Lycoming College

Department of Nursing

Honors Research Project

Stress Levels and Types of Stressors in Traditional and

Nontraditional Baccalaureate Nursing Students

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Abstract

Because students of all ages and developmental levels study in baccalaureate nursing programs, an exploratory and descriptive correlational study were performed to identify stress levels and types of stressors perceived by traditional resident, traditional commuter, and nontraditional nursing students. A demographic questionnaire and the Personal Assessment of Stress Factors for College Students (Bush, Thompson, & VanTubergen, 1985) was administered to 285 junior and senior baccalaureate nursing students from eight colleges across Pennsylvania. The 100-item instrument measured stress in four areas: Home and Community Factors, Academic Factors, Personal Factors, and Relationship Factors. Academic Factors, especially related to examinations, grades, and the academic workload, was the most stressful subcategory for all of the students. There were no significant differences between the total scores for the three types of students (p>.05). Differences were found in the items cited by traditional and nontraditional students as being the most stressful and in the scores for two subcategories. Nontraditional students cited "Balancing home and school responsibilities" and "Financial pressures" as being the most stressful, whereas both types of traditional students cited academic concerns, such as final examinations, test anxiety, and academic workload as being the most stressful. Traditional resident students scored significantly higher than nontraditional students in the Academic Factors and Relationship Factors (p<.01) subcategories. There were also two significant differences between traditional commuter and traditional resident students. In the Home and Community Factors subcategory, traditional commuters scored significantly higher than traditional residents, and in the Relationship Factors subcategory, traditional residents scored significantly higher than traditional commuter nursing students. The results show that although all of the students experienced a similar level of stress, there were distinct differences in the types of stressors, and areas perceived as stressful for the three types of students. Acknowledging and considering these differences is important for both nursing educators and students.

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Chapter I

Introduction

Nursing programs attract a wide variety of students, from the traditional student, who enters nursing school immediately after high school, to the nontraditional, middle-aged student who enters nursing school while working or raising a family. A recent survey by the College Board found that 6 million adults study for college credit each year, and that forty five percent of all undergraduate and graduate students are now over the age of 25. Of these adult students, fifty percent study full-time (Hirschorn, 1988).

Each developmental stage carries with it different stressors and life events. Traditional and nontraditional nursing students often do not seem to understand each other well, because each group feels they experience more stress.

Purpose and Research Questions

The purpose of this study is to explore the types of stressors experienced by generic baccalaureate nursing students, and to compare the differences in the levels of stress and types of stressors experienced by traditional and nontraditional nursing students.

The research questions for this study are as

follows:

1. What are the stressors perceived by generic baccalaureate nursing students?

2. What are the stressors perceived by nontraditional, traditional resident, and traditional commuter nursing students?

3. What is the relationship between the levels of stress perceived and the different types of nursing students?

Operational Definitions

stressors: stimuli which the individual perceives as challenging, threatening, or harmful as measured by the items on the Personal Assessment of Stress Factors for College Students (Bush, Thompson, & Van Tubergen, 1985).

generic: A nursing student in a baccalaureate program who is not already a registered nurse.

full-time: Carrying a courseload of at least 11 credits or 3 units in a semester.

nontraditional student: Any full-time generic baccalaureate nursing student who is at least 25-years-old, or a student at any age who is a spouse or parent.

traditional resident student: Any full-time generic baccalaureate nursing student under the age of

25 who is living on a college campus, and is not a
spouse or parent.

traditional commuter student: Any full-time
generic baccalaureate nursing student under the age of
25 who does not live on a college campus, but rather
commutes to college, and who is not a spouse or parent.

Assumptions and Limitations

The assumptions of this study were that the
students studied would answer the stress assessment
honestly and accurately, and that the instrument was
distributed or available to all junior and senior
nursing students at the participating schools. The
study is limited in generalizability to junior and
senior baccalaureate nursing students in Pennsylvania.

Significance of the Study

This study will help nursing students to better
understand the stressors experienced by their
classmates so that they may work together more
effectively, especially in group situations. This
research will assist nursing educators in identifying
stressors experienced by their students, and help them
to minimize these stressors for both traditional and
nontraditional students. The study may also assist
researchers and educators in creating stress management

and coping programs for their students. Hopefully, new

doors for research with traditional and nontraditional

nursing students will be opened.

This study was designed to explore stressors in

nursing students, and to compare any differences in the

levels of stress and types of stressors experienced by

traditional and nontraditional nursing students.

Nursing students experience much stress during their

years of education, with developmental tasks adding to

this stress. This chapter has presented the purpose,

research questions, operational definitions,

assumptions, limitations, and the significance of the

research to nursing. Chapter 2 presents the review of

literature and the theoretical framework used for this

study.

Chapter II

The review of literature explores the available
research on stress in nursing, allied health, and
nontraditional students, as well as college students in
general. The theoretical framework, also described in
this chapter, incorporates Lazarus' theory of stress
and coping, and developmental theories to explain how
stress may be perceived differently by traditional and
nontraditional nursing students.

Review of Literature

Past research on stress and nursing students is
limited. Carter (1982) compared stress and coping in
103 senior baccalaureate nursing students and 103
senior female liberal arts students. Using the SCL-
90R, a 90-item psychological symptoms checklist, the
study found that stress and coping in the two groups is
similar, with liberal arts students having more
difficulty using significant others as support in
stressful situations. One major difference between the
two groups was that the nursing students were older,
and therefore depended more on their children and
friends away from school for support.

Sobol (1978) studied 144 senior baccalaureate

nursing students, ages 20-30, to determine a
relationship between self-actualization and the
student's response to stress. Using Shostrom's
Personal Orientation Inventory to measure self-
actualization, and Spielberger's State Trait Anxiety
Inventory, Sobol found that the level of self-
actualization is a factor in the perception of events
as being stressful.

Beck and Srivastava (1991) showed that
baccalaureate nursing students experience high levels
of stress and are at risk for physical and psychiatric
illness. The researchers used Goldberg's General
Health Questionnaire (GHQ), which measures general
distress and minor psychiatric disorders, and the
Stress Inventory, which was created by the researchers
by combining and altering past stress scales. The
Stress Inventory, which included a qualitative question
asking students to describe a stressful event, and a
44-item stress scale, lacked a test of reliability.

The 94 subjects were broken down into groups based
on RN and generic student status for analysis. Generic
students in the first level nursing class scored
significantly higher than RN students ($p<.05$) on the
GHQ. Overall, RN students had lower scores on the GHQ

and Stress Inventory. Beck and Srivastava suggest
possible reasons for this may be that the RNs represent
an older age group, and may have better defined goals,
better problem-solving skills, and more financial
support, although they do tend to have more family and
job responsibilities. By the use of the Stress
Inventory, they found that the four highest ranked
stress items included: long hours of study,
exams/grades, lack of free time, and financial
responsibilities. Items of low stress included:
patient's attitudes toward nurses, roommates, dating,
and alcohol and drug use. The study also identified
that those students who work report more stress.

Parts of the Stress Inventory were based on the
tool used by Francis and Naftel (1983), who studied the
perceived sources of stress in physical therapy
students. This study, which sampled 77 students, found
that the areas related to academics, with examinations,
grades, quantity of classwork, long hours of study, and
lack of free time rated as most stressful. Drug and
alcohol usage was found to be among the least stressful
items.

Literature related to stress and nontraditional
nursing and college students is also limited. No

research could be located which specifically dealt with
stress and nontraditional nursing students. Anecdotal
literature identifies advantages and disadvantages of
being a nontraditional nursing student (Logic, 1984).
Logic, a nontraditional nursing student, identifies
several advantages of being an older student. Among
these she lists: no pull to date or socialize instead
of studying, being more organized, being more able to
adapt to different personalities of patients, and
having larger numbers of local acquaintances and
friends. She identified conflicts as extra school
responsibilities such as meetings, home life, emotional
stress, and less time for the family.

Yarbrough and Schaffer (1990), examined test-
related anxiety in 70 traditional and 59 nontraditional
college students. They hypothesized that there would
be no difference between the two groups, but to the
surprise of the authors, traditional students
experienced more test-related anxiety than
nontraditional students on the Test Anxiety Inventory,
and Test Anxiety Profile. No differences were found on
the State-Trait Anxiety Inventory. The authors suggest
that life experiences may reduce school and test
anxiety, as well as help nontraditional students to

develop more coping resources.

Nontraditional students are most often married and have family responsibilities outside of school. Staats (1983), in her study of sources of stress and happiness in 34 married and 34 single college students on a commuter campus, found no differences in levels of stress in the two groups, and identified family responsibilities and full-time jobs to be reasons for stress in both married and single students. Additional sources of school stress were related to financial concerns and grades.

Smallwood (1980) studied 392 adult women college students over the age of 25 at a community college in Texas. Using a questionnaire she developed based on research and input from adult college students, she found that the highest issue of concern was coordinating studies with child care and family responsibilities. Two other important concerns to the women were coordinating their job with studies, and knowing how to study efficiently.

Bush, Thompson, and Van Tubergen (1985), in the process of creating the Personal Assessment of Stress Factors for College Students, found that women had significantly higher scores than men, and that Academic

Factors created the most stress. This was followed by
Personal Factors, Relationships, and Home and Community
Factors respectively for both male and female students.
The top three stressors identified were "Final
examination week", "Test anxiety", and "Academic
workload". Mean stress level scores declined as age
increased, and commuters had lower stress level scores
than noncommuters. The summary of their findings
typified the student who experienced the least stress
as a married male, older than 31, who is a commuting
senior. And the student experiencing the greatest
stress as the single freshman woman, less than 21, who
does not commute.

In summary, the review of literature suggests that
nursing school for both traditional and nontraditional
baccalaureate students causes a considerable amount of
stress. The review also suggests that although college
is just as stressful for nontraditional students,
these students may have developed more advanced coping
skills and resources from life experience. Stress in
both groups of nursing students seems to come from
many varied academic-related sources. It is evident
that more research is needed in regard to stress and
nursing students, especially with the different age

groups and developmental levels that make up the
student nurse population.

Theoretical Framework

The theoretical framework uses Lazarus' stress
theory and developmental stage theories to describe the
stress phenomenon, and demonstrate how traditional and
nontraditional students may perceive sources of stress
differently.

The way in which stress is perceived varies for
each individual. Each developmental level seems to
carry with it different stressors, different ways of
perceiving stress, and different coping mechanisms.
When stress is viewed positively, there is potential
for growth and pleasurable emotions may result (Lazarus
& Folkman, 1984). When stress is viewed negatively, it
can cause considerable harm for an individual. High
levels of life stress are known to contribute to
physiological and psychological changes in health
(Dohrenwend & Dohrenwend, 1981). Selye (1976)
discusses diseases of adaptation which result from
errors in our adaptive responses to stress.

While there are many theories of stress, this
research uses the theory of Richard Lazarus as a

framework. Lazarus views the stress experience as two
interacting processes: appraisal and coping (Holroyd &
Lazarus, 1982). Stress requires "a judgement that
environmental and/or internal demands tax or exceed the
individual's sources for managing them" (Holroyd &
Lazarus, 1982, p. 22). This appraisal gives stress
meaning for the individual. The appraisal process
considers two evaluative processes, primary appraisal
and secondary appraisal (Lazarus & Folkman, 1984).
Primary appraisal answers the question, "Am I okay or
in trouble?" and secondary appraisal answers, "What can
be done about the situation?"

The primary appraisal is an evaluation of an
experience as irrelevant, positive, or stressful. If
the experience is viewed as stressful, it is then
appraised as a threat, harm-loss, or challenge. Threat
implies anticipation of harm, and harm-loss refers to a
judgement that damage is already done. Challenge not
only implies that the stressor has the potential for
harm, mastery, or gain, but also that the individual
has control over the outcome. Challenge is
characterized by pleasurable emotions, such as
excitement (Lazarus & Folkman, 1984).

The secondary appraisal refers to an evaluation of

what might and can be done, and is influenced by past experience, beliefs, and personal or environmental resources (Lazarus & Folkman, 1984). This appraisal of coping may or may not be rational to an observer depending upon the circumstances. The consequences of appraisal, therefore, are unique for each individual and depend on the context in which the appraisal occurs.

Coping refers to "efforts to manage environmental and internal demands and conflicts among demands" (Holroyd & Lazarus, 1982, p. 24). Coping also is individual, and those faced with stressful circumstances often use more than one coping response. Lazarus and Folkman (1984) suggest that as sources of stress in living change with the stage of life, coping changes in response.

Nursing students experience much stress, but the ways that they perceive this stress may vary from individual to individual. Some may view a stressor as a threat; others may view this same stressor as a challenge. In addition, students may have different coping responses to call upon in stressful situations. As indicated by the literature, older, nontraditional students may have developed better coping mechanisms

which help them to better cope with some of the stressors of nursing school.

When stress, coping, and individual differences are discussed, it is important to consider the developmental level of the individual, as Lazarus suggests. It seems that the developmental level of traditional and nontraditional students may have a significant influence on the way in which stress is perceived. The theories of Erik Erikson (1963), Robert Havighurst (1976), and Daniel Levinson (1978) are used to describe the developmental levels which may influence the different types of students.

Erikson (1963) was one of the first theorists to establish developmental stages for the entire life span. His eight stages of psychosocial development present conflicts which are the central focus during each of the different age levels of life. Successful resolution of the developmental tasks support the person's ego identity, and gives him the ability to successfully cope with the next developmental crisis. Erikson stresses that "it must not be imputed that our outline of the psychosocial schedule is intended to imply obscure generalities concerning other aspects of development -or indeed existence" (p. 270). His stages

present us with a general view of the normal life span

progression, but are by no means inclusive in

themselves.   Instead, the passage from one stage to the

next is gradual, and often stages overlap.

Traditional students, ranging in age from about

18-24, seem to be near the end of the adolescent stage,

and entering the young adulthood stage.   In identity vs

role confusion, individuals are striving to form an

identity.   This identity is a sense of sameness between

one's self-concept and how one appears in the eyes of

others.   Identity also implies that there is a

continuity with identities formed in the past, as well

as the promise of a career.   In role confusion, the

individual has personality confusion, doubt about

sexual identity, and the inability to settle on an

occupational identity.

Havighurst (1976) suggests eight developmental

tasks of adolescence which support the individual's

identity.   They are as follows: achieving new and more

mature relations with agemates of both sexes; achieving

a masculine or feminine social role; accepting one's

physique and using the body effectively; achieving

emotional independence from parents and other adults;

preparing for marriage and family life; preparing for

an economic career; acquiring a set of values and an

ethical system as a guide to behavior; and desiring and

achieving socially responsible behavior. Many

traditional students seem to be working on these tasks.

The traditional student may have temporarily delayed

entering the young adulthood stage by going to college.

Levinson (1978) in his book The Seasons of a Man's

Life, which is an account of the life-cycle changes

experienced by forty men, describes The Early Adult

Transition (age 17-22), a developmental bridge between

adolescence and early adulthood. In this stage the two

major tasks are separating from the family of origin

and initiating early adulthood by learning more about

oneself and the world. College, he says, assists with

this task.

Older traditional students as well as young

nontraditional students, having formed an identity,

then enter Erikson's young adulthood stage of intimacy

vs isolation. In this stage, the person strives to

form an intimate relationship with another, and to make

a commitment to work and other relationships. Intimacy

refers to the "capacity to commit himself to concrete

affiliations and partnerships and to develop the

ethical strength to abide by such commitments, even

though they may call for significant sacrifices and compromises" (Erikson, 1963, p. 263). The positive outcome of this stage is love. If intimacy is not achieved, by the avoidance of contacts which commit to intimacy, the person becomes isolated. Students who get so involved in school work that they do not have time for others are isolating themselves.

Havighurst (1976) describes the tasks of early adulthood: selecting a mate, learning to live with a marriage partner, starting a family, rearing children, managing a home, getting started in an occupation, taking on civic responsibility, and finding a congenial social group. He stresses that this time can be both lonely and egocentric. Levinson's (1978) comparable stage is Entering the Adult World, where man must balance exploring alternative options and creating a stable structure regarding occupation, love relationships, life style, and values. Traditional students in this stage are concerned with finding a marriage partner and starting a career. Nontraditional students in this stage often have the stress of coping with a new, young family.

Many nontraditional students are in the middle adulthood stage of generativity vs stagnation. In this

stage there should be creativity, productivity, and concern for others. Generativity is the concern in guiding the next generation, especially one's own children. The positive outcome of this stage is care. The opposite of this generativity is stagnation, where the person becomes absorbed in himself, and feels personal impoverishment.

Havighurst (1976), suggested that the tasks of middle adulthood are to assist children to become responsible and happy adults; achieve adult social and civic responsibility; to reach and maintain satisfactory performance in one's occupational career; develop adult leisure time activities; to relate to one's spouse as a person; accept and adjust to physiological changes; and adjust to aging parents.

Levinson describes the Age Thirty Transition, which is usually a crisis time where one has difficulty working on developmental tasks and has a feeling that he just cannot go on. After this there is the Settling Down period, where man tries to establish a niche in society, and he strives for progress and advancement. This stage is followed by the Midlife Transition at about 40-45 years, which is often another crisis period, where man evaluates himself and his

accomplishments. Once this crisis is completed, man enters Middle Adulthood, and forms a new life structure. It is during the crisis periods described that a person may decide to change careers and return to school.

Stressors and how stress is perceived, may differ at each developmental level. The factors of relationship building and fears of fitting into the working world, on top of academic concerns, cause considerable stress for young adult, traditional students who may still be working to form an identity. Nontraditional students generally have more stable relationships, but have the stressors of family and work commitments added to the stress of school. In nursing classes where traditional and nontraditional students learn together, an additional stressor can be understanding how our counterparts appraise and cope with stressful situations.

Because nursing students at all developmental levels experience a considerable amount of stress, it is important to explore sources of stress and compare levels of stress in traditional and nontraditional nursing students. This chapter has described past research on nursing students and stress, as well as the

limited studies relating to nontraditional students.
This chapter has also defined a theoretical framework
using Lazarus's stress theory and developmental
theories. Chapter three describes the methodology used
to determine the levels of stress and types of
stressors in traditional and nontraditional nursing
students.

Chapter III

Methodology

With the review of literature and theoretical framework in mind, the design, instrumentation, and treatment of data are presented for the purpose of answering the research questions:

1. What are the stressors perceived by generic baccalaureate nursing students?

2. What are the stressors perceived by nontraditional, traditional resident, and traditional commuter, nursing students?

3. What is the relationship between the levels of stress perceived and the different types of nursing students?

Design. An exploratory design was used to identify the most common stressors of generic baccalaureate nursing students in general, as well as for traditional and nontraditional students. A descriptive correlational study, the purpose of which "is to describe the relationship among variables rather than to infer cause-and-effect relationships" (Polit & Hungler, 1991, p. 181), was performed to determine if

there is a difference between the levels of stress in traditional and nontraditional nursing students. The Personal Assessment of Stress Factors for College Students (Bush, Thompson, & Van Tubergen, 1985) and demographic data were used to compare the levels of stress in the two groups, and to identify the types of stressors experienced by the students.

The population consists of full-time generic junior and senior baccalaureate nursing students from across Pennsylvania. A random sample of 20 baccalaureate nursing programs were selected to be contacted for inclusion in the study. The chairpersons or deans of these programs were contacted by letter (see Appendix A) asking them to return an enclosed postcard stating: their intention to have their school participate in the study; a faculty contact to receive and administer the instruments; and the number of junior and senior nursing students in their program.

Thirteen schools responded, with eight indicating a willingness to participate, and one asking for a proposal to be sent to their research review committee. Because of time limitations, a proposal was not sent to this school. A total of 597 surveys were mailed out with instructions for administration and return.

Postage was included for ease of returning the surveys. There were 285 surveys returned, a return rate of 48%. One school did not return any surveys.

The subjects ranged in age from 19-46, 74 were nontraditional, 101 were traditional residents, and 78 were traditional commuter students. Twenty one students were males, 165 were commuters, and 59 had one or more children. The instrument was completed by 133 juniors, 134 seniors, and 13 sophomore students. All sophomores, RNs, and those with less than 11 credits were eliminated for data analysis. A detailed report of the demographic data of the sample can be found in Appendix B.

The rights of the subjects were protected by means of informed consent. Consent was implied by the student's completion of the stress assessment. This study carried minimal risk for the participants. A letter stating the purpose, requirements, benefits, rights of voluntary inclusion in the study, confidentiality, and the right to withdraw was included with each stress assessment, and was available for the student to keep for future reference (see Appendix A).

Instrumentation. The Personal Assessment of Stress Factors for College Students, a 100-item

instrument, was used for this study (see Appendix A).
The instrument asks students to evaluate stressors in
the categories of Home and Community Factors, Academic
Factors, Personal Factors, and Relationship Factors.
The instrument was chosen because it presented itself
as more comprehensive, and easier to understand and
administer than most instruments which measure stress
in college students. Merita Thompson, a developer of
the instrument and a member of the health education
department at Eastern Kentucky University, was
contacted by telephone to obtain a copy of the
instrument, and permission for its use.

The instrument is administered by having the
students rank the perceived stress of items appearing
on the form which they have experienced in the past
year, on a 1-5 scale. A score of one indicates the
stressor was present, but no stress was perceived, and
five indicates very high stress was perceived.

Scores assigned to the responses are added to
calculate a total test score. Totals are also computed
in each subcategory. Zero is assigned to items left
blank or marked with a one. Two, three, four, and five
points are assigned to those stressors marked two,
three, four, and five respectively.

Content validity of the instrument has been
established (Bush, Thompson, & Van Tubergen, 1985).
The instrument was carefully constructed over four
years, using over 1200 students from 23 universities in
21 states as subjects. The subjects who completed the
instrument differed in age, residence, and marital
status. Other tests for measuring stress in college
students were carefully reviewed, and students in
college health classes were used as a primary source in
identifying sources of stress for the items on the
assessment.

Reliability was established by determining
internal consistency, which concerns how similar
different subparts of an instrument are in measuring
stress in college students. Some reliability is
inherent due to the length of the instrument. Polit
and Hungler (1991) state, "other things being equal,
longer scales are more reliable than shorter ones" (p.
371). The authors established reliability using the
Spearman-Brown formula for reliability, with r=0.84, an
acceptable value for this correlation.

Pilot Study. A pilot study, which was done to
test the design, revealed that only a few changes in
methodology were needed. A convenience sample of 28

junior and senior nursing students from a small liberal
arts school in Northcentral Pennsylvania were studied.
Twelve students were nontraditional, eleven were
traditional, and five did not fit into either category.

Academic Factors, such as "Test anxiety",
"Academic workload", and "Final examination week" were
found to be the most stressful for students in this
sample. Academic Factors was the highest ranked
subgroup and "Balancing home and school
responsibilities", as well as "Financial pressures"
were significant stressors for nontraditional students.
For traditional students, Personal Factors was the
highest ranked subgroup, and "Making plans for my
future", as well as "Sleeping habits" were significant
stressors.

Traditional students had a higher mean stress
level score, but the difference in the mean score was
not significant at the .05 level using the Mann-Whitney
U test. Mean stress scores were compared for each of
the four subcategories. The only significant
difference between the two groups was in the
subcategory of Personal Factors, where traditional
students had a significantly higher mean score than
nontraditional students at the .05 level.

Students under age 25 who were commuters were treated separately. Because in the pilot study a number of their stress levels and types of stressors were different from traditional and nontraditional students, this group of traditional commuter students were analyzed separately and compared to the two other types of students.

Also as a result of the pilot, the instrument was redesigned with lines in front of each factor for ease of use by the subjects, and the following open-ended statement was added, "Please list any factors which cause stress for you that were not included on this list." This statement makes the instrument more individualized, and was designed to help identify significant stressors specific to traditional and nontraditional nursing students, which may not have been included in the instrument.

Treatment of Data. All of the data was coded for analysis on the BMDP statistical package. Missing data was left blank in the data file. Thirty-one subjects were eliminated from the data analysis because they reported being an RN, being a sophomore, or carrying less than eleven credits during the semester. In accordance with the operational definitions,

nontraditional students were identified by an age greater than or equal to 25; a marital status of married, divorced, or widowed; or having at least one child. Traditional resident students were identified by as being under 25, single, and living on campus, and traditional commuter students were identified as being under 25, single, and living off campus.

Descriptive statistics, such as means, frequencies, standard deviations, and ranges were used to describe the stressors, scores for the subcategories, and total stress level scores for the entire sample. Frequencies and means were also used to describe scores and stressors for traditional resident, traditional commuter, and nontraditional students. The one-way analysis of variance (ANOVA), and the Tukey studentized range method were used to analyze the differences among the three types of students with respect to total mean stress level scores and mean scores for each subgroup. The chosen level of significance was .05.

This chapter has presented the methodology, including the design, instrumentation, pilot study, and treatment of data used to explore the types of stressors and differences in stress levels in

traditional and nontraditional nursing students.

Chapter four presents the findings for each research

question that was studied.

Chapter IV

Results

Question 1. What are the stressors perceived by generic baccalaureate nursing students?

Table 1 ranks the mean scores in the subcategories for all subjects. The subcategory of Academic Factors was perceived as causing the most stress in the sample. This was consistent with the top three items, "Test anxiety", "Academic workload", and "Final examination week", reported in Table 2. Table 2 reports the items cited as a source of stress (assigned a score of 2 or higher) by at least eighty percent of the subjects. These three items were also perceived to be the most intense stressors, as is shown in Table 3. Table 3 lists the five stressors with the largest mean score for the 100 items.

These findings, which indicate that Academic Factors, such as tests, finals, academic workload, and grades are the most stressful, is consistent with the findings of Bush, Thompson, and VanTubergen (1985), who studied university students in general; Francis and Naftel (1983), who studied physical therapy students; and Beck and Srivastava (1991), who studied baccalaureate nursing students.

Table 1

Sample Mean Scores for Subcategories and for the Total

Test

Subcategory	mean	SD	range
1. Academic Factors	43.8	19.1	4-104
2. Personal Factors	36.6	20.8	0-105
3. Home and Community Factors	32.4	13.7	2-76
4. Relationship Factors	26.6	18.4	0-77
Total Score	139.4	60.9	24-326

Table 2

Items Cited By At Least 80% of Students as a Source of

Stress

Item	% cited as stressor
Test anxiety	96
Academic workload	94
Final examination week	93
Financial pressures	90
Managing time and schedule	84
Grades received	83
Making plans for my future	83

Table 3

Rank Order of Items According to Perceived Intensity of

Stress for All Students

Item	mean
1. Final examination week	3.82
2. Academic workload	3.59
3. Test anxiety	3.49
4. Financial pressures	3.45
5. Managing time and schedule	3.02

Table 4 reports items cited by less than ten

percent of the students in the sample. "Decisions

about or problems with drugs", which does not include

problems with alcohol or tobacco, was cited least

frequently. This is consistent with the past research

mentioned above.

Table 4

Items Cited By Less Than 10% of Students as a Source of

Stress

Item	% cited as stressor
Decisions about or problems with drugs	3
Death of parent	4
Divorce or remarriage of parent(s)	4
Violation(s) of the law	4
Selecting or changing a major	6
Change in schools	6
Incidences of discrimination	9

Question 2. What are the stressors perceived by nontraditional, traditional resident, and traditional commuter nursing students?

Table 5 ranks the mean score for degree of stress reported for each item and frequencies to show that the items perceived as being the most intense stressors are also those that were cited most frequently as sources of stress. The only exception to this was three items for traditional residents which were cited by 82% these students, that did not have a mean score revealing the item as a significant source of stress. The items are "Expectations of parents", "Beginning of a semester", and "Managing to exercise or worrying about not exercising".

Developmental differences are reflected by the results shown in Table 5. For nontraditional students, the two most intense stressors were "Financial pressures" and "Balancing home and school responsibilities". Both traditional resident and traditional commuter students scored highest in academic items, with financial concerns following. Both types of traditional students cited "Making plans for my future" as an item perceived as causing considerable stress.

As many as four subjects had no marks on the last page of the instrument. Because the front page, which included the first two subcategories, was completed by these subjects, it was assumed that they did not turn over the paper to complete these sections. As a result, these students were eliminated from the data analysis for the subcategories Personal Factors and Relationship Factors. The footnote to Tables 5 and 6 indicate this.

Table 5

Frequencies and Rank Order of Items According to
Perceived Intensity of Stress by Type of Student

Ranked item	mean	frequency
Nontraditional ($\underline{n}$=74)		
1. Financial pressures	3.68	92%
2. Balancing home and school responsibilities	3.47	88%
3. Academic workload	3.34	92%
4. Final examination week	3.32	88%
5. Managing time and schedule	3.21	88%
6. Test anxiety	3.18	92%
7. Beginning of a semester	2.57	78%
8. Sleeping habits	2.51	79%
Traditional Resident ($\underline{n}$=101)		
1. Final examination week	4.19	97%
2. Academic workload	3.84	96%
3. Test anxiety	3.66	98%
4. Financial pressures	3.26	88%
5. Managing time and schedule	3.16	86%
6. Making plans for my future	3.02	88%
7. Competitiveness for grades	2.71	83%
8. Grades received	2.70	85%
9. Putting off assignments or responsibilities	2.68	79%
10. Dealing with emotions	2.64	79%
11. Teaching methods of instructors	2.63	84%
12. Oral presentations	2.55	75%
Guilt for not doing better	2.55	78%
13. Sleeping habits	2.53	80%
Traditional Commuter ($\underline{n}$=78)		
1. Final examination week	3.82	94%
2. Test anxiety	3.58	97%
3. Financial pressures	3.50	91%
4. Grades received	2.88	87%
5. Making plans for my future	2.87	85%
6. Balancing home and school responsibilities	2.82	86%
7. Managing time and schedule	2.66	79%
8. Managing to exercise or worrying about not exercising	2.55	79%

Note. The sample sizes reported may differ by 1 or 2
subjects because some instruments were not
completed correctly on 1 or 2 subcategories.

Table 6 ranks the subcategories by means for each
type of student. Academic Factors is the highest
ranked subcategory for all three types of students.
Personal Factors is ranked second for both
nontraditional and traditional resident students, but
for traditional commuter students, Home and Community
Factors is the second highest ranked subcategory.
Table 6 also reports the mean total test scores for
each type of student. Traditional resident students
have the highest score, followed by traditional
commuter and nontraditional students respectively.

Table 6

Mean Scores for Subcategories and the Total Test by

Type of Student

Subcategory	mean	SD
Nontraditional (n=74)		
1. Academic Factors	40	18
2. Personal Factors	37	21
3. Home and Community Factors	31	13
4. Relationship Factors	21	17
Total Score	129	60
Traditional Resident (n=101)		
1. Academic Factors	47	19
2. Personal Factors	38	19
3. Relationship Factors	32	18
4. Home and Community Factors	31	12
Total Score	149	56
Traditional Commuter (n=78)		
1. Academic Factors	43	19
2. Home and Community Factors	36	15
3. Personal Factors	34	21
4. Relationship Factors	25	19
Total Score	137	66

Note. The sample sizes reported may differ by 1 or 2
subjects because some instruments were not
completed correctly on 1 or 2 subcategories.

Question 3. What is the relationship between the levels of stress perceived and the different types of nursing students?

Tables 7-11 contain the ANOVAs for comparing mean total scores and subcategory scores by the type of student. Table 7 shows that there is no significant difference between the total scores on the instrument between the three types of students.

Table 7

ANOVA for Comparison of Mean Total Scores

Source	DF	SS	MS	f-stat	p-value
Type of Student	2	16,821	8411	2.29	.104
Error	246	905,400	3680		

There is a significant difference at the .05 level between the student subcategory scores for Home and Community Factors, as shown in Table 8. Using Tukey's studentized range method, it was found that traditional commuters scored significantly higher than traditional resident students in this subcategory.

Table 8

ANOVA for Comparison of Mean Home And Community Score

Source	DF	SS	MS	f-stat	p-value
Type of Student	2	1287	643	3.49	.032*
Error	250	46,054	184		

*p<.05

Table 9 demonstrates a significant difference at the .05 level between the scores in the subcategory Academic Factors. Tukey's method revealed that traditional resident students scored significantly higher than nontraditional students in this area.

Table 9

ANOVA for Comparison of Mean Academic Score

Source	DF	SS	MS	f-stat	p-value
Type of Student	2	2246	1123	3.11	.046*
Error	250	90,150	360		

*p<.05

As is shown in Table 10, there were no significant differences between nontraditional, traditional resident and traditional commuter student scores in the Personal Factors subcategory.

Table 10

ANOVA for Comparison of Mean Personal Score

Source	DF	SS	MS	f-stat	p-value
Type of Student	2	892	446	1.03	.358
Error	246	106,376	432		

Table 11 demonstrates a highly significant difference between the scores in the subcategory Relationship Factors. At the .05 level, Tukey's method revealed that traditional residents scored higher than traditional commuters. At the .01 level, traditional resident students scored higher than nontraditional students.

Table 11

ANOVA for Comparison of Mean Relationship Score

Source	DF	SS	MS	f-stat	p-value
Type of Student	2	5324	2662	8.34	.0003*
Error	246	78,518	319		

*p<.05 and p<.01

Results of the open-ended statement. Twenty nine students responded to the statement at the end of the instrument, asking the subjects to list factors not appearing on the instrument which cause stress for the individual. Twelve of the students who responded were

nontraditional; seventeen were traditional. Most of
the results were individual, but there were a few
trends.

At one school, three subjects listed
discrimination against adult students as a stressor. A
few students reported stress caused by pregnancy or
young children. Two senior traditional nursing
students reported the NCLEX or state boards as being
stressful for them. Many of the responses mentioned
were related to various individual academic and
financial aid concerns.

Interpretation of Results

Academic Factors, especially those related to
examinations, were the most stressful for all generic
baccalaureate nursing students, regardless of age.
Because these results and the mean total stress scores
are similar to the study of all college students,
performed by Bush, Thompson, and VanTubergen (1985), it
appears that baccalaureate nursing students experience
the same amount of stress and types of stressors as all
other college and university students.

However, this instrument did not measure types of
stressors unique to nursing students, such as clinical

stressors. The responses of two students to the open-
ended statement, revealing the NCLEX examination as a
source of stress, is an example of a stressor unique to
nursing students. Therefore, more research is
necessary to completely explore the differences in
levels of stress and types of stressors between nursing
students and the general college student population.

Even though the subcategory Academic Factors
yielded the highest scores for the majority of the
baccalaureate nursing students, the wide range of total
scores (24-326) reveals that stress is perceived and
experienced differently by each individual, in
accordance with Lazarus' theory of stress and coping
(Lazarus & Folkman, 1984).

Traditional and nontraditional students perceive
sources of stress differently. Nontraditional students
perceive financial concerns and balancing home and
school responsibilities to be the most stressful. This
finding is consistent with Smallwood's (1980) study
with adult women college students, which concluded that
the highest issue of concern was coordinating studies
with child care and family responsibilities.
Developmental theories of young and middle adulthood
also support this result. In Havighurst's (1976)

stages, major tasks of young and middle adulthood include family life and raising children.

Financially, raising a family while going to school can be costly, especially if the family member attending college is not working or working only a minimal number of hours. Because this study did not explore the socioeconomic status of the sample, it is impossible to completely reveal the financial impact of school on these students.

Both traditional resident and traditional commuter students perceived academic related concerns, especially related to examinations, as being the most stressful. Traditional resident students scored significantly higher than nontraditional students in the Academic Factors subcategory.

This finding supports Yarbrough and Schaffer's (1990) study of test-taking anxiety in traditional and nontraditional college students which found that traditional students experienced the most test-taking anxiety. As suggested by these researchers, success with life experiences may help nontraditional students better cope with the stress of school.

Because traditional students, especially traditional residents, often do not have family

commitments outside of school, it seems logical that academic stressors would be the most stressful for them. Future research should focus on the study skills and amount of time spent by each student on studies to fully explore where these students need assistance.

Both types of traditional students cited "Making plans for my future" as being a source of stress. Considering the developmental tasks of traditional students described by Havighurst (1976), preparing for marriage, family life, and a career are important components of the development of this group of students. Nontraditional students probably have better defined goals for their future if they have decided to attend or return to school after pursuing another occupation.

Traditional resident students had the highest mean stress score on the total test, and traditional commuters had a higher mean score than nontraditional students. This is consistent with the trend in the study of Bush, Thompson, and VanTubergen (1985), which indicated that as age increased, stress levels decreased, and that commuters had lower stress level scores than noncommuters. Despite the differences in scores, there was no significant difference between the

total scores for the three types of students.

There are, however, significant differences between the scores in three of the subcategories. Differences in Academic Factors was discussed earlier. In the subcategory Home and Community Factors, traditional commuters scored significantly higher than traditional resident students. It seems that since the traditional commuters have more direct contact with their families on a day to day basis than resident students do, this finding is what one would expect. Traditional students who live on a college campus, and are away from home, can easily put the troubles of home and family life out of their minds. It would have been helpful to examine the types of locations where traditional commuters live, whether it be with their families or off campus with other students and friends. Because many of the items in this subcategory related to parents and family members, it seems probable that most of the traditional commuters in this sample lived at home with their families.

Traditional resident students scored higher than nontraditional students (p<.01) and traditional commuter students (p<.05) in the Relationship Factors subcategory. Developmental theories support the

finding of traditional residents scoring higher than nontraditional students. Relationships, especially relationships with peers, are very important to the traditional resident student who is forming an identity (Erikson, 1963). Havighurst (1976) describes the tasks of this stage as forming new and more mature relations with others.

Based on the developmental theories, it is odd that there were no significant differences between the scores in Relationship Factors for traditional commuter and nontraditional students. In this sample, traditional commuters resemble nontraditional students in the area of relationships. Perhaps the higher scores for resident students in this subcategory can be attributed to the items on the instrument such as "Roommate adjustments" and "Dormitory life adjustments".

Perhaps the result that traditional resident students scored higher than traditional commuters indicates that relationships on a college campus are perceived and handled differently than what they are off campus. Traditional resident students are in contact with their peers constantly, whereas commuters, once they leave the college campus, can isolate

themselves from their peers and agemates better. More research in the area of relationships in college and nursing students is needed to draw conclusions in this area.

This chapter presents the results of the study in relation to the three research questions proposed, exploring and comparing the stress levels and types of stressors in traditional resident, traditional commuter, and nontraditional students. These results, indicate that generic baccalaureate nursing students experience stress levels and sources of stress similar to the general college population, and that there are developmental differences between the levels and sources of stress perceived by traditional and nontraditional nursing students. Chapter five will discuss the conclusions of the study, the implications for nursing and education, and the dissemination of the findings.

Chapter V

Discussion

Conclusions. The purpose of this study was to explore the types of stressors perceived by generic baccalaureate nursing students, and to compare the levels of stress and types of stressors experienced by traditional resident, traditional commuter, and nontraditional nursing students.

With the increase in nontraditional nursing students studying for baccalaureate nursing degrees, it is important to make sure that the needs of this type of student are being met. At the same time, the needs of the traditional students must not be overlooked. Each type of student, traditional or nontraditional, commuter or noncommuter, experiences unique types of stressors.

Despite age or residency status, all baccalaureate nursing students find the academic rigor of college to be stressful. Nontraditional nursing students may need help learning to budget their time between home and school. Nontraditional students may have less time for studies and school activities, because they need to spend time at home with their families. If not enough time is spent at home, these students may begin to find

guilt feelings about neglecting their family as a
source of stress.

Traditional students may need additional help
coping with academic stressors. Also, traditional
resident students are struggling more with
relationships than the other two types of students.
These students need assistance in learning how to cope
with getting along with friends, roommates, and
boy/girlfriends. Traditional commuter students, on the
other hand, many of whom are still living with their
families, will need help in coping with parents, family
members, and the community in addition to academic
factors.

Despite the overall similarities in types of
stressors experienced by each type of student, it is
important to remember that stress is an individual
experience, and that appraisal and coping are unique
for each individual (Lazarus & Folkman, 1984). It is
also important to remember that each person
accomplishes the tasks of developmental stages
differently. It is possible that when an adult returns
to school they are experiencing a crisis period, or
perhaps regressing down the ladder of developmental
stages. All students should be treated with

consideration of their unique, individual differences.

Implications. This study provides implications for nursing, education, and nursing students. The results are important for nursing educators, because they reflect the unique stress levels and types of stressors for each type of student, as well as the fact that academics cause the most stress for their students. Test-taking, relaxation and time management skills should be taught early in the nursing curriculum so that examinations and the academic workload are less stressful. More research and consideration of the needs of nontraditional students are needed by educators in all disciplines.

Nursing students need to be aware of the differences in stressors among themselves in order to better tolerate these differences in their classmates. This study shows nursing students that there are no differences in the overall stress levels they experience, but, rather, that they experience stress in different areas. Instruction is needed in coping with stress, getting along with others, and appreciating individual differences. Support groups to discuss concerns pertinent to each type of student may be helpful.

It is necessary for nursing students to learn to get along with others, understand stress, and develop positive coping skills while still in school. Nurses who can use positive coping skills themselves will be able to help their clients use these skills, and will be able to get along with their colleagues better. Nurses who can manage their stress effectively are more professional, and are better able to improve nursing practice.

Dissemination of Findings. The results of the pilot study were presented to classmates and instructors in a Nursing Research class and to the members of Lambda Nu, Lycoming College's chapter of Sigma Theta Tau International Nursing Honor Society. The results of this research were presented at the 46th Annual Eastern Colleges Science Conference in Annapolis, Maryland, for the Senior Scholar Presentations at Lycoming College, and for the Lycoming College nursing faculty. It is also the intention of the researcher to submit the results of this study for publication in a nursing journal. A copy of this research will be kept on file at the Snowden Library at Lycoming College.

Appendix A

<u>Contact Letter, Consent Letter, Demographic Data
Questionnaire, and Instrument</u>

January 14, 1992

Dr.

Dear   ?   :

   I am a senior nursing student at Lycoming College working on
an honors project to continue my research of the stress levels
and stressors in traditional and nontraditional nursing students.
The research is aimed at helping students at different age levels
better understand the stressors experienced by their classmates,
as well as to assist nursing educators in understanding the
stress in their students. A pilot study of this project was
completed last semester at Lycoming College.

   Junior and senior nursing students at your school will be
asked to complete the 100-item instrument titled "Personal
Assessment of Stress Factors for College Students", created by
Herman Bush and Merita Thompson, as well as a brief demographic
questionnaire. These two should take approximately twenty
minutes to complete. A letter stating each student's rights and
responsibilities will accompany each questionnaire and
instrument.

   Because I am unable to visit your school to administer the
stress instrument, I am asking that a faculty member at your
school assist me. If the students at your school will be
participating in this research, please return the enclosed
postcard with the name of your school, a faculty contact person,
and the number of students who will be participating in the study
by January 29, 1991. When I receive your postcard, I will send
the materials to the faculty contact to be distributed to each
student.

   Results of the study will be available after May 1, 1992.
If you have any questions regarding this project, please do not
hesitate to call me at (717)-321-4408. Thank-you for your
assistance in this manner. I look forward to receiving a
response from your school.

                                   Sincerely,

                                   Kimberly Beck

Enclosure

Dear nursing student,

I am a senior baccalaureate nursing student at Lycoming College, Williamsport, PA, conducting a research study on stress levels and stressors in full-time BSN students.

The Personal Assessment of Stress Factors for College Students and demographic data questionnaire will take you approximately 20 minutes to complete. This research will help you to identify stress levels and stressors in your life, as well as help students and faculty to better understand the needs of baccalaureate nursing students.

Your participation in this study is completely voluntary. You have the right to withdraw from the study at any time. Confidentiality and privacy of you, the subject, will be of utmost importance. No reports of the study will identify individuals, and coding will be used to maintain privacy. If you have any questions or concerns about this study or your rights, please do not hesitate to contact me, Kimberly Beck, at (717) 321-4408. Your completion of the stress assessment will be taken as your consent to be a participant in the study. You may keep this page for future reference. Thank you for your participation in this research.

Sincerely,

Kimberly Beck

Please answer the following demographic questions.

1. Age:

2. Sex: Male   Female

3. Level in nursing program: Junior   Senior

4. Residence status: Commuter   Noncommuter

5. Marital Status:

   Married   Single   Divorced   Widowed

6. Are you already an RN?   Yes   No

7. How many credits are you taking this semester?

8. Do you work?   Yes   No

   If yes: how many hours/week?

9. Do you have children?   Yes   No

   If yes: how many?   what are their ages?

10. Do you participate in any extracurricular

    activities?   Yes   No

    If yes: how many?   how many hours/week?

11. Do you receive financial aid?   Yes   No

12. Have you had previous post-secondary education?

            Yes   No

    If yes: how many years?   how long ago?

13. What is your GPA?

    A. 3.5-4.0 B. 3.0-3.49 C. 2.5-2.99 D. 2.0-2.49

        E. below 2.0

Personal Assessment of Stress Factors
For College Students
Herman S. Bush, Merita L. Thompson

urpose: This inventory is designed to help you identify
            factors which cause stress for you and to compare the
            sources and amount of stress you experience with that
            of your peers.

irections: **Responses should be based upon the last 12 months only.**
            Leave the item **blank** if it has not been a factor within
            the year. If the item applies to you, assess how you
            perceived the stress on the following scale:

    1. Was present during the last year but I experienced
        no stress.
    2. Some stress, but minimal.
    3. Average stress.
    4. Considerable stress (above average).
    5. Very high stress.

Home and Community Factors

___ 1. Expectations of parents
___ 2. Gaining independence from
        parent(s)
___ 3. Death of parent
___ 4. Divorce or remarriage of
        parent(s)
___ 5. Loss of a close relative
___ 6. Change in family member's health
___ 7. Getting along with family
        members
___ 8. Family members not getting along
        with each other
___ 9. Addition(s) to family
___10. Living at home
___11. Commuting
___12. Financial pressures
___13. Holiday(s)
___14. Weekends at home
___15. Homesickness
___16. Balancing home and school
        responsibilities
___17. Job interview
___18. Off-campus job
___19. Making plans for my future
___20. Worry about career opportunities
        after graduation
___21. Relationship with neighborhood
        resident(s)
___22. Visiting relatives
___23. Inadequate transportation
___24. Violation(s) of the law
___25. Incidences of discrimination

B. Academic Factors

___26. Registration
___27. Beginning of a semester
___28. Test anxiety
___29. Final examination week
___30. Grades received
___31. Competitiveness for grade(s)
___32. Academic workload
___33. Oral presentation(s)
___34. No input regarding what I am to
        learn
___35. Cheating by peer(s) or me
___36. Inadequate background for
        course(s)
___37. Guilt for not doing better
___38. Putting off assignments or
        responsibilities
___39. Unconcerned teacher(s)
___40. Relationships with teacher(s)
___41. Teaching methods of
        instructor(s)
___42. Attending classes as required
___43. Unfair teacher(s)
___44. Lack of a good place to study
___45. Meeting program requirements
___46. Poor or inadequate advising
___47. Course(s) not relevant
___48. Selecting or changing a major
___49. Change in schools
___50. Administrative structure for
        getting things done

Personal Factors

51. Eating habits
52. Overweight or underweight
53. Managing to exercise or worrying about not exercising
54. Sleeping habits
55. My smoking or others smoking
56. Decisions about or problems with alcohol
57. Decisions about or problems with drugs
58. Personal appearance
59. Lack of energy
60. Inadequate physical abilities
61. Personal illness or injury
62. Concern about getting older
63. Concern about own death
64. Religious beliefs or expectations
65. Difficulty in making decisions
66. Not having enough time alone
67. Managing time and schedule
68. Lack of confidence
69. Unrealistic expectations for self
70. Dealing with emotions
71. Self-image
72. Guilt feelings
73. Boredom
74. Shyness
75. Depression

D. Factors Related to Relationships

____76. Loneliness
____77. Lack of assertiveness
____78. Being accepted by others
____79. Making new friend(s)
____80. Maintaining friendship(s)
____81. Having someone to do something with
____82. No close friend in whom to confide
____83. Expectations of friends or peers
____84. Concern for friends having problems
____85. Loss of a close friend
____86. Concern about death of others
____87. Frustration from overcrowdedness
____88. Roommate adjustments
____89. Dormitory life adjustments
____90. Participation in extra-curricular activities
____91. Finding someone acceptable to date
____92. Decisions or worries about sexual behavior
____93. Breaking off a relationship
____94. Sexual adjustments in an intimate relationship
____95. Maintaining an intimate relationship
____96. Loss of an intimate relationship
____97. Deciding about or planning for marriage
____98. Concern about birth control
____99. Involved in pregnancy or abortion
____100. Concern about venereal disease

ease list any factors which cause stress for you that were not
cluded on this list:

Appendix B

<u>Demographic Data</u>

Demographic Data

<u>Age</u>
mean age: 24
range: 19-46

<u>Sex</u>
male: 21
female: 263

<u>Level in nursing program</u>
Senior: 134
Junior: 133
Sophomore: 13

<u>Residence status</u>
commuter: 165
noncommuter: 119

<u>Marital status</u>
married: 50
single: 219
divorced: 15
widowed: 10

<u>RN</u>
yes: 10
no: 274

<u>Credits</u>
mean: 14.6
range: 6-21

<u>Work</u>
yes: 184
no: 98
mean hours: 17
commuter mean hours: 13
noncommuter mean hours: 8

<u>Children</u>
yes: 59
no: 98

<u>Number of children</u>
mean: 2
range: 0-7

<u>Extracurricular activities</u>
yes: 138
no: 145

<u>Number of activities</u>
mean: 1.8
range: 0-6

<u>Hours spent in activities</u>
mean: 7
mean commuter: 2
mean noncommuter: 5

<u>Financial aid</u>
yes: 190
no: 93

<u>Previous education</u>
yes: 62
no: 218
mean years: 3
range of years: 1-6

<u>GPA</u>
3.5-4.0: 58
3.0-3.49: 97
2.5-2.99: 106
2.0-2.49: 20
below 2.0: 1

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