An Investigation of Role Stress among Students at Selected Church Related, Liberal Arts Colleges

Carl David Swanson

Western Michigan University

Follow this and additional works at: http://scholarworks.wmich.edu/dissertations

Part of the Higher Education Commons

Recommended Citation
Swanson, Carl David, "An Investigation of Role Stress among Students at Selected Church Related, Liberal Arts Colleges" (1971). Dissertations. 3009.
http://scholarworks.wmich.edu/dissertations/3009
AN INVESTIGATION OF ROLE STRESS AMONG STUDENTS AT SELECTED CHURCH RELATED, LIBERAL ARTS COLLEGES

by

Carl D. Swanson

A Dissertation Submitted to the Faculty of the Graduate College in partial fulfillment of the Degree of Doctor of Education

Western Michigan University Kalamazoo, Michigan April, 1971
ACKNOWLEDGEMENTS

The author wishes to express his appreciation to the following people who have contributed so generously of their time and talents to the completion of this research.

To Dr. L. Dale Faunce, major advisor and friend, whose understanding and encouragement contributed so much throughout the entire period of my doctoral study.

To Dr. William D. Coats for his unique research contribution to this dissertation and for the understanding and knowledge he was willing to share in the whole field of behavioral research.

To Dr. Paul Griffeth for his interest and assistance in this project and for his willingness to serve as a member of my committee.

To Drs. Donald Tosi, Neil Lamper, Kenneth Engle, Robert Betz, Jim Lowe and Sid Dykstra for their advice and encouragement over the past several years.

To Mr. Frank Bentz and the University Scholarship Office staff for their very special understanding and patience and to Sara Bishop for her typing.

To my children, David and Adrian, and especially to my wife Janice for the many hours of assistance she gave and for her support, encouragement and love.
SWANSON, Carl David, 1932-
AN INVESTIGATION OF ROLE STRESS AMONG
STUDENTS AT SELECTED CHURCH RELATED,
LIBERAL ARTS COLLEGES.

Western Michigan University, Ed.D., 1971
Education, higher

University Microfilms, A XEROX Company, Ann Arbor, Michigan

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>I THE PROBLEM AND ITS BACKGROUND</td>
<td>1</td>
</tr>
<tr>
<td>Rationale for the Study</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>10</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>13</td>
</tr>
<tr>
<td>Scope and Limitations</td>
<td>19</td>
</tr>
<tr>
<td>II ROLE STRESS ON THE CAMPUS</td>
<td>21</td>
</tr>
<tr>
<td>III RESEARCH DESIGN</td>
<td>30</td>
</tr>
<tr>
<td>Procedures</td>
<td>30</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>31</td>
</tr>
<tr>
<td>Background</td>
<td>31</td>
</tr>
<tr>
<td>Validity</td>
<td>35</td>
</tr>
<tr>
<td>Reliability</td>
<td>41</td>
</tr>
<tr>
<td>Population and Sample</td>
<td>45</td>
</tr>
<tr>
<td>Objectives and Data Analysis</td>
<td>47</td>
</tr>
<tr>
<td>IV DATA PRESENTATION AND ANALYSIS</td>
<td>51</td>
</tr>
<tr>
<td>Approach to Data Presentation</td>
<td>51</td>
</tr>
<tr>
<td>A Comparison of Role Stress Among Students Attending Church Related Colleges</td>
<td>52</td>
</tr>
<tr>
<td>Judges Ratings of the Colleges</td>
<td>53</td>
</tr>
<tr>
<td>A Comparison of Colleges A, B, C, D, and E</td>
<td>54</td>
</tr>
<tr>
<td>A Comparison of Colleges B and D</td>
<td>57</td>
</tr>
</tbody>
</table>
LIST OF TABLES

NUMBER | TABLE |
-------|-------|
1      | Underlying areas of stress |
2      | Summary of responses to the College Student Role Questionnaire |
3      | Ratings of five church related colleges on a liberal--conservative continuum |
4      | Comparison of stress score means among five church related colleges |
5      | Comparison of stress score means between colleges B and D |
6      | Cross tabulation of "actual participation" by students among colleges |
7      | Reasons given by students for selecting the college they attend |
8      | Changes recommended by students for their colleges |
9      | Illustration of differences in stress areas among the colleges |
10     | Comparison of stress score means based on activist groupings |
11     | Comparison of stress score means based on varying degrees of the use of "pot" |
12     | Comparison of stress score means based on degrees of church attendance |
13     | Comparison of stress score means based on degrees of homosexual contact |
14     | Comparison of stress score means between sophomores and juniors |
15     | Comparison of stress score means among students living in different types of housing |
16     | Comparison of stress score means between males and females |

PAGE | 37 | 47 | 54 | 55 | 58 | 59 | 66 | 67 | 69 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Comparison of stress score means between married and single students</td>
<td>77</td>
</tr>
<tr>
<td>18</td>
<td>Comparison of stress score means among students based on grade point average</td>
<td>78</td>
</tr>
<tr>
<td>19</td>
<td>Comparison of stress score means between students attending church related colleges and students at a large university</td>
<td>80</td>
</tr>
<tr>
<td>20</td>
<td>Summary of basic statistical analyses giving levels of significance attained</td>
<td>83</td>
</tr>
<tr>
<td>NUMBER</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>Stress score means of students at five church related colleges plotted on a liberal--conservative continuum</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>Stress score means plotted by college grade point averages</td>
<td>79</td>
</tr>
</tbody>
</table>
CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Rationale for the Study

"We can never really be prepared for that which is wholly new. We have to adjust ourselves, and every radical adjustment is a crisis in self esteem." (Hoffer, 1963, p. 1), In commenting upon the age in which the college student finds himself Trohan (1970) states:

Our times, already the bloodiest in the history of man, grow more and more terrible . . . These are the best of times, these are the worst of times, to borrow from Charles Dickens (p. 12).

Keniston (1968) adds that " . . . the achievement of identity for youth becomes more difficult in a time of rapid change (p. 53)."

In referring more specifically to the college student of today, Madison (1969) declares that in this era of change, the struggle to maintain self respect influences most students and preoccupies some to such an extent that college becomes less an educational experience than a struggle for personal survival. This struggle for survival by the college student manifests itself in the necessity of a continuous process of making a myriad of choices.

The college student is surely torn among many types of activities which demand more and more of his time and energy, each one forcing him to make a value judgment. Adams (1969),
Gardner, (1969) and others point out that the college student is faced with more choices in more activities than ever before. Kavanaugh (1970) carries this a step further in lamenting that students are nearly strangled in their struggle for identity, as every value is called into question today.

In spite of this greatly increased demand upon students to make value choices, Kerlinger (1964) states:

Unfortunately the subject of values has not been the object of much scientific investigation . . . however . . . social scientists are becoming increasingly aware that values are important determinants of individual and group behavior (p. 487-8).

It might be added that much less has been done in the way of measuring the role stress caused by the necessity of making value choices. Cole and Miller (1967) affirm this lack of research in value behavior measurement and also cite the current lack of an instrument to measure values.

It is quite clear from the literature that we are living in an age of stress. This is typified by an article entitled "Stress From 9 to 5" in which Kahn (1969) points out the many pressures on humans in the roles they have. This would seem to be magnified in the case of the college student, as Madison (1969) says: "College is a unique society: there is nothing like it anywhere outside of college (p. 2)." The roles a student must fit into are practically unlimited and the value choices necessitated by these roles certainly cause stress and great discomfort, as Madison continues

Given the diversity of student personalities . . . one can be sure that only a few will find congenial niches.
The typical student exists in a suspended state without a supporting role to which he is really committed. The existing roles . . . are less clear cut, firm or generally supported than roles in society. Because the student is living with much reduced role supports for his personality, we would expect the college period to be a time of unusual personal insecurity and instability. (p. 3).

Gottlieb and Hodgkins (1963) add a further dimension to stress existing among students in describing the college community as a "unique sociocultural system existing within the larger American society with a distinctive value orientation (p. 285)." They further explained that the individual's need for cognitive consistency often "resulted in alienation from a particular part of the college communities' value orientation (p. 285)." Goffman (1963) explains the same phenomena in terms of the individual becoming alienated from the community of which he is a part because he cannot maintain an identity norm or role which, in this instance, the campus might uphold or demand.

To illustrate the conflict possible, we see on one hand authors such as Katz (1969) describing the college environment as "a highly controlling one, and it creates stress in many students (p. 13)." On the other hand others such as Logan (1967) claim the college environment is too permissive thereby causing stress among students. Crane (1970) summarizes this dilemma in saying, "A prominent characteristic of the academic community is conflict (p. 13)." And Vaccaro (1968) declares that "The very values of the institutions themselves often conflict with the students' values (p. 36)." It is apparent that the college experience
itself is a prime source of stress above and beyond the varied stresses of society today in general.

The student today is faced with conflict on all sides as may be illustrated by Garrison's (1969) hypothesis:

This is a serious generation, even a little grim . . . to them, we have made a thorough mess of things . . . Our goals are not their goals, and if we insist that they adopt ours, they will do so on the surface and withdraw from us in reality . . . They are searching hard for their own values, and in the process sometimes the older generation is experiencing some bruising confrontations with its young (p. 149)."

Erikson (1968) points out that:

Youth after youth bewildered by some assumed role, a role forced on him by the inexorable standardization of American adolescence runs away in one form or another (p. 199)."

There is general agreement that the adolescent is more vulnerable to stress than either the child or the adult and that it is important for the college to realize what kinds of stresses within the college cause distress to the students (Blaine, 1967; McDavid, 1968; Seeley, 1968; Shrader, 1969).

It appears that when a person's needs are in conflict with institutional expectations for his role, psychological tension in the individual is the result (Walberg, 1968). Further, as stress rises within the person, the college's impotence increases.

Gottlieb and Hodgkins (1968) feel it may be expected,

That for large numbers of students inconsistencies would exist between their values and expectations and those held by the college community. For these students, some form of adjustment must be made (p. 241).
The college student also finds himself thrown into many groups or sub-cultures within the college subjecting him to still more and varied demands, again, forcing value choices. McDavid (1968) feels these conflicting positional demands pose the problem of finding the appropriate behavioral role.

There is evidence that many kinds of minor neurotic conflicts that occur in members of our society originate from such role conflicts . . . situations, in which the demands of two kinds of positions are simultaneously imposed on him (p. 277).

Heath (1968) feels that as the needs of students become less congruent with the demands of their colleges, they will increasingly resist further demands upon their time and energies. It would therefore seem important to know wherein lie the inconsistencies and in what types of colleges they are greater or less.

The literature suggests that stress exists among college students to a greater degree today than ever before as attested by campus disturbances and it would seem that the church related, liberal arts colleges are no exception. It is also apparent that differences exist among them. Hilberry and Keeton (1968) point out that in their study of twelve liberal arts campuses they were surprised to find how greatly they varied in "customs, attitudes, ambitions, and conceptions of college (p. 34)."

Many writers feel that the church related college has many problems unique to it that can cause stress among its students. For example, Driessel (1969) points out how insulated some have
become, how they have clung to traditional values in spite of all the changes going on in education and within the church itself, and how the "multiversity" has made the church college look inferior in contrast. It is submitted, along with Seidel (1968) and Wilson (1970), that the church college is worth saving, and that research in the area of role stress among church college students will be of some benefit.

Keniston (1968) says that the church college must today ask itself a crucial question, and that is what exactly is its role, purpose, and function. Keniston further suggests that the roles of the church and the college may actually be in conflict today, which could be a contributing factor to role stress among students. Badger (1970) feels these liberal arts colleges are themselves groping for an identity and that the liberal arts college is not prepared to meet the challenge of a "new" type of student--the student activist.

Eastman (1967) reiterates that the church college has an internal role conflict itself in deciding upon its course, and that most have chosen the status quo route with very little in depth self study. Clark (1968) points out that church colleges were at one time greatly alike, but as they have become secularized they have become diverse and also lost their internal unity. Within this context he points out that conflict within the student has also developed as to his role, be it primarily study, play, or character development. Other areas of possible stress or conflict
will be seen in Chapter II.

In light of all the possible sources of stress confronting the student in the church related college, or in a university for that matter, it is surprising that there are not more role stress studies available. Young (1968) feels it is surprising that only recently have measures in environmental differences been developed, as "behavior is typically conceived as determined by an interaction between individual and environment (p. 115)." It is more surprising that measures of role stress have not been devised as a method of determining what the students are doing and would like to be doing, as a method of determining differences between colleges, and for the purpose of determining varied underlying areas of stress.

Wright (1967), in reporting the results of his study of transitional stress of entering freshmen, found that it,

Gave credence to the idea that valid information regarding maladjustment can be obtained by going directly to the students' consciously perceived sources of stress (p. 371).

It was surprising to find that in a summary of research dealing with the impact of colleges on students, which included 180 references, no mention was made of what students actually do or would like to be doing except in the realm of academic achievement (Feldman, 1969). In fact Sanford (1968) claims: "Probably the soundest statement that can be made about college students today is that they are highly diversified (p. 131)."
Many authors state that there are vast gaps in our knowledge of what the college student actually does. It may be added that we know even less about what he would ideally like to be doing. "In particular, we are lacking in information about his daily more or less routine activities (Bolton, 1967, p. 22)."

It is logical to add that we are also lacking in information about the stress which results when there is a discrepancy between what he is actually doing and what he would ideally like to be doing.

Brim (1958) went so far as to state:

Sociological data applying to role prescriptions of the students are almost nonexistent. We know very little that is systematic of what educators believe and virtually nothing of what the student and the public believe the student role should be (p. 56).

Knop, interestingly and surprisingly in 1969, repeats what Brim had to say in 1958 almost verbatim! It would seem that knowledge of the student role has advanced little in the past 12 years.

The concepts Baur (1965) found most fruitful for discovering and analyzing students' activities or experiences were those of action and role theory. He postulates:

The college career is seen as a long-range act that involves the student in a series of encounters within various social situations. The roles he takes and his type of adjustment to the role affect his performance (p. 3).

Baur continues by stressing that the different roles of a student,
May complement, reinforce or interfere with one another and, if the role conflict blocks movement toward his goal, the individual attempts to cope with the problem, individually or collectively. It is the nature of the human situation that action entails problems and poses dilemmas for which there are no easy solutions. Furthermore, he (the student) is far from a free agent in making these choices and adjustments (p. 3).

Herein it may be seen that role strain could have a great deal to do with the individual's adjustment and with the adjustment of the student body as a whole, and that such information should be useful to college authorities.

Other authors including Bolton (1967) and Knop (1969) have also approached the study of the student from the aspect of what they in fact do, rather than what they might say, think or feel about a certain environment.

Knop (1969) gives ample reason for an exploratory study of role stress among students as he states:

Assuming that most university students feel they should fulfill the threefold role (vocational, intellectual and extracurricular) it seems that the student scarcely has enough hours to seriously pursue each to its fullest, and thus must cut corners somewhere. This implies role conflict in the student's life. There is ample evidence that the role holder, in response to conflicting expectations, experiences disorientation, feelings of inadequacy, anxiety and need frustrations (p. 171).

It should be noted that none of these studies even mention such value decisions or problems of role confronting the student today which may arise from the "drug culture" or the new emphasis on social involvement, both adding to his confusion and to the multitude of value decisions.
Backman and Secord (1968) point out some more of the practical benefits deriving from a study of role stress, including:

The concept of role strain is useful in understanding human interaction in many contexts; it facilitates the translation of abstract concepts of interaction into the daily experience of persons. It is when persons have difficulty in meeting role expectations that they become aware of the impact of these social processes on their lives.

Role strain is also crucial to practical concerns, how well people perform and how satisfied they are in this role have important consequences for the achievement of the purposes or functions within the educational enterprise (p. 116).

While much research has been consummated measuring the role stress of such groups as teachers, managers or principals, very little has been done in this realm as far as college students are concerned. It is submitted that a study of role stress among students is in fact long overdue.

Statement of the Problem

The problem of the present study was the systematic investigation of role stress among sophomores and juniors in church related, liberal arts colleges located in the midwest. The purpose was to provide information about the student that has, until now, been unavailable:

The main areas of concern included:

1. To develop and test an instrument that would be useful in measuring role stress among college students.
2. To determine the degree of statistical differences in role stress existing among students in church related colleges rated upon a liberal--conservative continuum.

3. To determine the degree of statistical difference in role stress scores between students at the five selected church related colleges and students at a large university.

4. To determine the degree of statistical differences in role stress among students from the entire sample within selected sub groups based upon their self reported activities or status.

This study of role stress was undertaken from the perspective of the actual activities the students reported engaging in on a day to day basis, and the activities they reported they would ideally like to be engaged in as shown in the Appendix. The difference between the two scores constituted the role stress. The questionnaire (College Student Role Questionnaire, CSRQ) designed to give these answers explored varied areas of role activity, from personal activity to involvement in the college decision making process.

The participating colleges themselves were compared by independent judges ranking the institutions on a liberal or permissive--conservative or authoritarian scale. A comparison of the colleges' student handbooks was also included in this ranking.
The study was designed to answer the question whether any meaningful relation existed between the type of college with the five colleges being labeled A, B, C, D and E to protect their anonymity, and role stress among their students. The mean stress scores among the colleges' students were subjected to statistical analyses. A comparison of selected individual item stress scores based upon underlying factor groupings was also made between the college rated most liberal and the college rated most conservative. Finally, comparisons were also made among the activities the students reported being involved with or engaged in at these selected colleges.

Another question which was examined in the study was the comparison of mean stress scores of all the student subjects at the church related colleges with the mean stress scores from a sample drawn from a large state university.

Questions also under study were designed to compare all students' role stress score means within sub groupings based upon self-reported activities or status to see if any meaningful differences existed. The areas so examined included:

1. A comparison of non-activist students with the activist students ranging from never participate to always participate in demonstrations against the college.

2. A comparison of non-users of "pot" (marijuana) with "pot" users ranging from never use to always use.
3. A comparison of church non-attenders with church attenders ranging from never to always attend.

4. A comparison of non-homosexuals with homosexuals ranging from never participate to always participate in homosexual activity.

5. A comparison of sophomores with juniors.

6. A comparison among students living in conventional, coeducational and off campus housing.

7. A comparison of males and females.

8. A comparison between married and single students.

9. A comparison of students based upon grade point average groupings ranging from below 2.25 to 4.00.

It was hypothesized that statistical differences would be seen between stress score means in all the areas being examined in the study. Further, it was believed that this study could contribute to answering the question of whether or not studies of role stress among students are feasible and add to the knowledge available about the college student of today.

Definition of Terms

Terms used throughout this dissertation which require defining include the following:

Role. Many definitions of role are offered by behavioral scientists, all of which have value in giving insights into the approach to college student role stress undertaken in this study.
McDonald (1959) states:

The concept of a role affords a convenient means of describing systematically the multitude of social interactions that occur within a social system, such as a college (p. 447-8).

Bolton (1967) affirms this in saying:

A role is usually defined as the behavioral expectations, often treated as rights and obligations, connected with a social status (p. 130).

For purposes of this research the "social status" is defined as that of a college student.

McDonald continues in pointing out that:

A role is a set of expectations about how a person in a given position in a social system should act and about how the individuals in a reciprocal position should act. Role behavior or role action is the observable behavior related to these sets of expectations (p. 451).

McDavid and Harari (1968) further define role in terms of:

The pattern of behavior that constitutes a role is a combined product of the situational circumstances that defines a position in the structure of the group and components of the personality of the individual who occupies that position (p. 273).

They also help explain why a study such as the present one may have widely varying results as they continue:

Thus the role displayed by one person in a particular position may differ considerably from that displayed by another in the same position, because their individual makeup and personalities may differ (p. 273).

Further definitions helpful to this study included Gouldner's (1963), Grusky's (1960), and Cronbach's (1963) all to the effect that a "role" is a set of shared expectations that members of a group have about a social category which may be informal, yet
widely accepted and understood and often defined by the group itself.

In the interest of delimiting the concept of role and relating it specifically to this study, Bolton's (1967) definition is most helpful:

The role of college student designates the expected interaction patterns of occupants of the student status toward occupants of such statuses as professors, college administrators, parents . . . and fellow students . . . (p. 131).

Jourard (1968) points out that it is the healthy personality who plays his role satisfactorily and at the same time derives personal satisfaction from role enactment (p. 423). This presumes that those having difficulty in fulfilling the roles expected of them or which they hoped to fill are under stress and strain.

In summation, the role of the college student may be seen as the combination of his position, the performance expected of him, and the many conflicting demands made upon him mentally, morally, and physically, reflecting a continuous forced process of making value judgments and choices.

Values. Kerlinger (1964) defines values as:

. . . culturally weighted preferences for a thing or things, people, institutions, or for some kind of behavior. Simply put, values express the "good," the "bad," the "shoulds," the "oughts," of human behavior . . . (p. 487).

Values are, according to Allport (1967), matters of importance as related to the self. Herein they are conceived of as those preferences arising out of a student's background aiding
or hindering him in making a decision or choice which goes to make up the total role he assumes.

Real role and ideal role. For purposes of this research the "real" or "actual" role reflecting value judgments is defined as the student's estimate of the actual occurrence of behavior associated with his status as a student, and "ideal" role as the student's estimate of the desirability for these same behaviors to occur. This is reflected procedurally in his answers on the College Student Role Questionnaire. This real role is what in his judgment he in fact does, and the ideal role is what, in his judgment, he would like to be doing. In other words the concern herein centers about what a person actually does as an incumbent in a role and what he feels he should do.

Role stress. Whereas the term "role stress" is herein preferred, the same concept is also thought of and referred to as a role strain or role conflict, and used interchangeably by many authors.

Role stress may be defined theoretically as conflict arising whenever circumstance, external or internal, prevent students from conforming to their role expectations. Secord and Backman (1964) contend that role strain emanates from any one of three possible sources: the culture, the social system, or individual personality dynamics or inadequacies. More specifically, Getzels (1963) points out that there are role expectations placed on the student by his
peers, his professors and his parents, and that insofar as one takes
time from another they are in conflict (p. 314).

According to a 1970 study of role stress among assistant
principals by Kinsvatter and Tosi:

Role strain may also result when a role does not permit the
expression of one's needs, or is not in harmony with his
personality and/or value system (p. 4).

Gross, McEachern and Mason (1958) see many accepted
definitions of role stress, but conclude that it is generally
conceived to be a "situation in which the incumbent of a position
perceives that he is confronted with incompatible expectations
(p. 447)." Jones (1970) enlarges upon this in viewing role conflict
in terms of disparities in expectations held or perceived to be
held for members of a position, and Mechanic (1962) sees stress
among students as discomforting responses arising from particular
situations.

Role stress is defined procedurally as the difference between
the real activity and the ideal activity of the college student
subject as reported by themselves on the CSRQ. More specifically,
this may be described as the discrepancy between what the student
says he really does and what he says he ideally would like to be
doing in his answers on the questionnaire. This discrepancy score
is a measure of the role stress referred to herein. A high
discrepancy would suggest a high state of tension or strain and a
low discrepancy score would suggest a low state of tension or
strain.
Culture and sub culture. The culture referred to herein is the total life of the college, including classes, social rules, demands, opportunities and whatever else may be found as a part of the church related liberal arts college campus.

College sub cultures are sub groupings of students drawn together because of personality, social, vocational, activity, academic or other interests or roles held in common. They are herein referred to as sub groups.

Subjects. The subjects herein referred to are those sophomores and juniors from five church related, liberal arts colleges responding to the College Student Role Questionnaire, constituting the sample for this study.

Questionnaire. The College Student Role Questionnaire devised to measure the role stress of college students is referred to herein as either the questionnaire or the CSRQ.

Church related, liberal arts colleges. The colleges participating in this study are church related in that they have a lesser or greater degree of self-professed connection with a particular Christian denomination and are considered to be liberal arts colleges by virtue of their own offering of a liberal arts curriculum. Further, these colleges are all located in the midwest and have student bodies ranging from approximately 1,000 to 3,000.
Liberal and conservative. These terms are used procedurally to define a particular college participating in the study based upon the ratings of fourteen judges. The ratings took into consideration the academic and social rules and regulations as well as the degree to which the judges felt they are enforced. The most liberal college would have the smallest score in the ratings and the most conservative the largest score with a possible low (liberal) score of fourteen and a possible high (conservative) score of seventy.

Scope and Limitations

This study was designed for the purpose of exploring role stress among college students and to devise an instrument for the measurement thereof. The study was also to determine whether significant differences in role stress existed among students attending different church related colleges and to compare the stress found among selected sub groups within the colleges. Finally, the study also was for the purpose of isolating areas causing stress among students.

The study was limited to sophomore and junior students attending church related, liberal arts colleges located in the midwest. These factors, along with the total size of the sample, limit the inference that may be drawn from the results. Finally, the study itself was an exploratory one and can probably be most useful in guiding future studies in role stress rather than
giving definitive answers.

This study of role stress among students is a start in determining what students are actually doing, what they would ideally like to be doing and the resultant stress. Finally, although the instrument used was tested for validity and reliability with good results it is still being tested and is subject to future revision.
CHAPTER II

ROLE STRESS ON THE CAMPUS

A review of the literature reveals that no student on the college campus today is immune to role stress. Vaccaro (1968) points out:

Where once the collegiate way provided comradeship and psychological support for youth and their values, there is now increasing evidence of alienation . . . the norm of today seems to be . . . confusion (p. 31).

Axelrod (1969) adds that the potential for tension and conflict is built into the college today. Numerous authors feel this conflict or stress to be a root cause of the disruptions plaguing the campuses.

Some writers blame this stress on permissiveness or liberalism on the campuses and others blame it on campus authoritarianism or conservatism.

The primary purpose of this study is an investigation to determine which campus climate, as rated liberal or conservative by selected judges, does in fact have the highest role stress among its students.

Many authors basically say there are few differences among colleges. Secord and Backman (1964) in giving a social psychological view of education explain why colleges generally seem the same if judged by the results of questionnaires:

21
What evidence there is suggests that the effect of any one factor (within the institutional environment) is often modified by the presence of other factors, producing so-called interaction effects. When many factors must be considered simultaneously, interactions among them are extremely difficult to interpret (p. 61).

Despite the difficulties of interpreting findings, the class of variables generally thought to determine most strongly the school (high school or college) climate are the characteristics that the students bring to the school -- their abilities, interests, and values as determined by influences outside the school (p. 62).

When looking more specifically at stress among college students other authors also point out similarities among the colleges. Williams and Rhodes (1969) state that: "Educational discontent is essentially a global characteristic (p. 396)." An English author, Shipman (1969), claims that all of education is faced with continuous change necessitating a new theory based on conflict rather than harmony.

Other authors (Axelrod, 1969; Gottlieb & Hodgkins, 1963; Havice, 1968; Newcomb, 1966; Sanford, 1968) share the view that the students exhibit much in common and that the most important determinant of the outcome of the college experience consists of the characteristics of the student when he enters college. They seem to share the view of Secord and Backman (1964, 1968) that the students themselves are the most important single factor within the community. Jacob (1968), Lederle (1968), and Regan (1969) infer support of this view to the effect that a common factor among students throughout colleges is their diversity and that the colleges are all engaged in similar attempts to socialize the
individual to fit the "alumni mold."

While this may be so, it is suggested that the institution itself can be a factor in producing or reducing role stress among its students and that differences may exist in stress among the student bodies dependent upon whether their college's approach to education is considered liberal or conservative. Authors writing on the subject are about evenly divided, some claiming the permissive atmosphere produces stress with others claiming the conservative or restraining atmosphere produces stress.

Katz (1968) sees the college environment as a highly controlling one which he claims creates stress in many students. Adams (1969), Callis (1970), and Pusey (1968) also see the colleges to today as too constricting. Crane (1969) feels this restraining atmosphere is especially prevalent on the church related campus, stating:

In many cases, the church became the symbol of and indeed reinforced paternalism, strict obedience and overregulation of students (p. 56).

Henderson (1970) points out that as the college is financially vulnerable it cannot afford to violate the social mores or beliefs that prevail within its public's environment. Because it cannot really be the super-culture it purports to be there is thereby created a high state of tension between its students and the public. Further, many are not really as liberal as they claim to be. This would seem to be especially true of the church related college which often must be conservative enough to satisfy its
supporters or face extinction.

McCabe (1969) feels that parents sending their sons and daughters to church colleges expect them to provide the necessary discipline conducive to the leading of a good Christian life, he goes on to say:

The structure imposed upon student life with the aim of encouraging development of habits of Christian behavior is often ineffective and self defeating. To produce leaders in that tradition it must abandon its restrictive and authority oriented approach (p. 119).

Keyes (1968) points out that even when student involvement or leadership is accepted by an institution there is still role stress due to the very nature of the institution itself which forces students into token, advisory or ex-officio roles.

These authors and others suggest a liberalization on campus is needed in order to reduce tension and stress feeling that the restrictive campus stifles the intellectual growth it professes to offer. McCabe (1969) summarizes in saying:

Church related colleges are often torn between the horns of a dilemma—i.e., the achievement of academic excellence on the one hand and the preservation of their unique identity and mission on the other. It is difficult to preserve and hand on a particular tradition at the same time that a spirit of criticism challenging this tradition is encouraged in the student (p. 118).

It appears that stress can arise under such conditions. Taking the viewpoint that American education has become too liberal or permissive, thereby causing stress among students, is Hall (1969) who feels that:
Most students would agree that they feel much safer when it is clearly stated which patterns of behavior will be accepted and which will not (p. 69).

Koile (1967) points out:

Students do not want and cannot use unlimited freedoms. Only within rules and limits can they discover their freedom to function as they must function in a democratic society . . . College rules on student life should be formulated and exploited as instruments for student learning and development (p. 27).

A Los Angeles Times (1970) editorial accounts for "the continuing disruptive violence on the campus because those participating are assured by the belief enforced by experience that they can get away with illegal behavior." Farris (1969) feels there are "appropriate limitations on student roles rooted in the nature of the university (p. 44)." Farris admits these restrictions to be a cause of role conflict, but adds that role conflict may have some long range beneficial results (p. 45).

The Special Report of the Grand Jury (1970) investigating the Kent State tragedy places the major responsibility for this conflict upon the college administration for fostering an attitude of laxity, overindulgence, and permissiveness with its students and faculty.

The interesting facet here, as reported in The Chronicle of Higher Education (1970), was that observers believed the grand jury report actually eased tensions on the Kent State campus.

Other authors encouraging the colleges to take a firm and unambiguous stand, through giving guidance and direction rather than conceding to every student demand include Elder (1970), Kauffman

Any system which leaves it up to every individual to decide whether a rule is just or unjust is no system at all, but anarchy . . . Freedom lies in being able to choose an area of engagement and intense interest; it cannot be found in aimless hedonism or irresponsible drift . . . Every enduring achievement of mankind is the product of a disciplined mind and will and imagination (pp. 96-98).

In summation, there are valid arguments for both the liberal and conservative viewpoint and reasons why stress among students exists in both environments. Needless to say, the student today is faced with more stress in more areas than ever before and therefore an investigation of this stress may be useful in helping the college deal with it. As Knop (1969) points out, "students must react when role conflict occurs (p. 14)," and that it is better for all concerned when the college is prepared to prevent or constructively handle this inevitable reaction. It is submitted that there will be a difference in student role stress among colleges rated on a liberal--conservative continuum.

As an adjunct to the primary purpose of this study the following areas which may produce role stress among students are enumerated with the hope that future research may delve into these specific areas.

Secord and Backman (1964, pp. 487 - 493) see role stress arising under the following conditions:
(1) Role strain may result when expectations are unclear and consensus is low.

(2) A second source of role strain lies in the conflicting or competing expectations that make up a role.

(3) Discontinuities in the successive positions occupied by an actor are a third source of strain.

(4) The simultaneous occupation of two or more positions is a fourth source of role strain.

(5) A fifth source of role strain results from certain organizational aspects of the social system.

(6) Strain also occurs where roles are related in such a way that conformity to the expectations of one role interferes with goal achievement by the role partner.

(7) Strain also develops when the system permits interpersonal maneuvering to block the goal achievement of one or more members of the system.

(8) Strain may also result where ideology runs counter to role expectations.

(9) On the level of the individual personality, role strain may result when individual attributes interfere with or facilitate role performance, when role expectations are incompatible with the self concept, or when a role to which a person is assigned may be within his capabilities, but not suited to his needs.

Blaine (1967) points out areas of specific stresses which college brings to the student including greater freedom, greater competition than he was faced with in high school, a demand to be creative, the unexpected challenge to well established value systems, and the necessity of formulating career plans and goals. Erikson (1968) stresses this last point saying that "it is primarily the inability to settle on an occupational identity which disturbs young people (p. 199)."
Other authors stress specific areas or factors which they feel underlie stress. For example, Getzels stresses the multitude of demands which are made on the student's time as a primary source of stress (1963, p. 314).

Academic stress is cited by others as a prime source of stress underlying a student's discomfort. Rapport and Goldman (1967) state that the lonely student is a creature of stress brought about by unrealistic pressure to set higher standards by the colleges.

Stress within the social realm is cited by many as the most important factor contributing to tension among students. For example, Ellis and Bowlin (1970) state:

The social controls associated with dormitory living are increasingly coming in conflict with pressures from today's undergraduates for more personal freedom and greater responsibility for managing their own affairs . . . however . . . a recent study indicates that parents may be overwhelmingly opposed to any change in policy that substantially affects dormitory requirements. (pp. 182, 186).

Others, such as Williamson (1970), speak of the great unresolved problems confronting education today mentioning specifically the one that perplexes many students as being the apparent contradiction of freedom and authority in so many colleges.

Others citing the system itself as being a source of stress include Pate (1970), Kerr (1968), Graubard (1968), Donato and Fox (1970) and Ivy, Miller and Goldstein (1967).
Another area cited as a factor in stress is the realm of peer relationships. Pierce (1970), for example, points out the "process and practice of roommates in college can be a source of stress (p. 357)."

All of these varied areas and others such as the new "drug culture" can be contributing factors to stress. Also, one or more may be combined to account for role stress which is found among college students today.
CHAPTER III

RESEARCH DESIGN

Procedures

The selection of colleges participating in this study in role stress was made on a preliminary judgment to the effect that although they were all church related, liberal arts, located in the midwest, and of approximately the same size there were differences in basic philosophy. It was felt that these colleges were widely spread over a liberal--conservative continuum, ranging from very liberal to highly conservative as previously defined.

This selection was made from the premise that because of this difference in philosophy differences in role stress among the students would show up which would be statistically different.

The deans of students at the colleges thus tentatively selected were asked if the College Student Role Questionnaire could be administered to samples drawn at random from their respective student bodies. Fortunately, each college selected agreed to participate in the study with the deans of students agreeing to have the tests administered in classes which were required of sophomores and juniors. This was also done.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Fourteen judges were then selected to rate these colleges on the aforementioned liberal--conservative scale, giving one point to the college they felt to be the most liberal and five points to the college they felt to be the most conservative. As a result of this rating method, college B received 14 points and was thereby considered the most liberal, college E received 31 points, college A 47, college C 50 and college D 68 thereby being considered the most conservative.

In conjunction with this rating the student handbooks of colleges A, B, C, D and E were compared with only minor differences being found. It should be noted that students at college C felt their college had undergone a drastic liberalization during the past year and that this might not have been reflected in the judging.

Instrumentation

**Background.** As no suitable questionnaire was found to measure or determine the degree of role stress among college students, or its varied dimensions, the *College Student Role Questionnaire* (CSRQ) was drafted to accomplish this purpose and is included in the Appendix. The CSRQ is based upon the actual role and ideal role or activity (values) as reported by the students themselves with the discrepancy between the two representing the actual role stress score.
Other questions were added which were helpful in more fully giving a measure of student satisfaction—dissatisfaction with their respective colleges in the varied areas of possible role stress. They were also included in order to facilitate another type of study requested by one participating college, but not as part of this study.

Two open ended questions asked the students why they chose the college they attend and what changes they would recommend. These questions were included to add another dimension to understanding the students and because they could be helpful in substantiating the judges ratings of the colleges.

In the preparation of the CSRQ over fifteen varied instruments were used as a basis for the questions. While no questions were taken directly from any one instrument their contents greatly helped in covering the field of possible student activity. From over 2,500 questions 150 were initially included through a process of elimination greatly helped by feedback from 23 administrators, faculty members and students. The instruments utilized included:

1. College Student Questionnaire (Educational testing services, ____).

2. College and University Environment Scales (Pace, 1969).


4. Faculty Questionnaire (Western Michigan University, 1970).

5. Mooney Problem Check List, College Form (Mooney & Gordon, 1950).
6. Miscellaneous documents including residence hall surveys, personal interview questions and other questionnaires.

7. Omnibus Personality Inventory (Heist & Young, 1968).


9. Role Strain Questionnaire for Assistant Principals (Kindsvatter & Tosi, 1970).

10. Stern Activities Index (Stern, 1963).


13. Student Information Form (American Council on Education, ___).


The list of causes of stress as compiled by Katz (1968), which he deemed natural to the college age and situation, were also considered. These areas included newness of the college experience, sex, academic pressures, peer pressures, loneliness, occupational uncertainty and others.

The instrument itself was purposely devised to provide spaces for the students' answers in order to avoid any confusion in attempting to put the answers directly onto an IBM sheet. Each question called for two answers based on, first, what the student actually does and second, on what the student ideally would like to do. There were five possible choices for both the real and the ideal answer as the following illustration taken from the CSRQ instructions, shows:
A. I participate in card games.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>ACTUALLY</th>
<th>IDEALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As may be seen the student placed an "X" under both the actual and ideal categories.

For purposes of obtaining stress scores for statistical analyses the differences between the two answers were computed and this discrepancy score, the stress score, was transferred to the IBM answer sheet which then was transferred mechanically to the IBM cards to facilitate the use of a computer for analysis. For example, the above illustration shows a stress score of three which number would have been transferred to the IBM sheet as the answer to question a. for this particular "student." No differentiation was made for the sign or direction of the stress, only the actual, total stress being considered.

Other specific, actually activity scores, such as the actual use of "pot" were also put on the IBM sheet for analysis. These scores are described later as they are the basis for the analysis of sub groups. This entire process was checked and double checked for accuracy by two people.

The CSRQ itself was administered to all subjects in the classroom setting in lieu of the required class which they would otherwise be having with the exception of one class of juniors who
were tested at a meeting. The same directions for taking the test were given to all subjects in that the cover sheet was simply read at the beginning of each testing.

Validity. It is generally accepted that the validity of any instrument, test or questionnaire concerns what the test actually measures. In this context Anastasi (1968) feels that

Content validity involves essentially the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured (p. 100).

Feedback for purposes of content validity and face validity as further defined by Anastasi (1964, pp. 135-152; 1968, pp. 100-118) was secured from the following:

1. Four deans of students.
2. One director of student activities.
3. Two college counselors.
4. Two academic deans.
5. Two professors.
6. One admissions officer.
7. Eleven students.

As a result of their comments the instrument underwent seven revisions with the eighth and final draft drawing comments such as those that follow:

One dean of students described the final questionnaire as brief, yet comprehensive and relevant. Another dean stated that the instrument appeared to be excellent, one which "covers the
waterfront" in the realm of a student's life and role on the campus. One student commented that she felt the test was very interesting and further felt it covered the whole range of what being a student was all about. Another student who took the seventh draft commented that he enjoyed taking the test because it gave him the opportunity to express himself on a lot of issues he wanted to see discussed on campus or brought to the attention of the college. He concluded by saying that it made him think a lot about himself and what he spends his time doing in college. Finally, another student in commenting on the final draft stated that it measures every activity she could think of that a college student would be participating in.

Other deans of students, academic deans, counselors and professors examined one or more drafts of the instrument and felt its contents did measure what the intended purpose was, i.e. to come up with a measure of role stress among college students.

Walsh, in his numerous studies on the validity of self-report summarized in a 1968 publication that subjects generally gave quite accurate responses, pointing out that his findings show that an experimental social and financial incentive deliberately designed to distort the answers had no statistically significant effect on the accuracy of self reports for either males or females for seven out of eight items being tested (pp. 180-186).

Also, in support of the validity of this type of self-report instrument dealing with real and ideal roles is Brim's (1968) opinion that the human has taught himself or been taught that there
is a distinction between the real role and the ideal role (p. 236).

Finally, it should be noted that a factor analysis produced groupings or questions (underlying, hypothetical entities) which were generally predicted before the analysis from what the instrument was drafted to measure. These predictions were made by those giving feedback for purposes of content and face validity as previously noted. For example, underlying groupings of items referred to as factors which appeared included college activity stress, residence hall stress, personal goal attainment stress, parental relations stress, self confidence stress and social stress. Kerlinger in his 1964 work notes that this use of a factor analysis for construct validity purposes is generally accepted practice (pp. 680-685).

Table 1 shows various groupings of items that clustered together as was generally predicted. It should be noted that Kerlinger (1964) feels that any loading equal to or greater than a .30 is considered significant (p. 679).

**TABLE 1**

Identifiable underlying stress factors taken from students' responses on the College Student Role Questionnaire

<table>
<thead>
<tr>
<th>Question Number</th>
<th>(a) Personal Goal Attainment Stress</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>I study and otherwise prepare for classes to the best of my ability.</td>
<td>.74</td>
</tr>
<tr>
<td>50</td>
<td>I attain high grades.</td>
<td>.65</td>
</tr>
</tbody>
</table>
Table 1 (a), continued

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>I reach the goals I set for myself.</td>
<td>.49</td>
</tr>
<tr>
<td>28</td>
<td>I keep my room neat and clean.</td>
<td>.41</td>
</tr>
<tr>
<td>43</td>
<td>I find it easy to study in my living quarters.</td>
<td>.41</td>
</tr>
<tr>
<td>33</td>
<td>I take a great deal of pride in my personal appearance.</td>
<td>.37</td>
</tr>
<tr>
<td>54</td>
<td>I get plenty of exercise.</td>
<td>.34</td>
</tr>
</tbody>
</table>

(b) Self Confidence Stress

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>I ask professors for help or advice after class.</td>
<td>.67</td>
</tr>
<tr>
<td>36</td>
<td>I take personal problems to faculty members.</td>
<td>.63</td>
</tr>
<tr>
<td>29</td>
<td>I speak out in class.</td>
<td>.51</td>
</tr>
<tr>
<td>1</td>
<td>I express my complaints to college authorities.</td>
<td>.45</td>
</tr>
<tr>
<td>25</td>
<td>I openly criticize administrative policies.</td>
<td>.37</td>
</tr>
<tr>
<td>35</td>
<td>I feel accepted at college.</td>
<td>.30</td>
</tr>
<tr>
<td>9</td>
<td>I discuss my personal problems with my parents.</td>
<td>.29</td>
</tr>
<tr>
<td>33</td>
<td>I take a great deal of pride in my personal appearance.</td>
<td>.24</td>
</tr>
<tr>
<td>16</td>
<td>I help other students who are in difficulty.</td>
<td>.24</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Table 1, continued

<table>
<thead>
<tr>
<th>(c) Residence Hall Living Stress</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>I enjoy residence hall life.</td>
</tr>
<tr>
<td>14</td>
<td>I enjoy activities in my residence hall.</td>
</tr>
<tr>
<td>38</td>
<td>I take pride in my residence hall and help keep it a nice place in which to live.</td>
</tr>
<tr>
<td>48</td>
<td>I have the freedom I want in the residence halls.</td>
</tr>
<tr>
<td>43</td>
<td>I find it easy to study in my living quarters.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(d) Socialization Stress</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>I enter into groups for card games, singing, going to the movies, etc.</td>
</tr>
<tr>
<td>35</td>
<td>I feel accepted at college.</td>
</tr>
<tr>
<td>55</td>
<td>I engage in informal discussions on the campus, no matter what the topic.</td>
</tr>
<tr>
<td>24</td>
<td>I reach the goals I set for myself.</td>
</tr>
<tr>
<td>3</td>
<td>I participate in extra-curricular activities on campus.</td>
</tr>
<tr>
<td>47</td>
<td>I discuss religious beliefs or issues with my peers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(e) Parental Relations Stress</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>I get along well with all members of my family.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>40</td>
<td>My parents and I agree on major issues.</td>
</tr>
<tr>
<td>4</td>
<td>I respect my parents</td>
</tr>
<tr>
<td>9</td>
<td>I discuss my personal problems with my parents</td>
</tr>
<tr>
<td></td>
<td><strong>(f) Participation or Involvement Stress</strong></td>
</tr>
<tr>
<td>11</td>
<td>I participate in the decision making process regarding student activities and services.</td>
</tr>
<tr>
<td>53</td>
<td>I participate in student government or campus politics.</td>
</tr>
<tr>
<td>8</td>
<td>I work in local, state or national political campaigns.</td>
</tr>
<tr>
<td>49</td>
<td>I participate in the decision making process of this college.</td>
</tr>
<tr>
<td>10</td>
<td>I work for change within this institution.</td>
</tr>
<tr>
<td>1</td>
<td>I express my complaints to college authorities.</td>
</tr>
<tr>
<td>51</td>
<td>I visit the library even when I have no particular reading or assignment to do there.</td>
</tr>
<tr>
<td>23</td>
<td>I work to help eliminate poverty, disease or racial prejudice in America.</td>
</tr>
<tr>
<td>36</td>
<td>I take personal problems to faculty members.</td>
</tr>
<tr>
<td>21</td>
<td>I participate in organizations such as &quot;Head Start,&quot; &quot;CLEAN,&quot; the Red Cross or the NAACP.</td>
</tr>
</tbody>
</table>
Reliability. Anastasi (1968) postulates that the reliability of an instrument is generally considered to be the consistency of scores obtained by the same individuals when re-examined with the same test on different occasions. Test reliability indicates the extent to which individual differences in test scores are attributable to true differences in the characteristics under consideration and the extent to which they are attributable to chance errors. Measures of test reliability make it possible to estimate what proportion of the total variance of test scores is error variance (pp. 71-72).

Reliability of the CSRO was tested twice with different groups of 10 and 27 sophomores and juniors taking the test on a Wednesday and re-taking the same test on the following Friday. Anastasi (1968) claims the most commonly used r for test-retest correlation is the Pearson Product-Moment Correlation Coefficient as it takes into account not only the individual's position in the group but also the amount of his deviation above or below the group mean. Anastasi further claims this test--retest reliability is the most obvious method for finding the reliability of test scores (p. 78).
Results of the initial test-retest with ten subjects using the Pearson correlation showed \( r = .8856 \) and \( r^2 = .7850 \). Results of the second test-retest utilizing 27 subjects showed a Pearson \( r \) equal to .8969 and \( r^2 = .8044 \).

These correlations show that from 78.5% to 80.4% of the variance is accounted for, leaving only a chance error variance ranging from 19.6% to 21.5%. This also shows a reliability coefficient \( (r) \) ranging from .8856 to .8969, indicating the extent to which individual differences are attributable to true differences in the characteristics under consideration. This high reliability shows the scores are not highly susceptible to daily changes in the condition of the subject or the testing environment, instructions or administration.

Heist and Young (1968) in discussing reliability point out that an estimation of an instrument's reliability may be made through several approaches including the test-retest method and an internal consistency check method which entails examining two questions on which similar answers would logically be expected.

For this study, two sets of two answers were examined for purposes of checking further internal consistency for reliability purposes on a sample of 138 utilizing a Chi Square \( (X^2) \) test, as the CSRQ having answers in the form of frequencies falling in distinct categories (from no stress to high stress, 0 through 4) lends itself to this form of analysis.
The first set analyzed consisted of the questions, "I enjoy residence hall life." and "Campus housing provides a warm, comfortable and friendly atmosphere." The Chi Square analysis showed $X^2 = 5.70$ with 7.82 being required to attain the .05 level of significance, thereby showing no statistically significant difference between answers to the two questions. This also illustrates the use of certain questions not directly dealing with role activity.

The second set of two questions analyzed were, "I find it easy to study in my living quarters." and "Noise and confusion in the residence hall interferes with my work." Here (keeping in mind that the answers of necessity were reversed for analysis) $X^2 = 5.42$, with 7.82 being required at the .05 level, showing no significant difference between answers to the two questions. It may be noted that Wright (1967) used the $X^2$ test for similar purposes in his study of stress among entering college freshmen.

Both Kerlinger (1964) and Anastasi (1968) give guidelines for improving the reliability in the drafting of a test which were followed in drafting and administering the CSRQ. These guidelines aimed at reducing chance variance included: First, writing the items as clearly and unambiguously as possible; Second, including a sufficient number of items in order to lessen chance errors resulting from essentially random responses; Third, giving clear and standard instructions to all taking the questionnaire; Fourth, administering the instrument under standard, well-controlled and similar conditions; and, finally, keeping a close check on the
scorers reliability through a double checking process.

Heist and Young (1968) point out that on tests of this sort there is little reason to question the reliability as some students may want to shock the administration by their answers and others may want to hide what they are doing, but either way the percent is generally thought to be small. In the present case this is substantiated by comparing real role or activity answers as taken from the cross tabulation with certain answers from a survey of college student opinion conducted by Roper Research Associates (Survey, 1969). For example, the Roper survey found that between 50% and 67% of the students surveyed reported having had heterosexual experiences, and the present study shows from 43% to 73% reporting having heterosexual relations.

Another comparison may be made in the area of reported homosexuality where national studies report up to 20% of males having had homosexual experiences while the present study shows from 6% to 20% of the male subjects reporting having homosexual experiences. Drug use questions showed approximately the same similarities.

The figures seen in these comparable studies so closely approximate those obtained in the present study that it would be safe to infer a degree of reliability as a result of these comparisons.
Population and Sample

The population consists of the sophomores and juniors at church related, liberal arts colleges, ranging in size from approximately 1,000 to 3,000 students, and located in the midwest. The sophomores and juniors were selected as several authors suggest that they give the truest picture of the college student.

Axelrod, Freedman and Hatch (1969) feel freshmen and seniors are at two extremes of the student spectrum. Hatch (1968) has shown through testing and the opinions of independent judges that as far as maturity is concerned great differences (ranging from .05 to beyond .001) were witnessed between freshmen and seniors at a liberal arts college. He feels freshmen are just beginning to mature and develop.

Baur (1965) points out that freshmen enter college without knowing their role. This leads to the speculation that role stress might be unduly high among freshmen. This position is backed by Yamamoto (1970) who states that freshmen are faced with overwhelming anxiety upon confrontation with a multitude of new pressures and challenges upon arrival on the campus (p. 811). Sanford (1968) feels that those students whose outlook is quite different from the majority normally drop out during the first or second year at college.

It generally may be concluded from the literature that freshmen are still under the influence of parental, church, and community attitudes and seniors are more vocationally minded being
faced with imminent graduation (Sanford, 1968). Therefore, it is submitted that sophomores and juniors are more representative of their colleges, warranting the selection of this particular population for this study.

The sample of sophomores and juniors consisted of as many subjects as could be obtained at the participating colleges. Required classes at the sophomore and junior levels were utilized for testing in order to secure a representative sample, to facilitate uniformity of administrations of the College Student Role Questionnaire and to ensure a high rate of return.

Over all, 733 questionnaires were administered. All were given with the same instructions for taking as seen on the Appendix instruction sheet. Of these 733 CSRQs 678, or 93% were adjudged valid. Those 7% adjudged invalid were either incomplete or undecipherable.

Table 2 indicates the total number of questionnaires distributed, the total number invalid, the total valid and the percent valid for each participating institution.

It should be noted that of the total sample of 678 a sample of 63 sophomores and juniors was also drawn from two college of education classes at a large university for comparative purposes. This was done to add further insight to the over-all picture of stress among students at church related colleges in providing a comparison with a sample from an entirely different population.
TABLE 2

Summary of responses to College Student Role Questionnaires distributed in required classes to sophomores and juniors in five church related, liberal arts colleges.

<table>
<thead>
<tr>
<th>College</th>
<th>Total Distributed</th>
<th>Invalid</th>
<th>Valid</th>
<th>% Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>60</td>
<td>4</td>
<td>56</td>
<td>93%</td>
</tr>
<tr>
<td>B</td>
<td>323</td>
<td>22</td>
<td>301</td>
<td>93</td>
</tr>
<tr>
<td>C</td>
<td>93</td>
<td>3</td>
<td>90</td>
<td>97</td>
</tr>
<tr>
<td>D</td>
<td>100</td>
<td>5</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>E</td>
<td>86</td>
<td>13</td>
<td>73</td>
<td>85</td>
</tr>
<tr>
<td>F *</td>
<td>71</td>
<td>8</td>
<td>63</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>733</td>
<td>55</td>
<td>678</td>
<td>93%</td>
</tr>
</tbody>
</table>

* University Sample

Objectives and Data Analysis

The first and most basic question of this study was whether significant differences in role stress existed among students attending different church related, liberal arts colleges which were rated on a liberal--conservative continuum. This basic question was approached in the following manner:

1. Fourteen judges from a broad academic base were selected. They rated the five colleges participating in the study on a liberal--conservative continuum.
2. Based on the liberal—conservative ratings of the judges it was hypothesized that statistically significant differences between mean role stress scores would be found among the colleges' students on the basis of the judges' ratings. This objective was achieved by comparing the mean stress scores of the subjects at the five colleges utilizing the one way analysis of variance.

3. A further analysis utilizing the student t test was made to determine whether a significant difference existed between students at the college rated most liberal (B) and students at the college rated most conservative (D). This was done because such a great difference was seen between these two colleges based on the judges' ratings.

4. The students at these church related colleges were looked at from the aspect of the activities they reported engaging in including church attendance, activist participation, alcohol use, the use of "pot," "LSD" use, heterosexual activity, and homosexual activity. All colleges (A, B, C, D and E) were compared in these areas percentage wise and college B (the most liberal) and D (the most conservative) were also compared statistically by means of a Chi Square analysis.

5. The church related college student sample was examined based upon the students' answers to two open ended questions. The first such question asked their reason for selecting their particular college.
6. The college student bodies were also compared based on a second open ended question which asked the sample to give the most important change they would recommend for their respective colleges.

7. Differences in stress scores on individual selected items or questions were compared between college B, rated most liberal, and college D, rated most conservative. These comparisons were for the purpose of investigating whether stress differences between the two schools might better be explained or understood on an individual item basis.

The second question explored consisted of statistical analyses of mean stress score differences found among students from all the colleges within the following nine sub groups. This was for the purpose of determining whether their role activity or status had a bearing on stress.

1. The stress scores of non activist students were compared with the activist students on a scale of 0 = never participate in demonstrations against the college, 1 = rarely participates against the college, 2 = sometimes participates, 3 = often participates and 4 = always participates in demonstrations against the college. The one way analysis of variance was utilized in this comparison.

2. Stress among non users of "pot" was compared with the "pot" users on the same scale of 0 = never uses ranging to 4 = always uses "pot." Again, the one way analysis of variance was utilized.
3. The non church attenders' stress scores were compared with the church attenders also on a scale of 0 = never attends church to 4 = always attends church by means of the F analysis.

4. Stress among the non homosexuals was compared with the stress among the homosexuals on a scale of 0 = never have homosexual relations to 4 = always have homosexual relations. The F analysis was used here.

5. Stress among sophomores was compared with stress among juniors utilizing the t test.

6. A comparison of stress score means among students living in conventional residence halls, coeducational residence halls and in other housing located off campus was made utilizing the F analysis.

7. Stress among males was compared with stress among females utilizing the t test.

8. Stress among married students was compared with stress among single students utilizing the t test.

9. Achievers stress score means were compared with the non achievers grouped according to the grade point average attained in college on a scale ranging from 1 = 2.25 or lower to 6 = 3.50 or higher. The one way analysis of variance was used for this comparison.

The third question investigated consisted of a comparison of the sample from the large university with the total sample taken from the five church related colleges. This statistical comparison was made by means of the student t test.
CHAPTER IV

DATA PRESENTATION AND ANALYSIS

Approach to Data Presentation

The data obtained by means of the procedures described in Chapter III were analyzed through the use of three basic statistical models including the one way analysis of variance ($F$), the student $t$ test ($t$) and the Chi Square analysis ($X^2$). The results of these statistical procedures are presented in the present chapter with accompanying tables, further comparisons and discussion.

Traditionally educational and other behavior researchers have approached their investigations from the standpoint of stating a null hypothesis for each question under investigation before they conducted research. Along with this traditional format they also set levels of probability such as .05 or .01 which they felt must be attained before a null hypothesis could be rejected.

Winer (1962) states that "the frequent use of the .05 and .01 levels of significance is a matter of convention having little scientific or logical basis (p. 13). Coats in 1970 says:

There remains the need, however, to analyze data, and often this need can best be satisfied by using analyses based on descriptive statistical models to simply describe such characteristics as direction and strength of relationship (p. 7).

In a 1970 study Lanning reiterates that the recent trend in behavioral science has been to conduct the study, pose the questions
and analyze the results reporting the level of statistical significance found (p. 38).

The data which are presented in this study show the statistical significant differences with the direction of the groups' means under varied conditions. As Spence (1968) asks, will there be a real difference between groups and what is the direction. Will the groups' means show a difference or in effect be equal to 0? Kerlinger (1964) reiterates that the newer trend of thinking advocates reporting the significance levels between groups of all results, rather than rigidly adhering to a particular level of certainty. The purpose of such research is after all to aid in making reliable inferences and decisions from observational data (p. 154), and to attempt to answer questions raised in research.

The present study follows the approach outlined above in attempting to answer the questions presented in Chapters I and III. Statistical analyses are given along with further comparisons of groups through looking at mean score directions, and by examining certain differences among groups presented in the form of percentages. This was felt to add another dimension to the understanding of the whole question of role stress among college students today. Therefore, some of the data herein are simply reported descriptively.

A Comparison of Role Stress Among Students Attending Church Related Colleges

A survey of the literature on role stress among college students revealed a split in opinion as to whether the more liberal,
less structured or permissive college would have a higher degree of role stress than the more conservative, highly structured or authoritarian college. Plausible arguments were presented on both sides. It was therefore hypothesized that differences in role stress would be discovered through the administration of the College Student Role Questionnaire.

Judges ratings of the colleges. In order to verify the initial opinion as to the position of each college participating on a liberal-conservative continuum fourteen judges were selected to rate colleges labeled A, B, C, D and E. The judges participating in this rating included:

1. Two academic deans.
2. Two assistant deans of students.
3. One college president.
4. Five deans of students
5. One university counselor
6. One university department chairman.
7. One university professor of education.
8. One university vice president.

All judges were from the same geographic areas as the colleges selected and professed to be familiar with the colleges.

The ratings of the colleges are given in Table 3, showing the college identification by letter, the liberal--conservative rating score and the ranking of each college from liberal (1) to conservative (5).
**TABLE 3**

Ratings of five church related, liberal arts colleges on a Liberal--conservative continuum by fourteen judges.

<table>
<thead>
<tr>
<th>College by Letter</th>
<th>Liberal-Conservative Rating Score</th>
<th>Rank From Liberal to Conservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>68</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>31</td>
<td>2</td>
</tr>
</tbody>
</table>

A comparison of colleges A, B, C, D and E. When the means of the stress scores of the five participating colleges were compared by utilization of the one way analysis of variance they were found to be significantly different beyond the .005 level. Table 4 gives this analysis of variance showing the stress means generally rising from the liberal rated to the conservative rated college, with the means ranging from 41.93 to 48.16. The total sample numbers 615 students.
TABLE 4

One Way Analysis of Variance of stress scores of students Among five church related, liberal arts colleges.

<table>
<thead>
<tr>
<th>College</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>56</td>
<td>47.21</td>
<td>16.55</td>
<td>2.21</td>
</tr>
<tr>
<td>B</td>
<td>301</td>
<td>41.93</td>
<td>15.38</td>
<td>0.89</td>
</tr>
<tr>
<td>C</td>
<td>90</td>
<td>42.56</td>
<td>14.64</td>
<td>1.54</td>
</tr>
<tr>
<td>D</td>
<td>95</td>
<td>48.16</td>
<td>14.40</td>
<td>1.48</td>
</tr>
<tr>
<td>E</td>
<td>73</td>
<td>45.41</td>
<td>14.08</td>
<td>1.65</td>
</tr>
</tbody>
</table>

F Analysis

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>3838.27</td>
<td>4</td>
<td>959.57</td>
<td>4.21</td>
<td>.005</td>
</tr>
<tr>
<td>Within</td>
<td>138924.34</td>
<td>610</td>
<td>227.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The probability tables used herein are from Dixon and Massey (1957).

Figure 1 shows this comparison between the five colleges in graph form based on stress score means, and placing A, B, C, D and E on a liberal--conservative scale. In general the line rises consistently showing an increase in stress score means with movement from the liberal to conservative with the exception of college C, which is number 4 on the scale. In this case the stress is down and seemingly places college C out of line with the
over-all trend of rising stress directly correlated with the degree of conservatism of the colleges as rated by the judges.

It must be noted that students interviewed at college C, after the test results were in, commented on the great degree of liberalization that they felt had taken place there during the past year. This liberalization in the eyes of the students was especially noticeable in the easing of the residence hall restrictions, an area where student complaints are generally loudest. The students also noted other social restrictions and requirements that had been eased within the past year. It is suggested that this recent liberalization could loom large in accounting for a lesser degree of stress than would have been expected for college C based upon its position in Figure 1 which follows. The possibility of the judges misplacing college C on the continuum must be considered in light of recent changes made at that institution.
A comparison of colleges B and D. In order to further examine student role stress existing among the colleges the two at the opposite ends of the continuum were further analyzed. This was done because of the magnitude of the difference on the liberal—conservative continuum and because the other three colleges were bunched more closely in the middle with some disagreement among the judges as to their proper place on the continuum. As is shown in Table 5 the college rated most liberal (B) by the fourteen judges had significantly less stress among its
student than the college rated most conservative (D). The significance level of the obtained difference between the sample stress score means went beyond the .001 level when utilizing the student t test. Here the total sample consisted of 396 students with means of 41.93 and 48.16.

**TABLE 5**

*Student t test of stress score means between students attending the college rated most liberal (B) and the college rated most conservative (D)*

<table>
<thead>
<tr>
<th>College</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>301</td>
<td>41.93</td>
<td>15.38</td>
<td>394</td>
<td>3.494</td>
<td>.001</td>
</tr>
<tr>
<td>D</td>
<td>95</td>
<td>48.16</td>
<td>14.40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A comparison of activities of students. In addition to the differences already cited among students at colleges A, B, C, D and E Table 6 shows further areas of differences based on the students' self-reported activities. These descriptive statistics were taken from the cross tabulation and are itemized for the individual colleges into percentages reporting participation ranging from never participate to always participate.

Table 6, consisting of several categories of activities, shows degrees of church attendance, activist participation, use of alcohol, "pot" use, LSD use, heterosexual activity and male homosexual activity. As can be seen the pattern generally follows that already
established by the judges. For example, church attendance is lowest at the most liberal college (58%) with attendance increasing to the point where all students reported attending church at least some of the time at the college rated most conservative.

**TABLE 6**

Cross tabulation of student responses in five church related colleges to "actual participation" questions given in percentages of total responding.

<table>
<thead>
<tr>
<th>(a) Actual Church Attendance</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>31%</td>
<td>34%</td>
<td>12%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>B</td>
<td>42</td>
<td>37</td>
<td>11</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>14</td>
<td>18</td>
<td>24</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>39</td>
<td>49</td>
</tr>
<tr>
<td>E</td>
<td>29</td>
<td>40</td>
<td>16</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: A Chi Square ($X^2$) Analysis of college B responses compared with college D responses showed $X^2 = 918.4$ with df = 3, which showed a significant difference beyond the .001 level when $X^2 = 11.34$ or more.

<table>
<thead>
<tr>
<th>(b) Actual &quot;Activist&quot; Participation</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>34%</td>
<td>45%</td>
<td>16%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>B</td>
<td>20</td>
<td>25</td>
<td>43</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>42</td>
<td>39</td>
<td>15</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>58</td>
<td>24</td>
<td>15</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>21</td>
<td>34</td>
<td>30</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 6, continued.

Note: A Chi Square \( (X^2) \) Analysis comparing college B with college D showed \( X^2 = 83.97 \) with df = 3, which showed a significant difference beyond the .001 level when \( X^2 = 18.47 \) or more.

(c) Alcohol Use Frequency

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18%</td>
<td>9</td>
<td>20</td>
<td>38</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>23%</td>
<td>18</td>
<td>18</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>29%</td>
<td>43</td>
<td>40</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>28%</td>
<td>24</td>
<td>18</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>14</td>
</tr>
</tbody>
</table>

Note: A \( X^2 \) analysis comparing colleges B and D showed \( X^2 = 137.4 \) with df = 4, which showed a statistical difference beyond the .001 level when \( X^2 = 18.47 \).

(d) "Pot" Use Frequency

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61%</td>
<td>47</td>
<td>78</td>
<td>86</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>17</td>
<td>7</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>20</td>
<td>12</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>12</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: A \( X^2 \) analysis comparing colleges B and D showed \( X^2 = 56.7 \) with df = 4, which showed a statistical difference beyond the .001 level when \( X^2 = 18.47 \).
Table 6, continued.

(e) "LSD" Use Frequency

<table>
<thead>
<tr>
<th></th>
<th>90%</th>
<th>7%</th>
<th>3%</th>
<th>0%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>84</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>94</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>96</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>96</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: A $X^2$ analysis comparing colleges B and D showed $X^2 = 10.5$ with df = 4 which showed a statistical difference beyond the .05 level when $X^2 = 9.49$.

(f) Heterosexual Activity Frequency*

<table>
<thead>
<tr>
<th></th>
<th>36%</th>
<th>14%</th>
<th>21%</th>
<th>18%</th>
<th>11%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>27</td>
<td>13</td>
<td>29</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>B</td>
<td>39</td>
<td>20</td>
<td>18</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>57</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>27</td>
<td>11</td>
<td>31</td>
<td>21</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: A $X^2$ analysis comparing colleges B and D showed $X^2 = 43.9$ with df = 4 which showed a statistical difference beyond the .001 level when $X^2 = 18.47$.

(g) Homosexual Activity Frequency (Males Only)*

<table>
<thead>
<tr>
<th></th>
<th>81%</th>
<th>4%</th>
<th>15%</th>
<th>0%</th>
<th>0%</th>
</tr>
</thead>
</table>
Table 6 (g), continued.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80</td>
<td>89</td>
<td>90</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>9</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

*Males constituted 46% of the total sample (282 of 615).

Note: A $X^2$ analysis comparing colleges B and D showed $X^2 = 8.4$ with df = 4 which showed a statistical difference beyond the .10 level when $X^2 = 7.78$.

Unless otherwise noted the above responses were of the total sample taken from the liberal arts colleges, with $N = 615$.

In order to more closely statistically examine the activity differences reported between colleges B and D at the continuum extremes Chi Square ($X^2$) analyses were made comparing these frequency results. Levels of significance ranged from the .10 level on the homosexual activity category to the .001 level on the church attendance, activist, alcohol use, "pot" use and heterosexual activity categories. The .05 level of probability was attained on the LSD use category as Table 6 shows.

Table 6 (a) shows church attendance reported in percentage form ranging from 100% attendance at the most conservative college to 58% attendance at the most liberal college. The Chi Square analysis shows the probability level of attaining this difference to be beyond the .001 level. It may be noted that colleges A and E are very close as far as church attendance goes.
Table 6 (b) shows activist participation ranging from 80% of the students at the most liberal college admitting to participating in demonstrations against their colleges to only 42% participating in demonstrations at the most conservative college. Here college E rated the second most liberal shows 79% of the students participating in demonstrations with the percentage decreasing as the colleges are rated more conservative on the continuum. In comparing B and D by means of the $X^2$ analysis the level of difference attained again reached the .001 level of significance.

Table 6 (c) compares the use of alcohol among the colleges, with the percentage differences in this category being less marked. However, the Chi Square showed a statistical difference level of .001 when comparing colleges B and D.

Table 6 (d) shows "pot" use frequency, and here it is seen that the range is from 53% using at the most liberal college to only 14% using "pot" at the most conservative college. Colleges A, C and E are placed exactly on the liberal--conservative continuum here as postulated by the judges. Again the .001 level of significance was attained in comparing colleges B and D.

Table 6 (e) showing the frequency of LSD usage is quite different from the other sections of Table 6, in that the percentages using LSD are seen to be comparatively small. Here the range is from 16% usage at college B to only 4% usage at colleges D and E with colleges A and C closely behind. The Chi Square
analysis here showed the .05 level of significance attained when colleges B and D were compared.

Table 6 (f) shows the reported heterosexual contact among students at the various colleges. Here the extent of sexual contact is seen to be rather high, ranging from 63% reporting heterosexual activity at the most liberal college and at the second most liberally rated college to 43% reporting heterosexual activity at the most conservative college. The middle rated colleges, A and C, are seen falling right in the center of this continuum also. The Chi Square analysis shows the .001 level of significance being attained when colleges B and D are compared.

Table 6 (g) gives the reported homosexual activity among males only. The range of participation runs from 20% at the most liberal college to 6% at college E rated the second most liberal. Otherwise the pattern is the same as for the other sections of Table 6, with the frequency of homosexual activity closely paralleling the judges' ratings with the lower frequencies reported at the more conservative colleges. The \(X^2\) analysis comparing colleges B and D here reached the .10 level, showing the least difference of any activity category.

The results as detailed in Table 6 and discussed are viewed as substantiating the judges' ratings, especially at the continuum extremes with a few variances from what might have been expected from the schools in the middle. These results add further insight into differences existing among the student bodies of the colleges participating in this study. They also tend to explain the
differences in mean stress scores between the liberal and conservative colleges with students at D showing a greater conservatism, more selectivity in their personal activities and restraint in their role as students hence the higher stress in these areas.

It would seem that at least a part of the higher stress among students at D is explainable as a result of the goals they seemingly set for themselves and the subsequent difficulty they may have in attaining them. For example, in an examination of individual questionnaires, students at D who marked in the "actual" column that they "sometimes" or "often" attend church show stress as they had marked in the "ideally" column that they should "always" attend church. In a similar examination of questionnaires from college B this stress was not present even though "actual" church attendance reported was much less frequent, with a Chi Square analysis showing the difference with college D to go beyond the .001 level as noted.

Reasons given for college selection. Table 7 reports in percentage form the reasons students gave on one of the open ended questions for selecting their college. This illustrates that not only were the colleges under study seen to have differing philosophies by the judges, but more importantly this table shows that the incoming students must have been aware of these differences. The table also serves to further corroborate the judges' opinions.
TABLE 7

Reasons given by students for selecting the college they attend, listed by percentage of total responding.

<table>
<thead>
<tr>
<th>Reason Given</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Small, liberal arts</td>
<td>54%</td>
</tr>
<tr>
<td>Academic reputation</td>
<td>3</td>
</tr>
<tr>
<td>Church affiliation</td>
<td>0</td>
</tr>
<tr>
<td>Campus atmosphere; attractive and friendly campus</td>
<td>9</td>
</tr>
<tr>
<td>Special programs or curriculum offered</td>
<td>0</td>
</tr>
<tr>
<td>Location of campus</td>
<td>9</td>
</tr>
<tr>
<td>Scholarship or financial assistance offered</td>
<td>7</td>
</tr>
<tr>
<td>Athletic program</td>
<td>5</td>
</tr>
<tr>
<td>Teacher, counselor, alumnus or friend's influence</td>
<td>1</td>
</tr>
<tr>
<td>Family influence or pressure</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>9</td>
</tr>
</tbody>
</table>

Changes recommended by students. The most important changes students recommend for their varied colleges are given in percentages of total responding in Table 8. In keeping with the previous ratings by the judges and the differences already seen between the college student bodies similar differences again come to the surface here.
TABLE 8

The most important changes recommended by students attending five liberal arts colleges for their campuses, with figures listed in percentages of total responding.

<table>
<thead>
<tr>
<th>Recommended Change</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Liberalize social rules, giving more responsibility to the students</td>
<td>53%</td>
</tr>
<tr>
<td>Academic improvement; liberalize; make more relevant to today</td>
<td>18</td>
</tr>
<tr>
<td>Improve communication between the administration and students</td>
<td>16</td>
</tr>
<tr>
<td>Provide more social activities</td>
<td>6</td>
</tr>
<tr>
<td>Improve the students' attitude</td>
<td>0</td>
</tr>
<tr>
<td>Encourage Christian renewal and dedication on campus</td>
<td>0</td>
</tr>
<tr>
<td>Reduce the influence of &quot;outside&quot; groups such as the church or trustees</td>
<td>0</td>
</tr>
<tr>
<td>Stricter enforcement of rules</td>
<td>0</td>
</tr>
<tr>
<td>Improve the physical plant</td>
<td>0</td>
</tr>
<tr>
<td>No changes needed</td>
<td>0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7</td>
</tr>
</tbody>
</table>

In examining Table 8 it may be seen that 53% and 71% of students at the two most liberal colleges would recommend, as the most important change needed, a further liberalization of social rules. This may be compared with only 24% of the students at the college rated most conservative recommending a liberalization of
social rules. These results would suggest differences in areas of stress among the colleges, and also substantiate authors' writings to the effect that once the "liberalization" process has begun still more is desired which may cause stress among the students.

Other differences seen in Table 8 also corroborate previous data, with the table itself being self-explanatory.

**Differences in areas of stress.** Table 9 shows the differences in role stress between college students at B, the liberal college, and at D, the conservative college, in five specific areas. Again these two colleges were singled out for special analysis due to their positions at the extremes of the liberal--conservative continuum. The areas included for observation here are labeled institutional stress, personal goal stress, parental relations stress, socialization stress and self confidence stress.

This analysis of differences in stress areas shows college B having higher stress among its students in the institutional stress area and college D students showing higher stress in the personal, parental, socialization and self confidence stress areas. The area showing the smallest difference between the two colleges is in the area of socialization where the two schools are separated by only 10 percentage points. The area showing the greatest spread percentage wise is that of personal goal stress, where stress at college D averages over 15% higher than at college B.
**TABLE 9**

Examples of differences in five stress areas on selected questions between students at the college rated most liberal (B) and at the college rated most conservative (D) given in percentages.

<table>
<thead>
<tr>
<th>Areas of Stress and Selected Questions</th>
<th>Role Stress</th>
<th>No Role Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B D</td>
<td>B D</td>
</tr>
<tr>
<td><strong>Institutional Stress:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am able to take courses I want.</td>
<td>86% 75%</td>
<td>14% 25%</td>
</tr>
<tr>
<td>48. I have the freedom I want in the residence hall.</td>
<td>78 55</td>
<td>22 45</td>
</tr>
<tr>
<td><strong>Personal Goal Stress:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I reach the goals I set for myself.</td>
<td>67 79</td>
<td>33 21</td>
</tr>
<tr>
<td>50. I attain high grades.</td>
<td>59 78</td>
<td>41 22</td>
</tr>
<tr>
<td><strong>Parental Relations Stress:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. I get along well with all members of my family.</td>
<td>38 56</td>
<td>62 44</td>
</tr>
<tr>
<td>4. I respect my parents.</td>
<td>21 33</td>
<td>79 67</td>
</tr>
<tr>
<td><strong>Socialization Stress:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. I enter into groups for card games, singing, going to the movies, etc.</td>
<td>30 41</td>
<td>70 59</td>
</tr>
<tr>
<td>35. I feel accepted at college.</td>
<td>50 59</td>
<td>50 41</td>
</tr>
<tr>
<td><strong>Self Confidence Stress:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I speak out in class</td>
<td>56 71</td>
<td>44 29</td>
</tr>
<tr>
<td>1. I express my complaints to college authorities.</td>
<td>84 90</td>
<td>16 10</td>
</tr>
<tr>
<td>36. I take personal problems to faculty members.</td>
<td>63 75</td>
<td>37 25</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
As an example of these differences a closer look at a single item or question shows that on item 50, "I attain high grades", 22% of the students at college D show no stress constrained with 41% of the students at college B showing no role stress. The reverse of these percentages is seen on question 48, having to do with what is labeled institutional stress, with students from the most liberal college manifesting a great deal more stress, almost double the percentage of the most conservative college, in this area.

Table 9 also adds an explanatory note to the differences in stress among colleges B and D which have been discussed. This table illustrates that there are areas of higher stress within the college showing a lower over all stress score mean and vice versa.

Role Stress Comparisons Among Students in Sub Groups Based On Self-Reported Activities or Role Status.

Certain sub groups which were also submitted to either F or t analyses were chosen on the basis of either the activity the students were reported engaging in (such as church attendance) or on the basis of roles they might occupy (such as married or single status) as they relate to stress. The sub groups chosen for this analysis were representative of areas thought to be connected with stress among students. They were also selected with the hope they might give some further insight into role stress, showing higher or lower stress among segments of groups dependent on the participation of a student in a particular activity or on a particular role or status he might hold or fulfill.
Activist participation. The first such comparison of stress score means was among groups of students reporting themselves as non-activist (never participate in demonstrations against their colleges) ranging to those reporting themselves as students who always participate in demonstrations against their college. The F analysis seen in Table 10 shows that there was no statistical difference among subjects reporting varying degrees of activism. However, it should be noted that the mean stress score for the student "activist" was lower (41.50) than the non-activists' mean stress score (45.28).

TABLE 10

One Way Analysis of Variance of stress score means among students reporting varying degrees of activism on a scale ranging from never participates in demonstrations to always participates in demonstrations against the college.

<table>
<thead>
<tr>
<th>Degree of Activism</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>219</td>
<td>45.28</td>
<td>16.13</td>
<td>1.09</td>
</tr>
<tr>
<td>Rarely</td>
<td>204</td>
<td>44.29</td>
<td>14.45</td>
<td>1.01</td>
</tr>
<tr>
<td>Sometimes</td>
<td>200</td>
<td>42.74</td>
<td>15.72</td>
<td>1.11</td>
</tr>
<tr>
<td>Often</td>
<td>45</td>
<td>44.69</td>
<td>13.90</td>
<td>2.07</td>
</tr>
<tr>
<td>Always</td>
<td>10</td>
<td>41.50</td>
<td>17.15</td>
<td>5.42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>766.57</td>
<td>4</td>
<td>191.65</td>
<td>0.81</td>
<td>.75</td>
</tr>
<tr>
<td>Within</td>
<td>159411.83</td>
<td>673</td>
<td>236.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
"Pot" use. The second comparison of sub groups' stress score means was an F analysis made according to the students' self-reported use of "pot" with the categories ranging from "never" to "always" use. Here the statistical difference found among the groups attained the .20 level. The mean stress score of the group reporting always using "pot" (52.87) was higher than the means of the groups reporting they never, rarely or sometimes use "pot" which ranged from 42.11 to 45.15. Table 11 gives this analysis.

TABLE 11

One Way Analysis of Variance of stress score means among students reporting varying degrees of the use of "pot" from never uses to always uses.

<table>
<thead>
<tr>
<th>Degree of &quot;pot&quot; use</th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>408</td>
<td>44.00</td>
<td>15.28</td>
<td>0.76</td>
</tr>
<tr>
<td>Rarely</td>
<td>91</td>
<td>43.82</td>
<td>15.15</td>
<td>1.58</td>
</tr>
<tr>
<td>Sometimes</td>
<td>105</td>
<td>42.66</td>
<td>15.97</td>
<td>1.56</td>
</tr>
<tr>
<td>Often</td>
<td>59</td>
<td>46.03</td>
<td>14.93</td>
<td>1.94</td>
</tr>
<tr>
<td>Always</td>
<td>15</td>
<td>52.87</td>
<td>15.74</td>
<td>4.07</td>
</tr>
</tbody>
</table>

F Analysis

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1601.89</td>
<td>4</td>
<td>400.47</td>
<td>1.70</td>
<td>.20</td>
</tr>
<tr>
<td>Within</td>
<td>158576.52</td>
<td>673</td>
<td>235.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
**Church attendance.** The third comparison of sub groups' stress score means was an F analysis among students reporting they never, rarely, sometimes, often or always attend church. The analysis, shown in Table 12, shows no significant difference among these groups based on church attendance. In other words the probability of observing these results by chance is rather high.

**TABLE 12**

One Way Analysis of Variance of stress score means among students reporting varying degrees of church attendance from never attends to always attends.

<table>
<thead>
<tr>
<th>Degree of Church Attendance</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>188</td>
<td>45.15</td>
<td>15.88</td>
<td>1.16</td>
</tr>
<tr>
<td>Rarely</td>
<td>199</td>
<td>44.44</td>
<td>15.04</td>
<td>1.07</td>
</tr>
<tr>
<td>Sometimes</td>
<td>90</td>
<td>42.11</td>
<td>16.40</td>
<td>1.73</td>
</tr>
<tr>
<td>Often</td>
<td>104</td>
<td>44.43</td>
<td>15.74</td>
<td>1.54</td>
</tr>
<tr>
<td>Always</td>
<td>97</td>
<td>43.16</td>
<td>13.74</td>
<td>1.40</td>
</tr>
</tbody>
</table>

**F Analysis**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>682.53</td>
<td>4</td>
<td>170.63</td>
<td>0.72</td>
<td>.75</td>
</tr>
<tr>
<td>Within</td>
<td>159495.88</td>
<td>673</td>
<td>236.99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Homosexual activity. The fourth comparison, utilizing a type of "activity" sub group, was composed of all students reporting varying degrees of homosexual contact ranging from "never" to "always". Although the F analysis yielded no significant difference with the level attained equal to .20 the mean stress scores as seen in Table 13 increase considerably as homosexual activity increases. The means range from 43.84 for those never having homosexual contact to a stress mean score of 52.62 for those having homosexual contact often. In analyzing Table 13, the fact that females were included must be considered.

### Table 13

One Way Analysis of Variance of stress score means among students reporting varying degrees of homosexual contact, from never to always

<table>
<thead>
<tr>
<th>Degree of Homosexual Contact</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>629</td>
<td>43.84</td>
<td>15.43</td>
<td>0.61</td>
</tr>
<tr>
<td>Rarely</td>
<td>20</td>
<td>43.25</td>
<td>11.81</td>
<td>2.64</td>
</tr>
<tr>
<td>Sometimes</td>
<td>14</td>
<td>49.93</td>
<td>16.73</td>
<td>4.47</td>
</tr>
<tr>
<td>Often</td>
<td>13</td>
<td>52.62</td>
<td>14.48</td>
<td>4.02</td>
</tr>
<tr>
<td>Always</td>
<td>2</td>
<td>52.50</td>
<td>17.68</td>
<td>12.50</td>
</tr>
</tbody>
</table>

**F Analysis**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1615.37</td>
<td>4</td>
<td>403.84</td>
<td>1.71</td>
<td>.20</td>
</tr>
<tr>
<td>Within</td>
<td>158563.03</td>
<td>673</td>
<td>235.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sophomores compared with juniors. The fifth analysis of a sub grouping was a comparison of differences in stress between sophomores and juniors by means of a t test. This showed the sophomores to have a significantly greater amount of role stress than the juniors at the .05 level as seen in Table 14. This would seem to fit the pattern which has been seen in the literature to the effect that the first two years in college present the most stress for the students, with the adjustment improving each year.

**TABLE 14**

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomores</td>
<td>359</td>
<td>45.09</td>
<td>15.44</td>
<td>676</td>
<td>1.704</td>
<td>.05</td>
</tr>
<tr>
<td>Juniors</td>
<td>319</td>
<td>43.08</td>
<td>15.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Residence hall status. The sixth comparison of stress score means was among students living in three definable types of housing: the conventional residence halls, coeducational residence halls and in off-campus housing. Here, as seen in Table 15 following, an F analysis yielded no significant differences among the means of all students grouped according to their type of residence, with .20 being the level of significance attained. However, it should be noted that the stress score mean was lowest for the sample of students living in coeducational residence halls and highest for the students living in conventional halls.
TABLE 15

One Way Analysis of Variance comparing stress score means among students living in conventional residence halls, in coeducational residence halls and in off-campus housing.

<table>
<thead>
<tr>
<th>Residence</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>359</td>
<td>45.28</td>
<td>15.09</td>
<td>0.80</td>
</tr>
<tr>
<td>Coeducational</td>
<td>169</td>
<td>42.62</td>
<td>15.77</td>
<td>1.21</td>
</tr>
<tr>
<td>Off-campus</td>
<td>150</td>
<td>43.15</td>
<td>15.52</td>
<td>1.27</td>
</tr>
</tbody>
</table>

F Analysis

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1003.94</td>
<td>2</td>
<td>501.97</td>
<td>2.13</td>
<td>.20</td>
</tr>
<tr>
<td>Within</td>
<td>159174.47</td>
<td>675</td>
<td>235.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Males compared with females. The seventh sub group analyzed was based on the classification of students by sex. Here a student t showed no statistically significant differences in stress score means between males and females. The mean stress score for the females is seen to be only slightly higher than the stress score mean for males, producing a significance level of .25. This analysis is shown in Table 16.
TABLE 16

Student t test comparing stress score means between male and female students.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>312</td>
<td>43.46</td>
<td>16.47</td>
<td>676</td>
<td>1.06</td>
<td>.25</td>
</tr>
<tr>
<td>Female</td>
<td>366</td>
<td>44.72</td>
<td>14.38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Single compared with married students. The eighth sub grouping analyzed was based upon classification according to marital status. When the stress score means of the married students were compared with the single students' stress score means a statistically significant t ratio was found going beyond the .025 level. This showed that married students were undergoing significantly less stress than the single students. This would seem to substantiate the idea that the married student is kept occupied with domestic affairs and of necessity makes role decisions with greater ease and with less resulting stress than the single student. Table 17 gives this analysis.

TABLE 17

Student t test comparing stress score means between married students and single students

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>29</td>
<td>37.76</td>
<td>17.02</td>
<td>676</td>
<td>2.29</td>
<td>.025</td>
</tr>
<tr>
<td>Single</td>
<td>649</td>
<td>44.43</td>
<td>15.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stress differences based on grade point averages. The last, and possibly the most interesting, comparison of stress score means was among a grouping of students based on their self reported grade point average achieved in college. The low achiever (below 2.25) was seen, in Table 18, to have an exceptionally high stress score mean (57.88) as compared with the groups attaining between a 3.00 and a 3.50 grade point. The F analysis showed the groups' means to be significantly different beyond the .001 level.

### TABLE 18

One Way Analysis of Variance comparing stress score means based on grade point average attained in college, ranging from below 2.50 to above 3.50.

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 2.25</td>
<td>8</td>
<td>57.88</td>
<td>18.55</td>
<td>6.56</td>
</tr>
<tr>
<td>2.25 - 2.75</td>
<td>73</td>
<td>48.08</td>
<td>16.96</td>
<td>1.99</td>
</tr>
<tr>
<td>2.75 - 3.00</td>
<td>208</td>
<td>45.81</td>
<td>15.62</td>
<td>1.08</td>
</tr>
<tr>
<td>3.00 - 3.25</td>
<td>213</td>
<td>42.88</td>
<td>13.99</td>
<td>0.96</td>
</tr>
<tr>
<td>3.25 - 3.50</td>
<td>156</td>
<td>41.04</td>
<td>15.26</td>
<td>1.22</td>
</tr>
<tr>
<td>3.50 - 4.00</td>
<td>20</td>
<td>44.50</td>
<td>14.23</td>
<td>3.18</td>
</tr>
</tbody>
</table>

### F Analysis

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>5065.50</td>
<td>5</td>
<td>1013.10</td>
<td>4.39</td>
<td>.001</td>
</tr>
<tr>
<td>Within</td>
<td>155112.91</td>
<td>672</td>
<td>230.82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In looking at Table 1, a trend was seen, which is illustrated in Figure 2, in that the stress decreased as the grade point average rose until the 3.50 level was reached. At the 3.50 grade point level the mean stress increased to a mean score of 44.50 from a mean score of 41.04 for the group of students falling in the 3.25 to 3.50 grade point level. This seems to indicate stress at both ends of the spectrum, with the high achiever falling under stress to maintain his high average. The low achiever would seem to be struggling to stay in school.

Figure 2

Stress score means plotted by college grade point averages (total sample)
Comparison of the Church Related Colleges' Sample with a Sample from a Large University

In order to add further insight and another dimension to the overall picture of stress among students at church related colleges the total sample stress score mean of church related college students was compared with the stress score mean of a sample from the college of education at a large university labeled F. The t test was utilized for this analysis as shown in Table 19. The results of this test yielded no significant differences even though much of the literature inferred there were reasons which might be causing higher stress among students at the church related colleges. However, the question must be raised as to whether church influence is really as great at several of the colleges under study as might have been presumed.

TABLE 19

Table 19

Student t test analysis of stress score means between students attending church related colleges (A, B, C, D, E) and students attending a large university (F).

<table>
<thead>
<tr>
<th>College</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B, C,</td>
<td>615</td>
<td>43.88</td>
<td>15.25</td>
<td>676</td>
<td>1.403</td>
<td>.10</td>
</tr>
<tr>
<td>D, E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>63</td>
<td>46.73</td>
<td>16.54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary

The basic purpose of this dissertation was the investigation of role stress among students at church related colleges which were
rated on a liberal—conservative continuum. Results of the one way analysis of variance among these institutions showed a statistical significance level of .005 being attained with the greatest amount of stress seen at the more conservative colleges. The two colleges at the opposite ends of the continuum were compared by means of a t test showing a significance level of .001.

A comparison of the activities of students at the five colleges showed church attendance to be higher at the more conservative colleges. At the more liberally rated colleges activist participation, alcohol use, "pot" use and heterosexual activity were seen to be higher. Homosexual activity and the use of LSD were more nearly similar at all the institutions. Chi Square analyses of these activities, given in Table 6, between the most liberal and the most conservative colleges showed significance levels in all these activity area differences ranging from .10 to .001.

When the reasons for selecting a particular college were examined the only particularly noteworthy difference seen was the comparatively high percentage of students selecting the conservative colleges because of their church affiliation, ranging from 0% to 52% as seen in Table 7. In examining the changes recommended for their colleges by students it was seen that over twice as many at the liberal colleges wanted a further liberalization of social rules compared with the conservative colleges with the percentage descending from 71% to 22% as was
seen in Table 8.

In looking at the differences in areas of stress the liberal college student was seen to have more stress in the institutional stress area than the student at the conservative college as was shown in Table 9. In the areas of personal goal, parental relations, socialization and self confidence stress the students at the more conservative college were seen to have the greater stress. In some instances the differences approached 20%.

Role stress mean scores were also examined on the basis of self-reported activities or role status within sub groupings. Only the areas of church attendance and activist participation showed little differentiation, with significance levels at .75. The greatest difference was seen in the area of grade point average where the .001 level of statistical significance was reached. The groups here reporting low grade point averages showed the highest mean stress scores. However, an increase in stress was seen among those students achieving a grade point average above the 3.50 level.

Other comparisons of role stress among sub groups were made in the areas of "pot" usage, homosexual activity, by class, according to type of residence, by sex and by the students' marital status. Here statistical levels of significance attained varied from the .025 level to the .25 level.

Finally, when the church related college sample was compared with a sample taken from a large university a t-test showed a statistical difference at the .10 level, with stress
higher at the university. Table 20 summarizes the statistical results of the F and t analyses given herein.

**TABLE 20**

Summary of statistical analyses showing significance levels attained when comparing role stress scores of varied groupings of students taking the College Student Role Questionnaire

<table>
<thead>
<tr>
<th>Test</th>
<th>Description of Groups Compared</th>
<th>F or t Significance Level, p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Comparison among colleges A, B, C, D, E.</td>
<td>.005</td>
</tr>
<tr>
<td>t</td>
<td>Comparison between college B, rated the most liberal, with college D rated the most conservative by the judges.</td>
<td>.001</td>
</tr>
<tr>
<td>F</td>
<td>Comparison of non-activist students with students ranging from never to always participate in demonstrations.</td>
<td>.75</td>
</tr>
<tr>
<td>F</td>
<td>Non-users of &quot;pot&quot; compared with &quot;pot&quot; users ranging from never to always.</td>
<td>.20</td>
</tr>
<tr>
<td>F</td>
<td>Comparisons of stress means based on church attendance ranging from never to always.</td>
<td>.75</td>
</tr>
<tr>
<td>F</td>
<td>Comparison based on degree of homosexual activity based on a scale ranging from never to often.</td>
<td>.20</td>
</tr>
<tr>
<td>t</td>
<td>Sophomores compared with juniors.</td>
<td>.05</td>
</tr>
<tr>
<td>F</td>
<td>Comparison of stress among students living in conventional, coeducational and off-campus housing.</td>
<td>.20</td>
</tr>
<tr>
<td>t</td>
<td>Males compared with females.</td>
<td>.25</td>
</tr>
<tr>
<td>t</td>
<td>Married compared with single students.</td>
<td>.025</td>
</tr>
<tr>
<td>F</td>
<td>Comparison based on college GPA attained.</td>
<td>.001</td>
</tr>
<tr>
<td>t</td>
<td>Church related colleges A, B, C, D and E compared with a university sample F.</td>
<td>.10</td>
</tr>
</tbody>
</table>
CHAPTER V

CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

Conclusions

It may be concluded from this study that an instrument, the College Student Role Questionnaire, was devised and effectively used to measure role stress among college students with the high reliability correlations and thorough content and face validity feedback lending credence to this conclusion. However, a continual revision of this type of instrument is suggested due to today's rapidly changing society. For example, questions dealing with "pot" usage or participation in anti-war demonstrations may well be outdated by this time next year. Continual feedback on the instrument from students, faculty and administrators should be obtained to facilitate the relevancy of the CSRQ.

It may further be concluded that role stress is significantly greater among students at the more conservative, church related college than at the liberal, church related college. It would likewise appear that a liberalization within the college will result in less role stress among its students. However, this conclusion must be tempered with caution, in that stress was seen to vary among the schools within specific areas, implying that a future study might concentrate on such specific areas as institutional or social stress or clusters of items from the CSRQ in order to obtain a clearer picture of the differences among the colleges. This was done in the
present study to a degree through the comparison of selected items from the institutional, personal goal, parental relations, socialization and self confidence stress categories.

The study showed differences in mean stress scores existing within sub groupings which could be further explored. In this area significant statistical differences were recorded in mean stress scores with married students experiencing less stress than single students, with juniors showing less stress than sophomores, and with students achieving at higher levels based upon college grade point averages showing less stress than those at lower levels. While this is not surprising it does point out to college student personnel workers certain areas demanding more of their attention due to varying levels of stress.

Other analyses should also be considered due to the levels of significance which were attained. For example, there was a marked difference in stress score means between students reporting they "always" use "pot" and those reporting they "never" use "pot" with a great deal more stress showing up among those who "always" use "pot" even though the statistical level of significance attained was only .20. These areas of comparison could also be the subject of a future study. Another example worth noting was the analysis of stress means based upon the grouping of students according to their level of participation in demonstrations against their college, with the stress mean decreasing as the level of activism rose. This observation implies such "letting off of steam" in this or more acceptable ways could be useful in reducing stress among students.
Finally, it was seen that little difference in stress was found between students at five church related colleges and students at the college of education from a large university. This is contrary to the position of some authors who feel stress is higher at the liberal arts colleges. It may be implied from this observation that stress among students is universal and that future studies may well include other types of higher education institutions.

Limitations

The present study was limited by the very nature of the population selected to sophomores and juniors at church related, liberal arts colleges located in the midwest. Whereas the study did give a picture of the activities of these students and the role stress they undergo these results may only be inferred to similar populations at similar institutions. While the sample was stratified and randomly selected as far as possible, it could have been larger and also have included freshmen and seniors to give the whole picture of the colleges under study. Future studies may want to look at these classes. The instrument itself was a limiting factor in that it was in the exploratory stage and should be continually revised. It must also be noted that college C may have been misplaced by the judges on the liberal--conservative continuum due to the recent liberalizing of social rules reported by students currently attending that institution.
Implications

This study would tend to confirm that segment of the literature to the effect that there is less stress inherent among students in the more liberal college setting. It further tends to confirm literature to the effect that differences exist among colleges even though they might appear on the surface to be quite similar. This was seen in the differences found between the overall mean stress scores of the students attending the varied colleges and in looking at areas of stress within sub groupings which also reflected differences among the colleges.

This work shows that a continuing investigation of role stress among students may be helpful to the colleges in showing them what the students report to be areas of stress and in helping them learn more about their student bodies and how they, the colleges, are viewed by their students. This knowledge would be based upon the activities the students would ideally like to be engaged in and what they are actually doing with the difference showing the stress. Many traditional activities and requirements may be seen to be not only outdated but also undesirable from the student's viewpoint.

An instrument such as the CSRQ if used by college officials can be helpful in keeping the institution informed of what is actually going on within their student bodies, where problem areas may be and where the college faculty and student personnel workers might best concentrate their time and efforts in working with the students. Several facets of this study would also seemingly point
out the need for counseling services where students under great stress, such as seen among homosexuals and heavy "pot" users, could turn for completely confidential, professional, personal counseling.

In summation future research using the CSRQ could utilize broader samples, test different types of populations and concentrate on specific areas of stress showing up a result of the testing. Other research could also explore more deeply the relationship of the activities the students report engaging in with stress scores and the type of institution under investigation. Finally, it is suggested that the instrument be continually revised to keep up with the changing times.
REFERENCES


Adams, H. L. "What's the younger generation coming to?" Improving College and University Teaching, 1969, 27, 151-152.


Baur, E. J. Achievement and role definition of the college student. Lawrence, Ks: University of Kansas, 1965.


Chamberlain, P. S. "Obstacles to change in the university." NASPA Journal, 1970, 8, 29-34.


Educational Testing Services. College Student Questionnaire (CSQ). Princeton: Author


Faculty Senate. Faculty Questionnaire. Kalamazoo, Michigan.: Western Michigan University, 1970.


Hodgkinson, H. L. "How deans of students are seen by others and why." NASPA Journal, 1970, 8, 49-54.


Kauffman, J. F. "New challenges to student personnel work" NASPA Journal, 1970, 8, 12-16.


Lanning, W. L. Perceptions in counseling and supervision as they are related to two types of counseling supervision. Doctoral dissertation, Western Michigan University, 1970.


"Less college for more people." Time, December 7, 1970, 60.


Richardson, T. H. "Student beliefs and values." *School and Society*, 1969, 97, 94-95.


Note to references: All references to the various college handbooks and questionnaires utilized have been deliberately omitted from this listing of references. This was done to protect the anonymity of the college participating in the study per prior agreement with their administrative officials.
COLLEGE STUDENT ROLE QUESTIONNAIRE

Please fill in the blanks below. Do not put your name on this questionnaire. All questionnaires will be kept in strict confidence. College officials will not have access to your individual answers.

Class, Sophomore __  Junior ____  Birth Date _____________________________
                  Month    Day    Year

Residence, Coeducational Hall ____ Conventional Hall ___ Town or other ___

Sex, Male ___ Female ____ Married, Yes ____ No ____ Major _____________

High School Grade Point ______ College Grade Point (Current Average)____

Reason for selecting this college__________________________________________

________________________________________

PLEASE CAREFULLY READ THE DIRECTIONS FOUND ON THE FOLLOWING PAGE,

THEN PROCEED WITH THE QUESTIONNAIRE.

THANK YOU!
DIRECTIONS

Mark your answers with an "X" in both the ACTUALLY and IDEALLY sections, depending, first upon your actual or real participation or how a situation actually is, and then in the IDEALLY section dependent upon what you ideally would want to do or how you would desire that particular situation to be. Work as rapidly as possible, for normally your first impression is your most honest answer. Thirty minutes should be ample time for answering all the questions. Remember, ACTUALLY describes the situation or participation as it now is, and IDEALLY describes the way you would envision it under the most favorable circumstances, whether you feel it to be possible or not.

EXAMPLES:

<table>
<thead>
<tr>
<th>ACTUALLY</th>
<th>IDEALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEVER</td>
<td>NEVER</td>
</tr>
<tr>
<td>RARELY</td>
<td>RARELY</td>
</tr>
<tr>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>OFTEN</td>
<td>OFTEN</td>
</tr>
<tr>
<td>ALWAYS</td>
<td>ALWAYS</td>
</tr>
</tbody>
</table>

a. I participate in card games on campus

(Here you might actually never participate in card games on campus, whereas ideally you might desire to play cards often. Therefore an "X" is placed in the never column under ACTUALLY. Then another "X" is placed in the often column under IDEALLY. Be sure you always mark two answers for each question.)

b. Professors here are interested in the individual student as a person.

(Here is an example showing a situation of agreement in both sections, as you might feel the professors are always interested in you as a person and ideally this is the way it should be under the most favorable circumstances, so always is marked again under IDEALLY.)
1. I express my complaints to college authorities.
2. I am able to take the courses I want.
3. I participate in extra-curricular activities on campus.
4. I respect my parents.
5. I date.
6. I adhere strictly to the honor system.
7. I spend my weekends studying.
8. I work in local, state or national political campaigns.
9. I discuss my personal problems with my parents.
10. I work for change within this institution.
11. I participate in the decision making process regarding student activities and services.
12. I meet my financial obligations, large or small.
13. I enjoy creative work through painting, writing or some form of music.
15. I am satisfied with my present philosophy of life.
16. I help other students who are in difficulty.
17. I report honor system violators

18. I attend special lectures or speeches on campus which are not required.

19. I am deeply concerned about the Viet Nam war.

20. I ask professors for help or advice after class.

21. I participate in organizations such as "Head Start," "CLEAN," the Red Cross or the NAACP.

22. I am satisfied with my belief in God.

23. I work to help eliminate poverty, disease or racial prejudice in America.

24. I reach the goals I set for myself.

25. I openly criticize administrative policies.

26. I vote in student elections.

27. I smoke "pot."

28. I keep my room neat and clean.

29. I speak out in class.

30. I participate in "free university" offerings.

31. I use LSD or some other similar drug.
32. I have sexual relations with a member or members of the opposite sex.
33. I take a great deal of pride in my personal appearance.
34. I use alcohol.
35. I feel accepted at college.
36. I take personal problems to faculty members.
37. I use the services offered through the dean of students office.
38. I take pride in my residence hall and help keep it a nice place in which to live.
39. I participate in intramural athletics.
40. My parents and I agree on major issues.
41. I study and otherwise prepare for classes to the best of my ability.
42. I enter into groups for card games, singing, going to the movies, etc.
43. I find it easy to study in my living quarters.
44. I attend church services.
45. I have sexual relations with a member or members of the same sex.
46. I browse in the book store.
47. I discuss religious beliefs or issues with my peers.
48. I have the freedom I want in the residence halls.
49. I participate in the decision making process of this college.
50. I attain high grades.
51. I visit the library even when I have no particular reading or assignment to do there.
52. I enjoy residence hall life.
53. I participate in student government or campus politics.
54. I get plenty of exercise.
55. I engage in informal discussions on the campus, no matter what the topic.
56. I get along well with all members of my family.
57. I participate in demonstrations against some policy of the college.
58. I take part in cultural events on campus.
59. I participate in student or college sponsored social events.
60. I openly criticize teaching practices here.
61. Classes here are interesting and stimulating.
62. I find the social code reasonable and fair.
63. Residence hall regulations are reasonable and fair.

64. Health services offered on this campus are excellent.

65. College administrative officers are innovative and take the lead in proposing changes regarding student life.

66. The food service on campus offers excellent quality food and service.

67. Courses or voluntary seminars are provided that deal with problems of personal or social adjustment.

68. I receive courteous and understanding cooperation in my dealings with the dean of students office.

69. The financial aid office offers excellent service.

70. The college is aware of and concerned about the students' personal needs.

71. I feel judicial procedures on campus are fair.

72. I receive courteous and prompt attention in all dealings with the college business office.

The most important change, if any, I would recommend for this campus would be: ____________________________

______________________________

______________________________