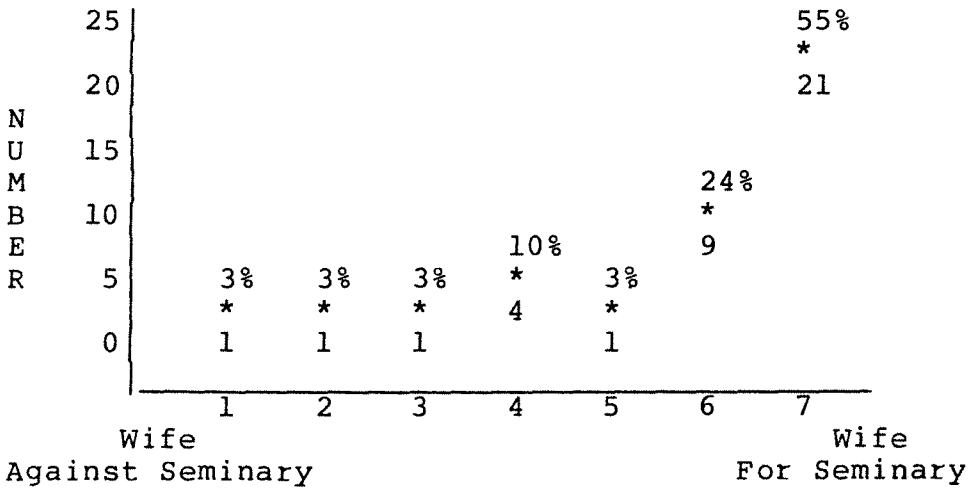
Figure 1. Financial Condition



Spouse Opinion Questions

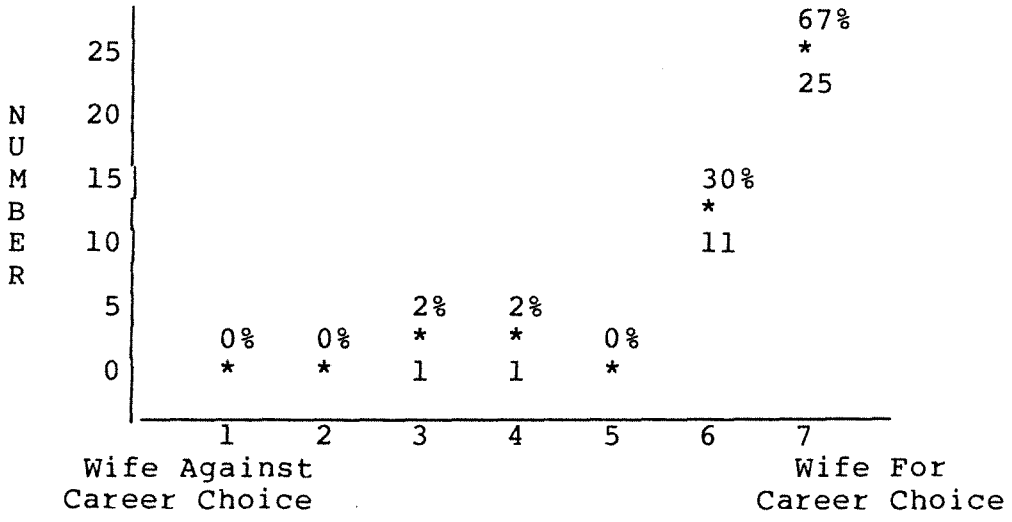
The last of the demographic questions asked students how their wives felt about both the seminary itself and their husband's choice of career. The 38 married participants reported that their wives were clearly in favor of their seminary involvement. Figure 2 shows that 55% of the husbands reported that their wives were totally in favor of the school. Another 24% rated their wives response at 6, 3% at 5, 11% at 4, and 3% each at 3,2, and 1.

Figure 2. Wife's Perceived Attitude About Seminary Involvement (WAS)



Participants also reported that their wives were in favor of their career choice. Of the 38 subjects in the sample who were married, 66% responded 7, 30% responded 6, and 2% each on 4 and 3, with no one on 5, 2, or 1.

Figure 3. Subject's Perception of Wife's Attitude Toward Career Plans (WAC)



Description of Religiosity Measures

The descriptive statistics for the religiosity measures are found in Table 3. The table includes the means, standard deviation, range, minimum, maximum, and sample size.

Table 3

Descriptive Statistics for the Religiosity Measures

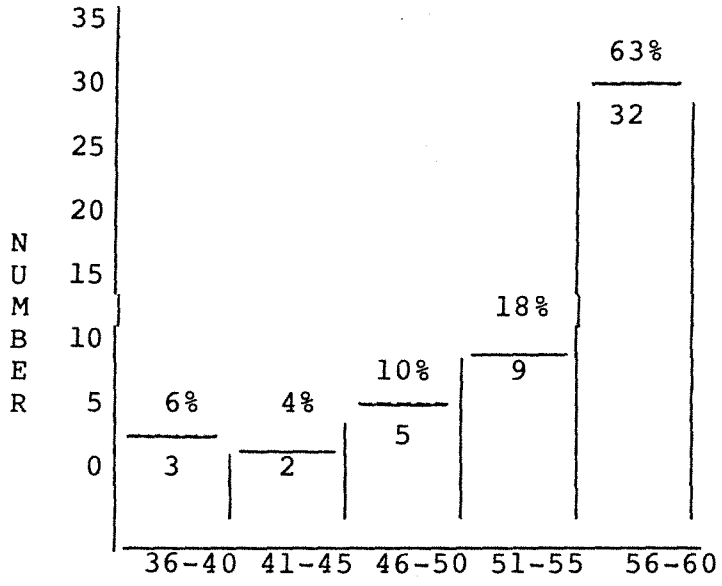
Variable	Mean	Std. Dev.	Range	Min.	Max.	N
RWB	54.75	5.92	23.00	37	60	51
EWB	51.25	5.88	26.00	34	60	51
SWB	106.00	10.29	46.00	74	120	51
SMI	98.53	9.12	41.00	78	119	51
ROS-E	24.98	7.50	30.00	11	41	51
ROS-I	17.76	4.76	19.00	10	29	51

Note: For the RWB, EWB, SWB, SMI, ROS-E, high scores indicate high levels respectively. For the ROS-I, high scores indicate low ROS-I while low scores indicate high ROS-I.

Religious Well-Being (RWB)

On a six point scale indicating relative degrees of spiritual well-being where a cumulative score of 10 indicates low spiritual well-being and 60 high spiritual well-being, the mean score was 54.75 (SD 5.92). With a range of 23 points the minimum score was 37 and the maximum score 60. Figure 4 indicates that 63% of the sample scored between 56-60, 18% between 51-55, 10% between 46-50, 4% between 41-45, and 6% between 36-40.

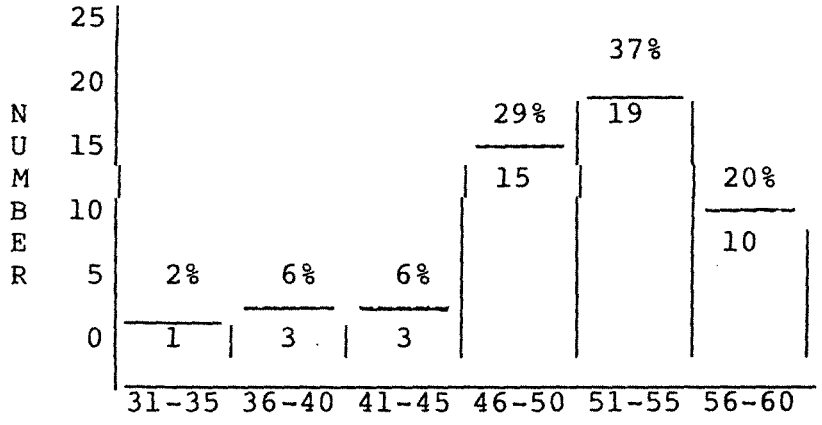
Figure 4. Frequency Distribution of Religious Well-Being (RWB) Scores



Existential Well-Being (EWB)

On a six point scale indicating relative degrees of existential well-being where a cumulative score of 10 indicates low existential well-being and 60 high existential well-being, the mean score was 51.25 (SD 5.88). With a range of 26 points, the minimum score was 34 and the maximum 60. Figure 5 indicates that 20% of the sample scored between 56-60, 37% between 51-55, 29% between 46-50, 6% between 41-45, 6% between 36-40, and 2% between 31-35.

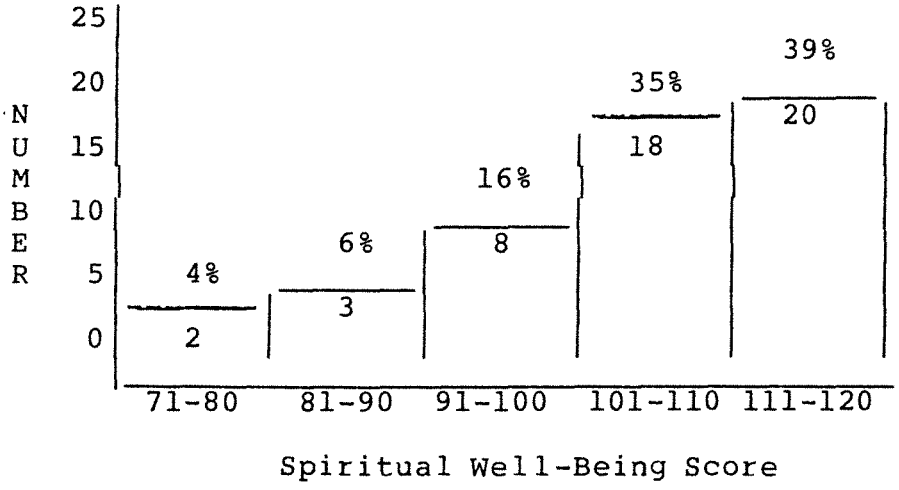
Figure 5. Frequency Distribution of Existential Well-Being (EWB) Scores



Spiritual Well-Being (SWB)

The Spiritual Well-Being score is derived by adding the RWB score to the EWB score. The lowest possible SWB score is 20 and the highest is 120. The mean score for the sample was 106.00 (SD 10.29) with a 46 point range (min. = 74 and max. = 120). Figure 6 indicates that 39% of the sample scored between 111-120, 35% between 101-110, 16% between 91-100, 6% between 81-90, and 4% between 71-80.

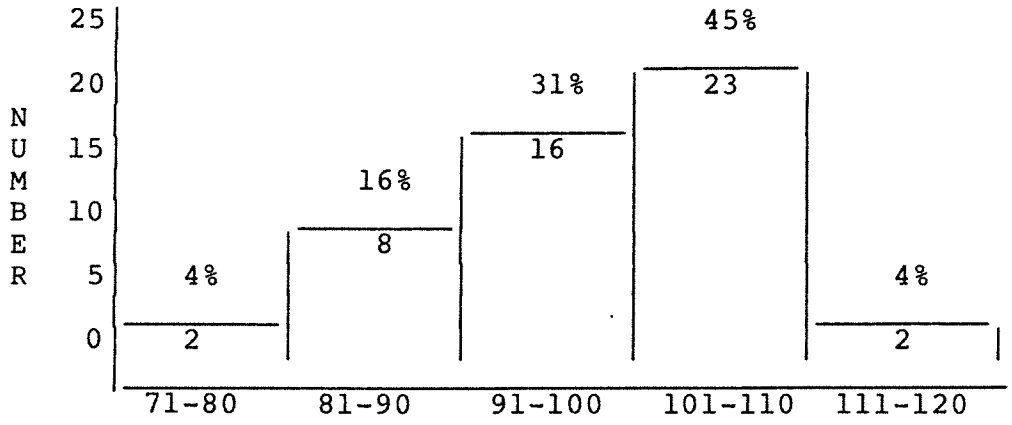
Figure 6. Frequency Distribution of Spiritual Well-Being (SWB) Scores



Spiritual Maturity Index (SMI)

The Spiritual Maturity Index consists of 20 items, scored on a six point Likert format ranging in response from "strongly agree" to "strongly disagree". The lowest possible score is 20, the highest 120. The mean score for the sample was 98.53 (SD 9.12) with a range of 41 points (min. = 78 and max. = 119). Figure 7 indicates that 4% of the sample scored between 111-120, 45% between 101-110, 31% between 91-100, 16% between 81-90, and 4% between 71-80.

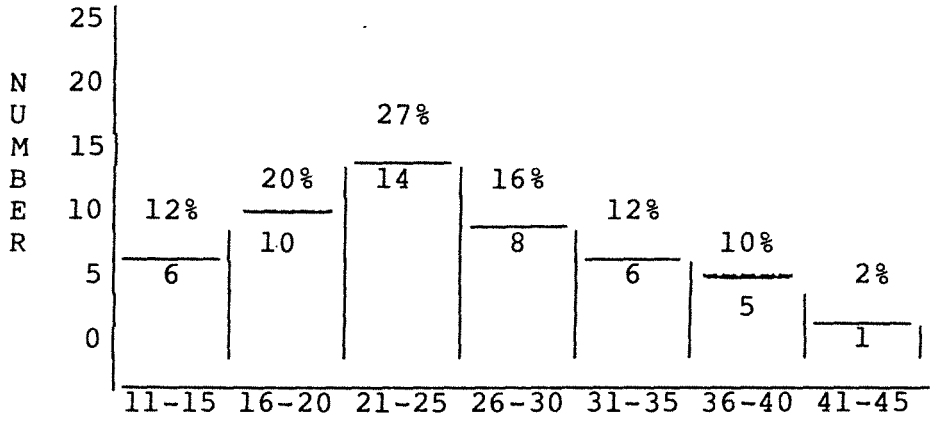
Figure 7. Frequency Distribution of Spiritual Maturity Index (SMI) Scores



Religious Orientation Scale-Extrinsic (ROS-E)

The Religious Orientation Scales: Extrinsic consists of 10 items scored on a six point Likert format ranging in response from "strongly agree" to "strongly disagree". The mean score for the sample was 24.98 (SD 7.50) with a range of 30 points (min. = 11 and max. = 41). Figure 8 indicates that 2% of the sample scored between 41-45, 10% between 36-40, 12% between 31-35, 16% between 26-30, 27% between 21-25, 20% between 16-20, and 12% between 11-15.

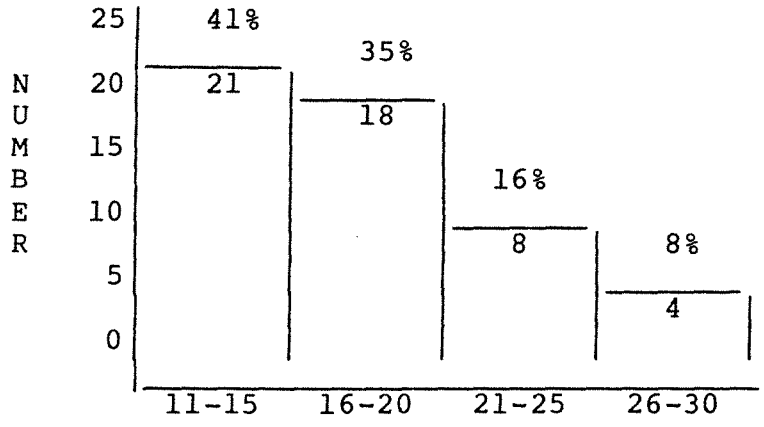
Figure 8. Frequency Distribution of Religious Orientation Scale-Extrinsic Scores



Religious Orientation Scale-Intrinsic (ROS-I)

The Religious Orientation Scale-Intrinsic, consists of 10 items on a six point Likert scale format ranging in response from "strongly agree" to "strongly disagree". The mean score for the sample is 17.76 (SD 4.76) with a range of 19 points (min. = 10 and max. = 29). Low scores indicate high levels of intrinsic religious orientation while high scores indicate low intrinsic religious orientation. Figure 9 indicates that 8% of the sample scored between 26-30, 16% between 21-25, 35% between 16-20, and 41% between 11-15.

Figure 9. Frequency Distribution of Religious Orientation Scale-Intrinsic Scores



Description of MMPI Code-Type T-Scores

Descriptive statistics for MMPI code-type T-scores are found in Table 4 below. Variables CTA and CTB are two-point and one-point code-types respectively. The table describes the code-type T-scores in terms of means, standard deviation, range, minimum, maximum, and sample size.

Table 4

Descriptive Statistics for MMPI Code-Type T-Scores

	Mean	Std. Dev.	Range	Min.	Max.	N
Variable						
CTA	65.88	7.81	34.00	53	87	50
CTB	68.26	8.07	36.00	54	90	50

Note: CTA = two-point code types; CTB = one-point code types.

Overall Level of Pathology by MMPI One-Point Code-Type T-Scores (CTB)

Taking the highest of the clinical scales (excluding scale 5 and 0) the mean T-score was 68.20 (SD 8.01). With a range of 36 points, the minimum T-score was 54 and the maximum 90. Figure 10 indicates that 38% of the sample fell within the "None" level of pathology (T = 50-64), 20% fell within the "Moderate" level (T = 65-69), and 42% within the "Pronounced" level (T = 70 and above). Thus, 62% of the sample scored in the moderate to pronounced range in terms of level of pathology by one-point code-types.

Figure 10. Distribution of Scale Elevations of MMPI One-Point Code-Type T-Scores (CTB)

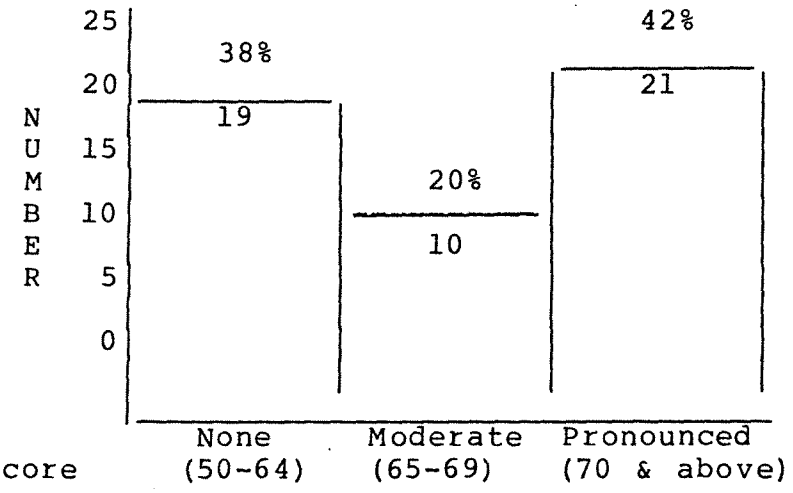


Figure 11 indicates that 2% of the sample had one-point codes of scale 1, 2% scale 2, 14% scale 3, 14% scale 4, 2% scale 6, 20% scale 7, 14% scale 8, and finally 32% scale 9. Figure 12 describes the frequency distribution of one-point code-types with moderate to pronounced elevations. It indicates that 42% of the moderate to pronounced elevated code-type T-scores in the sample were coded as scale 9, 13% scale 8, 23% scale 7, 3% scale 6, 16% scale 4, 0% scales 2 and 3, and finally 3% scale 1. Figure 13 describes the frequency distribution of one-point codes with no significant elevations. It shows that of the codes with no significant elevations, scales 9, 8, and 7 each accounted for 16% of the sample while scales 1, 2, and 6 accounted for 0%, with scale 3 accounting for 37% and scale 4 11%.

Figure 11. Frequency of MMPI One-Point Codes (CTB)

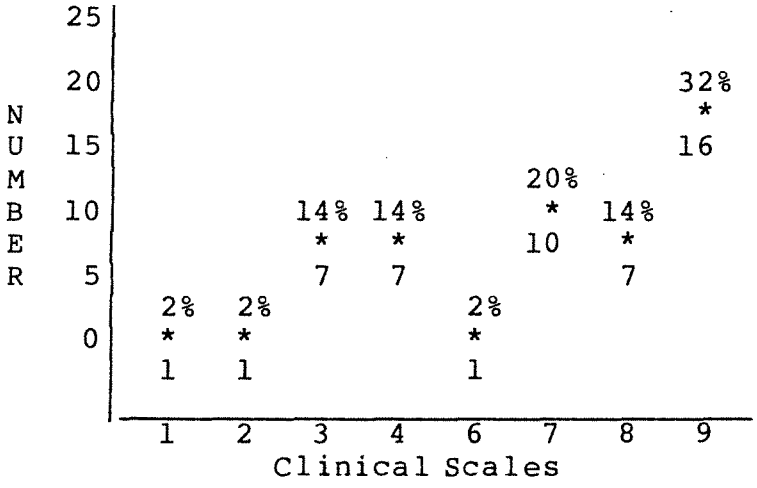
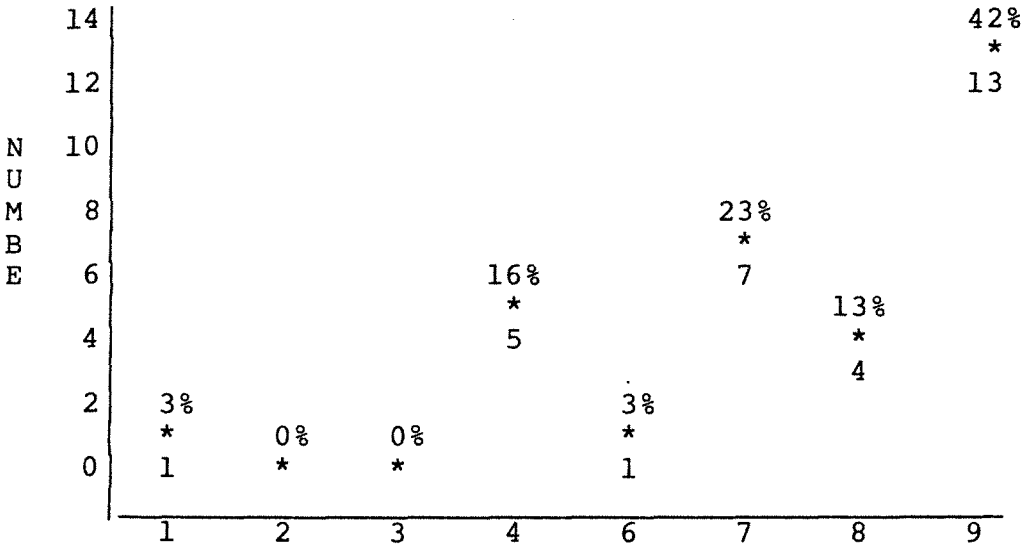


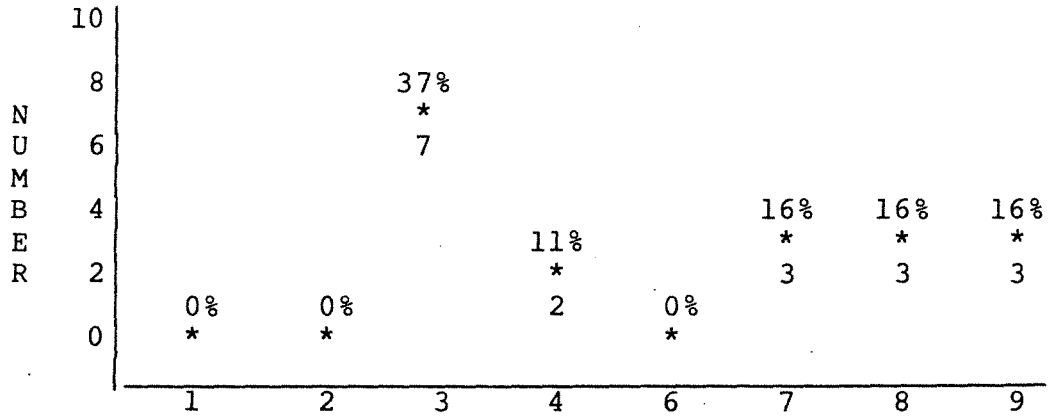
Figure 12. Frequency Distribution of One-Point Code-Types with Moderate to Pronounced Elevations.



One-point Codes with Moderate to Pronounced Elevations

($T \geq 65$)

Figure 13. Frequency Distribution of One-Point Codes with no Significant Elevations.



One-Point Codes with no Significant Elevations

(T $\leq$ 64)

A Chi-Square statistical procedure was run on the one-point codes to analyze the distribution of scores. Table 5 describes the results of the data analysis; the results indicate that the distribution is not random (Chi-Square = 30.960; $p \leq .001$).

Table 5

Chi-Square Analysis of One-Point MMPI Codes (CTB)

	Cases		
Codes	Observed	Expected	Residual
1	1	6.25	-5.25
2	1	6.25	-5.25
3	7	6.25	.75
4	7	6.25	.75
6	1	6.25	-5.25
7	10	6.25	3.75
8	7	6.25	.75
9	16	6.25	9.75
Total	50		

Chi-Square = 30.960 D.F. = 7 $p < .001$

Overall Level of Pathology by MMPI

Two-Point Code-Type T-Scores (CTA)

All MMPIs were given codes on the basis of the two highest clinical scales (5, 0 excluded). The basic rule in coding was to code for the two highest clinical scales; order was not considered, thus the scales are listed in numerical order.

Ten of the cases had two or more of the clinical scales with identical T-scores. For example, case number three had scale 3 as the highest scale and scale 9 and 2 with identical T-scores. In order to assign codes to these ambiguous cases, first frequency

distributions were run on cases with clear one-point and two-point code-types. Next, of the two possible two-point code-types (3-9,2-3 in case #3) the most frequently occurring code in the sample was assigned (2-3 in case #3). Further, when each of the possible two-point codes occurred in the sample with equal frequency (as in case #25 where both possible two-point codes, 4-9 and 8-9 occurred 5 times), the code-type was assigned by using the most frequently occurring two-point code for persons with the same one-point code. For example in case # 25 where scale 9 was the one-point code, it was noted that 8-9 occurred 4 times while 4-9 did not occur among persons with the scale 9 one-point codes. Thus the two-point code for case # 25 was coded 8-9.

Additionally it should be noted that a Chi-Square statistical procedure was not run on two-point code-type data while it was run on one-point code-types. For the two-point data the Chi-Square was not run because 17 of the cells had expected frequencies less than 5.

Taking the average of the two highest clinical scales (excluding 5 and 0) the mean T-score in the sample was 65.88 (SD 7.81). With a range of 34 points the minimum T-score was 53 and the maximum T-score was

87. Figure 14 indicates that 46% of the sample fell within the "None" level of pathology (T = 50-64), 20% fell within the "Moderate" level (T = 65-69), and 34% fell within the "Pronounced" level (T = $\geq$ 70). Thus, 54% of the sample scored in the moderate to pronounced range in terms of level of pathology by two-point code-types.

Figure 14. Distribution of Scale Elevation of Two-Point MMPI Code-Type Mean T-Score (CTA)

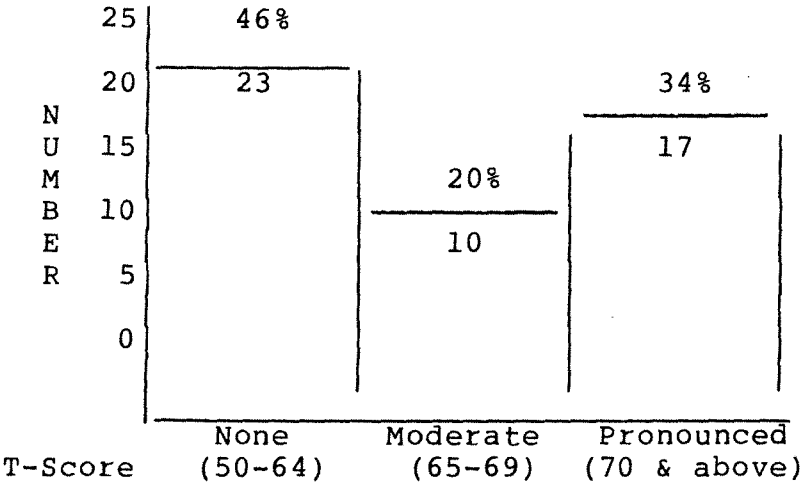


Table 6 indicates the frequency of two point-codes in terms of code-type, frequencies and percent of code-type occurrence in the sample. Additionally it took 17 code-types to account for 100% of the sample.

Table 6

Two-Point MMPI Code-Type Frequencies (CTA)

Code-Type	Frequency	Percent
1-3	1	2.0
1-7	2	4.0
2-3	5	10.0
2-4	1	2.0
2-7	1	2.0
3-4	2	4.0
3-7	2	4.0
3-9	6	12.0
4-6	1	2.0
4-7	2	4.0
4-8	4	8.0
4-9	5	10.0
6-8	1	2.0
6-9	2	4.0
7-8	5	10.0
7-9	3	6.0
8-9	7	14.0
Total	50	100.0

Note: Directionality was not considered in coding. The lower scale number is always listed first.

Correlational Matrix

Table 7 lists the correlations among the measures of religiosity and psychopathology. Correlations were figured using a Pearson's r with two-tailed significance ($p \leq .05$).

Table 7

Master Correlation Matrix

Corr.s: Scale	RWB	EWB	SWB	SMI	ROSE	ROS-I	CTA	CTB
RWB	-							
EWB	.5204**	-						
SWB	.8728**	.8709**	-					
SMI	.6815**	.5734**	.7198**	-				
ROSE	.0994	.0069	.0611	-.0416	-			
ROS-I	-.2895+	-.3514*	-.3674*	-.4065*	.1752	-		
CTA	-.2038	-.4821**	-.3928*	-.1193	.0044	.1739	-	
CTB	-.2275	-.4463**	-.3861*	-.1386	.0294	.2021	.9756**	-
AGE	.0519	.0794	.0753	.1378	-.0217	-.1289	-.1548	-.1000
FC	.0265	.0626	.0511	-.0348	-.1358	.0619	-.1633	-.1553
WAS	-.1497	-.2204	-.2168	-.4127+	.0296	.1006	-.3593+	-.3584+
WAC	-.1353	-.1857	-.1874	-.3157	.0436	.0161	-.2419	-.2041

Note. + $p \leq .05$, *$p \leq .01$, **$p \leq .001$. Correlations among the following variables were computed with N = 51: RWB, EWB, SWB, SMI, ROSE, ROS-I, AGE. Correlations of RWB, EWB, SWB, SMI, ROSE, ROS-I, AGE, by FC, SA, CTA, CTB, were computed with N = 50. Finally, correlations of all variables by WAS and WAC, were computed with N = 37.

Table 7 (Continued)

Master Correlation Matrix

Corr.s: Scale	AGE	FC	WAS	WAC
AGE	-			
FC	.1384	-		
WAS	.2689	.0899	-	-
WAC	.2600	.1466	.5652**	-

Note. + $p \leq .05$, * $p \leq .01$, ** $p \leq .001$. Correlations among the following variables were computed with N = 51: RWB, EWB, SWB, SMI, ROSE, ROS-I, AGE. Correlations of RWB, EWB, SWB, SMI, ROSE, ROS-I, AGE, by FC, SA, CTA, CTB, were computed with N = 50. Finally, correlations of all variables by WAS and WAC, were computed with N = 37.

Hypotheses

Hypothesis One

Hypothesis one states that there will be no relationship between MMPI single point code-types and each of the SWB, SMI, and ROS scales.

The hypothesis was not rejected for the RWB, SMI and ROS scales but was rejected for the EWB and SWB scales. Findings indicate that one-point code-types are negatively correlated ($p \leq .001$) with the EWB scale. Additional findings indicate that one-point code-types are also negatively correlated with the SWB scale at the $p \leq .01$ level of significance.

Hypothesis Two

Hypothesis two states that there will be no relationship between MMPI two-point code-types and each of the SWB, SMI, and ROS scales. As in hypothesis one above, hypothesis two was not rejected for RWB, SMI, and ROS but was for EWB and SWB scales. Findings indicated that two-point codes were negatively correlated with EWB at the $p \leq .001$ significance level. Additional findings indicate that two-point codes are also negatively correlated with SWB at the $p \leq .01$ level of significance.

Hypothesis Three

Hypothesis three states that there will be no relationship between scores on the SWB scales (RWB, EWB, SWB) and the ROS-I and ROS-E.

The hypothesis was rejected for the SWB scales and the ROS-I. ROS-I and RWB were found to be negatively correlated at the $p \leq .05$ level while ROS-I and EWB/SWB were negatively correlated at the $p \leq .01$ level. As a low score indicates a higher degree of ROS-I, the negative value of the ROS-I/SWB, RWB, EWB correlations indicates a positive relationship.

The hypothesis was confirmed however, for the relationship between the SWB scales and ROS-E. No relationship was found among these scales.

Hypothesis Four

Hypothesis four states that there will be no relationship between SMI scores and all the subscales of the SWB and ROS.

As predicted, SMI scores were found to be positively correlated with all SWB subscales at the $p \leq .001$ level of significance. Additionally SMI scores were also found to be positively correlated with the ROS-I at the $p \leq .01$ significance level. A low score on the ROS-I indicates high ROS-I, thus the negative

value of the SMI/ROS-I correlation (-.4065*) indicates a positive relationship. Finally, the relationship hypothesized for the SMI/ROS-E scales was upheld. No relationship was found between the SMI and ROS-E.

Research Questions

Four additional Multiple Regressions were run on the data to examine four research questions. First, two Stepwise Multiple Regressions were run with the significantly correlated ($p \leq .05$) demographic variables removed, to see whether the significant relationships between the religiosity measures and one and two point code type scores remained. As was noted above, the only demographic variable significantly correlated with one and two-point code-type T-scores was Wife's Perceived Attitude about Seminary Involvement (WAS). It correlated with both one and two-point code-type T-scores at the $p \leq .05$ level of significance.

The only meaningful religiosity measure to correlate significantly with one and two-point code-type T-scores was the Existential Well-Being (EWB) sub-scale of the Spiritual Well-Being scale (SWB). While SWB was found to correlate with both one and two-point code-type T-scores at the $p \leq .05$ level of

significance, it was not considered in the regression equation as the scale is simply the combined score of the EWB and RWB sub-scales. As RWB was not found to be significantly correlated to one and two-point code-type T-scores, the correlation of SWB and code-type T-scores was considered a function of the EWB sub-scale. With the variance in the regression equation attributed to WAS removed, EWB remained the only variable to be significantly correlated with one point code-type T-scores (CTB) with Sig T = .0033. With the variance in the equation attributed to WAS removed, again EWB significantly correlated with two point code-type T-scores (CTA) with Sig T = .0009. Thus it was found that with the significantly correlated demographic variables removed, the relationship between EWB and CTA/CTB remained significant.

Secondly, two additional Stepwise Multiple Regressions were run to discover the linear combination of the demographic variables and religiosity measures which best predicts psychopathology as determined by both the one and two-point code-type T-scores. Tables 8 and 9 indicate that EWB and WAS are the only two variables which account significantly for the variance among both one and two-point code-type T-scores.

Table 8

Stepwise Multiple Regression Results With CTB as the Dependent Variable

Variables in the Equation after .05 Limits Reached					
Variable	B	SE B	Beta	T	Sig T
EWB	-.78610	.17799	-.57787	-4.416	.0001
WAS	-2.60792	.70241	-.48580	-3.713	.0007

Table 9

Stepwise Multiple Regression Results With CTA as the Dependent Variable

Variables in the Equation after .05 Limits Reached					
Variable	B	SE B	Beta	T	Sig T
EWB	-.86859	.16808	-.63456	-5.168	.0000
WAS	-2.69645	.66330	-.49919	-4.065	.0003

Summary

The statistical analysis of the data produced several interesting results. First, the distributions for the scale elevations of both one and two-point MMPI code-type T-scores indicated that 62% and 54% of the sample respectively, scored in the moderate to pronounced range in terms of level of pathology. A Chi-Square statistical analysis indicated that the distribution of one-point codes was not random; codes 9 and 7 were the most frequently scored one-point codes. No positive correlations were found between the measures of religiosity and pathology; however, two negative correlations were found between religiosity and pathology measures. EWB was negatively correlated with both CTA and CTB at the $p \leq .001$ level of significance and SWB was negatively correlated with CTA and CTB at the $p \leq .05$ level of significance. Further, while the expected positive relationships between the SWB scales and the ROS-I were found, the negative relationships between the SWB scales and the ROS-E were not found.

It was also found that the best predictors of MMPI one and two-point code-type T-scores, were the EWB scale and the WAS variable (Wife's Perceived Attitude

About Seminary Involvement). Additionally, when WAS, the only demographic variable correlated significantly with MMPI code-type T-scores, was removed from the regression equation (WAS), the significant relationship between EWB and MMPI code-type T-scores remained significant.

CHAPTER 4

DISCUSSION

Overview of the Discussion

This chapter evaluates and interprets the results of the study. The discussion will be separated into four sections: (a) a discussion of the resistance and defensive posture of the sample, (b) a discussion of the descriptive statistics for the sample including the demographics, measures of religiosity, and MMPI one and two-point code types, (c) a discussion of the hypotheses, (d) and finally a discussion the implication of the findings.

Resistance and Defensiveness in the Sample

As reported in the results section, a number of unavoidable problems surfaced as the data was collected. Neder (1985) points out that though there were few outright refusals to participate, a significant amount of resistance was encountered in obtaining not only the initial agreement to participate, but also in getting participants to follow

through on completing the test instruments. Approximately 50% of the sample required two or more phone calls or letters from the Dean of Students or Neder (1985) and Powers (1985), before they picked up their test packet. Sixty per-cent of these reluctant participants needed follow-up calls to encourage completion and return of the packets. Even with all this effort on the part of the researchers and the Dean of Students, five of the participants did not return the test material until several months after the study was completed.

While only one case was excluded from the present study due to an invalid profile, Neder's (1985) analysis of the L, K, and F-K scales indicates that on the whole the sample manifested a distinctively defensive tendency. Neder (1985) points out that in the sample, this defensive tendency is suggested by the high L, K, and F-K scales of the MMPI.

Graham (1983) and Duckworth (1979) both indicate that educated people tend to score high on the K scale, with the typical T-scores for college graduates ranging from 55-70. Neder (1985) reports that this sample's T-score on the K scale averaged 60. This average score falls within the normal range for this population, and on its own does not indicate a defensive tendency.

The tendency toward defensiveness in the sample is also suggested by a mean L scale T-score that is higher than would be expected for a population such as this one. Graham (1983) states that "...the L scale was constructed to detect a deliberate and rather unsophisticated attempt on the part of the subject to present himself...in a favorable light" (p. 18). College educated students raw score on the scale average 0-1 while less educated individuals average around 4. Neder (1985) reports that this sample's mean was 4.1 which is higher than one would expect for college graduates. However, Neder (1985) also points out that in a highly religious sample such as this one, elevated L scores may be more a function of a culturally learned phenomena (Christians are taught to avoid typical human failings) than a crude personal defense used by an uneducated population. However, it is important to note that very few studies have been conducted on L scores in evangelical seminary samples. Cardwell (1967) in studying the norms for evangelical seminaries found that of the validity scales, only K was elevated over half a standard deviation above the general population mean. No other studies on the validity scales in evangelical seminary samples appears to exist. Further studies are needed to determine

whether scores on the L scale reflect a particular set of personal attributes which are not necessarily indicative of pathology.

Additional evidence for defensiveness in the sample was also observed by Neder (1985) in his analysis of the F-K scores. Webb and McNamara (1983) state that a score of +11 indicates a tendency to "fake bad" while a score of -11 or less indicates a tendency to "fake good". Neder (1985) reports that in this sample the mean F-K score was -12. However, while this suggests a tendency toward defensiveness in the sample, this factor is moderated somewhat by the higher K scores which are normal for educated populations and for populations being assessed for educational/ vocational reasons.

The significance of the defensive tendency suggested by the elevated L score is moderated somewhat by the fact that the elevations are probably more a function of a cultural phenomenon than a primitive defense system. The elevated K scores were within the normal range for samples such as this one. Finally, though the F-K scores indicated a somewhat defensive tendency, the significance of this tendency is moderated by the normally high elevations of the K scale in this population. In summary, while the sample

does manifest a moderately defensive tendency (individuals within the sample tend to present themselves in a positive light), this tendency did not significantly affect the validity of the MMPI scores.

Demographic Variables

General

Since individuals participating in the study were randomly selected from the first through third year male Master of Divinity students enrolled in the Fall quarter of 1984, at Western Conservative Baptist Seminary in Portland, Oregon, the results of the study can be generalized to all male M.Div. students at WCBS. Caution should be exercised in making statements about female M.Div. students as well as for students in other majors at the Seminary. It should be carefully noted that the design of this study limits the degree to which the findings are generalizable to groups other than male M.Div. students at WCBS.

Age

The average male student in the M.Div. program is 29.35 years. No significant correlations exist between age and any of the measures of religiosity or

pathology used in this study. Thus it appears that the religiosity and pathology measures are measuring constructs that are not significantly associated with age in this population. This finding is consistent with what would be expected for the religiosity measures, as scores on these measures are not thought to be significantly associated with age. No data are available on the relationship of code-type T-scores to age.

Marital Status

Most of the students are involved in their first seminary experience and 76.5% are married. Over three-fourths of the sample are not only facing the responsiblities of seminary life, but also the responsiblities of a wife and family. This suggests that those involved in planning support services at the seminary should bear in mind the unique needs of this type of student. For example, special attention to problems relating to older students beginning seminary with a wife and family could be addressed during the orientation process and in promotional material.

Financial Condition (FC)

Though seminary education is costly, close to half (44%) of the sample reported that all of their bills were paid. Another 26% indicated that their bills were usually paid with only 20% reporting some degree of financial difficulty. These findings indicate that finances are a problem for only a small proportion of students. However, this does not take into account those students forced to withdraw because of economic problems. In effect, the sample consisted of those who could afford to remain in seminary.

Spouse's Support (WAS, WAC)

The vast majority of husbands perceived their spouses as being supportive of their career choice (97%) and choice of school (82%). Since actual ratings from spouses were not obtained, results reported above may be distorted by the husband's perceptions.

Only one of the six demographic variables considered in this study was found to be significantly correlated with psychopathology: (WAS) Wife's perceived attitude about seminary involvement. This variable measures the husband's evaluation of his wife's satisfaction with the choice of seminary. WAS was

found to be negatively correlated with pathology as measured by MMPI one and two-point code-type scores at the $p \leq .05$ level of significance. Only two other variables in this study, SWB and EWB were found to be significantly correlated with pathology in the sample. Additionally, WAS was one of only two variables (EWB, WAS) in this study which accounted significantly for the variance in pathology within the sample. This suggests that given the variables used in this study, WAS is an important predictor of MMPI one and two-point code-type scores.

The present study is only one facet of a larger research project which addressed adjustment in this seminary population from different perspectives (Neder, 1985; Powers, 1985). Powers (1985) sought to measure the relationship between self concept and non-academic adjustment in seminary. He reported that non-academic adjustment as measured by the Seminary Socialization Scale (SSS), the Seminary Attrition Scale (SAS), and the Sentence Completion Scale (SCS), was significantly related to the major subscales of the Tennessee Self Concept Scale (TSC). Thus, better adjustment was positively correlated with higher self-esteem. Powers (1985) also reported that an individual's self report of his ability to enjoy people

(which was measured by a demographic question) positively correlated with better adjustment and higher self esteem. Powers (1985) study suggests, therefore, that the TSC, SSS, SAS, SCS, and the self report of an individual's ability to enjoy people, are also variables which may account for variance in pathology within the sample.

Neder (1985) attempted to develop a basic instrument by which prospective students could be screened for possible future adjustment difficulties with seminary life. Like Powers (1985) and the present study, Neder (1985) conducted his study on a random sample of 55 male, M.Div. students from WCBS in the spring of 1984. Neder (1985) found that the SSS was an internally consistent instrument which was significantly correlated with 44 scales of the MMPI. He concluded that the SSS was a good, consistent predictor of pathology as measured by the MMPI. Neder (1985) also substantially increased the number of significant correlations between the MMPI scales and the SSS by eliminating three items that did not correlate significantly with the total score. Neder (1985) called the new scale the NEWSSS.

Neder (1985) also found that nine of the MMPI scales correlated negatively with age. The negative

correlations are 7 (Pt), 8 (Sc), A, Ca, Pr, D4, TSC-IV, and TSC-VIII. Neder (1985) concluded that age appeared to be positively related to adjustment at this particular seminary. However, in this present study where code-types were used to measure pathology, no significant relationship was found between age and code-type T-score elevations. Additionally, no relationship between age and any of the measures of religiosity was found. This suggests that while age appears to be related to some of the clinical scales, it does not have predictive value in terms of overall levels of pathology and religiosity at WCBS. Like Powers (1985) Neder (1985) also found that the demographic question concerning an individual's ability to enjoy people (SOC-B) was significantly related to adjustment. Neder (1985) found that SOC-B correlated significantly with 39 of the MMPI measures of pathology.

It is clear then that several variables other than SWB, EWB and WAS have been found to be significantly related to pathology in this sample. Powers (1985) found TSC, SSS, SAS, SCS, and SOC-B to hold promise as predictors of the degree of non-academic adjustment to seminary. Neder (1985) found the NEWSSS, age, and SOC-B to be correlated with

measures of pathology as well. However, the present study suggests that age does not have predictive value in terms of overall level of pathology. This suggests that SWB, EWB, and WAS should be added to the NEWSSS, SOC-B, TSC, SAS, and the SCS, as predictors of adjustment at WCBS.

The finding that WAS is a predictor of MMPI code-type T-scores is rather curious in light of the fact that WAC (Subject's perception of Wife's Attitude toward Career Plans) while significantly correlated to WAS was not significantly correlated with MMPI code-type scores. One would imagine that the wife's attitude toward a career choice, which would affect the entire course of her life, would be at least as significant as her perceived attitude toward seminary involvement, which would last only a few years. However, results of this study indicate that WAS is a much more significant predictor of pathology as measured by MMPI one and two-point code-type scores, than WAC and the other demographic variables (age, number of seminaries attended, financial condition, and marital status). Results indicate that in this sample, the more the wife was perceived as being against the seminary, the greater the husband's level of pathology and visa versa. Again, what appears to be crucial to

level of pathology is not the wife's perceived approval of the husband's choice of career, but her attitude concerning the seminary attended in pursuit of that career. However, the data does not address the question of how this attitude may have been shaped or when it developed. Further exploration of these questions may provide more understanding of the significance of this variable.

Several factors need to be considered in understanding this finding. First it is clear that almost all of the wives in the sample were perceived as approving of their husband's choice of career. Only two wives of the 37 married subjects were rated below 5 on a 7-point Likert scale measuring perceived attitude toward career choice. Ninety-seven percent of the wives were rated at 6 or above on the 7-point Likert scale where 7 indicated that the wife was for career choice. This finding suggests that for the married subjects in the sample, given the wife's general approval of her husband's choice of a pastoral ministry career, the wife's attitude toward the seminary is significantly related to the husband's level of pathology as measured by MMPI code-type scores.

Descriptive Statistics for the Religiosity Measures

Spiritual Well-Being Scale (SWB)

As has been noted in the methods section, the SWB generates 3 scores: the SWB (equaling the sum of RWB and EWB), EWB and RWB. Analysis of the frequency distribution of RWB subscale scores indicates that 63% of the sample scored between 56 and the highest possible score of 60. While high scores would be expected in a highly religious sample such as this one, it also suggests that the ceiling for the sub-scale may be too low to adequately measure RWB in such a sample. However, as norms for different populations are not available at this time it is difficult to interpret these results beyond pointing out that the religious well-being of the sample as measured by RWB, was generally quite high.

This later statement is supported by the findings of Bufford, Bentley, Newenhouse and Papania (1986). In their study, they reported on the findings of eight studies involving 15 samples in which the SWB was used. The purpose of this study was to assess whether there were differences among groups on overall SWB and the two subscales. A major finding of their study was that seminarians scored significantly higher than medical

outpatients, United Methodists, Presbyterians, Baptists, Evangelical Christians, Unitarians, and non-Christian sociopathic convicts on SWB, RWB, and EWB. They reported mean scores for the seminary sample studied as follows: SWB = 109.99, RWB = 56.19, EWB = 53.78. Thus while norms are still unavailable on the SWB, scores in this study are consistent with the Bufford et al. (1986) findings.

The frequency distribution of EWB subscale scores likewise indicated that EWB as measured by the scale was generally high. Analysis of the frequency distribution on page 109 indicates that while the EWB of the sample was high (66% of the sample scoring between 46-55) the ceiling of the scale was high enough that only 20% of the sample scored in the 56-60 range. This suggests that while the ceiling may still be too low to adequately measure EWB within such a sample, it is apparently higher than the RWB sub-scale. Again, no norms are available for the sub-scale at this time making further discussion of the scores difficult. However, EWB scores are consistent with Bufford et. al (1986) findings discussed above.

As would be expected given the above discussion, the SWB scores within the sample were also distributed unevenly with the highest per cent of subjects scoring

at the top end of the scale. Again, because norms are not currently available for the scale this make interpretation of the distribution difficult. It can be stated, however, that as expected the sample scored high on SWB. Additionally it should also be noted that on the whole, SWB as a measure of religiosity in this seminary sample, appears to have too low a ceiling to measure the construct adequately.

In summary individuals in this seminary sample generally report their sense of well-being in relation to God (RWB) to be quite high. Additionally, while not quite so high as RWB, individuals in the sample also generally reported their sense of life purpose and satisfaction (EWB) to be high as well. In terms of Ellison's (1983) construct of spiritual well-being (SWB), the overall spiritual well-being of this sample is high. This is consistent with Bufford's et al. (1986) findings that seminarians score high on the SWB and its subscales.

Spiritual Maturity Index (SMI)

There are no norms for the SMI scale; this makes interpretation of the scores difficult. However, analysis of the frequency distribution of scores on page 111 indicates that 76% of the sample scored

between 90 and 110 where the lowest possible score was 20 and the highest 120. Additionally, only 4% of the sample scored between 111 and 120. These findings suggest that while the sample appears generally high on the SMI, the ceiling is high enough to measure the construct adequately within the sample. As noted in the chapter 1, Clark, Clifton, Cooper, Mueller, Sampson, and Sherman's (1985) study of church attenders and seminarians found that the 20 item version of the SMI was just as efficacious in terms of measuring the construct as the 30 item version. The findings of the current study suggest that additional items are not needed to raise the ceiling to acceptable limits even within highly religious samples. This finding also suggests that the additional 10 items may add no significant utility to the instrument. Though caution is encouraged, given the very few comprehensive studies of the SMI, it does appear that very little evidence is available which suggests that the 30 item version is any more efficacious than the 20 item version. It is therefore quite likely that similar results will be found using the 30 item version as compared to the 20 item version.

Religious Orientation Scale (ROS)

As statistical norms for the ROS are not available it is difficult to interpret the findings with precision. However, analysis of the frequency distributions of the ROS-E and ROS-I suggests that the sample was generally high in terms of its intrinsic religious orientation, and generally low in terms of its extrinsic religious orientation. These findings suggest that individuals in the sample tend to focus their lives around their religion and view their other activities as instrumental in accomplishing religious goals. They tend to not view their religion as an activity which is instrumental in accomplishing their own personal goals. Seminarians in the sample "live their religion" rather than "use their religion"; they were not indiscriminately pro-religious or anti-religious.

Summary

It is clear from the findings that this sample can be described as highly religious. The sense of well-being in relationship to God is quite high as is the sense of life purpose and satisfaction. Individuals in the sample generally report that they focus their lives

around their religion and that they view their other activities as instrumental in accomplishing religious goals.

Descriptive Statistics for MMPI Code-Type Scores

In considering the meaning of the frequency distributions of MMPI code-type scores certain factors need to be considered. It should be remembered that specific code-type scores indicate a specific set of pathological behavioral descriptors associated with that specific code-type. Additionally, Graham (1983) states that in general the more the clinical scales are elevated (and the greater the degree of elevation) the greater the possibility that some serious psychopathology and poor levels of functioning exist.

While some clinicians obtain a crude, quantitative index of the degree of pathology by computing the mean T-score for the profile, taking the mean T-score of the profile's code-type may provide a better index of pathology. While it has been suggested by some clinicians that only elevations above a T-score of 70 are indicative of clinically significant pathology (Graham, 1983), Butcher (1985) in a recent conference on MMPI interpretation suggests that T-scores as low as 65 could indicate clinically

significant psychopathology. This suggests that as code-type T-scores approach 70, so does the probability of significant psychopathology and poor levels of functioning. As a result, somewhat arbitrary cut off points were established in order to describe the sample in terms of its level of pathology. Mean T-scores of 50-64 were considered as not reflecting pathology, while T-scores of 65-69 and 70 and above were seen as reflecting moderate and pronounced pathology respectively.

One-Point MMPI Code-Type Scores

Analysis of one-point code-type scores indicates that 38% of the sample evidenced no significant pathology while 20% showed moderate pathology and 42% showed pronounced psychopathology. This suggests that a rather high percentage of the sample (62%) manifests some moderate to pronounced pathology.

This finding needs to be addressed in light of the earlier finding that the sample is highly religious. It is important to note in this context that the many factors which contribute to psychopathology were not controlled in this study. For example, no attempt was made to determine how long the individuals had been Christians, whether they were

raised in a Christian environment, or what significant psychosocial factors influenced their development. Thus it would be an error to simplistically interpret these finding to mean that the high degree of religiosity found in the sample accounts for the pathology within the sample. The fact that no base rates on T-scores for one and two-point codes exist, makes interpretation of these results even more difficult. These findings simply suggest that among 62% of those men who chose to pursue their seminary education at Western Conservative Baptist Seminary, religiosity did not provided immunity from varying degrees of psychopathology. Thus the findings say little about the relationship between religiosity and psychopathology in the sample beyond what has been stated above.

A Chi-Square statistical procedure was run on the one-point codes to analyze the normalcy of the distribution. The results indicate that the distribution was not normal, which suggests that certain one-point codes figure prominently in the sample. Due to the relatively small sample size statistical procedures could not be run to determine with precision which of the codes were significantly associated with this particular sample. However, a

review of the frequency distribution of one-point codes suggests that 9, 7, 3, 4, 8 figure prominently in the sample, with 9 and 7 the most frequently occurring codes.

According to Duckworth (1979), scale 9 measures psychic energy. The higher the elevation of the scale, the more the individual is actively thinking and the more he is compelled to act. However, Duckworth (1979) also points out that in graduate school populations, elevations of 60 thru 70 are typical and simply indicate mental activity with accompanying physical energy. In fact, 9 tends to be one of the two most frequent high point scales in samples of college students (scale 5 is the other), with moderate elevations (T-score 60-70) being considered desirable. However, Duckworth (1979) cautions that when the elevation of the scale ascends to 70 and beyond, the increase in psychic energy often presents problems. Typically individuals with elevations of 70 and above begin to "spin their wheels" and become over involved and committed, yet they get fewer things done. When the scale reaches a T-score of 80 or above, Duckworth (1979) states the person may appear to act like "a chicken with its head cut off" (p. 165).

Thirty-two percent (16 subjects) of the sample had scale 9 as the high point code making it the most frequent high point code in the sample. Fifty percent of persons with 9 scale one-point codes (8 students) scored at 70 or above while the remaining fifty percent scored within the normal range for samples of this type. This finding suggests that a high level of psychic energy exists in the sample and in many cases it approaches or exceeds optimal functional levels. However, the preponderance of 9 high point codes is what would be expected in a sample such as this one.

The second most frequently scored high point code in the sample was scale 7. Twenty percent of the sample had scale 7 as their high point code. According to Duckworth (1979) "scale 7 measures anxiety, usually anxiety of a long term nature" (p. 141). The scale tends to be elevated during times of situational stress. It should be remembered that an attempt was made to minimize the stress level of the students by scheduling the testing period during one of the least active periods of the term. However, it was also noted that this attempt was not completely successful. Thus high scores on this scale though most likely reflecting a type of living which includes worrying a great deal, may be elevated somewhat due to situational stressors

encountered as part of the academic experience. At the more moderate elevations (T = 60-70) an individual is generally punctual in meeting important assignments and deadlines and does not feel anxious. However, when unable to meet a deadline or assignment, often an anxious agitation develops until the obligation is completed. Individuals with more significant elevations (T = 70 or above) tend to be tense, worried, indecisive, and unable to concentrate. They often have a low threshold for anxiety and tend to over react with anxiety in any new situation. Often they exhibit extreme obsessiveness going over the same thoughts again and again (Duckworth, 1979).

In this sample, 30% (3 subjects) of those having 7 as their high point code scored within relatively normal limits while 70% (7 subjects) had elevations of 65 or above. This shows that the majority of subjects with high point codes of 7 scored at levels which approached or were clinically significant. This suggests that individuals in the sample with high point codes on scale 7 tend to experience anxiety at levels which are associated with the clinically significant symptoms discussed above.

One way people may choose to avoid facing difficulty and conflict is to deny that such situations

exist. Scale 3 measures the amount and type of such denial. Fourteen percent of the sample had scale 3 as their one point code type. However, it is important to note that 100% of this group scored in the normal range. This suggests that of those with one point code types of 3, none of the individuals used denial of difficulties and conflict to the degree that it could be considered clinically significant.

Scale 8 accounted for 14% of the high point codes in the sample. Duckworth (1979) indicates that this scale "measures mental confusion; the higher the elevation, the more confused the individual is" (p. 151). At the lower elevations, (T = 60-70) elevated scores indicate that the individual thinks differently than people usually do, yet not to the degree that they are out of touch with people. Duckworth (1979) indicates that individuals scoring in this range may appear relatively well adjusted but have internal conflicts and be at odds within themselves. As T scores approach 70 and go beyond, difficulties may exist in the individual's logic so that it doesn't hold together well over a period of time. They tend to feel alienated and remote from their general social environment and may have questions about their identity. Generally, (unless the T score approaches 80

or above), they appear to be in contact with reality, but others may have difficulty following their logic. Additionally, they may feel that they are lacking something which is fundamental to relating successfully to others, and have goals that are rather confused and vague.

Of the 14% of the sample with 8 as the high point code, 57% (4 subjects) had T scores at 65 or above. This suggests that 8% of the sample had scores which are associated with the more significant clinical symptoms discussed above.

The final scale to be considered in this discussion of one point code types is scale 4. Fourteen percent of the sample (7 subjects) had 4 as their one point code type. Five of the seven subjects scored in the moderate to pronounced range ($T \geq 65$). Graham (1983) states that the 4 scale was developed to identify patients diagnosed as psychopathic personality, asocial or amoral type. However, Duckworth (1979) points out that the key phrase for understanding elevations of this scale is "fighting something." The exact nature of the conflict and its appropriateness depends upon the focus of the conflict (society, friends, spouse, or school). Duckworth (1979) adds that at the lower elevations of this scale, the fighting out may

represent a covert feeling that something or someone other than the client needs to be changed. This suggests that it would be simplistic and inappropriate to assume that elevations of the 4 scale automatically suggest that the individual's behavior is bad. Awareness of the individual's situation would be needed in order to make such an interpretation. One might expect, for example, that individuals who are committed to changing a society they see as differing from the biblical ideals might have elevated 4 scale scores and that this may account for the elevations seen in this particular sample. As the focus of this study is not an in depth analysis of the clinical scales themselves, only the notion that individuals are fighting something, or that they feel something or someone other than themselves needs changing, would be appropriate interpretations of the higher elevations of the scale.

However, 5 of the seven cases (57%) with 4 as the one-point code experience this conflict and belief that others need changing to a degree that their behavior would be considered somewhat maladaptive. They may in fact be rebellious toward authority figures they do not see as affirming their values. They may appear impulsive, self-centered, insensitive to the feelings

of others and tend to act without considering the consequences of their actions (Graham, 1983).

Finally it is interesting to note the characteristics of that segment of the sample with moderate to pronounced elements of pathology as compared to the part of the sample without significant pathology (see Figures 12 and 13). In this sample, those who manifest some pathology and poor levels of functioning tend to manifest clinical symptoms associated primarily with scales 9 and 7, and secondarily with scales 4 and 8. Of those who manifest clinically significant pathology in the sample, 42% tend to do so by becoming over involved and committed, often to the point that they "spin their wheels" and get little accomplished; 23% tend to become anxious and tense, over-reacting with anxiety in new situations; for 16% pathology is characteristically expressed as a tendency to be insensitive to others, impulsive, and feeling the need that others change; 13% of the sample had pathology which manifested itself as a tendency to feel alienated and remote from the social environment. Thus those in the sample exhibiting significant pathology exhibited symptoms associated with high levels of energy, anxiety, anger, and confusion.

Among those manifesting no significant pathology, 37% had one-point codes of 3 (see figure 13). This suggests that the non-pathological segment of the sample tends to use denial as its primary mode of defense but not to the degree that it could be considered pathological. Additionally, codes 7, 8, 9 and 4 were the next most frequently occurring codes, which is similar to the pattern observed among the more pathological codes. Thus while the pathological segment of the sample is primarily characterized by symptoms associated with high levels of psychic energy and anxiety, the non-pathological segment is primarily characterized by a mild tendency toward the use of denial and secondarily by functional levels of energy, anxiety and anger.

Parker (1985), reported mean and standard deviations for a sample of male divinity students at Dallas Theological Seminary. Neder (1985) reported similar statistics for the same sample used in this study. In both studies the use of mean T-scores obscured evidence of pathology in the samples. For example, the highest mean T-score reported by Parker (1984) was T = 62.43, a T-score elevation not associated with pathology. However, in the present study the use of code-type T-scores as a measure of

pathology shows that 62% of the sample had T-score elevations in the moderate to pronounced pathology ranges for one-point codes, and 54% for two-point codes. This suggests that while mean T-scores tend to obscure the presence of pathology in samples, code-type T-scores better indicate its presence. For a further description of MMPI scores for this sample see Neder (1985). Also for a comparison of means and standard deviation of the clinical scales of the MMPI in two conservative evangelical seminaries, see Parker (1985) and Neder (1985).

Summary

In summary, analysis of one-point code-type scores indicates that 62% of the sample was seen to have some moderate to pronounced pathology. This group was characterized by symptoms associated with high levels of psychic energy, anxiety, anger, and confusion. Thirty-eight percent of the sample had scores below clinically significant levels. While this group characteristically uses denial as a primary mode of defense, it tends to do so within normal limits. These findings suggest that religiosity has not provided immunity from significant levels of pathology for 62% of those men who chose to pursue their seminary education at Western Conservative Baptist Seminary.

However, these findings alone do not indicate whether these elevations are associated with measures of religiosity. The findings do suggest that pathology at Western Conservative Baptist Seminary tends to be expressed in terms of symptoms associated primarily with scales 9 and 7, and secondarily with scales 4 and 8.

Two-Point MMPI Code-Type Scores

Analysis of two-point code-type scores indicates that 46% of the sample evidenced no significant pathology while 20% had a moderate amount of some pathology and 34% manifested a pronounced amount of some clinically significant psychopathology. As with one-point codes, this suggests that over half of the sample (54%) evidences some moderate to pronounced psychopathology. The same cautions apply in interpreting the significance of these findings as were discussed above in the analysis of one-point codes (see p. 150). The two-point code-type analysis shows an 8% decrease in moderate to pronounced pathology in the sample compared to the one-point code analysis. This results from averaging the two highest scores as opposed to recording the T-score of the highest scale;

the second highest scale tends to modify the elevation of the highest code resulting in a decrease in the mean T-score.

As in the interpretation of one-point codes, it would be an error to simplistically interpret the apparent convergence of pathology and religiosity as suggesting that religiosity accounted for the pathology in this highly religious community. Again, these findings do not indicate whether these elevations are associated with measures of religiosity. As was said in the analysis of one-point codes, all that can be said is that for 54% of the sample, religiosity defined in the broadest sense, has provided no immunity from some clinically significant psychopathology.

Due to the small sample size, and the relatively large number of two-point codes (17 different codes appeared in the sample), no statistical analysis could be run to measure the normalcy of the distribution of codes. Review of table 4 reveals that no one code appears to be prominent among the sample. Further no one code or group of codes is prominent among codes with elevations in the none, moderate and pronounced ranges. However, it should be noted that scales 4, 7, 8, and 9 figured in all but two of the codes found in the sample, suggesting that symptoms associated with

these codes occur frequently in the sample (see the discussion of these scales on pp. 152-161).

Hypotheses

As has been seen from the above discussion, the sample can be characterized as being highly religious with slightly over half (54% with two-point code-types and 62% with one-point code-types) of the subjects having moderate to pronounced elevations in their MMPI code-type T-scores. The question that now needs to be asked is what is the relationship between the sample's religiosity and psychopathology as measured by the MMPI. If the religiosity measures were found to be positively correlated with MMPI code-type scores, then the notion that religiosity and pathology are related in samples such as this one would be supported. That is, one would expect to find greater amounts of psychopathology as the level of religiosity increased. If this were found to be true, it would support the notion that religiosity is antithetical to emotional health and rationality, a view which Bergin (1983) suggests is widely held among the clinical professions. However, findings which indicate that no relationship

exists or even that a negative relationship exists, would suggest that such assumptions need to be seriously reassessed.

Hypotheses one and two deal with the relationship between the measures of religiosity and psychopathology in this sample. Hypothesis one deals with the relationship between the religiosity measures and one-point code-type T-scores while hypothesis two deals with the same relationship using two-point code-type T-scores. Hypothesis three and four focus on relationships among the religiosity measures.

Hypothesis One

Hypothesis one was not rejected for the RWB, SMI and ROS scales but was rejected for the EWB and SWB scales. Two of the religiosity scales (EWB, SWB) were found to be negatively correlated with one-point codes. No significant relationship was found between any of the other measures of religiosity and one-point codes. As the RWB sub-scale of the SWB was not significantly related to one-point codes, it appears that EWB accounts for the negative relationship between SWB and one-point codes. This finding suggests that the more one experiences existential well being, the less one manifests clinically significant psychopathology.

The EWB and RWB as subscales of the SWB primarily differ from one another in that no reference to God is made in items comprising the EWB subscale. Paloutzian and Ellison (1982) state that the EWB taps one's sense of life purpose and life satisfaction without reference to anything specifically religious. However, in this sample EWB and RWB were significantly correlated at the $p = .001$ level. This suggests that while well-being in relation to God (RWB) was not directly related to pathology, it is positively related to EWB which in turn is negatively related to psychopathology. While the critical factor in the negative relationship between pathology and the SWB scale is the EWB, it appears that to a moderate degree increases in religious well-being are indirectly associated with decreases in pathology through its relationship with EWB. While this finding does not suggest that religiosity is directly associated with lower levels of pathology, it does suggest at best that well being in relationship to God (RWB) is positively related to the development of a healthy sense of life purpose and satisfaction in a religious sample such as this, which in turn leads to lowered levels of psychopathology. This finding does not support the notion that religiosity is antithetical to emotional health and

rationality. It suggests instead that one's relationship to God may be indirectly associated with lower levels of psychopathology.

A multiple regression was performed to examine the impact of demographic variables on the relationship between religiosity scores and level of pathology. With WAS, the only significant variable controlled for, EWB was still found to be negatively related to one-point MMPI codes. EWB and WAS (Wife's perceived attitude about seminary involvement) were found to be the only variables that accounted significantly for the variance in psychopathology within the sample. This suggests that the higher the level of existential well-being and the more the student's wife was perceived as approving of the seminary, the less pathology was present. Thus, together EWB and WAS were powerful predictors of the pathology in the sample.

No other relationship was found between other measures of religiosity and psychopathology. This finding does not support the notion that religiosity is antithetical to emotional health and rationality, nor does it support the notion that religiosity promotes emotional health and rationality.

Hypothesis Two

As in hypothesis one, hypothesis two was not rejected for RWB, SMI, and ROS but was for EWB and SWB scales. Results for two-point codes were similar to those for one-point codes: just as was found with one-point codes, two of the religiosity scales (EWB, SWB) were found to be negatively correlated with two-point codes. No relationship was found between any of the other measures of religiosity and two-point codes. The RWB sub-scale of the SWB was also not significantly related to two-point codes. It appears, as it did with one-point codes, that EWB accounts for the negative relationship between SWB and two-point codes. Because the findings using both one and two-point codes were consistent, the interpretation of two-point code findings is identical to that of one point code findings (see above).

Hypothesis Three

Hypothesis three was rejected for the SWB scales and the ROS-I and confirmed for the relationship between the SWB scales and the ROS-E. As was predicted, the SWB scales all correlated positively with the ROS-I. This was expected as a person whose religious motivation is intrinsic would be expected to

have high SWB. However, no significant relationships were found between the ROS-E and the SWB scales. It was thought that an individual who characteristically used his religion would also be seen to have lower SWB scores. However, this lack of relationship may be explained by by the fact that the ROS-I and the ROS-E were not related ($r = .175$); a finding consistent with later work on the ROS (Bufford, 1984).

Hypothesis Four

Hypothesis four was rejected for all relationships except the relationship between the SMI and ROS-E where the hypothesis was upheld. It was predicted that the SMI would be positively correlated with all of the SWB scales. As has been shown, this was in fact found to be true with positive correlations at the $p = .001$ level of significance. This finding confirms Bufford's (1984) similar finding. Additionally it suggests that Ellison's initial hypothesis that the scale measures a significantly different aspect of the spiritual life may in fact be false and that a reassessment of his conceptualization of Spiritual Maturity is needed.

As would be expected given the SMI's strong correlation with the SWB, a positive relationship was also found with the ROS-I. Additionally as would be

expected given what has already been said about the relationship between the SWB and the ROS-E, no relationship was found between the SMI and the ROS-E. This lack of relationship may be explained by the fact that the ROS-I and ROS-E were not related (r = .175); a finding consistent with later work on the ROS (Bufford, 1984).

Implications

Implications for Psychological Theory

As was noted in the introductory chapter of this study, within the psychological community there exists a somewhat generalized preconception that religiousness is necessarily correlated with psychopathology (Bergin, 1983). Ellis (1980) and Wallis (1980) for example bluntly state that religiosity is in many ways equivalent to irrational thinking and emotional disturbance. Results of this study do not support the notion that there is a positive correlation between religion and mental health in this seminary population. No positive correlations were found between religiosity and psychopathology as measured by MMPI one and two point code types.

Though no support for the Ellis-type theory was found, there was only marginal support at best for a positive relationship between religiosity and psychological health in the population. It may be that the restricted range (the sample was highly religious) accounts for the lack of positive correlations between religiosity and psychological health as restricted range lowers correlations. As was seen the EWB sub-scale of the SWB accounted for the only significant negative correlation with psychopathology. As subjects EWB scores increased their level of pathology decreased. These findings raise serious questions about the accuracy of Freud, Ellis and Wallis' theoretical understanding of the nature and function of religion in the psyche. One would expect that if their theories were true, there would be a clear positive relationship between pathology and religiosity. The fact that this was not found, and that there was a tendency for the opposite relationship, suggests that a reassessment of the nature and function of religion in the psyche in such theories is called for. Further it challenges the more widely held preconception that religiosity is necessarily correlated with pathology. However, it should be remembered that on the basis of this study,

this challenge can only be made for populations similar to this one and not the population in general. Further studies of the relationship in other populations continue to be needed to further challenge the preconception (see Bergin, 1983).

Implications for the Assessment and Training of Seminarians

Two findings have particular importance for the training and assessment of seminarians at Western Conservative Baptist Seminary; EWB and WAS were found to be the best predictors of both MMPI one and two point code-type T-scores. While the correlational nature of the study does not allow for an inference of a cause and effect relationship, it does suggest that special attention to the individual seminarian's personal sense of life direction and satisfaction during his seminary experience may prove helpful in terms of his overall adjustment. It may be that giving the student the opportunity to explore these issues in a supportive environment, such as in a spiritual growth group experience, may enhance his overall adjustment. However, further study of the influence of such an experience on EWB and MMPI one and two-point code-type T-scores would be needed to confirm such an hypothesis.

The fact that EWB was so strongly correlated with MMPI code type scores suggests that the SWB may be a useful predictor of pathology at Conservative Evangelical Seminaries such as Western Conservative Baptist Seminary. This finding suggests that further research with the scale is needed so that norms can be established. It may be that the SWB can become a useful and efficient screening instrument aimed at detecting pathology within a religious context.

Finally, the fact that WAS was correlated with pathology suggests that among seminarians who are married, the husband's perception of the wife's attitude toward the seminary of choice may have a good deal to do with his mental health. Again, while it is important to note that the correlational nature of the study does not allow the inference of a cause and effect relationship, it does suggest that there is a strong relationship between WAS and the seminarian's mental health. It appears that the wife's attitude about the seminary of choice may be an important predictor of her husband's level of pathology. It may be that special attention to the wife's emotional needs related to adjusting to seminary life could enhance the seminarian's overall adjustment to the seminary experience. Again, further research in this area is

needed before a conclusive statement on this possibility can be made. However, it may be that a wives' growth group designed to address feelings and attitudes related to their husband's involvement at a particular seminary, may prove beneficial to married seminarians' overall mental health.

Implications for Clinical Training and Practice

It is clear from the research cited in review of this topic, that religious cognitions, emotions, and behaviors are pervasive within the population at large. It is equally clear that at least within a highly religious population such as a conservative evangelical seminary population, religiosity is not positively correlated with psychopathology. Clinicians who are treating clients from such populations should strive to understand the cultural content of their clients' religious world views rather than deny the importance of these views and opt to coerce clients into alien linguistic and conceptual usages. To this end, clinical students and practitioners should be aware of their own religious or anti-religious orientations and attempt to respect the orientation of their clients. When a client's religious values create difficulties for the therapist, consultation or referral may be

warranted. Additionally the findings of this study suggest that the practice of simplistically attributing pathodynamic origins to religious values one disagrees with needs to be constrained.

Implications for Further Research

Several suggestions for further research can be made on the basis of these findings. Studies are needed to determine if in a highly religious sample, scores on the MMPI L scale reflect a particular set of personal attributes which are not necessarily indicative of pathology. Research is also needed in developing norms for MMPI code-type T-scores. Given the importance of the WAS variable, further studies of the wife's attitude about seminary involvement is suggested. In this regard, understanding the relationship between seminary wives' growth groups, and their husbands' level of pathology is also worthy of further study. Given the usefulness of the SWB, studies aimed at developing norms for the instrument are suggested. Finally, given the importance and pervasiveness of religious practice and experience in American life, further studies of the relationship between religiosity and psychopathology in varied populations is encouraged.

Summary

The most significant finding of this study was that no positive correlation between religiosity and pathology was found in a highly religious sample. This suggests that the preconception that religious interests contribute to psychopathology may be erroneous.

Analysis of the religiosity scales also revealed some significant findings. It was found that Ellison's hypothesis that the SMI measured a significantly different aspect of the spiritual life may in fact be false and that a reassessment of the conceptualization of spiritual maturity is needed. Additionally, the EWB sub-scale of the SWB and Was were found to have predictive abilities within this seminary population suggesting that both may be helpful in the assessment and training of seminarians at WCBS. This finding needs to be understood in the broader context of the research project as a whole (see Neder 1985; Powers 1985).

In considering the implications of the findings it was suggested that when dealing with clients from such populations, both the clinical student and

practitioner need to respect the viability of their clients' religious world views as well as be sensitive to their own.

REFERENCES

Allen, R.O. & Spilka, B. (1967). Committed and consensual religion: A specification of religion-prejudice relationships. Journal for the Scientific Study of Religion, 6 191-206.

Allport, G.W. (1950). The Individual and His Religion: A Psychological Interpretation. New York: Macmillian.

Allport, G.W., & Ross, J.M. (1967). Personal religious orientation and Prejudice. Journal of Personality and Social Psychology, Vol. 5, No. 4, 432-443.

Argyle, M., & Beit-Hallahmi, B. (1975). The Social Psychology of Religion. London: Routledge & Kegan Paul.

Bahr, M., & Gorsuch, R.L. (1982). Trait anxiety and intrinsic-extrinsic orientation. Journal for the Scientific Study of Religion, 21(2), 119-122.

Baither, R. & Saltzberg, L. (1978). Relationship between religious attitude and rational thinking. Psychological Reports, 43(3), 853-854.

Basset, R.L., Sadler, Kobischen, Skiff, Merrill, Atwater, & Livermore (1981). The shepard scale: Separating the sheep from the goats. Journal of Psychology and Theology, 9, 335-351.

Becker, R.J. (1971). Religion and psychological health. In Strommen (Ed.), Research on Religious Development: A Comprehensive Handbook, New York: Hawthorne, 1971.

Beit-Hallahmi, B. (1974). Psychology of religion 1880-1930: The rise and fall of a psychological movement. Journal of the History of Behavioral Sciences, 10 84-90.

Bergin, A. E. (1983). Religiosity and mental health: a critical reevaluation and meta-analysis. Professional Psychology: Research and Practice, 14, 170-184.

Bertocci, B. (1971). Psychological interpretations of religious experience. In Strommen (ed.) Research on Religious Development: A Comprehensive Handbook. New York: Hawthorne.

Blaikie, N.W.H., & Kelsen, G.P. (1979). Locating self and given meaning to existence: A typology of paths to spiritual well-being based on new religious movements in Australia. In D.O. Moberg (Ed.) Spiritual Well-being: a Sociological Perspective. Washington D.C.: Univ. Press of America, 1979.

Bohrnstedt, G., Borgatta, & Evans (1968). Religious affiliation, religiosity, and MMPI scores. Journal for the Scientific Study of Religion, 53, 255-258.

Bolt, M. (1975). Purpose in life and religious orientation. Journal of Psychology and Theology, 7, 255-258.

Boren, W.E. (1955). Personality correlated of certain religious attitudes. Journal of Consulting Psychology, 19, 64.

Bradford, R. (1978). An investigation of religious orientation and mental abnormality. Dissertation Abstracts International, 39, (6-b), 2973-2974.

Bressem, M. (1985) The relationship between individual differences and imigianable ablity, Chrisitan imiginal use, and Christian Spirituality. Published disseratation, WCBS.

Brown & Lowe (1951). Religious beliefs and personality characteristics of college students. The Journal of Social Psychology, 33, 103-129.

Bufford, R.K. (1984). Empirical correlates of Spiritual Well-being and Spiritual Maturity Scales. Paper presented at the annual meeting of the Christian Association for Psychological Studies, Dallas, TX.

Bufford, R.K., Bentley, R., Newenhouse, J., Papania, T., (1986). The relationship among groups using the Spiritual Well-Being Scale. Unpublished manuscript, Western Conservative Baptist Seminary, Portland, Oregon.

Burkett, & White (1974). Hellfire and delinquency: Another look. Journal for the Scientific Study of Religion, 13, 455-462.

Buros, O.K. (Ed.) (1978). The eighth mental measurements yearbook. Highland Park, N.J.: Gryphon Press.

Butcher, J. (1985). A presentation at the Clinical Applications to the MMPI Workshop, Seattle, Wa.

Butcher, J., & Graham, J.R. (1985). What are code types? A paper presented at the Clinical Applications to the MMPI Workshop, Seattle, Wa.

Campbell, A. (1981). The Sense of Well-being in America: Recent Patterns and Trends, New York: McGraw-Hill.

Campbell, C. (1983). Coping with hemodialysis: cognitive appraisals, coping behaviors, spiritual well-being, assertiveness, and family adaptability and cohesion as correlates of adjustment. Published dissertation, Western Conservative Baptist Seminary, Portland, Oregon.

Campbell, E.I. (1958). A study of religious conflict in hosptalized psychotics and hospitalized normals (Doctoral dissertation, University of Pittsburg). Dissertation Abstracts International, 23, 2236.

Campbell, Converse & Rodgers (1976). The Quality of American Life, New York: Russell Sage Foundation.

Campise, Ellison, & Kinsman (1979). Spiritual well-being: Some exploratory relationships. In R.F. Paloutzian (Chair), Spiritual well-being, loneliness, and perceived quality of life. Symposium presente at the annual meeting of the American Psychological Association, New York.

Cardwell, S.W. (1967). The MMPI as a predictor of success among seminary students. Ministry Studies, 1, 3-20.

Cardwell, S.W. (1969). The relationship between religious commitment and premarital sexual permissiveness: A five-dimensional analysis. Sociological Analysis, 30, 72-80.

Cerny, L.J. (1978). Death perspectives and religious orientation as a function of Christian faith with specific reference to being "born-again". Doctoral dissertation, Dissertation Abstracts International, 7, 21524.

Chamber, Wilson & Barger (1968). Need differences between students with and without religious affiliation. Journal of Counseling Psychology, 15, 208-210.

Clark, Clifton, Cooper, Mueller, Sampson, & Sherman (1985). A comparison of the 20 and 30 item Spiritual Maturity Index. An unpublished study, WCBS.

Clark, Clifton, Cooper, Mishler, Olsen, Sampson, & Sherman (1985). The effect of social desirability on the Spiritual Maturity Index. An unpublished study, WCBS.

Crandall & Rasmussen (1975). Purpose in life as related to specific values. Journal of Clinical Psychology, 31 (3), 483-485.

Crumbaugh, J.C., & Maholick, L.T. (1969). The purpose in life test. Bloomington Indiana: Psychometric Affiliates.

Dahlstrom, W., & Welsh, G. (1960). An MMPI Handbook: A Guide to Clinical Practice and Research. Minn.: Minn. Univ. Press.

Dahlstrom, W., Welsh, G., & Dahlstrom, L. (1975). An MMPI Handbook, Vol. II: Research applications. Minn.: Minn. Univ. Press.

DeJong, Faulkner, & Warland (1976). Dimensions of religiosity reconsidered: Evidence from a cross-cultural study. Social Forces, 54, 866-889.

Devries, A.G. (1966). Demographic variables and MMPI responses. Journal of Clinical Psychology, 22, 450-452.

Dittes, J.E. (1971). Religion, prejudice, and personality. In Strommen (Ed.) Research on Religious Development: A Comprehensive Handbook. New York: Hawthorn, 1971.

Duckworth, J. (1979). MMPI : Interpretation manual for counselors and clinicians (2nd ed.). Muncie Indiana: Accelerated Development Inc.

Ellis, A. (1980). Psychotherapy and atheistic values: A response to A.E. Bergin's "psychotherapy and religious values". Journal of Consulting and Clinical Psychology, 48, 635-639.

Ellison, C.W. (1982, January). Spiritual well-being. Paper presented at the Duke University Medical Center Conference of Spiritual Disease.

Ellison, C.W. (1983). Spiritual well-being: Conceptualization and Measurement. Journal of Psychology and Theology, Vol. II, No. 4, 330-340.

Ellison, C.W. and Economos, T. (1981, April). Religious orientation and quality of life. Paper presented at the annual meeting of the Christian Association for Psychological Studies, San Diego.

Erikson, E.H. (1958) Young Man Luther: A Study in Psychoanalysis and History. New York: Norton.

Feagin, J.R. (1964). Prejudice and religious types: a focused study of southern fundamentalists. Jo. for the Scientific Study of Religion, 4, p. 3-13.

Franz, J. (1985), REL validation. A published doctoral dissertation, WCBS.

Freud, S. (1953) The future of an illusion. In E.Jones (Ed.) The International Psychoanalytic Library. 1953.

Gallup, G. (1981). Religion in America: the Gallup Opinion Index. The Princeton Religious Research Center.

Glass, McGraw, & Smith (1981). Meta-analysis in social research. Beverly Hills Ca.: Sage Press.

Glock, C.Y. (1962). On the study of religious commitment. Religious Education Research Supplement, 42, 98-110.

Goresch, S.J., & Davis, W.E. (1977). Psychiatric patients' religion and MMPI responses. Journal of Clinical Psychology, 33, Supplement, 168-171.

Gorsuch, R.L. (1984). Measurement: The boon and bane of measuring religion. American Psychologist, 39, 228-236.

Gorsuch, R.L., & Butler (1976). Initial drug abuse: A review of predisposing social psychological factors. Psychological Bulletin, 83, 120-137.

Graham, J.R. (1973). Behavioral correlates of simple MMPI code-types. Paper given at the Eighth Annual Symposium on Recent Developments in the Use of the MMPI.

Graham, J.R. (1983). The MMPI: A Practical Guide. New York: Oxford University Press.

Gynther, Gray, & Strauss (1970). Effects of religious affiliation, religious involvement, and sex, on the social desirability ratings of MMPI religious items. Journal of Consulting and Clinical Psychology, 34, 338-342.

Hathway, & McKinley (1982). Users guide for the Minnesota Report. The Univ. of Minn..

Hood, R.W. (1973). Religious orientation and the experience of transcendance. Journal for the Scientific Study of Religion, 12, 441-448.

Hugo, J. (1971). Abbreviation of the MMPI through multiple regression. Unpublished dissertation. University of Alabama, Tuscaloosa, Alabama.

Hunt, R.A., & King, M.B. (1971). The Intrinsic-Extrinsic concept: a review and evaluation. Jo. for the Scientific Study of Religion, 10, 339-356.

James, W. (1902). The Varieties of Religious Experience. New York: Longmans, Green.

Joe, McGee, & Dazey (1977). Religiousness and devaluation of a rape victim. Journal of Clinical Psychology, 33(1), 64.

Jung, C. (1938) Psychology and Religion. New Haven: Yale University Press.

Kahoe, R.D. (1974). Personality and achievement correlates of intrinsic and extrinsic religious orientations. Journal of Personality and Social Psychology, 29, 812-818.

Kania, J. (1965). The MMPI and seminary populations. In Newmark (1979), MMPI Clinical and Research Trends. New York: Praeger Pub. Co.

Kania, J. (1967). Defensiveness in seminary samples. In Newmark (1979), MMPI Clinical and Research Trends. New York: Praeger Pub. Co.

King, G.D. (1978). The MMPI. In Buros (Ed.). The eighth mental measurments yearbook (Vol. 1). Highland Park, N.J.: Gryphon Press.

Lachar, D. (1968). MMPI two-point sode-type correlates in a state hospital population. Journal of Clinical Psychology, 24, 424-427.

Lewandowski, D., & Graham, J.R. (1972). Empirical correlates of frequently occuring two-point code types: a replicated study. Journal of Consulting and Clinical Psychology.

Lindenthal, Meyers, Pepper, & Stern (1970). Mental status and religious behavior. Journal for the Scientific Study of Religion, 9, 143-149.

Maddock, Kenny, & Middleton (1973). Preference for personality vrs. role-activity variables in the choice of a pastor. Journal for the Scientific Study of Religion, 12 (4), 449-452.

Malony, N. (Ed.) (1979). Current Perspectives in the Psychology of Religion. Eerdmans Pub. Co.

Martin, C. & Nichols, R.C. (1962). Personality and religious beliefs. Journal of Social Psychology, 56, 3-8.

Mauger (1984). A presentation made to the annual meeting of the Christian Association for Psychological Studies, Dallas, TX.

Mayo, Puryear, & Richek (1969). MMPI correlates of religiousness in late adolescent college students. Jo. of Nervous and Mental Disease, 149, 381-385.

McClain, E.W. (1978). Personality differences between intrinsically religious and non-religious: A factor analysis study. Journal of Personality Assessment, 42, 159-166.

McNamara, P.H. & St. George, A. (1979). Measures of and the quality of life: A critical analysis. In D.O. Moberg (Ed.) Spiritual well-being: Sociological perspectives. Washington, D.C.: Univ. Press of America, 1979.

Moberg, D.O. (1971). Spiritual well-being: Background issues. Washington, DC: White House Conference on Aging.

Moberg, D.O., (1974). Spiritual well-being in late life. In J.F. Gubrim (Ed.), Late life: Communities and environment policy. Springfield, Il: Charles C. Thomas.

Moberg, D.O. (1978). Spiritual well-being: A neglected subject in quality of life research. Social Interactions Research, 5, 303-323.

Moberg, D.O. (1979) Spiritual Well-being, Washington D. C.: University Press of America.

Neder, R. (1985). Development of a seminary screening device for Western Conservative Baptist Seminary using M.M.P.I. clinical research scales,

demographics, Sentence Completion Scale, and Seminary Attrition Scale. Published dissertation, WCBS.

Newmark, C.F. (1979). MMPI Clinical and Research Trends. New York: Praeger Pub. Co.

Ostow, M. & Scharfstien, B. (1954). The Need to Believe: The Psychology of Religion. Univ. Press, New York.

Paloutzian, & Ellison (1979a). Developing a measure of spiritual well-being. In R.F. Paloutzian (Chair), Spiritual well-being, loneliness, and perceived quality of life. Symposium presented at the annaul meeting of the American Psychological Association, New York.

Paloutzian, & Ellison (1979b). Religious commitment, loneliness, and quality of life. Paper presented at the annaul meeting of the Christian Association for Psychological Studies, Minneapolis.

Paloutzian, R.F. & Ellison, C.W. (1982). In Peplau and Perlman (Eds.). Loneliness. New York: Wiley.

Paloutzian, J., Jackson, & Crandall (1978). Conversion experience, belief system, and personal and ethical attitudes. Journal of Psychology and Theology, 6(4), 266-275.

Parker, M.S. (1977). Dimensions of religious conversion during adolescence (Doctoral dissertation, State University of New York at Buffalo, 1977). Dissertation Abstracts International, 38, 3371-B. (University Microfilms No. 72-27, 510).

Parker, T. (1985). An empirical examination of the construct validity of the spiritual leadership qualities inventory. A published doctoral dissertation, WCBS.

Penner, F.D. (1982). The MMPI religious fundamentalism content scale related to personality characteristics of psychiatric inpatients. Published dissertation, WCBS.

Pino, C.J. (1980). Interpersonal needs, counselor style, and personality characteristics among seminarians during the 1970's. Review of Religious Research, 21, 351-367.

Powers, H. (1985). The relationship of self-concept as measured by the Tennessee Self-Concept Scale to adjustment in seminary as measured by the Sentence Completion Scale, Seminary Socialization Scale, and Seminary Attrition scale. Published dissertation, WCBS.

Quinn (1983). Relationship between religiosity as measured by the religious orientation scale and the spiritual well-being scale and martial satisfaction as measured by the martial satisfaction inventory. Unpublished dissertation, Western Conservative Baptist Seminary, Portland, Oregon.

Robinson, & Shaver (1978). Measures of social psychological attitudes. Ann Arbor, Mi: Institute for Social Research.

Rohrbaugh & Jessor (1975). Religiosity in youth: A control against deviant behavior. Journal of Personality, 43, 136-155.

Rokeach, M. (1960). The open and closed mind: Investigations into the nature of belief systems and personality systems. New York: Basic Books.

Sanua, V.D. (1969). Religion, mental health, and personality: A review of empirical studies. American Journal of Psychiatry, 125, 1203-1213.

Shafferm, Ota, & Hanlon (1964). The comparative validity of several MMPI indices of severity of psychopathology. Journal of Clinical Psychology, 20, 476-473.

Sines & Silver (1963). An index of psychopathology derived from clinicians' judgments of MMPI profiles. Journal of Clinical Psychology, 19, 324-326.

Soderstrom & Wright (1977). Religious orientation and meaning of life. Journal of Clinical Psychology, 33, 65-68.

Spilka & Werme (1971). Religion and mental disorder: A research perspective. In Strommen (Ed.), Research on Religious Development: A Comprehensive Handbook. New York: Hawthorn, 1971.

Spitzer, R.L. (Ed.) (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: American Psychiatric Association.

Srole, Langer, Michael, Opler, & Rennie (1962). Mental Health in the Metropolis: The Midtown Manhattan Study (Vol. I). New York: MaGraw-Hill.

Stanley (1965). Personality and attitude correlates of religious conversion. Journal for the Scientific Study of Religion, 4, 60-63.

Stark, R. (1971). Psychopathology and religious commitment. Review of Religious Research, 12, 165-176.

Stark, R., & Glock, C. (1974). American Piety: The Nature of Religious Commitment. Berkeley: University of California Press.

Strauss, M.E., & Gynther, M.D., & Kneff, D. (1971). Psychiatric patients' responses to MMPI religious items. Journal of Personality Assessment, 35, 282-284.

Strickland, B.R. & Schaffer, S. (1971). I-E, I-E, and F. Journal for the Scientific Study of Religion, 10, 366-369.

Strunk, O. (1957). The present status of psychology of religion. The Journal of the Bible and Religion, 25, 287-292.

Strunk, O. (1970). Humanistic religious psychology: a new chapter in the psychology of religion. Journal of Pastoral Care, 24(2), 90-97.

Summerlin, F.A. (1980). Religion and mental health: A bibliography (National Institute of Mental Health). Washington, DC: U.S. Government Printing Office.

Tennison & Snyder (1968). Some relationships between attitudes toward the church and certain personality characteristics. Journal of Counseling Psychology,15, 187-189.

Tjart & Boersma (1978). A comparative study of religious values of christian and public school eight graders. Journal of Psychology and Theology, 6(2), 132-140.

Ushio, H. (1972). Religious behavior and personality characteristics. Japanese Journal of Educational Psychology, 20, 109-118.

Vaughan, R.P. (1965). The influence of religious affiliation on MMPI scales. Journal of Clinical Psychology ,21, 416-417.

Walker, W. (1970) A History of the Christian Church, Charles Scribner's and Sons; New York.

Wallis, G.B. (1980). Values and psychotherapy: A comment on "psychotherapy and religious values". Journal of Consulting and Clinical Psychology, 48, 640-644.

Webb & McNamara (1983). Altruism and the MMPI. In Graham (1983) The MMPI A Practical Guide. New York: Oxford University Press.

Williams & Cole (1968). Religiosity, generalized anxiety, and apprehension concerning death. Journal of Social Psychology, 75, 111-117.

Wilson & Miller (1968). Fear, anxiety and religiousness. Journal for the Scientific Study of Religion, 7, 111.

Zimbardo, P.G. (1979). Psychology and life (10th ed.). Glenview, Il.: Scott-Foresman.

APPENDIX A

GENERAL ANNOUNCEMENTS TO STUDENTS

Dear Diane:

Here is the annoucement we would like to be run in the Epistle next week.

The school will be conducting a study on student body characteristics as judged by several paper and pencil tests. The data will be collected next week and you may be choosen as one of the MDIV students at random, so it will be very important that if you are contacted that you participate in this team effort.

Thank You,
Dean Ruark and Bob Garfield

Western
Conservative Baptist
Seminary

April 13, 1984

As part of an institutional research project, Western is conducting a study to identify some of the special characteristics for our students. You have been chosen as one of the men to represent the school in this endeavor.

It is really important that we have your help since for the results to be meaningful we must have near 100% participation. Therefore, YOU are really important to make this study fly.

We are asking you to give about an hour and a half to two hours of your time to take a series of paper and pencil tests. Nothing magical, nothing difficult, just some time and patience. These tests are for establishing seminary norms only—your individual scores do not matter to us. However, if you would like Harvey Powers or Ross Neder to go over the results, record your number and they will be happy to do so.

We have scheduled five sessions for you to choose from to do this. The times and dates are:

1. Thursday, April 19th, from 7:30-9:30 a.m. in the chapel
2. Thursday, April 19th, from 3:30-5:30 in Room 104
3. Friday, April 20th, from 3:30-5:30 in the chapel
4. Monday, April 23rd, from 7:30-9:30 a.m. in the chapel
5. Monday, April 23rd, from 10:10-12:10 in Room 104

Please indicate the time which is most convenient for you and return this letter to the Dean of Students Mail Box in the chapel. If you really can't make any of these times, please give us a time below which you can make, but do it now so we can schedule you as soon as possible.

Time one	Time Two
Day _____	Day _____
Time _____	Time _____

We want to assure you that the individual test results will be absolutely confidential and that your code number will be destroyed once the data has been compiled.

Thank you for helping your school in this project. Please contact Harvey Powers (Box 392, phone 256-0933), Ross Neder (Box 320, phone 771-3360 or WCBS phone 233-8561, ext. 86), or me if you have any questions.

Sincerely,

Lynn Robert Ruark
Dean of Student Affairs

LRR:lje

5511 S.E. Hawthorne Blvd. • Portland, OR 97215 • (503) 233-8561

Religion and Psychopathology-200

Dear

WCBS is conducting a pilot study on several ideas for our future and to better understand the characteristics for our school. You have been chosen as one of the men to represent the school in this endeavor.

It is really important that we have your help since for the results to be meaningfull we must have near 100% participation, therefore, YOU are <u>really</u> important to make this study fly.

We are asking you to give around an hour and a half to two hours of your time to take a series of paper and pencil tests. Nothing magical, nothing difficult, just some time and patience. We have included them in the packet you have with this letter. There is an instruction sheet included to help understand what to do. These tests are for establishing seminary norms <u>only</u>, your individual scores do not matter to us, however if you would like Harvey Powers or Ross Neder to go over the results record your number and they will be happy to.

We want to assure you that the individual test results will be absolutely confidential and that your code number will be destroyed once the data has been compiled.

Thank you for helping your school in this project, please contact Harvey Powers, Box 392, Phone 256-0933 or Ross Neder, Box 320, Home Phone 771-3360 or WCBS 86, if you have any questions.

Sincerely,

APPENDIX B

COPY OF STANDARDIZED INSTRUCTIONS

Religion and Psychopathology-202

STANDARDIZED INSTRUCTIONS FOR THE ADMINISTRATION OF TEST PACKET

1. Welcome to this testing session. I am going to read this statement so that every session will get exactly the same instructions and the data we get will then be maximally useful.

2. There is no time limit for these tests but we do ask that you fill them out completely and honestly. Please don't omit answers to any of the items.

3. There are no right or wrong answers to any of these questions so please answer them in the manner which best describes you, usually your first impression is the best. Respond to the questions in a present tense frame of mind rather than from out of your past experiences.

4. You have been handed a test packet with a code number on every form. This is your number and insures that nobody will be able to tell who's form it is without the master list which only Harvey or Ross will have access to. Once the data has been collected even this list will be destroyed. If you wish to find out what the results of your tests are please record your code number, once the list is destroyed there's no other way to access test data.

5. Now open your test package. You will find several different forms, please check that you have the MMPI questions and answer forms, the TSC questions and answer forms, the SWB and SM questions and the SAR. Finally there is also a request for the names of five professors who know you best here at WCBS. Please fill this out right now. Some of them may be used in a later stage of this study.

6. Please don't discuss this with others on campus at least until the testing phase is over at the end of this month. We really desire everybody to be on equal ground when they come here.

7. Are there any questions. Please begin

INSTRUCTIONS FOR ADMINISTERING THE MMPI

1. This is a very long test consisting of 566 true and false questions. To complete it in the usual 1 - 2 hours will mean that you mark your first inclination after you read the question. There are no right or wrong answers.

2. Please answer all the questions. Some of them will be difficult to chose since neither true or false describes the situation--chose the one that is closest to how you feel.

3. Answer the questions from a perspective of the last few years, we're interested in who you are now. Please do not answer the questions in a way that describes who or how you would like to be.

4. Please read the instructions on the first page in the MMPI booklet before you begin.

5. Mark your start and stop time somewhere on the answer sheet.

INSTRUCTIONS FOR ADMINISTERING THE TSC

1. The instructions in the booklet are complete with the exception of how to mark your answers. The answer sheet is arranged in columns. Start with the right most column and answer the white spaces (questions 1, 3, 5, 19, etc.) first. Note that the first page is also numbered 1, 3, 5, 19 etc. and that the lines match up to the white spaces on the answer sheet. Next, look at page two and note that these questions are answered in the dark spaces on column one, the lines also match the answer box. Next move one column to the left and answer pages 3 and 4, likewise for pages 5 and 6.

2. The average time for this test is around 20 min.

3. Please mark your start and stop time in the box provided on the answer sheet.

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

BACKGROUND INFORMATION

ID NUM ____

Please place the number which most accurately describes you in the blank provided to the right of each question; please answer all items.

1. What is your age? ____

2. Approximately how many total credit hours have you completed here at Western? ____

3. How many other seminaries have you attended which did not result in a degree? ____

4. What is your present marital status? ____
   1 = never married
   2 = married
   3 = divorced
   4 = widowed
   5 = separated
   6 = living together

5. How often do you attend church functions? ____
   0 = less than once per week
   1 = 1 per week
   2 = 2 per week
   3 = 3 per week
   4 = 4 or more times per week

6. RELIGIOUS DEVOTIONAL LIFE

   A. How often do you have personal devotions? ____

   1 = never
   2 = less than once per week
   3 = weekly
   4 = 1-3 times per week
   5 = 4-7 times per week
   6 = more than once per day

   B. How often do you have family devotions? ____

   1 = not applicable; living alone
   2 = never
   3 = less than once per week
   4 = weekly
   5 = 1-3 times per week
   6 = 4-7 times per week
   7 = more than once per day

C. What is the average duration of your personal devotions?
0 = not applicable
1 = less than 5 min per occasion
2 = 5-9 minutes
3 = 10-14 minutes
4 = 15-29 minutes
5 = 30-59 minutes
6 = 60 or greater ____

D. What is the average duration of your family devotions?
0 = not applicable
1 = less than 5 minutes per session
2 = 5-9 minutes
3 = 10-14 minutes
4 = 15-29 minutes
5 = 30-59 minutes
6 = 60 or greater ____

7. RELIGIOUS LEADERSHIP EXPERIENCE
A. How many total years have you served in a leadership position in the church? ____

B. In what capacity did you serve for most of the years?
0 = not applicable
1 = Pastor
2 = Church School Teacher
3 = Missionary
4 = Elder/Deacon
5 = Other ____

FOR EACH OF THE FOLLOWING GIVE THE NUMBER THAT BEST DESCRIBES YOU

8. Importance of religion:
no importance 1 2 3 4 5 6 7 extremely important ____

9. Financial condition:
chronic problem 1 2 3 4 5 6 7 bills paid ____

10. Social relationships:

A. Dislike being alone 1 2 3 4 5 6 7 Enjoy being alone ____

B. Uncomfortable with people 1 2 3 4 5 6 7 Enjoy being with people ____

C. Frequent problems with people 1 2 3 4 5 6 7 Deal easily with people ____

11. Relationship to spouse:
A. Wife against seminary 1 2 3 4 5 6 7 Wife for seminary ____

B. Wife against career choice 1 2 3 4 5 6 7 Wife for career choice ____

APPENDIX D

SWB, SMI, ROS

Religion and Psychopathology-208

Note: SWB = 1-20, SMI = 21-40, ROS = 41-61

For each of the following statements circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

SA = strongly agree MA = moderately agree A = agree D = disagree MD = moderately disagree SD = strongly disagree

1. I don't find much satisfaction in private prayer with God. SA MA A D MD SD
2. I don't know who I am, where I came from, or where I'm going. SA MA A D MD SD
3. I believe that God loves me and cares about me. SA MA A D MD SD
4. I feel that life is a positive experience. SA MA A D MD SD
5. I believe that God is impersonal and not interested in my daily situations. SA MA A D MD SD
6. I feel unsettled about my future. SA MA A D MD SD
7. I have a personally meaningful relationship with God. SA MA A D MD SD
8. I feel very fulfilled and satisfied with life. SA MA A D MD SD
9. I don't get much personal strength and support from my God. SA MA A D MD SD
10. I feel a sense of well-being about the direction my life is headed in. SA MA A D MD SD
11. I believe that God is concerned about my problems. SA MA A D MD SD
12. I don't enjoy much about life. SA MA A D MD SD
13. I don't have a personally satisfying relationship with God. SA MA A D MD SD
14. I feel good about my future. SA MA A D MD SD
15. My relationship with God helps me not to feel lonely. SA MA A D MD SD
16. I feel that life is full of conflict and unhappiness. SA MA A D MD SD
17. I feel most fulfilled when I'm in close communion with God. SA MA A D MD SD
18. Life doesn't have much meaning. SA MA A D MD SD
19. My relation with God contributes to my sense of well-being. SA MA A D MD SD
20. I believe there is some real purpose for my life. SA MA A D MD SD
21. My faith doesn't primarily depend on the formal church for its vitality. SA MA A D MD SD
22. The way I do things from day to day is often affected by my relationship with God. SA MA A D MD SD
23. I seldom find myself thinking about God and spiritual matters during each day. SA MA A D MD SD
24. Even if the people around me opposed my Christian convictions, I would still hold fast to them. SA MA A D MD SD

25. The encouragement and example of other Christians is essential for me to keep on living for Jesus. SA MA A D MD SD

26. I feel like I need to be open to consider new insights and truths about my faith. SA MA A D MD SD

27. I am convinced that the way I believe spiritually is the right way. SA MA A D MD SD

28. People that don't believe the way that I do about spiritual truths are hard-hearted. SA MA A D MD SD

29. I feel that a Christian needs to take care of his (her) <u>own</u> needs first in order to help others. SA MA A D MD SD

30. My faith doesn't seem to give me a definite purpose in my daily life. SA MA A D MD SD

31. I find that following Christ's example of sacrificial love is one of my most important goals. SA MA A D MD SD

32. My identity (who I am) is determined more by my personal or professional situation than by my relationship with God. SA MA A D MD SD

33. Walking closely with God is the greatest joy in my life. SA MA A D MD SD

34. I feel that identifying and using my spiritual gifts is not really important. SA MA A D MD SD

35. I don't seem to be able to live in such a way that my life is characterized by the fruits of the Spirit. SA MA A D MD SD

36. When my life is done I feel like only those things that I've done as part of following Christ will matter. SA MA A D MD SD

37. I believe that God has used the most "negative" of difficult times in my life to draw me closer to Him. SA MA A D MD SD

38. I feel like God has let me down in some of the things that have happened to me. SA MA A D MD SD

39. I have chosen to forego various gains when they have detracted from my spiritual witness or violated spiritual principles. SA MA A D MD SD

40. Giving myself to God regardless of what happens to me is my highest calling in life. SA MA A D MD SD

41. What religion offers most is comfort when sorrow and misfortune strike. SA MA A D MD SD

42. I try hard to carry my religion over into all my other dealings in life. SA MA A D MD SD

43. Religion helps to keep my life balanced and steady in exactly the same way as my citizenship, friendships, and other memberships do. SA MA A D MD SD

44. One reason for my being a church member is that such membership helps to establish a person in the community. SA MA A D MD SD

45. The purpose of prayer is to secure a happy and peaceful life. SA MA A D MD SD

46. It doesn't matter so much what I believe as long as I lead a moral life. SA MA A D MD SD

47. Quite often I have been aware of the presence of God or of the Divine Being. SA MA A D MD SD

48. My religious beliefs are what really lie behind my whole approach to life. SA MA A D MD SD

49. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during the services. SA MA A D MD SD

50. Although I am a religious person, I refuse to let religious considerations influence my everyday affairs. SA MA A D MD SD

51. The church is most important as a place to formulate good social relationships. SA MA A D MD SD

52. Although I believe in my religion, I feel there are many more important things in life. SA MA A D MD SD

53. If not prevented by unavoidable circumstances, I attend church at least once a week. SA MA A D MD SD

54. If I were to join a church group, I would prefer to join a Bible study group rather than a social fellowship. SA MA A D MD SD

55. I pray chiefly because I have been taught to pray. SA MA A D MD SD

56. Religion is especially important to me because it answers many questions about the meaning of life. SA MA A D MD SD

57. A primary reason for my interest in religion is that my church is a congenial social activity. SA MA A D MD SD

58. I frequently read literature about my faith (or church). SA MA A D MD SD

59. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being. SA MA A D MD SD

60. It is important to me to spend periods of time in private religious thought and meditation. SA MA A D MD SD

61. The primary purpose of prayer is to gain relief and protection. SA MA A D MD SD

Are there any specific reactions, criticisms, comments, or suggestions you would like to share regarding this questionnaire?

APPENDIX E

ELLISON'S BASIC CONCEPTUALIZATION OF THE SPIRITUAL MATURITY SCALE

Ellison's Basic Conceptualization of Spiritual Maturity
(Acquired through correspondence with Ellison)

Spiritual Maturity

1. Don't need institutional structure to express Christianity.
2. Religious beliefs/practices are a spontaneous part of everyday life.
3. Doesn't need social support (agreement) to maintain faith and practice
4. Not narrow-minded/dogmatic but do have firm beliefs.
5. Giving rather than self-focused.
6. Had definite purpose for life related to spiritual life.
7. Sacrificial.
8. Close relationship with God/control identity - service of God.
9. Actively useing Spiritual Gifts.
10. Lives evidence fruits of spirit, compatible with Scripture.
11. Ultimate goals - spiritually focused.
12. Able to accept "negatives" of life as part of God's plan/not bitter.
13. Forsakes self-gain if the gain violates or detracts from spiritual values/principles.
14. Spends time studying the Scripture in-depth.
15. Has active desire to share personal faith.
16. Tries to love neighbor as self.
17. Has a live, personal prayer life.
18. Perceives movement toward spiritual maturity.

APPENDIX F

RAW DATA

CN	RWB	EWB	SWB	SMI	ROSE	ROSI	CTA	CTB	AGE	SA	MS	FC	WAS	WAC	ACT	BCT
01	54	57	111	098	24	14	60	65	48	0	2	6	7	7	69	6
02	60	53	113	107	35	14	70	73	28	1	2	3	7	6	49	9
03	45	55	100	085	20	20	60	62	28	0	2	7	6	6	23	3
04	59	59	118	107	25	20	65	65	35	0	2	5	7	7	46	6
05	51	53	104	091	23	17	54	58	27	1	2	7	7	7	39	9
06	54	50	104	090	19	18	75	79	29	0	1	7	0	0	47	4
07	57	50	107	099	22	15	58	60	23	0	2	7	6	6	23	3
08	58	52	110	108	11	13	60	60	32	0	1	7	0	0	49	9
09	52	47	099	102	25	19	67	71	34	0	2	7	7	7	79	7
10	55	48	103	105	33	19	71	71	29	0	2	4	6	7	89	8
11	57	54	111	110	15	23	59	64	37	1	2	5	7	7	23	3
12	57	53	110	095	26	16	54	54	26	0	2	7	7	7	37	7
14	55	51	106	103	37	22	60	62	24	0	1	6	0	0	47	4
15	37	37	074	080	22	10	77	78	30	0	2	7	7	7	89	9
16	53	49	102	086	38	18	70	71	24	0	1	6	0	0	78	7
17	59	52	111	105	36	13	83	86	26	1	2	4	4	6	89	9
18	46	49	095	084	27	23	60	62	28	0	1	5	0	0	79	7
19	40	40	080	078	33	27	72	79	34	0	1	5	0	0	34	4
20	58	54	112	097	19	15	63	69	34	0	2	7	7	7	48	4
21	47	43	090	092	23	20	59	60	26	0	1	5	0	0	23	3
22	54	47	101	110	18	12	75	77	29	0	2	2	6	6	13	1
23	58	55	113	102	19	15	67	68	32	0	2	7	7	7	69	9
24	58	53	111	101	26	19	59	60	46	0	2	7	7	7	24	4
25	60	55	115	102	36	17	60	65	23	0	2	6	7	7	89	9
26	58	48	106	095	23	17	72	75	28	0	2	7	5	6	37	7
27	60	59	119	103	27	10	53	58	27	0	2	4	7	7	39	3
28	52	45	097	091	23	29	87	90	26	0	2	7	6	7	78	8
29	58	52	110	102	15	14	68	69	24	0	2	6	7	7	48	8
30	60	49	109	096	33	23	62	62	28	0	2	7	6	7	78	7
31	58	54	112	102	20	15	58	58	28	0	2	6	7	7	79	9
34	60	59	119	105	24	20	57	57	23	0	1	0	0	0	78	8
35	56	52	108	090	33	19	66	69	34	0	2	7	7	7	46	4
36	48	40	088	086	34	27	66	68	29	1	2	3	6	7	23	2
37	60	60	120	108	36	12	54	58	35	0	2	7	7	7	34	3
38	58	48	106	109	13	13	71	73	28	0	2	6	3	6	78	7
39	56	49	105	094	19	15	62	62	35	1	2	7	7	6	17	7
41	57	50	107	093	23	24	67	71	24	0	1	4	0	0	48	8
42	49	50	099	097	30	19	70	76	29	0	2	6	6	6	49	4
43	42	48	090	082	17	15	69	70	24	0	1	3	0	0	89	9
45	59	54	113	108	18	14	62	63	26	0	1	7	0	0	48	8
46	56	60	116	108	24	14	71	75	24	0	2	7	1	7	89	9
49	60	57	117	098	31	13	68	68	29	0	2	2	7	7	89	9
51	59	58	117	097	30	17	62	65	28	0	2	5	4	6	39	9
52	60	55	115	105	11	14	62	64	32	0	1	6	0	0	39	3
53	50	45	095	090	22	22	61	63	27	0	2	5	7	7	68	8
54	60	60	120	119	41	18	65	65	29	0	2	7	4	4	39	9
55	58	52	110	115	30	10	67	70	41	0	2	5	4	7	39	9
56	58	59	117	106	15	19	73	75	24	0	2	4	2	3	49	9
58	40	55	095	101	17	24	72	75	27	0	1	7	0	0	27	7
59	57	34	091	096	24	21	85	85	28	0	2	6	6	6	17	7
60	59	46	105	092	29	29	71	75	28	0	2	7	7	7	49	9

APPENDIX G

VITA

Vita

Identifying Information

Name: Eric E. Mueller
Age: 37 years old
Physical Description: 6'2" 200 lbs.
Marital Status: Married
Children: Two (Boy/age 9, Girl/age 7)

Address: 6201 SE Harrison
Portland, Or.
97215
Phone: 232-7277

Education

	Degree	Date of Graduation	Major
Westmont College	B.A.	1972	Psychology
Princeton Seminary	MDiv.	1975	Theology
Western Conservative Baptist Seminary	M.A.	1985	Clinical/ Counseling Psychology
Western Conservative Baptist Seminary	PhD.	Anticipated Graduation 8-8-86	Clinical Psychology

Practicum Experience

Southeast Community Mental Health Center:

Date: From September 1983 - May 1984
Client Population: Adult outpatient
Experience: Individual and marital short-term psychotherapy
Exposure toICP process
Working cooperatively with case managers
Diagnosis and assessment using MMPI and clinical intake interviews
Supervisor: Dr. McGovern (Clinical Psychologist)

Reedwood Friends Church Counseling Ministries:

Date: From August 1983 - July 1985
Client Population: Adult, adolescent, child: outpatient
Experience: Individual and marital short and long term psychotherapy
Consulting with area pastors
Diagnosis and Assessment using WISC-R, WAIS-R, House-Tree-Person, MMPI, TJTA, Stanford-Binet, Beery VMI, Bender Gestalt, ITPA, WRAT, TAT
Supervisors: Dr. Colwell (Clinical Psychologist)
Dr. K. Free (Clinical Psychologist)

Health Help Center

Date: January 198[illegible] - July 1985
Client Population: Adult
Experience: Individual psychotherapy / Diagnosis and Assessment using WAIS-R, WRAT, MMPI, Bender Gestalt, TAT, Luria-Nebraska Neuropsychological Battery
Supervisor: Dr. Jan Zeedyke (Clinical Psychologist)

Internship Experience

Portland Adventist Medical Center

Time commitment: Half-time
Date: September 1985 - (to be completed) September 1986
Client Population: Adult and adolescent hospitalized inpatients
Experience: Individual, group, marital & family psychotherapy
Psychosocial assessment and development of treatment plans using clinical interviews, MMPI, TAT, WAIS-R, Luria-Nebraska Neurological Battery and medical consultations as data base
Coordination of treatment plans with nursing staff and occupational therapists
Coordination of treatment plan with patients outpatient psychotherapists
Exposure to ICP process
Rotation on hospital eating disorders unit
Weekly lectures on mental hygiene with eating disorder inpatients
Participation in research project on Borderline Personality Disorder
Supervisors: Dr. Robert Walgamott, M.D. (Psychiatrist)
Dr. Roger Bufford, PhD. (Clinical Psychologist)

Psychological and Counseling Services Center

Time commitment: Half-time
Date: January 1985 - (to be completed) September 1986
Client population: Adult, adolescent, child: outpatient
Experience: Individual and marital psychotherapy
Intake/Clinical interviews
Psychological assessment using MMPI, TAT, IBS Luria-Nebraska Neuropsychological Battery, Standford-Binet, WRAT, WAIS-R
Exposure to outpatient clinic administration
Supervisors: Dr. Paul Sundstrom, EdD. (Psychologist)
Dr. Wyane Colwell, PhD. (Clinical Psychologist)
Dr. James Lundy, PhD. (Clinical Psychologist)