

ABSTRACT

Emily Carol Pettit. EMOTIONAL DEVELOPMENT AND ALCOHOL USE AMONG ENTERING COLLEGE STUDENTS. (Under the direction of Dr. John J. Schmidt) Department of Counselor and Adult Education, April 1995.

The purpose of this thesis is to look at the relationship between emotional development, gender, and alcohol use among entering college students. Emotional development was measured using four indices: life satisfaction, emotional expression and management, emotional acceptance and awareness, and social interaction. Alcohol use was measured by the number of drinks consumed in an average day. The data are from a sample of East Carolina University freshmen who were administered the Lifestyle Assessment Questionnaire in 1993 as an assessment of wellness. Statistical analyses were done using crosstabs with chi square analyses to test the relationship between students' emotional development and alcohol use.

The results showed that male and female students who were less adept at expressing and managing emotions were more likely to drink alcohol. Male students who reported less social interaction and less life satisfaction were more likely to drink alcohol than abstaining peers. A difference was also found between male and female responses regarding emotional development and alcohol use. Only a few of the independent measures showed less emotionally developed females as more likely to consume alcohol. In summary, independent measures of emotional development were shown to be related to alcohol use among male college students, but only a few items indicated a relationship between alcohol use and the emotional development measures for females.

EMOTIONAL DEVELOPMENT AND ALCOHOL USE AMONG
ENTERING COLLEGE STUDENTS

A Thesis

Presented to the Faculty of the
Department of Counselor and Adult Education
East Carolina University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education

by

Emily Carol Pettit

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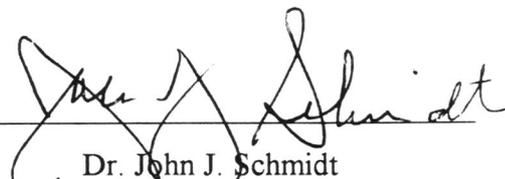
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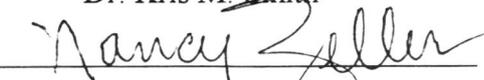
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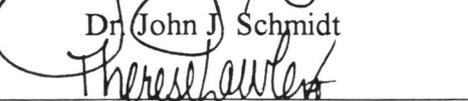
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DEDICATION

This thesis is dedicated to all my family members that were not as fortunate as I, to have the opportunity to attend college. To all the loved ones, family, and friends, who supported me in all my academic experiences, I appreciate you. A special thank you to M.T. for believing in me when I did not believe in myself, and for standing by me in my decisions to further my education in the counseling field.

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TABLE OF CONTENTS

CHAPTER I	INTRODUCTION	Page
	Introduction.....	1
	The Challenge of Transition.....	2
	Emotional Development, College Entry, and Alcohol Use	3
	Purpose.....	6
	Definition of Terms.....	7
CHAPTER II	REVIEW OF LITERATURE	
	Review of Literature.....	9
	Theories of Development.....	9
	Emotional Development.....	11
	Alcohol Use.....	15
	Frequency of Use.....	17
	Gender and Alcohol Use.....	18
	Summary.....	19
CHAPTER III	METHODOLOGY	
	Methodology.....	21
	Sample.....	21
	Lifestyle Assessment Questionnaire.....	22
	History of the Lifestyle Assessment Questionnaire	22
	Purpose of the Lifestyle Assessment Questionnaire	23
	Reliability of the Lifestyle Assessment Questionnaire	25
	Validity of the Lifestyle Assessment Questionnaire	25

Design.....	26
Dependent Variable.....	28
Independent Variable.....	29
Data Analysis.....	33
CHAPTER IV	RESULTS
Results.....	34
Life Satisfaction Index.....	34
Life Satisfaction Index Summary.....	46
Emotional Expression and Management Index.....	47
Emotional Expression and Management Index Summary.....	59
Emotional Awareness and Acceptance Index.....	60
Emotional Awareness and Acceptance Index Summary.....	70
Social Interaction Index.....	70
Social Interaction Index Summary.....	77
Data Analyses Summary.....	78
CHAPTER V	CONCLUSION AND DISCUSSION
Conclusion and Discussion.....	80
Limitations.....	82
Implications of Study.....	83
Recommendations.....	84
REFERENCES.....	86
APPENDIX.....	91

LIST OF TABLES

Table	Page
2.1 Alcohol Use of High School Seniors.....	16
3.1 Male and Female Alcohol Use by Group.....	29
3.2 Factor Loadings of the Four Factors of Emotional Development.....	30
4.1 Life Satisfaction	36
4.2 Positive Feelings About Self.....	37
4.3 Satisfying Amount of Excitement in Life.....	38
4.4 Stable Emotional Life.....	39
4.5 Awareness of Own Needs.....	40
4.6 Trusting and Valuing Own Judgment.....	41
4.7 Enthusiasm About Life.....	42
4.8 Easy to Laugh.....	43
4.9 I Enjoy Life.....	44
4.10 Plenty of Energy.....	45
4.11 Emotional Expression and Management.....	48
4.12 Feelings About Death.....	49
4.13 Feelings of Anger	50
4.14 Feelings of Sadness.....	51
4.15 Feelings of Fear.....	52
4.16 Accept Constructive Criticism Without Defensiveness.....	53
4.17 Set Appropriate Limits For Oneself.....	54
4.18 Stay Within the Limits	55
4.19 Reducing Feelings of Failure.....	56
4.20 Managing Feelings	57

LIST OF TABLES –Continued

Table	Page
4.21 Making Decisions With Minimum Stress.....	58
4.22 Expressing Feelings of Death.....	59
4.23 Emotional Awareness and Acceptance.....	61
4.24 Awareness of Anger	62
4.25 Acceptance of Anger.....	63
4.26 Awareness of Feeling Sad.....	64
4.27 Acceptance of Sadness.....	65
4.28 Awareness of Being Happy.....	66
4.29 Acceptance of Happiness	67
4.30 Awareness of Feeling Frightened.....	68
4.31 Awareness of Feelings About Death.....	69
4.32 Social Interaction	71
4.33 It Is Okay to Cry.....	72
4.34 Feelings Of Sensitivity.....	73
4.35 Able To Give Love.....	74
4.36 Able To Receive Love.....	75
4.37 Sharing Feelings	76
4.38 Able To Develop Close, Intimate Relationships.....	77
A-1 Social Interaction Index.....	91
A-2 Emotional Expression and Management Index.....	92
A-3 Emotional Acceptance and Awareness Index.....	93
A-4 Social Interaction Index.....	94

List of Figures

Figure	Page
3.1 Alcohol Use and Emotional Development Conceptual Model.....	27

CHAPTER I

Introduction

The first year of college is a new and challenging experience. Youth leave their familiar surroundings, family, and friends to further their education at a new school and frequently in a new location. This period of transition is not only marked by adjustment to a new environment but also the continual emotional development and personal growth that began in early adolescence.

Although many theorists have researched adolescent development, none share common beliefs on the specific components of that development. In general, tasks of adolescence include leaving home and weaning from the physical, emotional, and psychological dependence on parents. Two additional developmental processes are identity formation and adjustment to a new college lifestyle. When all of these components are combined, they create a challenging growth period for college-bound teenagers. Whitman (1980) noted, "Adolescence has traditionally been represented as a stormy, transitional period of development" (p. 96). His statement represents the push and pull that adolescents often encounter when separating from their parents, leaving home, and the many other experiences of adjustment involved in this process.

Moving to an unfamiliar setting and leaving the comforts of home are only the first step in beginning college. The psychological and emotional components of development for college students compound this change of address. While students are adjusting to a

new environment, they are also struggling with internal developments and changes. They are continuing to find themselves and understand who they are and how they fit in the world around them.

The Challenge of Transition

During this time, adolescents seek independence, autonomy and self-identity. Although college offers the opportunity for growth and experimentation in these areas, it does so in a challenging new environment. While youth are making this most crucial developmental transition, they must also face the reality of living in a strange new world. Some researchers define this transition to college as “a time of personal upheaval as well as a time to develop independence and other social skills” (Robbins, Lese, & Herrick, 1993, p.343). This view considers students’ adjustment to the new environment, their psychological growth, and the challenge of learning new social skills as they begin college. Robbins et al. also noted that the adjustment period is difficult. They referred to it as a time of “upheaval.” When life is in disarray, new ways to adapt and adjust to changing surroundings are natural attempts at regaining one’s balance. At the same time, this struggle for appropriate behavior allows potential for an unhealthy dysfunctional adjustment. Youth who are in transition are vulnerable as they try to create security for themselves. Despite being a normal, anticipated crisis, it is nonetheless difficult.

The stage of adolescence begins just beyond childhood and ends in adulthood. Entering as a mere youth and leaving as a young adult is indeed a challenge. While

students are adjusting to an evolving identity, more physically maturing body, and increasing responsibilities of independence, many pitfalls present themselves. The high percentage of college freshmen who do not return for their sophomore year would seem to indicate that this adjustment is sometimes too overwhelming. Many students find they are just not ready for college life. Dropout rates during the first year of college are sometimes as high as 20% (Mallinckrodt & Sedlacek, 1987). Maladjustment, however, is only one reason some students fail to return for their sophomore year.

A study by Gerdes and Mallinckrodt (1994) showed that of 25 predictors of college retention, 13 concerned personal/emotional or social adjustment issues. These predictors covered various academic areas and life satisfaction. All the predictors found by these authors were related to adjustment and developmental stages. These results again mark the difficulties associated with entry into college.

Emotional Development, College Entry, and Alcohol Use

Because college entry is a particularly stressful time, some students may choose destructive behaviors in response to adjustment difficulties. Such behaviors jeopardize an adolescent's well-being and positive adjustment. Experimentation and social pressures may lead to increased drug and alcohol use or engagement in other risky behaviors. However, engaging in risky behaviors is part of progressing through this adjustment phase by trial and error. The hope is to eventually find a good fit between one's self and the outside world.

In coping with the changes to their bodies and working to understand themselves and how they fit in the world around them, teenagers sometimes use alcohol as a social lubricant. Many college students start using alcohol when they are still in high school, but others begin in college. Students who start using alcohol in high school, often increase the amount they drink during their freshmen year of college (Moos, 1977). Increased difficulties during the first year of college may account for higher alcohol use among this population. Research shows that the proportion of students who are heavy-drinkers jumps sharply from the senior year in high school to the freshman year in college (Bachman & O'Malley, 1980).

Adolescence, more than all other stages in life, involves the greatest transition between two major periods of development. Thus, it is a critical time of adjustment that has received much attention from theorists and practitioners in an attempt to explore and explain the important transition from adolescence to adulthood (Barocas, Reichman, & Schwebel, 1983). Some theorists believe this stage to be a continuation of previous development and a time to learn a certain skill, as were the earlier years in life (Erikson 1968; Freud 1929; Kohlberg 1969; Piaget 1932). Other theorists, such as Chickering & Reisser (1993), view this adjustment period complex enough to warrant it's own theory rather than include it as a component in a lifespan approach. As previously noted, theories vary greatly with regard to adolescent development; therefore, no sole description of this phase is available. Furthermore, it is difficult to find a large selection of literature on any

one specific topic within this developmental phase. Emotional management is one area of emotional development which is particularly lacking in research.

Chickering & Reisser (1993), address the development of college-age students. Although many theorists have addressed this complex life stage, Chickering has addressed emotional development specifically. His view postulates that students pass through seven vectors. One of these vectors is the “managing emotions vector,” which is described as the ability to identify, understand, and express emotions in productive ways. Chickering’s writings have noted that students come to college loaded with emotional baggage. Each semester, college students face new decisions, challenges, choices, and the anxieties associated with them. Entering college students experience a variety of feelings related to their new environment. Although emotions are expressed at an early age, it is not until later adolescent years that teenagers build skills to control these emotions.

Because there is little research available on emotional management, this thesis is an attempt to offer insight into the role emotional management plays in alcohol use. Very few studies have addressed people’s behavior in accepting and expressing emotions, yet these processes are important enough to render us elated, depressed, suicidal, or confused. Although children possess the ability to express many emotions after just two years of life, learning to control them requires years of practice, therefore, suggesting an arduous task of bridling these feelings. This need to control emotions presents itself at an already challenging and difficult time of development for youth who are advancing through their educational career. Students must in some way handle these emotions that sometimes are

bottled up or expressed in an uncontrolled manner. If they choose not to cope or deal with these powerful emotions, then alcohol may become an outlet to suppress and avoid feelings while lowering inhibitions. With these difficulties in mind, it may then be beneficial for professionals, such as counselors, to more fully understand these emotions and their possible relationship to alcohol use.

Purpose

Although alcohol use is not exclusively a college phenomenon, trends show alcohol use increasing during college years. This thesis proposes to study the relationship between emotional development and the alcohol use of college students obtained from a post hoc data set. Specifically, this thesis asks whether or not emotional development – expressing and accepting feelings and emotions – is related to alcohol use among college students. If a relationship between these variables exists, a student’s level of emotional development may be useful in predicting the alcohol use of entering college students.

This study attempts to identify constructs within the emotional development of entering college students that might be predictors of alcohol use. If data in this study show significant relationships between emotional constructs and alcohol use, this information could be helpful in implementing alcohol prevention programs on college campuses. If particular variables are found to be highly correlated with alcohol use, they may be singled out to identify students who are lacking specific skills or coping behaviors, and help students improve these skills and behaviors. If factors that lead to increased

alcohol use among college students can be identified, colleges may be one step closer to intervening successfully with this important issue.

Definition of Terms

Emotional development: Emotional development is a comprehensive term inferring a range of skills and behaviors related to emotional health and well-being. As used in this thesis, emotional development refers to the awareness, acceptance, expression of emotions, and an individual's life satisfaction. More specifically, data in this study came from students who responded to a 1993 questionnaire that addressed areas of emotional development such as: emotional stability, social interaction, enthusiasm about life, excitement levels, enjoyment in life, and acceptance and expression of a variety of emotions. As such, this study is a post hoc analysis of data collected in a previous assessment of student wellness.

Youth, adolescence, teenagers, and young adults: These terms describe the time period from the end of childhood to the beginning of adulthood. However, in this thesis, these terms are used in reference a more specific population. These descriptors are used synonymously to mark the period from the end of high school and continuing through the first year of college. These terms are used interchangeably in this thesis.

Binge drinking: In recent studies, researchers have directed attention to excessive alcohol consumption. Among these researchers, the term binge drinking is commonly used to describe a lack of moderation. Binge drinking is defined as drinking five or more alcoholic

beverages in one sitting. When used in this thesis, binge drinking will reflect this amount of alcohol consumption.

CHAPTER II

Review of the Literature

Theories vary regarding the specific stages and definitions of adolescent development. While no single explanation of this period of life is accepted by everyone, a number of theories are introduced in counselor education to assist those entering the student personnel profession. A few theories are presented here as representative of the views regarding adolescent development.

Theories of Development

One stage theorist, Freud (1929), created five psychosexual stages of human development. The five stages are oral, anal, phallic, latency, and genital. He suggested that youth, ages 13-18, progress through the genital stage that ends about the time they begin college. Freud's five psychosexual stages encompass the natural physical developments of children, adolescents, and adults. Children begin life with an egocentric frame of reference and focus their attention to specific areas of their body, through time and maturity, they learn independence, self-regulation, and social interaction. According to Freud, the fifth psychosexual stage of development involves less concern for immediate self-satisfaction, and more concern for other people, than the previous four stages. During the genital stage and into later stages, youth are reality-oriented and ready for a full socialized adult life.

Although Freud's ideas about human development were the most advanced and insightful of his time, many people found his theories too heavily laden with sexuality. Freud's work sparked other therapists to develop their own theory of human development. Erikson (1968) was one who moved away from Freud's sexual focus to more of a social orientation. Erikson's theory emphasizes psychosocial stages of development and employs a different focus for youth in ages 13-18. His psychosocial stages suggest that during the adolescent and early college years, youth experience "Identity versus Identity Confusion." During this stage, adolescents begin to explore their identity and sense of self while struggling to define themselves as being different and separate from others. They constantly judge themselves and their behaviors in reference to their peers and the community around them. These youth strive to understand their inner self and create a comfortable fit between who they are, or want to be, and their outer social surroundings. This is a trial and error period of finding a balance between being satisfied with one's inner core self and fitting into one's outer environment. Although this is often a difficult achievement, it is only one of many tasks associated with the later teenage years.

Many other stage theorists have explored areas of adolescent development. For example, Kohlberg (1969) researched the area of moral development. He postulated three stages of moral development, preconventional stage (under 9 years old), conventional reasoning (adolescents and most adults) and the postconventional stage. The second stage demonstrates more concern for others and begins to recognize other points of view, while still upholding the law at all costs. The last stage, postconventional, is one that some, but

not all, adults attain. It involves recognizing law, but also valuing it's importance with respect to human life; life being more important than any law.

Piaget (1932) is another theorist with a different idea about the trials and tribulations of youth. His theory focuses on the cognitive development of humans. Piaget proposed four stages of cognitive development: sensorimotor, preoperational, concrete operational, and formal operational. The formal operations stage begins at twelve and continues through adulthood. This stage is characterized by a person's ability to handle multiple aspects of a situation simultaneously. Piaget's theory offers yet another view of adolescent development, but it does not address emotional development.

The previously mentioned theorists all note a general time frame for these developmental processes. More importantly than age, is the stage of development itself. These developments may be achieved at various ages, age ranges are proscribed although not absolute. These adolescent researcher have contributed much to the young adult development process. They provided a greater understanding to this developmental period in sexual, social, cognitive, and moral development areas. Although the aforementioned theorists offer insight to various areas of adolescent development, none address the area of emotional development specifically.

Emotional Development

Few theorists have tackled the issue of emotional development. Within the broad scope of emotional development, emotional management is particularly underrepresented.

As noted earlier, Chickering (1993) addresses the emotional development of college-age students. His theory is comprehensive, covering more than the emotions of college students. Chickering originally used empirical evidence to formulate a theory of college student development rather than creating a theory and then testing its validity.

Chickering & Reisser's (1993) work incorporates both Freud's psychosexual stages and Erikson's psychosocial stages for young college students. He postulated that students (p. 86) pass through these seven vectors: developing competence, managing emotions, becoming autonomous, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity. His "managing emotions" vector is basic to this thesis because it explains emotional development of college students.

Chickering created a model that is neither linear nor stage oriented. His seven vectors proposit a map of the direction that college students often travel. For example, college students learn autonomy, establish identity, and develop mature interpersonal relationships. However, a specific direction and order of progression are not components of this theory. Because his theory is not linear, students may be developing skills in all areas at once, as opposed to one vector requiring the cumulative skill building of others. Skill building or accomplishing tasks are the means for gauging progress within each vector. Students may progress through any vector at any time because skills developed in one vector are not required to proceed to another area of development.

During their precollege years and college years, students deal with a variety of emotions that are both social and biological in nature. In particular, emotions involving

sex and aggression are prominent. Chickering & Reisser (1993) noted that young adults must become aware of their feelings, trust them, and learn from them. Development along this vector includes the ability to become more aware of a full range of feelings, learn flexible control and appropriate means of expression or integration, and balancing negative with positive feelings. Young persons who function at lower levels of development in this vector tend to either “bottle up” their feelings or “explode.” In contrast, students who learn how to express, appropriately, a broad range of emotions are therefore better able to manage their emotions. Their increased awareness of emotions and the ability to manage them are developmental tasks central to both healthy individual development and beneficial social relationships.

Managing emotions in productive ways, according to Chickering & Reisser (1993), is no easy task and requires practice to build the skill. The very nature of some emotions, fear and anxiety for example, can debilitate a person and then often any practice at controlling emotions is forgotten or paralyzed. Chickering’s theory acknowledges that emotions are expressed early in life, about age two (Jones, 1992), and the lack of knowledge or experience in controlling them. Although emotions present themselves early in life, it takes time to develop control over them and display appropriate expressions. On the other hand, positive emotions such as joy, happiness, love, excitement, and pleasure are much easier to express than negative emotions such as fear and anger. These positively associated emotions need only to be permitted to exist and brought into consciousness rather than controlled (Chickering & Reisser, 1993). Although all emotions

need to be controlled, whether positively or negatively associated, most youth have more difficulty controlling the negative emotions.

The difficulty of managing some emotions, related to maturation, is apparent by the amount of time and maturity required to control them after being exhibited so many years earlier. There is no instruction book that accompanies them. Consequently, the task for college students is to express feelings constructively without keeping too much inside, or letting too much emotion out.

Maladaptive behaviors present themselves when facing emotions is too difficult. One reason associated with high school student alcohol use was difficulty in dealing with “anger or frustration” (Bachman, Johnson, & O’ Malley, 1993) (See Table 2.1). Other reasons cited among these seniors was the need for “relaxation” and “to take troubles away.” From these findings, we might infer that a student’s alcohol use serves the purpose of relieving or avoiding anger, and of escaping from trouble. Therefore, alcohol use of freshmen college students seems to be a likely diversion from having to confront negative emotions as well as having to handle difficult situations.

Chickering & Reisser (1993) noted that some students experience excessive anger or depression from allowing negative emotions to go unaddressed. In support of Chickering’s beliefs, Bonner and Rich (1988) estimated that college students are twice as likely to suffer from major depression or dysthymia as are people of comparable ages and backgrounds in the workforce. These feelings of anger and depression are often left

unaddressed, denied, or avoided according to Chickering. Such lack of attention or avoidance could block student performance and success. Although most students have had these feelings at some time or other, few take the time to explore or learn how to shift out of them. Sometimes these suppressed feelings result in self-defeating or self-destructive behaviors such as heavy alcohol use. A self-medicating or numbing effect of alcohol may take place to avoid confronting these feelings.

Alcohol Use

Bachman, Johnson, & O' Malley (1993) have done much research with high school seniors and college freshmen. They have compiled data obtained from surveys administered to these students nation-wide. Their research includes questions regarding drug and alcohol use dating back as early as the middle 1970's. In their most recent report of 1992 high school seniors, they found that 28% of 15,408 students polled participated in binge drinking at least one time within the previous two week period (Bachman, Johnson, & O' Malley, 1993). Presley and Meilman (1992) found that 42% of college students consumed five or more drinks in one sitting at least every two weeks. These studies show the increased use of college student alcohol use when compared with high school seniors. Another finding from the Bachman, Johnson, & O' Malley, (1993) study was that 40% of high school seniors "drink enough to feel pretty high" at least half of the time or more (See Table 2.1). In support of Chickering's statement that negative

feelings are more difficult to accept, 19% of the seniors who were asked about the most important reasons for consuming alcohol responded “Because of anger or frustration.”¹

Table 2.1
Alcohol Use of High School Seniors*

<u>Question</u>	<u>Percent Responding</u>	<u>Total Respondents</u>
• Drank 5 or more drinks in a row in the last two weeks	28%	n=15,408**
• Drink enough to feel pretty high at least half or more of the time	40%	n=11,528
• Most import reason for drinking alcoholic beverages		n=1,932
because of anger or frustration	19%	
to get away from troubles or problems	24%	
to relax, relieve tension	43%	
• Taking all things together, how happy are you		n=2,683
very happy	17%	
pretty happy	65%	
not too happy	18%	
• How satisfied with life are you these days		n=2,669
completely dissatisfied	2%	
quite dissatisfied	5%	
somewhat dissatisfied	8%	
neither or mixed	10%	
somewhat satisfied	27%	
quite satisfied	38%	
completely satisfied	9%	

*Source: Bachman, J.G., Johnson, L. D., & O' Malley, P.M. (1993). Monitoring the future: Questionnaire responses from the nation's high school seniors, 1992. Institute for Social Research, University of Michigan, Ann Arbor, MI.

**The size of the sample vary because some items were used on every survey, others were included in only one survey, therefore the smaller 'N' for some items.

¹ Respondents were allowed to choose multiple answers to this item.

Emotional maturation begins in the high school years and continues throughout adulthood, regardless of college attendance. However the challenges of this developmental stage are exacerbated when combined with the transition to college. Peer pressure to socialize with friends, relax, escape from troubles or worries and enjoy youthful experimentation are all reasons teenagers decide to drink (Bachman, Johnson, & O' Malley, 1993).

Frequency of Use

Studies assessing alcohol use of college students vary in their findings regarding the trend of use over the years. Some researchers report increases in alcohol use over the years (Blane & Hewitt, 1977; Wechsler & McFadden, 1979), others show alcohol use remaining constant (Temple, 1986; O'Hare, 1990), while some report decreases in use (Engs & Hanson, 1988; Meilman, Stone, Gaylor, & Turco, J.H, 1990; O'Hare, 1990). Johnson et. al. (1991) found in 1980 that 81.8% of a sample of college students had consumed alcohol in the previous 30 days; in 1985 the percent drinking in the previous 30 days decreased to 80.3%; and in 1990 the percent fell to 74.5%. This trend mirrors a similar national reduction in alcohol consumption (Johnson et. al., 1991). However, most researchers agree that alcohol use in the college years increases beyond the use in high school. In addition, as noted in the following studies, college students reported more use than their noncollege peers.

Early studies show that drinking behaviors increase from high school to college (Moos, 1977; Bachman & O'Malley, 1980). Blane and Hewitt (1977) noted that the college student population has the highest number of drinkers, more than any other subgroup in the U. S. In their literature review of alcohol use, they reported that approximately 85% of American college students drink alcohol compared to 75% of the general population. When college students are compared with noncollege peers, their daily drinking frequency is not higher, but their weekly, monthly, and yearly frequencies show increased amounts of alcohol use (The Office of Substance Abuse Prevention, 1991).

Gender and Alcohol Use

A telephone survey (Harris 1986) revealed that college women, age 23 and younger in New York State, 17% were heavy drinkers, more than double that of their non-college peers (8%). Consistent with these findings, another study found that almost 1 in 10 males (8%), at age 21, drank 25 or more drinks per week (Jensen, Peterson, Murphy, & Emmerling, 1992). Over twice as many male as female students drink daily. Fewer females have drunk more than five drinks in a short period within the last two weeks (37% vs. 52%) (Johnson et al., 1989). The numbers remain alarmingly consistent regardless of the study cited. Results from studies mentioned above show an increased use of alcohol among college students in comparison to noncollege peers, and increased use from high school drinking patterns.

Summary

Large amounts of alcohol consumption and binge drinking often promote socialization with friends and avoidance of difficult feelings or problems according to reports from high school seniors. However, this temporary diversion with excessive alcohol use risks physical damage such as loss of brain cells and liver damage. Excessive alcohol use also influences overall wellness. Research shows a negative relationship between levels of drinking and levels of health-enhancing behavior in the college student population (Jensen et. al., 1992). Not surprisingly, as drinking increases, wellness behaviors for both sexes decreases. Alcohol consumption also has been shown to be negatively correlated with self-ratings of emotional health (Astin, 1993).

As opportunities for development present themselves, so do the opportunities for maladjustment. Because a percentage of first year students (nearly 7%) drop out due to alcohol-related problems, it might be suggested that these personal/emotional and adjustment problems are linked to alcohol use (The Office of Substance Abuse Prevention, 1991). Available research findings lend themselves to the conclusion that with opportunity for growth, new experiences also increase the opportunity for maladjustment or faulty development.

Although emotions are experienced by people as early as two years of age, Chickering & Reisser (1993) reported that during the adolescent and college age years, these emotions are beginning to be controlled and understood. Research shows that

alcohol use increases from high school to college (Moos, 1977), and seniors in high school report one reason for drinking is because of anger or frustration. The research question, therefore, is: Beyond normal experimentation and new found independence, is increased alcohol use related to the difficulty students experience in managing their emotions? The hypothesis of the study is twofold, and attempts to answer this question for students entering college. The hypotheses are:

1. There will be negative relationship between emotional development and alcohol use among college freshmen.
2. There will be a difference in the relationship between emotional development and alcohol use for male and female students.

In the last decade, higher education institutions have implemented preventive alcohol programming in campus activities. Most of these programs focus on alcohol education, awareness, and teaching moderation when drinking. Although these programs address the overwhelming problem of excessive alcohol use among college students is still an area of concern for college student personnel. Preventive education and awareness may not be able to conquer this weighty problem alone. As a result, the field is open to other possibilities.

CHAPTER III

Methodology

Using previously gathered data, statistical analyses were used to test the relationship between students' emotional development and alcohol use. The data were gathered using the LAQ which was administered to East Carolina University freshmen in 1993 as an assessment of wellness. In this post hoc study, the data from the earlier assessment were used to investigate the likelihood that a relationship exists between emotional development and alcohol use. This question was investigated using crosstabs with chi square analyses. The analyses were done to test the following hypotheses:

1. There will be negative relationship between emotional development and alcohol use among college freshmen.
2. There will be a difference in the relationship between emotional development and alcohol use for male and female students.

Sample

First year college students at East Carolina University in Greenville, NC who were enrolled in the English 1100 classes during the Fall of 1993 were asked to complete the Lifestyle Assessment Questionnaire (LAQ, National Wellness Institute, 1989). Approximately 75% of the English 1100 classes participated. This is a required course that is predominately filled with freshmen students. These respondents were administered

the LAQ during regularly scheduled class time in the second month of the semester. Of the 2,413 freshmen students at ECU, 1,252 students completed all of the LAQ and reported sufficient data on the dependent variable. Participating students received a health risk assessment based on their responses. The responding sample included 775 females and 477 males.

T-tests were performed to compare the sample to the total freshmen class. T-tests are statistical tests used to establish whether differences between two means are significant (Sprinthal, 1990). High school grade-point average (HSGPA) and the Mathematics and Verbal Scholastic Aptitude Test (SAT) scores were used to identify the representativeness of the sample to the total freshmen class. The sample had a significantly higher high school grade-point average ($t= 2.31$; $p < .05$) than did the class as a whole yet no difference was found in SAT scores. Although the grade-point averages differed significantly, the means differed by only hundredths of a point on a four point scale (population mean = 2.93, sample mean = 2.96).

Lifestyle Assessment Questionnaire

History of the Lifestyle Assessment Questionnaire

The instrument was originally developed as a health risk appraisal for incoming students and as an optional way to fulfill their entry health requirement by the University of Wisconsin-Stevens Point (National Wellness Institute, 1989). Based on his six dimensional wellness model, William Hettler (Hettler, 1980) began development in 1975

to create the LAQ and had a panel of health and wellness professionals from around the country review the instrument for content validity prior to implementing it on Wisconsin's campus in 1977. The fifth edition of the LAQ used for this study was published in 1989 (National Wellness Institute, 1989).

Purpose of the Lifestyle Assessment Questionnaire

The purpose of the LAQ is to measure and give feedback on the respondent's self-report of current lifestyle in terms of wellness. The LAQ is designed to increase awareness of health behaviors, motivate individuals to make appropriate lifestyle changes, and help individuals evaluate the possible effect of making lifestyle changes. The instrument includes three sections : (1) 12 questions about Personal Data, (2) 185 items comprising the Lifestyle/Wellness Inventory, and (3) 42 questions in the Health Risk Appraisal. The 185 item Wellness Inventory is further broken down into 11 subscales.

The Wellness Inventory section of the instrument consists of 185 multiple choice items comprising eleven subscales. These subscales are based on Hettler's (1980) model that postulates six dimensions of wellness: occupational, social, intellectual, physical, spiritual, and emotional. The eleven subscales of the LAQ that are derived from these six dimensions are:

1. physical exercise
2. emotional management
3. emotional awareness and acceptance
7. self-care
8. social/environmental
9. intellectual

4. occupational
5. vehicle safety
6. nutrition
10. spiritual
11. drug usage and awareness

The response options on the LAQ Wellness Inventory are based on a five-point Likert scale. The five response options are:

1 = almost always (90% of the time or more)

2 = very often (75% of the time)

3 = often (50% of the time)

4 = occasionally (25% of the time)

5 = almost never (10% or less of the time)

The Wellness Inventory is scored by adding the number of points that are assigned to each of the five response options. A reverse pattern of scoring is used with “1” being the high end of the scale and scored as 5 points, and “5” being the low end of the scale and scored as 1 point. The scores for all items within the subscale are then added. The subscale scores range from 0 to 100, with a higher score marking more wellness in that particular subscale. The LAQ results are presented to the respondent in a bar graph format showing the sum of each of the 11 subscales. The respondent’s score is also compared with a group score for each subscale and an age and sex group average. These comparisons are also shown in graphs with the use of bars to represent the scores.

Reliability of the Lifestyle Assessment Questionnaire

Elsenrath and Fandre (1982) from the University of Wisconsin-Stevens Point (UWSP) performed a test/retest reliability check on the LAQ with 39 parents of incoming UWSP students. The reliability coefficients of this test/retest method ranged from .57 to .87 on the 11 Wellness subscales. Salaski (1986) found test-retest reliability coefficients ranging from .81 to .97 on the eleven Wellness Inventory subscales based on responses from 15 nursing students. From this same study, an internal reliability using Cronbach's alpha found coefficients for each of the Wellness subscales ranging from .67 to .94. Although Salaski (1986) found high reliability coefficients on the subscales, his data were derived from a small sample. Fermanich (1987) found that the 11 subscales produced reliability coefficients ranging from .55 to .84 with an overall Wellness Inventory reliability of .78 by using the test-retest method on 58 undergraduate students. This research also found that the "emotional awareness and acceptance" and the "emotional management" subscales yielded reliabilities of .79 and .61 respectively. Fermanich (1987) used a larger sample and found lower reliability coefficients than Salaski (1986).

Validity of the Lifestyle Assessment Questionnaire

A comparison of the two LAQ emotional subscale scores (i.e., emotional management and emotional awareness and acceptance) between students who were in psychotherapy and those who were not, found lower scores on both subscales for students in therapy (Freeman and Gintner, 1987). These findings suggest that students seeking the

assistance of a mental health professional reported less healthy behaviors related to wellness on the LAQ, thereby suggesting that the LAQ had discriminate criterion for these two scales (National Wellness Institute, 1989).

Design

The employed design of this study is post hoc and descriptive, utilizing a previously gathered data set. While the original intent of this study was to conduct a stepwise multiple regression, due to the violation of the statistical assumption of linearity, this method was abandoned. Crosstabs were constructed and chi square analyses were performed to determine the relationship between the outcome measure “drinks per day” with the various emotional development measures in the model. Chi square was chosen because it is a statistical test of significance used to determine whether frequency differences have occurred beyond the likelihood of chance (Sprinthall, 1990).

The design was based on a conceptual model developed to test the relationship between self-reported alcohol use and emotional development (Figure 3.1). Only selected items from the data set gathered in 1993 were used in this study. The emotional awareness and acceptance subscale (32 items), and the emotional management subscale (24 items) of the LAQ Wellness Inventory section were used for this thesis. These selected items from the two emotional wellness subscales were used to create four indices forming the independent variable. Gender was included to allow for different patterns of

emotional development between males and females. The dependent variable, an assessment of alcohol use per day, was taken from the Health Risk section of the LAQ.

Figure 3.1

Alcohol Use and Emotional Development Conceptual Model

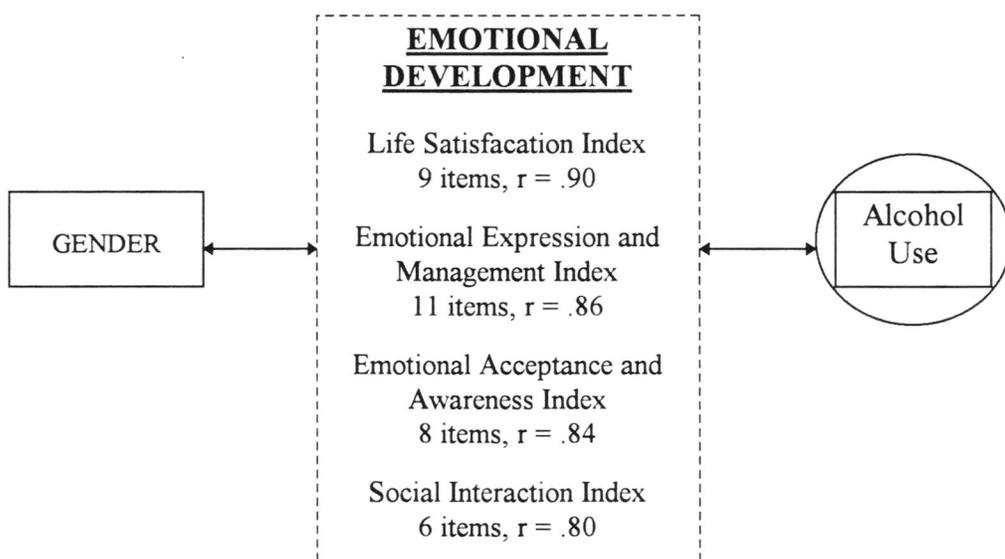


Figure 3.1 is a conceptual representation of the hypothesis being tested. This thesis studied the components of emotional development and their relationship with alcohol use. Figure 3.1 illustrates the four indices that were created to measure emotional development. The original two emotional subscales were differentiated into four indices to allow further investigation of specific areas within emotional development. As shown in the model, this thesis anticipated that emotional development would be related to

alcohol use among college freshmen. The various components of this conceptual model are discussed in the following sections of this chapter.

Dependent Variable

The dependent variable, average “alcohol use per day,” was also taken from the LAQ. This item asks respondents to report average number of alcoholic beverages they consume in a day when they drink. The actual item in the LAQ reads as follows:

“When you drink alcoholic beverages, how many drinks do you consume in an average day? (If you never drink alcohol, write 0.)
_____ alcoholic beverages/average day”

The responses from this sample of students were a continuous measure of alcohol use, ranging from 0 – 51 beverages per day. Therefore, for the purpose of this study, the data were categorized into three levels and labeled accordingly:

1. “Abstainers” represent students who responded “0” to this item about alcohol use
2. “Moderate drinkers” represent students who reported drinking 1-4 alcoholic beverages a day when they drank
3. “Heavy drinkers” represent the students who reported drinking 5 or more drinks a day when they drank

Caution should be exercised when reviewing these reports because occasional drinkers, those who drink less than once per week, may have selected zero although they are not truly abstainers. Male and female alcohol use across the three drinking levels was as follows:

Table 3.1
Male and Female Alcohol Use by Group

<u>Gender</u>	<u>Abstain</u> (0)		<u>Moderate</u> (1-4) drinks		<u>Heavy</u> (5 or more) drinks	
Male	N=244	51.2%	N=71	14.9%	N=162	34%
Female	N=493	63.6%	N=167	21.5%	N=115	14.8%

Table 3.1 shows a higher percentage of females represented in the abstaining and moderate drinking groups. The percentage of male heavy drinkers is more than double that of their female classmates.

Independent Variable

Reliability was run using Cronbach's alpha on the two emotional subscales of the LAQ. Cronbach's alpha is an internal reliability measure for an instrument requiring only one test administration (Fraenkel & Wallen, 1993). The reliability coefficients represent the total sample responding to the LAQ, regardless of dependent variable information being present (N=1425). The reliability for the "emotional awareness and acceptance" was $r = .93$ and the "emotional management" subscale was $r = .90$ for this sample.

In this study, factor analyses were performed on the 56 items in the two LAQ emotional wellness subscales (Table 3.2).

Table 3.2
Factor Loadings of the Four Factors of Emotional Development

Factor Loadings for each item on the four forced factors with loadings > .50					
<u>Item</u>		<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>
#86	I feel positive about myself	.75			
#87	I feel there is a satisfying amount of excitement in my life	.75			
#88	My emotional life is stable	.75			
#89	I am aware of my needs	.54			
#90	I trust and value my own judgment	.57			
#95	I feel enthusiastic about life	.72			
#96	I find it easy to laugh	.61			
#99	I enjoy my life	.77			
#100	I have plenty of energy	.63			
#116	I accept my feelings about death		.54		
#118	I express my feelings of anger in appropriate ways		.55		
#119	I express my feelings of sadness in healthy ways		.52		
#121	I express my feelings of fear in appropriate ways		.50		
#123	I accept constructive criticism without reacting defensively		.53		
#124	I set appropriate limits for myself		.57		
#125	I stay within the limits that I have set		.58		
#130	I reduce feelings of failure by setting achievable goals		.56		
#136	I manage my feelings to avoid unnecessary suffering		.57		
#137	I make decisions with a minimum of stress and worry		.51		
#139	I can express my feelings about death		.56		
#107	I am aware when I feel angry			.73	
#108	I accept my anger			.55	
#109	I am aware when I feel sad			.74	
#110	I accept my sadness			.51	
#111	I am aware when I feel happy			.67	
#112	I accept my happiness			.58	
#113	I am aware when I feel frightened			.66	
#115	I am aware of my feelings about death			.54	
#93	It is okay for me to cry				.65
#94	I have feelings of sensitivity for others				.66
#97	I am able to give love				.70
#98	I am able to receive love				.60
#117	I share my feelings with those with whom I am close				.56
#127	I am able to develop close, intimate relationships				.60
Cronbach's alpha		r = .90	r = .86	r = .84	r = .80

It is a statistical method for reducing a set of variables to a smaller number of factors (Fraenkel & Wallen, 1993). The 56 items were narrowed to four factors to allow more a discriminate analyses of emotional development. Factor loadings of .5 or less were rejected and only those items loading onto the four factors, were included in the study. The first factor, Life Satisfaction, included 9 items; the second factor, Emotional Expression and Management, 11; the third, Emotional Acceptance and Awareness, 8; and the fourth factor, Social Interaction, included 6 items. The factors were labeled according to the construct of emotional development they seemed to represent. The factor loadings for the four factors are reported in Table 3.2.

Four indices were formed from the four factors obtained through the factor analysis. This factor analysis allowed for the study of specific areas of emotional development and their relationship to alcohol use. Indices, each measuring a different construct of emotional development, comprise the independent variable of emotional development. The items included in the four indices were drawn from the LAQ and are as follows:

LIFE SATISFACTION INDEX

- #86 I feel positive about myself
- #87 I feel there is a satisfying amount of excitement in my life
- #88 My emotional life is stable
- #89 I am aware of my needs
- #90 I trust and value my own judgment
- #95 I feel enthusiastic about life
- #96 I find it easy to laugh
- #99 I enjoy my life
- #100 I have plenty of energy

EMOTIONAL EXPRESSION AND MANAGEMENT INDEX

- #116 I accept my feelings about death
- #118 I express my feelings of anger in appropriate ways
- #119 I express my feelings of sadness in healthy ways
- #121 I express my feelings of fear in appropriate ways
- #123 I accept constructive criticism without reacting defensively
- #124 I set appropriate limits for myself
- #125 I stay within the limits that I have set
- #130 I reduce feelings of failure by setting achievable goals
- #136 I manage my feelings to avoid unnecessary suffering
- #137 I make decisions with a minimum of stress and worry
- #139 I can express my feelings about death

EMOTIONAL AWARENESS AND ACCEPTANCE INDEX

- #107 I am aware when I feel angry
- #108 I accept my anger
- #109 I am aware when I feel sad
- #110 I accept my sadness
- #111 I am aware when I feel happy
- #112 I accept my happiness
- #113 I am aware when I feel frightened
- #115 I am aware of my feelings about death

SOCIAL INTERACTION INDEX

- #93 It is okay for me to cry
- #94 I have feelings of sensitivity for others
- #97 I am able to give love
- #98 I am able to receive love
- #117 I share my feelings with those with whom I am close
- #127 I am able to develop close, intimate relationships

The four indices were measured by calculating a mean for all questions in each factor. Because index values were quasi-continuous, they were grouped into five

categories to allow for chi-square analyses. Each index was categorized according to the following score ranges:

<u>Score Range</u>	<u>Categorized Score</u>
0.00-1.00	1
1.01-2.00	2
2.01-3.00	3
3.01-4.00	4
4.01-5.00	5

Data Analysis

Each index measuring emotional development and subsequently the items included in the index, were analyzed by using the cell frequencies and expected values shown in the crosstabs. Each index was analyzed by gender. Chi square analyses were used to detect any statistically significant variance in frequency of student responses across alcohol consumption groups. Foremost, the chi square analyses were used to identify a potential relationship between student responses to index questions and their level of drinking. The next chapter will look at these relationships.

CHAPTER IV

Results

Crosstab analyses were performed to show the relationship between emotional development and alcohol use. Chi square was used to show variances in the responses not attributed to chance. This nonparametric procedure was chosen because the data are categorical. When statistical significance is herein referred to, it represents the Likelihood ratio of chi square (which tests the likelihood that response distributions are within normal expectations). The indices were separated by gender then broken out by the three level dependent variable. For the total sample, responses to independent measures were positively skewed. Complete data on the four indices for this sample of college freshmen are displayed in the appendix. On each variable used for the analyses, the largest proportion of student responses fell in the “almost always” category.

Life Satisfaction Index

The distribution of responses on the Life Satisfaction Index , made up of nine questions, was significant for males and females. Both the male and female distribution of responses to this index varied beyond chance. The majority of males were satisfied with life, with 80.9% responding “almost always” and “very often” and 73.8% of their female classmates felt as positive (Table 4.1). On the Life Satisfaction index male drinking students cited “occasionally” and “almost never” options more frequently than their nondrinking peers. The male moderate drinkers reported being “almost never” satisfied

with life more often than either abstainers or heavy drinkers, suggesting that males who are less satisfied with their lives are more likely to drink in moderation. Although heavier drinking students reported less life satisfaction than abstainers, moderate drinkers were the least satisfied of all three groups of males. This was not true for females, as abstaining students had the highest combined percent of “occasionally” and “almost never” responses, when compared with their peers. In contrast, the data for male students give some support to the notion that drinking students are less emotionally developed.

The percent of female respondents reporting “almost always” to each item in the Life Satisfaction Index ranged from 32% to 78% for each of the items; male percentages ranged from 46% to 75% on the nine items included in the index. The analyses showed that females exhibited more variability in their responses, having a greater number at both ends of the life satisfaction scale, than males. The data show more females are satisfied with life than males, as well as were more dissatisfied than their male counterparts. This shows males having fewer extreme responses than females when asked about life satisfaction. The following tables and discussions show crosstab analyses of each item included in the Life Satisfaction Index.

Table 4.1
Life Satisfaction Index

Life Satisfaction Index						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	25% (61)	60.2% (147)	13.1% (32)	1.6% (4)	0	51.2% (244)
Moderate	15.5% (11)	63.4% (45)	14.1% (10)	4.2% (3)	2.8% (2)	14.9% (71)
Heavy	15.4% (25)	59.9% (97)	21% (34)	3.7% (6)	0	34% (162)
Totals	20.3%	60.6%	15.9%	2.7%	.4%	
<u>FEMALES</u>						
Abstainers	13.2% (65)	60% (296)	21.3% (105)	4.7% (23)	.8% (4)	63.6% (493)
Moderate	13.8% (23)	58.7% (98)	24% (40)	2.4% (4)	1.2% (2)	21.5% (167)
Heavy	8.7% (10)	69.6% (80)	21.7% (25)	0	0	14.8% (115)
Totals	12.6%	38.2%	61.2%	3.5%	.8%	

Males ($\chi^2 = 19.20$; $p = .01$) Females ($\chi^2 = 16.36$; $p < .05$).

The male abstainers more often reported feeling positive about themselves than either group of drinkers (Table 4.2). The male moderate and heavy drinkers reported more difficulty with self esteem than their nondrinking peers. The differences among the three levels of drinking for male responses were significantly distributed for this item. The female students, across the three drinking levels, reported feeling positive about themselves less often than did male students. Female responses were more varied than the male responses to this question with a greater number of women reporting infrequent positive feelings toward self.

Table 4.2
Positive Feelings About Self

I Feel Positive About Myself						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	57% (139)	32% (78)	9% (22)	2% (5)	0	51.2% (244)
Moderate	42.3% (30)	38% (27)	11.3% (8)	8.5% (6)	0	14.9% (71)
Heavy	40.7% (66)	36.4% (59)	17.3% (28)	4.9% (8)	.6% (1)	34% (162)
Totals	49.3%	34.4%	12.2%	4%	.2%	
<u>FEMALES</u>						
Abstainers	34.7% (171)	35.9% (177)	19.3% (95)	6.7% (33)	3.2% (16)	63.6% (493)
Moderate	32.3% (54)	39.5% (66)	19.2% (32)	6.6% (11)	2.4% (4)	21.5% (167)
Heavy	33.9% (39)	46.1% (53)	18.3% (21)	.9% (1)	.9% (1)	14.8% (115)
Totals	34.1%	38.2%	19.1%	5.8%	2.7%	

Male ($\chi^2 = 20.26; p < .01$)

Both the male and female heavy drinking and abstaining students reported excitement in their lives, more than their moderate drinking peers (Table 4.3). However, the female heavy drinkers indicated more excitement than the other female groups. The female responses to this item showed a significant display of responses across the alcohol use groups. The male moderate drinkers were more constrained in their responses in comparison to their male peers, with fewer saying they were “almost always” satisfied and “almost never” satisfied with amount of excitement in life.

Table 4.3
Satisfying Amount of Excitement in Life

I Feel There is a Satisfying Amount of Excitement in My Life						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	53.7% (131)	33.2% (81)	10.2% (25)	1.6% (4)	1.2% (3)	51.2% (244)
Moderate	45.1% (32)	38% (27)	11.3% (8)	5.6% (4)	0	14.9% (71)
Heavy	53.7% (87)	25.3% (21)	16% (26)	3.7% (6)	1.2% (2)	34% (162)
Totals	52.4%	31.2%	12.4%	2.9%	1%	
<u>FEMALES</u>						
Abstainers	41% (202)	34.1% (168)	16.2% (80)	7.1% (35)	1.4% (7)	63.6% (493)
Moderate	36.5% (61)	43.1% (72)	15.6% (26)	3.6% (6)	1.2% (2)	21.5% (167)
Heavy	48.7% (56)	40% (46)	9.6% (11)	1.7% (2)	0	14.8% (115)
Totals	41.2%	36.9%	15.1%	5.5%	1.2%	

Female ($\chi^2 = 19.81$; $p = .03$)

Females reported lower percentages in the “almost always” response option than males on the item, “my emotional life is stable”(Table 4.4). The female responses across the “almost always” category showed little variance between the groups, while the male abstainers reported more emotional stability. The male student responses were significant in their distribution across the drinking groups. The two groups of drinking students are similar in that they reported feeling emotionally stable less often. However, it is the moderate drinkers not heavy drinkers, that reported least often feeling emotionally stable.

Table 4.4
Stable Emotional Life

My Emotional Life is Stable						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	57.4% (140)	33.2% (81)	7.4% (18)	1.6% (4)	.4% (1)	51.2% (244)
Moderate	45.1% (32)	29.6% (21)	12.7% (9)	8.5% (6)	4.2% (3)	14.9% (71)
Heavy	42% (68)	34% (55)	17.9% (29)	4.9% (8)	1.2% (2)	34% (162)
Totals	50.3%	32.9%	11.7%	3.8%	1.3%	
<u>FEMALES</u>						
Abstainers	39.64% (195)	36.5% (180)	14% (69)	6.5% (32)	3% (15)	63.6% (493)
Moderate	38.9% (65)	31.7% (53)	18% (30)	7.8% (13)	3.6% (6)	21.5% (167)
Heavy	39.1% (45)	34.8% (40)	17.4% (20)	6.1% (7)	2.6% (3)	14.8% (115)
Totals	34.9%	35.2%	15.4%	6.7%	3.1%	

Male ($\chi^2 = 26.78$; $p < .00$)

Abstaining male and female students reported being aware of needs more than their drinking peers (Table 4.5). Male heavy drinkers have the least percentage of respondents in the “almost always” category, while female moderate drinkers have least. These findings were expected; the drinking students were less aware of their needs than their nondrinking classmates. The male results showed heavy drinkers least aware of their needs in comparison with peers.

Table 4.5
Awareness of Own Needs

I Am Aware Of My Needs						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	65.2% (159)	26.6% (65)	7% (17)	.8% (2)	.4% (1)	51.2% (244)
Moderate	62% (44)	28.2% (20)	5.6% (4)	0	4.2% (3)	14.9% (71)
Heavy	54.9% (89)	30.2% (49)	11.1% (18)	2.5% (4)	1.2% (2)	34% (162)
Totals	61.2%	28.1%	8.2%	1.3%	1.3%	
<u>FEMALES</u>						
Abstainers	57.8% (285)	32.3% (159)	8.3% (41)	1.2% (6)	.2% (1)	63.6% (493)
Moderate	52.7% (88)	34.1% (157)	11.4% (19)	1.8% (3)	1.7% (2)	21.5% (167)
Heavy	56.5% (65)	35.7% (41)	5.2% (6)	1.7% (2)	.9% (1)	14.8% (115)
Totals	56.5%	33.2%	8.5%	1.4%	.3%	

Abstaining males were more likely than their peers to trust their own judgment. In contrast, heavy drinking females were more likely than their classmates to value their own judgment (Table 4.6). This item showed that male drinking students have more difficulty valuing their own judgment, however, such was not the case for females. The male responses to this item were distributed significantly across the three groups.

Table 4.6
Trusting and Valuing Own Judgment

I Trust and Value My Own Judgment						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	69.3% (169)	26.2% (64)	4.1% (10)	.4% (1)	0	51.2% (244)
Moderate	62% (44)	22.5% (16)	9.9% (7)	2.8% (2)	2.8% (2)	14.9% (71)
Heavy	60.5% (98)	28.4% (46)	9.3% (15)	.6% (1)	.6% (1)	34% (162)
Totals	65.2%	26.4%	6.7%	.8%	.6%	
<u>FEMALES</u>						
Abstainers	61.7% (304)	27.2% (134)	7.7% (38)	2.6% (13)	.4% (2)	63.6% (493)
Moderate	58.7% (98)	28.1% (47)	10.2% (17)	1.8% (3)	1.2% (2)	21.5% (167)
Heavy	65.2% (75)	20% (23)	12.2% (14)	2.6% (3)	0	14.8% (115)
Totals	61.5%	26.3%	8.9%	2.5%	.5%	

Male ($\chi^2 = 18.07$; $p = .05$)

Abstaining and moderate drinking males had higher percentages of “almost always” responses than did their heavy drinking peers (Table 4.7). The heavy drinking males were less often enthusiastic. The distribution for male responses across the three groups was significant. The opposite was true for females. Heavy drinking females reported being more enthusiastic than their peers. Moderate drinkers had the most respondents in the “almost never” enthusiastic response option for both sexes.

Table 4.7
Enthusiasm About Life

I Feel Enthusiastic About Life						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	58.6% (143)	29.9% (73)	9.4% (23)	1.6% (4)	.4% (1)	51.2% (244)
Moderate	59.2% (42)	23.9% (17)	11.3% (8)	4.2% (3)	1.4% (1)	14.9% (71)
Heavy	37.7% (61)	39.5% (64)	19.8% (32)	2.5% (4)	0	34% (162)
Total	51.6%	32.3%	13.2%	2.3%	.4%	
<u>FEMALES</u>						
Abstainers	45.4% (224)	36.9% (182)	13.4% (66)	3% (15)	1% (5)	63.6% (493)
Moderate	42.5% (71)	43.1% (72)	10.8% (18)	1.8% (3)	1.8% (3)	21.5% (167)
Heavy	59.1% (68)	26.1% (30)	13.9% (16)	.9% (1)	0	14.8% (115)
Totals	46.8%	36.6%	12.9%	2.5%	1%	

Male ($\chi^2 = 27.97$; $p = .002$)

Both sexes reported finding it easy to laugh (Table 4.8). Male abstainers showed a higher percentage in the “almost always” category, while female heavy drinkers had the highest percentage in that category.

Table 4.8
Easy to Laugh

I Find It Easy to Laugh						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	76.2% (186)	18.9% (46)	4.1% (10)	.4% (1)	.4% (1)	51.2% (244)
Moderate	73.2% (52)	21.1% (15)	4.2% (3)	0	2.8% (2)	14.9% (71)
Heavy	71.6% (116)	19.1% (31)	7.4% (12)	1.2% (2)	0	34% (162)
Totals	74.2%	19.3%	5.2%	.6%	.6%	
<u>FEMALES</u>						
Abstainers	75.3% (371)	17% (84)	5.9% (29)	1% (5)	.6% (3)	63.6% (493)
Moderate	79% (132)	16.2% (27)	3.6% (6)	.6% (1)	.6% (1)	21.5% (167)
Heavy	85.2% (98)	11.3% (13)	3.5% (4)	0	0	14.8% (115)
Totals	77.5%	16%	5%	.8%	.5%	

Abstaining male students reported enjoying life more than their drinking classmates, but heavy drinking females enjoyed life more than their peers (Table 4.9). Male moderate drinkers had a higher percentage of students reporting “occasionally” and “almost never” enjoying life. The male responses were distributed significantly across the three groups. Abstainers and moderate drinking females were more closely matched across categories than their heavy drinking female classmates.

Table 4.9
I Enjoy Life

<u>I Enjoy My Life</u>						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	67.2% (164)	26.6% (65)	5.3% (13)	.4% (1)	.4% (1)	51.2% (244)
Moderate	54.9% (39)	28.2% (20)	7% (5)	7% (5)	2.8% (2)	14.9% (71)
Heavy	48.1% (78)	36.4% (59)	13% (21)	2.5% (4)	0	34% (162)
Totals	58.9%	30.2%	8.2%	2.1%	.6%	
<u>FEMALES</u>						
Abstainers	51.7% (255)	32% (158)	11% (54)	3.9% (19)	1.2% (6)	63.6% (493)
Moderate	51.5% (86)	33.5% (56)	12% (20)	1.8% (3)	1.2% (2)	21.5% (167)
Heavy	60.9% (70)	25.2% (29)	13% (15)	.9% (1)	0	14.8% (115)
Totals	53%	31.4%	11.5%	3%	1%	

Male ($\chi^2 = 31.47; p = .000$)

The distribution of male responses was significant across the three drinking levels. Abstaining males reported having the greatest amount of energy. Heavy drinking males least often reported “almost always” having energy (Table 4.10). Male abstainers reported being more energetic than their drinking peers. Both groups of male drinking students have some respondents reporting “almost never” having energy, while abstainers had zero respondents in this category. Female responses were lower in the “almost always” category than their male counterparts. These results suggest that females reported having less energy than male students. Female responses were relatively consistent among the three groups.

Table 4.10
Plenty of Energy

I Have Plenty of Energy						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	52% (127)	37.3% (91)	8.6% (21)	2% (5)	0	51.2% (244)
Moderate	45.1% (32)	35.2% (25)	12.7% (9)	4.2% (32)	2.8% (2)	14.9% (71)
Heavy	37% (60)	42.6% (69)	15.4% (25)	3.1% (5)	1.2% (2)	34% (162)
Totals	45.9%	38.8%	11.5%	2.7%	.8%	
<u>FEMALES</u>						
Abstainers	31.8% (157)	41% (202)	20.5% (101)	5.1% (25)	1.4% (7)	63.6% (493)
Moderate	32.3% (54)	40.7% (68)	21% (35)	3.6% (6)	2.4% (4)	21.5% (167)
Heavy	31.3% (36)	37.4% (43)	22.6% (26)	7% (8)	1.7% (2)	14.8% (115)
Totals	31.9%	40.4%	20.9%	5%	1.7%	

Male ($\chi^2 = 19.45$; $p < .05$)

Life Satisfaction Index Summary

Further analysis into the 9 individual items comprising the Life Satisfaction Index showed that the following item responses distributed themselves in a significant manner within the chi square cells for male students: “feeling positive about oneself; stable emotional life; enjoy life; enthusiastic about life; trust and value own judgment; and plenty of energy.” In contrast, only one item, “satisfying amount of excitement in life” showed statistically significant results across the drinking groups for females. These individual items that make up the Life Satisfaction Index showed support for both hypotheses. The items previously mentioned in this paragraph showed some evidence that drinking students are less emotionally developed than their nondrinking peers. Male responses showed that drinking students are less developed emotionally on six of the nine items.

The following items from the Life Satisfaction scale showed all freshmen students less often reporting “almost always” than other items in the index: “positive feelings about self; being aware of needs; satisfying amount of excitement in life; emotional stability; enthusiastic about life; and having plenty of energy.” The freshmen responses in this sample suggest that each of these areas is one of difficulty for both males and females.

The overall male and female findings were inconsistent for the Life Satisfaction Index. Male moderate drinkers were more likely than their peers to accept, express, and understand most emotions addressed in this index. However, female abstainers were less

likely than their drinking counterparts to report “almost always” to some of the items included in the Life Satisfaction Index.

Emotional Expression and Management Index

The Emotional Expression and Management Index consists of eleven items. This index showed a significant distribution among the male responses, displaying a variance of responses beyond chance. On the other hand, the index score distributions for females were not statistically significant.

More female students (48.6%) reported “almost always” and “very often” expressing and managing emotions than male students (43.8%) (Table 4.11). Heavy drinking males reported more difficulty with the Emotional Expression and Management Index, while more moderate female drinkers reported the same. Combined percentages for heavy drinking males reported “occasionally” and “almost always” more than their peers. The following tables and paragraphs show crosstab analyses of items included in the Emotional Expression and Management Index.

Table 4.11
Emotional Expression and Management Index

Emotional Expression and Management Index						
MALES	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	10.2% (25)	42.2% (103)	38.5% (94)	9% (22)	0	51.2% (244)
Moderate	2.8% (2)	39.4% (28)	45.1% (32)	12.7% (9)	0	14.9% (71)
Heavy	.6% (1)	30.9% (50)	53.1% (86)	14.8% (24)	.6% (1)	34% (162)
Totals	5.9%	37.9%	44.4%	11.5%	.2%	
FEMALES						
Abstainers	4.9% (24)	44.8% (221)	40.2% (198)	9.5% (47)	.6% (3)	63.6% (493)
Moderate	3% (5)	44.9% (75)	37.7% (63)	13.8% (23)	.6% (1)	21.5% (167)
Heavy	1.7% (2)	43.5% (50)	42.6% (49)	10.4% (12)	1.7% (2)	14.8% (115)
Totals	4%	44.6%	40%	10.6%	.8%	

Male ($\chi^2 = 33.52$; $p < .001$)

The crosstabs showed male abstainers accepting death easier than their classmates (Table 4.12). Female heavy drinkers had the highest percentage of “almost always” responses over the two other groups. Moderate drinkers for both genders had a higher percentage of “almost never” responses for accepting death. This item created a broad range of responses.

Table 4. 12
Feelings About Death

Accept Feelings About Death						
MALES	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	60.7% (148)	16.8% (41)	16% (39)	5.3% (13)	1.2% (3)	51.2% (244)
Moderate	52.1% (37)	19.7% (14)	14.1% (10)	8.5% (6)	5.6% (4)	14.9% (71)
Heavy	54.3% (88)	16.7% (27)	16% (26)	8% (13)	4.7% (7)	34% (162)
Totals	57.2%	17.2%	15.7%	6.7%	2.9%	
FEMALES						
Abstainers	52.7% (260)	23.5% (116)	14.6% (72)	4.3% (21)	4.3% (21)	63.6% (493)
Moderate	50.9% (85)	21.6% (36)	12.6% (21)	9.6% (16)	5.4% (9)	21.5% (167)
Heavy	53% (61)	17.4% (20)	18.3% (21)	7% (8)	4.3% (5)	14.8% (115)
Totals	52.4%	22.2%	14.7%	5.8%	4.5%	

The item “expressing feelings of anger appropriately” found that female and male respondents had the most difficulty with this emotion (Table 4.13). This item also produced a broad range of responses. Male and female abstainers were more often likely to express anger appropriately. The “almost always” response category showed drinking males less often reporting appropriate expression of anger. The responses among the three drinking groups for males were significant in their distribution.

Table 4.13
Feelings of Anger

Express Feelings of Anger Appropriately						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	29.1% (71)	36.9% (90)	23% (56)	8.2% (20)	2.9% (7)	51.2% (244)
Moderate	22.5% (16)	42.3% (30)	12.7% (9)	16.9% (12)	5.6% (4)	14.9% (71)
Heavy	17.9% (29)	31.5% (51)	30.9% (50)	17.3% (28)	2.5% (4)	34% (162)
Totals	24.3%	35.8%	24.1%	12.6%	3.1%	
<u>FEMALES</u>						
Abstainers	29.4% (145)	28.5% (190)	21.7% (107)	7.5% (37)	2.4% (12)	63.6% (493)
Moderate	25.7% (43)	40.1% (67)	24.6% (41)	7.8% (13)	1.8% (3)	21.5% (167)
Heavy	27.8% (32)	34.8% (40)	20.9% (24)	13% (15)	3.5% (4)	14.8% (115)
Totals	28.4%	38.3%	22.2%	8.4%	2.5%	

Male ($\chi^2 = 23.83$; $p < .002$)

Female and male abstainers were more likely than their drinking peers to express sadness (Table 4.14). Expressing sadness showed results consistent with the hypothesis indicating drinking students having more difficulty expressing emotions for both sexes although at significant level for males only.

Table 4.14
Feelings of Sadness

Express Feelings of Sadness in Healthy Ways						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	30.3% (74)	36.1% (88)	25 (61)	6.6% (16)	2% (5)	51.2% (244)
Moderate	23.9% (17)	32.4% (23)	21.1% (15)	14.1% (10)	8.5% (6)	14.9% (71)
Heavy	19.8% (32)	29% (47)	32.7% (53)	13% (21)	4.9% (8)	34% (162)
Totals	25.8%	33.1%	27%	9.9%	4%	
<u>FEMALES</u>						
Abstainers	36.1% (178)	33.7% (166)	18.7 (92)	7.5% (37)	3.4% (17)	63.6% (493)
Moderate	34.7% (58)	37.7% (63)	20.4% (34)	5.4% (9)	1.8% (3)	21.5% (167)
Heavy	31.3% (36)	36.5% (42)	20.9% (24)	7.8% (9)	3.5% (4)	14.8% (115)
Totals	35.1%	35%	19.4%	7.1%	3.1%	

Male ($\chi^2 = 22.73$; $p = .01$)

Heavy drinking females had the broadest range of responses to “expressing feelings of fear appropriately”(Table 4.15). Females report more often expressing fear than males. Male abstainers report more often expressing fear than their drinking peers at a significant level of difference.

Table 4.15
Feelings of Fear

Express Feelings of Fear in Appropriate Ways						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	38.1% (93)	36.1% (88)	19.7% (48)	3.3% (8)	2.5% (6)	51.2% (244)
Moderate	33.8% (24)	28.2% (20)	28.2% (20)	5.6% (4)	4.2% (3)	14.9% (71)
Heavy	24.7% (40)	40.7% (66)	19.8% (32)	9.3% (15)	3.1% (5)	34% (162)
Totals	32.9%	36.5%	21%	5.7%	2.9%	
<u>FEMALES</u>						
Abstainers	43.4% (24)	36.7% (181)	15.4% (76)	2.6% (13)	1.2% (6)	63.6% (493)
Moderate	44.3% (74)	31.7% (53)	18.6% (31)	4.8% (8)	.6% (1)	21.5% (167)
Heavy	48.7% (56)	29.6% (34)	13.9% (16)	5.2% (6)	2.6% (3)	14.8% (115)
Totals	44.4%	34.6%	15.9%	3.5%	1.3%	

Male ($\chi^2=21.25$; $p<.05$)

Heavy drinking females in this study perceived themselves more accepting of criticism than their peers (Table 4.16). Concurring with the hypothesis, male abstainers accept criticism better than their drinking peers. At the same time, there were also more male abstainers than drinkers that “almost never” accepted criticism. Male respondents reported frequencies across the three groups that were statistically significant.

Table 4.16

Accept Constructive Criticism Without Defensiveness

<u>Accept Constructive Criticism Without Reacting Defensively</u>						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	30.7% (75)	41.4% (107)	20.5% (50)	4.1% (10)	3.3% (8)	51.2% (244)
Moderate	21.1% (15)	33.8% (24)	26.8% (19)	16.9% (12)	1.4% (1)	14.9% (71)
Heavy	19.1% (31)	37.7% (61)	32.7% (53)	10.5% (17)	0	34% (162)
Totals	25.4%	39%	25.6%	8.2%	1.9%	
<u>FEMALES</u>						
Abstainers	26% (128)	39.6% (195)	23.5% (116)	7.5% (37)	2.8% (14)	63.6% (493)
Moderate	23.4% (39)	43.1% (72)	23.4% (39)	9.6% (16)	.6% (1)	21.5% (167)
Heavy	30.4% (35)	42.6% (49)	20.9% (24)	3.5% (4)	2.6% (3)	14.8% (115)
Totals	26.1%	40.8%	23.1%	7.4%	2.3%	

Male ($\chi^2 = 32.79$; $p < .001$)

This item in the Expressing and Managing Emotions Index is “setting appropriate limits.” Female heavy drinkers were less likely to set limits than their peers, and the same was true for males (Table 4.17). The male abstaining and drinking responses were different at a significant level. The male abstainers report more often setting appropriate limits.

Table 4.17

Set Appropriate Limits For Oneself

I Set Appropriate Limits For Myself						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	33.2% (81)	41.4% (101)	16.4% (401)	7% (17)	2% (5)	51.2% (244)
Moderate	21.1% (15)	38% (27)	26.8% (19)	7% (5)	7% (5)	14.9% (71)
Heavy	24.1% (39)	34.6% (56)	25.3% (42)	8.6% (14)	6.2% (10)	34% (162)
Totals	28.3%	38.6%	21.2%	7.5%	4.2%	
<u>FEMALES</u>						
Abstainers	30.2% (149)	41.4% (204)	20.3% (100)	5.5% (27)	2.2% (11)	63.6% (493)
Moderate	28.7% (48)	37.7% (63)	25.7% (43)	5.4% (9)	2.4% (4)	21.5% (167)
Heavy	29.6% (34)	31.3% (36)	27% (31)	7% (8)	5.2% (6)	14.8% (115)
Totals	29.8%	39.1%	22.5%	5.7%	2.7%	

Male ($\chi^2 = 19.38; p < .05$)

Similar to the “setting limits” item, the “staying within the limits” results showed that male abstaining students were more likely than their peers to stay within the limits they set (Table 4.18). Heavy drinkers were least likely to stay within limits. Males and females set limits more than they stayed within them.

Table 4.18
Stay Within the Limits

I Stay Within the Limits I Set for Myself						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	28.3% (69)	38.5% (94)	20.9 (51)	8.2% (20)	3.7% (9)	51.2% (244)
Moderate	18.3% (13)	40.8% (29)	21.1% (15)	11.3% (8)	8.5% (6)	14.9% (71)
Heavy	14.8% (24)	42.% (68)	25.3% (41)	9.3% (15)	8% (13)	34% (162)
Totals	22.2%	40%	22.4%	9%	5.9%	
<u>FEMALES</u>						
Abstainers	24.7% (122)	40.8% (201)	23.7 (117)	7.3% (36)	2.6% (13)	63.6% (493)
Moderate	24.4% (34)	42.5% (71)	29.9% (50)	5.4% (9)	1.8% (3)	21.5% (167)
Heavy	17.4% (20)	42.6% (49)	27.8% (32)	8.7% (10)	3.5% (4)	14.8% (115)
Totals	22.7%	41.4%	25.7%	7.1%	2.6%	

Abstaining students reported most often setting achievable goals to reduce failure (Table 4.19). The cell frequencies across the three groups were distributed significantly for both males and females. While moderate female drinkers had the more difficulty with setting achievable goals in comparison to their peers, heavy drinking males had more difficulty than their counterparts. The percent of female moderate drinkers who reported “almost never” setting achievable goals, is nearly twice that of their peers. The heavy drinking males showed similar results when compared with their peers. This finding shows male heavy drinkers and moderate female drinkers less likely to set goals, or less likely to avoid feeling like a failure when they set goals and do not achieve them.

Table 4.19
Reducing Feelings of Failure

I Reduce Feelings of Failure By Setting Achievable Goals						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	31.1% (76)	32.4% (79)	25.8% (63)	4.9% (12)	4.5% (11)	51.2% (244)
Moderate	21.1% (15)	35.2% (25)	25.4% (18)	16.9% (12)	1.4% (1)	14.9% (71)
Heavy	17.3% (28)	27.2% (44)	34.6% (56)	11.1% (18)	7.4% (12)	34% (162)
Totals	24.9%	31%	28.7%	8.8%	5%	
<u>FEMALES</u>						
Abstainers	27.4% (135)	32.7% (161)	29.8% (147)	6.5% (32)	2.6% (13)	63.6% (493)
Moderate	23.4% (39)	32.9% (55)	26.9% (45)	10.2% (17)	4.8% (8)	21.5% (167)
Heavy	25.2% (29)	43.5% (50)	18.3% (21)	11.3% (13)	1.7% (2)	14.8% (115)
Totals	26.2%	34.3%	27.5%	8%	3%	

Male ($\chi^2=29.85$; $p < .001$) Female ($\chi^2=18.34$; $p < .05$)

Managing feelings showed consistent responses among the female groups (Table 4.20). The male responses varied more among the three groups to a degree of statistical significance. Male abstainers reported more often managing emotions than their drinking counterparts, while male drinkers showed less emotional management as was expected.

Table 4.20
Managing Feelings

I Manage My Feelings To Avoid Unnecessary Suffering						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	41.8% (102)	32.8% (80)	18.4% (45)	6.6% (16)	.4% (1)	51.2% (244)
Moderate	36.6% (26)	32.4% (23)	15.5% (11)	14.1% (10)	1.4% (1)	14.9% (71)
Heavy	22.8% (37)	32.1% (52)	34% (55)	7.4% (12)	3.1% (5)	34% (162)
Totals	34.6%	32.5%	23.3%	8%	1.5%	
<u>FEMALES</u>						
Abstainers	29.8% (147)	38.5% (190)	20.9% (103)	7.5% (37)	2.4% (12)	63.6% (493)
Moderate	29.9% (50)	38.3% (64)	23.4% (39)	6% (10)	2.4% (4)	21.5% (167)
Heavy	28.7% (33)	37.4% (43)	23.5% (27)	8.7% (10)	1.7% (2)	14.8% (115)
Totals	29.7%	38.3%	21.8%	7.4%	2.3%	

Male ($\chi^2 = 32.95$; $p < .001$)

Of all the items in the Emotional Expression and Management Index , data in Table 4.21 show all females having more difficulty than males in “making decisions with minimum stress.” Males also tended to struggle with “making decisions with a minimum of stress and worry” more than other items. Male abstainers indicated they were more likely than their all peers, male and female, to make decisions without stress and worry. Less than 20% of the females in each group were able to make stress-free decisions. The heavy drinking female students were the most likely to “almost always” make decisions without worry.

Table 4.21

Making Decisions With Minimum Stress

I Make Decisions With a Minimum of Stress and Worry						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	33.2% (81)	32.4% (79)	22.5% (55)	9.4% (23)	2.5% (6)	51.2% (244)
Moderate	28.2% (20)	29.6% (21)	26.8% (19)	9.9% (7)	5.6% (4)	14.9% (71)
Heavy	23.5% (38)	29.6% (48)	28.4% (46)	15.4% (25)	2.5% (4)	34% (162)
Totals	29.1%	31%	25.2%	11.5%	2.9%	
<u>FEMALES</u>						
Abstainers	16.2% (80)	28.8% (142)	31.2% (154)	14.8% (73)	8.1% (40)	63.6% (493)
Moderate	13.2% (22)	32.3% (54)	31.1% (52)	13.2% (22)	10.2% (17)	21.5% (167)
Heavy	19.1% (22)	28.7% (33)	30.4% (35)	11.3% (13)	10.4% (12)	14.8% (115)
Totals	16%	29.5%	31.1%	13.9%	8.9%	

Being able to express feelings about death found almost half of all female groups responding “almost always” (Table 4.22). The female responses were very similar across the three groups. Male abstainers were more likely to express death appropriately than their drinking peers, although not at a significant level.

Table 4.22
Expressing Feelings of Death

I Express Feelings of Death Appropriately						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	50.8% (124)	25.8% (63)	16.4% (40)	4.9% (12)	2% (5)	51.2% (244)
Moderate	33.8% (24)	33.8% (24)	21.1% (15)	8.5% (6)	2.8% (2)	14.9% (71)
Heavy	37.7% (61)	31.5% (51)	18.5% (30)	7.4% (12)	3.1% (6)	34% (162)
Totals	43.8%	28.9%	17.8%	6.3%	2.7%	
<u>FEMALES</u>						
Abstainers	40.6% (200)	26% (128)	20.1% (99)	7.9% (39)	4.3% (21)	63.6% (493)
Moderate	46.1% (77)	22.2% (37)	15% (25)	10.8% (18)	5.4% (9)	21.5% (167)
Heavy	46.1% (53)	22.6% (26)	12.2% (14)	9.6% (11)	7% (8)	14.8% (115)
Totals	42.6%	24.6%	17.8%	8.8%	4.9%	

Summary of Emotional Expression and Management Index

Some individual items from this index indicated patterns showing drinking students may be less emotionally developed than nondrinkers. The Emotional Expression and Management Index was significant for males, but not their female peers. While the

Emotional Expression and Management Index as a whole showed a nonsignificant distribution of female responses, the single item “I Reduce Feelings of Failure By Setting Achievable Goals” was statistically significant.

Males showed significant results on the following emotional expression and management items: “setting appropriate limits for oneself; acceptance of criticism without defensiveness; anger, sadness and fear expression; reducing feelings of failure by setting achievable goals; and managing feelings to avoid unnecessary suffering.” These results suggest that the frequency of responses within each of the five response options were outside what would be expected by chance for this sample of males.

Items in the Emotional Expression and Management Index showed all students having more difficulty with expressing and managing emotions than were found in the Life Satisfaction Index. The items regarding negatively associated emotions, were reported as least often expressed appropriately. Male responses to the 11 items in this index showed 7 items significantly supporting the hypothesis that drinking students are less likely to express and manage emotions than their nondrinking peers. Both male and female drinking students report more difficulty with setting achievable goals to avoid feelings of failure than their nondrinking cohorts.

Emotional Awareness and Acceptance Index

This index includes eight items. The male responses were distributed within the crosstab cells significantly. The “almost never” response option included zero student

respondents for this index. The data suggest that both male and female students are skilled at accepting and being aware of their emotions.

Combined “almost always” and “very often” responses for this index find 86.4% of the males and 92.4% of the females being aware and accepting emotions (Table 4.23).

The following are crosstab analyses on the eight items in the Emotional Awareness and Acceptance Index.

Table 4.23
Emotional Awareness and Acceptance Index

Emotional Awareness and Acceptance Index						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	44.7% (109)	45.5% (111)	9.4% (23)	.4% (1)	0	51.2% (244)
Moderate	26.5% (19)	60.6% (43)	12.7% (9)	0	0	14.9% (71)
Heavy	30.9% (50)	49.4% (80)	19.8% (32)	0	0	34% (162)
Totals	37.3%	49.1%	13.4%	.2%	0	
<u>FEMALES</u>						
Abstainers	40% (207)	50.7% (250)	6.3% (31)	1% (5)	0	63.6% (493)
Moderate	43.1% (72)	49.1% (82)	7.8% (13)	0	0	21.5% (167)
Heavy	44.3% (51)	47% (54)	6.1% (7)	2.6% (3)	0	14.8% (115)
Totals	42.6%	49.8%	6.6%	1%	0	

Male ($\chi^2 = 18.87$; $p = .004$)

A large percent of freshmen students were aware of their anger (Table 4.24).

Most often for females, the moderate drinkers reported being aware of anger. Male abstaining respondents were most aware of their anger.

Table 4.24
Awareness of Anger

I Am Aware When I Feel Angry						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	79.5% (194)	17.6% (43)	2.9% (7)	0	0	51.2% (244)
Moderate	77.5% (55)	19.7% (14)	1.4% (1)	0	1.4% (1)	14.9% (71)
Heavy	74.7% (121)	20.4% (33)	4.3% (7)	.6 (1)	0	34% (162)
Totals	77.6%	18.9%	3.1%	.2%	.2%	
<u>FEMALES</u>						
Abstainers	80.5% (397)	15.8% (78)	2.6% (13)	.8% (4)	0	63.6% (493)
Moderate	85.6% (143)	12% (20)	2.4% (4)	0	0	21.5% (167)
Heavy	83.5% (96)	9.6% (11)	4.3% (5)	.9% (1)	1.7% (2)	14.8% (115)
Totals	82.1%	14.1%	2.8%	.6%	.3%	

Although females were easily aware of anger, it was more difficult for them to accept their anger (Table 4.25). The female responses for anger acceptance were distributed significantly across the three groups. Female heavy drinkers were more often accepting of their anger than their peers, as well as reporting a higher percentage of respondents that “almost never” accept anger. The female heavy drinkers showed a broader range of acceptance than did their less-drinking and nondrinking peers. The males continued their pattern of responses from previous questions in this Awareness and Acceptance index. Male abstainers reported most often accepting anger while their heavy drinking peers reported least often accepting anger.

Table 4.25
Acceptance of Anger

<u>I Accept My Anger</u>						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	61.9% (151)	25.4% (62)	9% (22)	3.3% (8)	.4% (1)	51.2% (244)
Moderate	53.5% (38)	26.8% (19)	12.7% (9)	4.2% (3)	2.8% (2)	14.9% (71)
Heavy	50% (81)	30.2% (49)	13.6% (22)	3.7% (6)	2.5% (4)	34% (162)
Totals	56.6%	27.3%	11.1%	3.6%	1.5%	
<u>FEMALES</u>						
Abstainers	58.8% (270)	29.8% (147)	6.9% (34)	4.1% (20)	.2% (1)	63.6% (493)
Moderate	61.7% (103)	22.8% (38)	14.4% (24)	1.2% (2)	0	21.5% (167)
Heavy	66.1% (76)	21.7% (35)	7% (8)	2.6% (3)	2.6% (3)	14.8% (115)
Totals	60.5%	27.1%	8.5%	3.2%	.5%	

Female ($\chi^2 = 24.91$; $p = .006$)

All freshmen students reported being aware of sadness (Table 4.26). The three groups of students reported similar percentages across groups in each of the five responses for both sexes. Males drinking students reported less often being aware of sadness, than their nondrinking peers. The male percentages for the five responses were distributed significantly.

Table 4.26
Awareness of Feeling Sad

I Am Aware When I Feel Sad						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	75% (183)	19.3% (47)	5.3% (13)	.4% (1)	0	51.2% (244)
Moderate	71.8% (51)	23.9% (17)	2.8% (2)	1.4% (1)	0	14.9% (71)
Heavy	61.1% (99)	25.9% (42)	11.1% (18)	1.9% (3)	0	34% (162)
Totals	69.8%	22.2%	6.9%	1%		
<u>FEMALES</u>						
Abstainers	81.3% (401)	15.4% (76)	2.4% (12)	.6% (3)	0	63.6% (493)
Moderate	81.4% (136)	14.4% (24)	3% (5)	.6% (1)	0	21.5% (167)
Heavy	84.3% (97)	11.3% (13)	2.6% (3)	.9% (1)	0	14.8% (115)
Totals	81.8%	14.6%	2.6%	.6%	.1%	

Male ($\chi^2 = 13.64$; $p < .05$)

Accepting sadness was more difficult for all students than awareness of sadness (Table 4.27). The male responses to awareness of sadness showed response distributions in the cells across the three groups to be significant. Abstaining male students report being more adept at accepting sadness than their drinking peers. The male scores also showed a broader range of responses of accepting sadness than females. Females reported more acceptance of sadness than males, as was also true for awareness of sadness.

Table 4.27
Acceptance of Sadness

I Accept My Sadness						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	56.6% (138)	25.8% (63)	12.3% (30)	4.1% (10)	1.2% (3)	51.2% (244)
Moderate	40.8% (29)	43.7% (31)	9.9% (7)	4.2% (3)	1.4% (1)	14.9% (71)
Heavy	44.4% (72)	29% (47)	16% (26)	6.2% (10)	4.3% (7)	34% (162)
Totals	50.1%	29.6%	13.2%	4.8%	2.3%	
<u>FEMALES</u>						
Abstainers	60% (296)	24.3% (120)	9.1% (45)	4.1% (20)	2.2% (11)	63.6% (493)
Moderate	60.5% (101)	29.3% (49)	6% (10)	2.4% (4)	1.8% (3)	21.5% (167)
Heavy	60% (69)	20% (23)	14.8% (17)	4.3% (5)	.9% (1)	14.8% (115)
Totals	60.1%	24.8%	9.3%	3.7%	1.9%	

Male ($\chi^2 = 16.37$; $p < .05$)

This sample of freshmen students reported being aware of happiness. Females were slightly more aware of happiness than male peers, and their female responses were similar across the three groups (Table 4.28). Females indicated they more often accepted happiness than males (Table 4.29). A large majority of the freshmen in this sample reported awareness and acceptance of happiness, females more than males.

Table 4.28
Awareness of Being Happy

I Am Aware of When I Feel Happy						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	81.6% (199)	15.6% (38)	2.5% (6)	.4% (1)	0	51.2% (244)
Moderate	76.1% (54)	21.1% (15)	1.4% (1)	1.4% (1)	0	14.9% (71)
Heavy	72.8% (118)	25.3% (41)	1.2% (2)	.6% (1)	0	34% (162)
Totals	77.8%	19.7%	1.9%	.6%		
<u>FEMALES</u>						
Abstainers	87.4% (431)	10.1% (50)	1.6% (8)	.2% (1)	.4% (2)	63.6% (493)
Moderate	87.4% (146)	10.8% (18)	1.8% (3)	0	0	21.5% (167)
Heavy	88.7% (102)	9.6% (11)	1.7% (2)	0	0	14.8% (115)
Totals	87.6%	10.2%	1.7%	.1%	.3%	

Table 4.29
Acceptance of Happiness

I Accept My Happiness						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	76.6% (187)	20.9% (51)	2% (5)	0	0	51.2% (244)
Moderate	76.1% (54)	18.3% (13)	4.2% (3)	1.4% (1)	0	14.9% (71)
Heavy	71.6% (116)	21.6% (35)	5.6% (9)	1.2% (2)	0	34% (162)
Totals	74.8%	20.8%	3.6%	.6%	0	
<u>FEMALES</u>						
Abstainers	84% (414)	12.6% (62)	2.2% (11)	.8% (4)	.2% (1)	63.6% (493)
Moderate	83.2% (139)	10.8% (18)	4.8% (8)	.6% (1)	.6% (1)	21.5% (167)
Heavy	84.3% (97)	13% (15)	2.6% (3)	0	0	14.8% (115)
Totals	83.9%	12.3%	2.8%	.6%	.3%	

Females appear to be similarly aware of fear across the three groups, and report more awareness of fear than male classmates (Table 4.30). Male drinking students reported less often being aware of fear than male nondrinkers. Male responses across the three groups were significant in their distribution.

Table 4.30

Awareness of Feeling Frightened

I Am Aware When I Feel Frightened						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	71.7% (175)	19.7% (48)	5.3% (13)	1.6% (4)	1.2% (3)	51.2% (244)
Moderate	54.9% (39)	29.6% (21)	9.9% (7)	4.2% (3)	1.4% (1)	14.9% (71)
Heavy	58.6% (95)	27.2% (44)	12.3% (20)	1.2% (2)	0	34% (162)
Totals	64.8%	23.7%	8.4%	1.9%	.8%	
<u>FEMALES</u>						
Abstainers	81.7% (403)	15% (74)	2.4% (12)	.4% (2)	0	63.6% (493)
Moderate	83.8% (140)	12% (20)	3.6% (6)	.6% (1)	0	21.5% (167)
Heavy	85.2% (98)	10.4% (12)	4.3% (5)	0	0	14.8% (115)
Totals	82.7%	13.7%	3%	.4%		

Male ($\chi^2 = 19.38$; $p < .05$)

Male abstaining students were more aware of their feelings about death than their drinking peers (Table 4.31). Most students report being aware of feelings about death. Approximately 60% of both males and females report “almost always” being aware of feeling of death.

Table 4.31
Awareness of Feelings About Death

I Am Aware of My Feelings About Death						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	73.4% (179)	17.6% (43)	6.1% (15)	2.9% (7)	0	51.2% (244)
Moderate	66.2% (47)	23.9% (17)	4.2% (3)	2.8% (2)	2.8% (2)	14.9% (71)
Heavy	63.6% (103)	19.8% (32)	11.7% (19)	4.3% (7)	.6% (1)	34% (162)
Totals	69%	19.3%	7.8%	3.4%	.6%	
<u>FEMALES</u>						
Abstainers	68.8% (339)	18.9% (93)	8.9% (44)	2.2% (11)	1% (5)	63.6% (493)
Moderate	61.7% (112)	16.8% (28)	12% (20)	2.4% (4)	1.8% (3)	21.5% (167)
Heavy	70.4% (81)	13% (15)	8.7% (10)	7% (8)	.9% (1)	14.8% (115)
Totals	68.6%	17.5%	9.5%	3%	1.2%	

Summary of Emotional Awareness and Acceptance Index

Although the male responses on all 8 items showed some indication that drinking students are less emotionally developed than nondrinking peers, the majority of all three groups responded “almost always.” The three items that showed significant levels of response distributions outside what would be expected from chance for males were: “awareness and acceptance of sadness; and awareness of fear.” The distribution of female responses was statistically significant for “accepting anger,” with heavy drinkers reporting more often accepting anger than their peers. Most of the freshmen students in this sample accepted and were aware of their emotions.

Social Interaction Index

This index included six items. Male responses were significant in their distribution of frequencies among the five Likert scale response options. The index scores found high percentages of both males and females in the “almost always” response options. A total of 73% of the male freshmen and 88% of the females reported high levels of social interaction; females showed higher levels of social interaction than their male peers (Table 4.32). Male freshmen have a higher percentage of drinking students that report “occasionally” and “almost never” interacting socially than did their nondrinking male peers and female classmates.

Table 4.32
Social Interaction Index

Social Interaction Index						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	21.3% (52)	57% (139)	18.9% (46)	2.9% (7)	0	51.2% (244)
Moderate	12.7% (9)	62% (44)	18.3% (13)	5.6% (4)	1.4% (1)	14.9% (71)
Heavy	12.3% (20)	51.9% (84)	29% (47)	6.2% (10)	.6% (1)	34% (162)
Totals	17%	56%	22.2%	4.4%	.4%	
<u>FEMALES</u>						
Abstainers	40% (197)	48.3% (238)	10.3% (51)	1.4% (7)	0	63.6% (493)
Moderate	36.5% (61)	50.3% (84)	11.4% (19)	1.8% (3)	0	21.5% (167)
Heavy	40.9% (47)	47.8% (55)	7.8% (9)	2.6% (3)	.9% (1)	14.8% (115)
Totals	39.4%	48.6%	10.2%	1.7%	.1%	

Male ($\chi^2 = 17.43$; $p < .05$)

A total of 74% of the females in this sample indicated it is okay to cry, while only 37% of the males reported the same (Table 4.33). The male responses were significantly distributed across the three groups. Male abstainers felt it is okay to cry more than their drinking peers. The male drinkers showed higher percentages of “almost never” feeling it is okay to cry than they indicated on other items from the LAQ.

Table 4.33

It Is Okay to Cry

It Is Okay for Me to Cry						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	41.4% (101)	18% (44)	21.7% (53)	14.3% (35)	4.1% (10)	51.2% (244)
Moderate	28.2% (20)	29.6% (21)	16.9% (12)	8.5% (6)	16.9% (12)	14.9% (71)
Heavy	33.3% (54)	18.5% (30)	22.2% (36)	14.8% (24)	11.1% (18)	34% (162)
Totals	36.7%	19.9%	21.2%	13.6%	8.4%	
<u>FEMALES</u>						
Abstainers	74.6% (368)	14.6% (72)	6.7% (33)	3.2% (16)	.6% (3)	63.6% (493)
Moderate	71.9% (120)	16.2% (27)	6% (10)	3% (5)	3% (5)	21.5% (167)
Heavy	76.5% (88)	12.2% (14)	7% (8)	3.5% (4)	.9% (1)	14.8% (115)
Totals	74.3%	14.6%	6.6%	3.2%	1.2%	

Male ($\chi^2 = 23.58; p < .01$)

Female students reported more sensitivity toward others than their male classmates (Table 4.34). Abstaining students for both sexes were more likely to feel sensitive towards others than their nondrinking peers. Heavy drinking males reported the least amount of sensitivity toward others.

Table 4.34
Feelings Of Sensitivity

I Have Feelings Of Sensitivity Toward Others						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	60.7% (148)	27.9% (68)	8.2% (20)	3.3% (8)	0	51.2% (244)
Moderate	60.6% (143)	29.6% (21)	5.6% (4)	1.4% (1)	2.8% (2)	14.9% (71)
Heavy	51.2% (83)	31.5% (51)	14.8% (24)	1.9% (3)	.6% (1)	34% (162)
Totals	57.4%	29.4%	10.1%	2.5%	.6%	
<u>FEMALES</u>						
Abstainers	83% (409)	14% (69)	2% (10)	.6% (3)	0	63.6% (493)
Moderate	79.6% (133)	16.2% (27)	3% (5)	.6% (1)	.6% (1)	21.5% (167)
Heavy	73.9% (85)	21.7% (25)	3.5% (4)	0	0	14.8% (115)
Totals	80.9%	15.6%	2.5%	.5%	.1%	

The item addressed in Table 4.35 found females more able to give love than their male classmates. While the female responses were comparable across the three groups, male abstainers reported more often expressing love than drinking males.

Table 4.35
Able To Give Love

I Am Able To Give Love						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	71.7% (175)	20.1% (49)	5.7% (14)	2.5% (6)	0	51.2% (244)
Moderate	64.8% (46)	25.4% (18)	5.6% (4)	4.2% (3)	0	14.9% (71)
Heavy	60.5% (98)	22.8% (37)	12.3% (20)	4.3% (7)	0	34% (162)
Totals	66.9%	21.8%	8%	3.4%		
<u>FEMALES</u>						
Abstainers	82.2% (405)	11.6% (57)	4.5% (22)	1.4% (7)	.2% (1)	63.6% (493)
Moderate	81.4% (136)	13.2% (22)	4.2% (7)	.6% (1)	.6% (1)	21.5% (167)
Heavy	83.5% (96)	7.8% (9)	5.2% (6)	1.7% 2	1.7% (2)	14.8% (115)
Totals	82.2%	11.4%	4.5%	1.3%	.5%	

The female “almost always” responses were lower for receiving love than they were for giving love (Table 4.36). More female students reported being able to give love than reported being able to receive love. Male frequencies were similar for both giving and receiving love. The male responses were significantly distributed across the three groups for the item “am able to give love.” As was true with giving love, more abstaining males reported receiving love.

Table 4.36
Able To Receive Love

I Am Able To Receive Love						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	71.7% (175)	22.5% (55)	4.9% (12)	.8% (2)	0	51.2% (244)
Moderate	62% (44)	23.9% (17)	8.5% (6)	4.2% (3)	1.4% (1)	14.9% (71)
Heavy	61.1% (99)	21.6% (35)	13.% (21)	2.5% (4)	1.9% (3)	34% (162)
Totals	66.7%	22.4%	8.2%	1.9%	.8%	
<u>FEMALES</u>						
Abstainers	74.6% (368)	14.8% (73)	7.5% (37)	2.2% (11)	.6% (3)	63.6% (493)
Moderate	74.9% (125)	12.6% (21)	9% (15)	2.4% (4)	1.2% (2)	21.5% (167)
Heavy	76.5% (88)	9.6% (11)	10.4% (12)	.9% (1)	2.6% (3)	14.8% (115)
Totals	75%	13.5%	8.3%	2.1%	1%	

Male ($\chi^2 = 19.05$; $p = .01$)

More female respondents indicated that they share feelings than do male students (Table 4.37). Male heavy drinkers reported the most difficulty with sharing feelings. Female moderate drinkers reported both the highest percentage of “almost always” and “almost never” responses. Female abstainers were least likely to report sharing feelings which is opposite the results for males.

Table 4.37

Sharing Feelings

I Share My Feelings With Those With Whom I am Close						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	50.8% (124)	31.6% (77)	12.3% (30)	4.5% (11)	.8% (2)	51.2% (244)
Moderate	50.7% (36)	29.6% (21)	8.5% (6)	9.9% (7)	1.4% (1)	14.9% (71)
Heavy	43.2% (70)	29.6% (48)	16% (26)	9.9% (16)	1.2% (2)	34% (162)
Totals	48.2%	30.6%	13%	7.1%	1%	
<u>FEMALES</u>						
Abstainers	62.5% (308)	21.5% (106)	9.3% (46)	4.9% (24)	1.4% (7)	63.6% (493)
Moderate	68.3% (114)	21.6% (36)	6% (10)	1.8% (3)	2.4% (4)	21.5% (167)
Heavy	65.2% (75)	20% (23)	9.6% (11)	3.5% (4)	1.7% (2)	14.8% (115)
Totals	64.1%	21.3%	8.6%	4%	1.7%	

Consistent with the results from the “sharing feelings” questions, females reported being able to develop close relationships more than males (Table 4.38). Male heavy drinkers showed the lowest percent of respondents in the “almost always” response option when asked about sharing feelings, than their peers.

Table 4.38

Able To Develop Close, Intimate Relationships

<u>I Am Able To Develop Close, Intimate Relationships</u>						
<u>MALES</u>	Almost Always	Very Often	Often	Occasionally	Almost Never	Count
Abstainers	55.7% (136)	27.9% (68)	9.4% (23)	6.1% (15)	.4% (1)	51.2% (244)
Moderate	54.9% (39)	25.4% (18)	11.3% (8)	7% (5)	1.4% (1)	14.9% (71)
Heavy	48.8% (79)	30.9% (50)	14.2% (23)	4.3% (7)	1.9% (3)	34% (162)
Totals	53.2%	28.5%	11.3%	5.7%	1%	
<u>FEMALES</u>						
Abstainers	68.8% (339)	18.5% (91)	6.7% (33)	3.2% (16)	1.8% (9)	63.6% (493)
Moderate	67.1% (112)	18% (30)	10.2% (17)	3% (5)	1.8% (3)	21.5% (167)
Heavy	69.6% (80)	16.5% (19)	7.8% (9)	2.6% (3)	3.5% (4)	14.8% (115)
Totals	68.5%	18.1%	7.6%	3.1%	2.1%	

Social Interaction Index Summary

When analyzing the index as a whole, it seems moderate drinking males have more difficulty with social interaction than the other groups. All six items showed that drinking students have more difficulty with the social behavior questioned. In the chi square

distribution, two items in this six item index were significant for males: “It is okay for me to cry; and “I am able to receive love.” There were no significant items for female responses.

Data Analyses Summary

The Life Satisfaction Index showed drinking males less often reporting “almost always” in the areas queried. The male responses to items such as “feeling positive, aware of needs, trust own judgment, feel enthusiastic, enjoy life, and have plenty of energy” all showed support for the theory that drinking students are less emotionally developed than their nondrinking peers. One item in this index showed support for the hypothesis that alcohol use is related to emotional development for females.

The Emotional Expression and Management Index found all students less often expressing negative emotions appropriately, and males less than females. Drinking males reported less often expressing feelings appropriately when compared with abstaining peers. As with the Life Satisfaction Index, this index showed males supporting the hypothesis that less emotional development is related to alcohol use. Seven of the eleven items in this index showed female drinker responses in support of the hypothesis.

Most freshmen students responding to the 1993 LAQ reported accepting and being aware of their emotions often. Responses on the Emotional Acceptance and Awareness Index did not show that drinking students are less often accepting and aware of their emotions as was hypothesized.

The Social Interaction Index found males reporting more difficulty with close relationships with others than did females. Drinking males showed scores suggesting less emotional development on items regarding social interaction. Female responses for the majority of the items included in this study showed data that are inconsistent with the hypothesis that emotional development is related to alcohol use.

CHAPTER V

Conclusion and Discussion

In this study, the male and female responses were found to be quite different. Using chi square analyses, males and females were separated to observe the differences among levels of alcohol use. The female responses provided less variance within each alcohol use subgroup and less variance than the total male group. Therefore, the female data showed less support for the theory that drinking students are less emotionally developed than abstaining students. This difference between the sexes was expected but not to the extent found.

In this study, the Life Satisfaction Index showed male drinking students who were less satisfied with life were more likely to use alcohol. The Emotional Expression and Management Index showed the strongest support for the hypothesized relationship between emotional development and alcohol use. The eleven items of this index showed that male and female students reporting more difficulty in expressing and managing their negative emotions were more likely to consume alcoholic beverages. This finding supports Chickering's theory that perceived negative emotions are more difficult to control and express than positive ones (1993). He noted that adolescents often deny these feelings and never address them.

This study found that anger, fear, and sadness were emotions that students least often expressed in appropriate ways. This was true across the three drinking groups, but the heavy and moderate drinkers were least able to appropriately deal with these emotions.

The Awareness and Acceptance Index showed that all the students in this sample were aware of and accepting of their emotions. This eight item index produced the least variance in scores. No students reported “almost never” being aware or accepting emotions according to this index. While most items found more awareness and acceptance among nondrinkers, the majority of responses across the three drinking groups fell in the “almost always” category. Student responses to this index suggest that awareness and acceptance of emotions has a limited relationship to alcohol use.

The Social Interaction Index included six items from the Lifestyle Assessment Questionnaire. In general, females reported more often interacting socially than males and were more consistent in their responses across the three drinking groups. On the other hand, male students who reported less social interaction were more likely to drink. These results suggest that for this index, the hypothesized relationship holds true for males but not for females.

In sum, the first hypothesis that emotional development is negatively related to alcohol use, has some support according to the findings in this study. The data indicate that male drinking students who were less developed emotionally were also drinking students. The hypothesis is supported most strongly through the Emotional Expression

and Management Index. Almost all items in this index showed that the students, both male and female, who reported being less adept at expressing and managing emotions were also drinking students. The Emotional Awareness and Acceptance Index provided the least support for the hypothesis in this study. The Social Interaction Index revealed that less socially interactive students were also drinking students. The Life Satisfaction Index revealed that males who were less satisfied with life also drank alcohol. In summary, the independent measures of emotional development were shown to be related to alcohol use among male college students, but only a few items indicated a relationship between alcohol use and the emotional development measures for females. This finding supports the second hypothesis of differences in the relationship between emotional development and alcohol use by gender.

Limitations

One limitation to this study is that the Lifestyle Assessment Questionnaire is an instrument based on self-report. Chickering (1993) stated, "The responses that students give to questionnaires and personality inventories may not reflect actual behavior. Students may give the "approved" answer or may exaggerate descriptions of behaviors that is much more pallid in real life." (p. 90). Because the data in this study were not gathered empirically or experimentally, the self-reports may yield less reliable results.

As Chickering suggested, the data in the present study were positively skewed with the majority of students responding "almost always." All questions on the LAQ are

directed the same way and therefore increase the likelihood of patterned responses. This instrument was not designed as an emotional development measure, but as wellness assessment. Therefore an instrument designed specifically for measuring emotional development might yield more reliable data. Enhanced wording of the dependent variable (alcohol use) would also enable more reliable data on this measure. “When you drink” and “in a average day” used in this question may have been confusing clauses for occasional drinkers.

The sample used in the study was not a random sample. Students from English classes were selected and may have biased the results. The sample also lacked a representation of racial minority students so that analyses could offer comparisons between the races. These limitations prevent generalizations to populations other than East Carolina University students.

Implications of Study

The findings of this study showed that male alcohol use may be associated with emotional development. Because males who self-identified as drinkers showed proportionately less skill or development in various areas of emotional well-being, or vice-versa, it appears that less emotional development may be predictive of alcohol use. If these findings accurately reflect the population of male college students, drinking behavior may be moderated through the building of skills and behaviors related to emotional development. Specifically, the area of emotional expression and management in this study

showed drinkers as being less skilled. For example, drinking students were found to be less likely to manage negatively associated emotions than their nondrinking peers.

These findings suggest that less emotionally developed male college students drink more than students with higher levels of emotional well-being. If emotional development is related to alcohol use, then alcohol education programs with a component directed at appropriate emotional expression and management may promote less alcohol use among these freshmen college students. These findings may be useful for all student development personnel and counseling professionals. The data indicate an importance for learning to manage emotions appropriately. Programming aimed at college freshmen might address emotional development in an attempt to promote less alcohol use and help students through this vector and improve emotional adjustment.

Recommendations

A study to replicate these findings might use a stratified sample of all undergraduate students to show differences between upperclassmen and freshmen students as related to higher levels of emotional development. A longitudinal study using the same design would also show the effects of maturation on emotional development and its relationship to alcohol use.

The emotional development of college students is an area in need of additional research. Emotional development and its relationship to alcohol use would be a particularly profitable focus in light of the increased alcohol use of college students.

Another recommendation would be to assess the effect of social economic status on emotional development and alcohol use. Follow-up studies conducted at institutions in different regions could provide more generalizable data on this topic.

Findings suggest all students have trouble managing negative emotions, setting limits, and decision making. Helping students build skills in these troublesome areas of emotional development may reduce drinking as well as violence as inappropriate ways to deal with these negative emotions.

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APPENDIX

Table A-1
Life Satisfaction Index

	Almost Always		Very Often		Often		Occasionally		Almost Never	
	%	N	%	N	%	N	%	N	%	N
MALE										
<u>Life Satisfaction</u>	20	97	61	289	16	76	3	13	.4	2
positive about self	49	235	34	164	12	58	4	19	.2	1
excitement in life	52	250	31	149	12	59	3	14	1	5
stable emotional life	50	240	33	157	12	56	4	18	1	6
aware of needs	61	292	28	134	8	39	1	6	1	6
trust/value own judgment	65	311	26	126	7	32	.8	4	.6	3
enthusiastic about life	52	246	32	154	13	63	2	11	.4	2
find it easy to laugh	74	354	19	92	5	25	.6	3	.6	3
enjoy my life	59	281	30	144	8	39	2	10	.6	3
have plenty of energy	46	219	39	185	12	55	3	13	.8	4
FEMALE										
<u>Life Satisfaction</u>	13	98	61	474	22	170	4	27	.8	6
positive about self	34	264	38	296	19	148	6	45	3	21
excitement in life	41	319	37	286	15	117	6	43	1	9
stable emotional life	39	305	35	273	15	119	7	52	3	24
aware of needs	57	438	33	257	9	66	1	11	.3	2
trust/value own judgment	62	477	26	204	9	69	3	19	.5	4
enthusiastic about life	47	363	37	284	13	100	3	19	1	8
find it easy to laugh	78	601	16	124	5	39	.8	6	.5	4
enjoy my life	53	411	31	243	12	89	3	23	1	8
have plenty of energy	32	247	40	313	21	162	5	39	2	13

APPENDIX –Continued

Table A-2
Emotional Expression and Management Index

	Almost Always		Very Often		Often		Occasionally		Almost Never	
MALE	%	N	%	N	%	N	%	N	%	N
<u>Emotional Expression and Management</u>	6	28	38	181	44	212	12	55	.2	1
accept feelings of death	57	273	17	82	16	75	7	7	3	14
express anger	24	116	36	171	24	115	13	60	3	15
express sadness	26	123	33	158	27	129	10	47	4	19
express fear	33	157	37	174	21	100	6	27	3	14
accept criticism	25	121	39	186	23	122	8	39	2	9
set appropriate limits	28	135	39	184	21	101	8	36	4	20
stay within limits	22	106	40	191	22	107	9	43	6	28
reduce failure/set achievable goals	25	119	31	148	29	137	9	42	5	24
manage feelings	35	165	33	155	23	111	8	38	2	7
make decisions without stress and worry	29	139	31	148	25	120	12	55	3	14
express feelings about death	44	209	30	138	18	85	6	30	3	13
FEMALE	%	N	%	N	%	N	%	N	%	N
<u>Emotional Expression and Management</u>	4	31	45	346	40	310	11	82	.8	6
accept feelings of death	52	406	22	172	15	114	6	45	5	35
express anger	28	220	38	297	22	172	8	65	3	19
express sadness	35	272	35	271	19	150	7	55	3	24
express fear	44	344	35	268	16	123	4	27	1	10
accept criticism	26	202	41	316	23	179	7	57	2	18
set appropriate limits	30	231	39	303	23	174	6	44	3	21
stay within limits	23	176	41	321	26	199	7	55	3	20
reduce failure/set achievable goals	26	203	34	266	28	213	8	62	3	23
manage feelings	30	230	39	297	22	169	7	57	2	18
make decisions without stress and worry	16	124	30	229	31	241	14	108	9	69
express feelings about death	43	330	25	191	18	138	9	68	5	38

APPENDIX –Continued

Table A-3

Emotional Awareness and Acceptance Index

MALE	Almost Always		Very Often		Often		Occasionally		Almost Never	
	%	N	%	N	%	N	%	N	%	N
<u>Emotional Acceptance and Awareness Index</u>	37	178	49	234	13	64	.2	1	0	0
aware of anger	78	370	19	90	3	15	.2	1	.2	1
accept anger	57	270	27	130	11	53	4	17	2	7
aware of sadness	70	333	22	106	7	33	1	5	0	0
accept sadness	50	239	30	141	13	63	5	23	2	11
aware of happiness	78	371	20	94	2	9	.6	3	0	0
accept happiness	75	357	21	99	4	17	.6	3	0	0
aware of fear	65	309	24	113	8	40	2	9	.8	4
FEMALE	Almost Always		Very Often		Often		Occasionally		Almost Never	
	%	N	%	N	%	N	%	N	%	N
<u>Emotional Acceptance and Awareness Index</u>	43	330	50	386	7	51	1	8	0	0
aware of anger	82	636	14	109	3	22	.6	5	.3	2
accept anger	60	469	27	210	9	66	3	25	.5	4
aware of sadness	82	634	15	113	3	20	.6	5	.1	1
accept sadness	60	466	25	192	9	72	4	29	2	15
aware of happiness	88	679	10	79	2	13	.1	1	.3	2
accept happiness	84	650	12	95	3	22	.6	5	.3	2
aware of fear	83	641	14	106	3	23	.4	3	0	0

APPENDIX –Continued

Table A-4
Social Interaction Index

MALE	Almost Always		Very Often		Often		Occasionally		Almost Never	
	%	N	%	N	%	N	%	N	%	N
<u>Social Interaction Index</u>	17	81	56	267	22	106	4	21	.4	2
O.K. to cry	37	175	20	95	21	101	14	65	8	40
sensitive toward others	57	274	29	140	10	48	3	12	.6	3
give love	67	319	22	104	8	38	3	16	0	0
receive love	67	318	22	107	8	39	2	9	.8	4
share feelings	48	230	31	146	13	62	7	34	1	5
close relationships	53	254	29	136	11	54	6	27	1	5
FEMALE	Almost Always		Very Often		Often		Occasionally		Almost Never	
	%	N	%	N	%	N	%	N	%	N
<u>Social Interaction Index</u>	39	305	49	377	10	79	2	13	.1	1
O.K. to cry	74	576	15	113	7	51	3	25	1	9
sensitive toward others	81	627	16	121	3	19	.5	4	.1	1
give love	82	637	11	88	5	35	1	10	.5	4
receive love	75	581	14	105	8	64	2	16	1	8
share feelings	64	497	21	165	9	67	4	31	2	13
close relationships	69	531	18	140	8	59	3	24	2	16