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Alcohol Consumption and College Adjustment among College Students
by Generational Status

Presented to the faculty of Lycoming College in partial fulfillment of the requirements for
Departmental Honors in Psychology

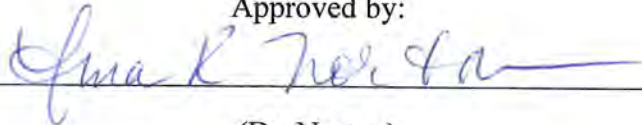
By

Kassandra Lee

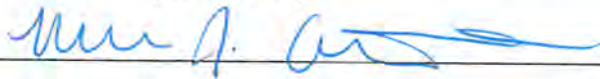
Lycoming College

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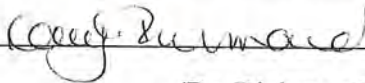
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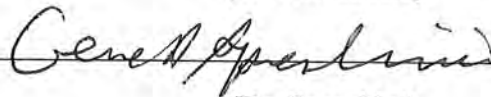
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Alcohol Consumption and College Adjustment among College Students

by Generational Status

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Lycoming College

Abstract

This study focused on alcohol consumption and college adjustment of 227 students classified as either first-generational college students (FGCS) or non-first generational college students (NFGCS). Chi-square analyses were used to examine differences in frequency of alcohol consumption and binge drinking. A MANCOVA was used to assess differences in social and academic adjustment by generational status. No significant differences were found between groups for academic adjustment or alcohol consumption. A marginally significant difference was observed between groups for social adjustment in that FGCS reported lower social adjustment than NFGCS, $F(1,175) = 3.782, p = .053$. Although not statistically significant, the findings of the current study provide insight into some factors that may be affected by a student's generational status. This study also provides ideas for new directions in future research.

Alcohol Consumption and College Adjustment among College Students by Generational Status

Students face many new challenges and lifestyle changes as they transition from high school into college life. In today's society, one of the major changes during this time period is the prevalence of alcohol consumption among these undergraduate students. Research done by the National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2013) goes so far as to state that students view drinking as an integral part of their college experience, and that more than 80% of college students drink alcohol. Earlier research observed that more than two of every five students reported at least one symptom of abuse or dependence, and that these students coming from heavy drinking college environments were more likely to have abuse and dependence diagnoses (Knight et al., 2002).

The high percentages of students consuming alcohol in college combined with the abuse and dependence statistics have led researchers to examine drinking among college students more closely. The nature of alcohol consumption among college students often differs from drinking later in life; therefore, the way in which college drinking is measured also differs in the literature. A number of studies assessing alcohol consumption among students have used measures such as the Rutgers Alcohol Problem Index (RAPI; White & Labouvie, 1989), which focuses on alcohol problems of adolescents and young adults, or the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985), which allows researchers to examine variability in weekend vs. weekday alcohol consumption, a pattern of drinking behavior that is more relevant to college students than other populations (e.g. Kazemi et al., 2012; LaBrie, Ehret, Hummer, & Prenovost, 2012; Murphy, McDevitt-Murphy, & Barnett, 2005). These measures are geared towards

developing interventions to decrease future alcohol consumption in students, and research aims to identify factors that could be predictors of these substance use behaviors. The current study will examine several factors, including college adjustment and generational status, to see how they relate to alcohol consumption among college students. Adjustment assesses the way a student is adjusting to their new college environment. It has been shown that individuals with adjustment problems in school seem to have difficulty controlling the negative consequences of their drinking, even relative to their other peer groups who were drinking similar amounts (Weinberger & Bartholomew, 1996). This does not necessarily mean that students with poorer adjustment are drinking more, but it does tell us that there may be some type of relationship that exists between adjustment and alcohol consumption among college students. For example, it has been found that stronger positive reinforcement motives (i.e., drinking for social enhancement) were related to better adjustment to college (LaBrie, Ehret, Hummer, & Prenovost, 2012). This being said, it was also found that these positive reinforcement motives are particularly risky because they are associated with alcohol-related consequences and linked to particularly heavy drinking. This is an indication that drinking for social enhancement and becoming socially well-adjusted in this way may be related to heavy alcohol consumption. This again could mean that there may be some type of relationship to be investigated between alcohol use and adjustment. This also supports the idea that adjustment is a complex concept, and can be defined on multiple levels.

College Adjustment

Adjustment is a broad term that can be used to describe the way in which a student is adapting to his or her new college life. Previous studies have assessed college adjustment in different ways. A study conducted by Shields (2002) measured students' adjustment to university

life. Shield's term 'good adjustment' was defined as successful adjustment to the formal and informal aspects of the student role. This adjustment was assessed in students of all undergraduate class levels. Students were sent questionnaires that asked about their grade point average (GPA) and included a 3-question scale that asked students about their experiences before college, their current success as students, and their stress levels. The students also participated in interviews throughout the study that touched on the three main points of the questionnaire above. These methods are useful when assessing students' adjustment, however, it can be measured in other ways. Another study measured college adjustment by giving students a self-esteem questionnaire that served as a predictor of college adjustment (Aspelmeier, Love, McGill, Elliott, & Pierce, 2012). The students' GPA was then obtained and used with an adjustment questionnaire to get an overall measure of college adjustment.

Adjustment can mean many different things to researchers, students, and universities, so it is important to understand exactly how it is being measured from study to study. Because college is an environment that involves many unique aspects for new students, the current study will assess adjustment in different ways and on multiple levels. Baker and Siryk (1986) found that any one student may be well adjusted in one area and less well-adjusted in another. They describe adjustment to college as multifaceted, stating that it involves demands varying in both kind and degree and that these demands require a variety of adjustments that will vary in effectiveness. The term multifaceted is used by Baker and Siryk (1984) to describe the purpose behind multiple subscales, and therefore, multiple items within adjustment measures.

A good example of the importance of having multiple items within subscales of adjustment is demonstrated in a study that examined the role of social achievement goals in students' early adjustment to college (Shim & Ryan, 2012). The study incorporated several types

of social goals, including the social development goal that involved a focus on improving social relationships, and the social demonstration-avoid goal that involved avoiding negative judgments from others. The results from the study found that creating social achievement goals were important for freshmen's social adjustment in college, but that certain goals promoted better adjustment (social development goal), while others hindered it (social demonstration-avoid goal). The study's findings were informative about individual differences on several levels of achievement and social behaviors. Although the study focused only on social adjustment rather than multiple subscales, it addressed the array of individual differences seen among students on multiple aspects of adjustment. Because of the differences observed in students' social adjustment, it is evident why it requires attention in the literature.

Social Adjustment and Alcohol Consumption

The idea of adjustment, specifically social adjustment playing a role in alcohol consumption among college students is a relevant focal point in research. A study by Martinez, Sher, and Wood (2008) assessed heavy drinking and its association with attrition from college. They found that attendance at collegiate events, such as Greek parties or residence hall parties, was related to heavy drinking among students. Interestingly enough, the variable of drinking alone did not help predict attrition, but the combination of drinking and the attendance of several of these events was associated with attrition from college. This tells us that a student's attendance to social events may play a role in drinking behaviors. Similarly, a study was conducted to specifically examine how social influences affect drinking in different contexts. O'Grady et al. (2011) explored a term, drinking 'norms', meaning the typical amount of drinking that is done at a specific time. The study found that social drinking 'norms' influenced drinking across the years of college, and set the standard for many students for when to drink alcohol and

how much to consume. It was also reported that the social influence is one that remains stable, and is a predictor of drinking throughout college. Further, the study found that on days when specific events with higher drinking norms took place, students tended to consume more alcohol. This shows that certain events have different drinking norms attached to them that influence students' alcohol consumption. In both of the aforementioned studies, social events and social roles for college students affected their alcohol consumption. Many people automatically identify social roles of students with their drinking patterns in college, however, it is important to conduct research that encompasses not only the social aspects of drinking, but also the effects that these behaviors may have on students' academics. Findings from the above studies bring about the possibility of a relationship between academic adjustment and drinking as well. Depending upon how academic adjustment is measured, higher attrition rates could allude to poorer academic adjustment among students, possibly due to alcohol consumption and social events. Combining research on these multiple types of adjustment allows researchers to better understand how they interact and play a role in the college setting.

Academic Adjustment, Social Adjustment and Alcohol Consumption

Because alcohol use is prominent among college students, it is important to consider the possibility of its relationship with both academic and social adjustment. An undergraduate study conducted by Montgomery and Haemmerlie (1993) examined the relationship between alcohol consumption and academic adjustment. They found that drinking liquor was negatively related to academic adjustment. Another study done by Martinez, Sher, and Wood (2008) examined the relationship between alcohol consumption and social activities, finding that the combination of both lead to higher attrition rates. These poor adjustment issues can be related to attrition in that students with higher academic achievement have shown decreased attrition rates (DeBerard,

Spielmanns, & Julka, 2004). Taken together, these studies suggest that alcohol consumption may play a role in both social and academic adjustment, or even vice versa. This is important because if interventions can be created to help decrease drinking in college freshmen, it is important to understand how these interventions may positively or negatively affect different aspects of their adjustment. The current study will be looking at the relationship between alcohol consumption, academic adjustment, and social adjustment. To look at both types of adjustment, a multifaceted scale was used. With the incorporation of a multifaceted scale, the individual differences of a single person become evident when studying adjustment.

This multifaceted construct is one that Baker and Siryk state is an underlying assumption to the construction of their scale, the Student Adjustment to College Questionnaire (SACQ; Baker & Siryk, 1984). The SACQ is a widely used measure that has been chosen to assess adjustment in many studies of college students (e.g. LaBrie, Ehret, Hummer, & Prenovost, 2012; Ramos-Sanchez and Laura Nichols, 2007). Baker and Siryk (1984) established four areas within their scale, including academic, social, personal-emotional adjustment, and institutional and/or goal commitment. The student's response assesses how well he/she is dealing with that specific area relating to one of the four subscales. Because college is largely an academic and social community, those two subscales will be the main focus for the purpose of the current study. In the academic subscale, students are asked to evaluate their attitudes toward academic goals and the work they are required to do, while the social subscale pertains to the extent and success of social activities and functioning (Baker & Siryk, 1984). More detail of each of the scales, including example questions, will be discussed later. Looking at college adjustment is important, but would not be practical if we began assessing adjustment on a wide-scale in all college students. It is important to find a target population to assess whether adjustment differs in certain

situations. These situations can include any number of unique factors, such as students' expectations of college, which may be based on previous experiences from events or people in the students' lives.

College Student Generational Status

One such population possibly affected by expectations or previous experiences of college is first-generational college students. Capriccioso (2006) has defined first-generational college students, or FGCS, as students who are the first in their families to attend college, and whose parents have received no education beyond high school. These students' college experiences may be affected based on expectations gained from their parents. In 2006, nationwide data based on surveys from 263,710 freshmen showed that one in six freshmen were first-generation college students (Capriccioso, 2006). The incorporation of FGCS is important in college studies because the past experiences of these students' parents can play a major, sometimes unidentified role in the students' adjustments and behaviors. Hertel (2002) found evidence that FGCS experience more difficulties in adjustment to college as opposed to second or third-generation college students. Hertel hypothesized that these students may know less about college, may receive less support for their attendance in college, and may have different values than other students. Regardless of the reason, it is important to study FGCS because Hertel found that second-generation college students report significantly greater social adjustment than first-generation students. This relates back to the idea of social adjustment and drinking issues, allowing us to look at students of different generational status, their adjustment academically and socially, and how these adjustments may be related to drinking among students as well.

Generational Status and Alcohol Consumption

Finally, it is important to study possible relationships between alcohol consumption and generational status. If these two variables affect each other, it is important to study how this relationship works and which types of students are at risk for unhealthy alcohol use behaviors. A study was conducted by Glassco (1975) with the purpose of identifying drinking habits of college students. The study had several important findings. First, the study determined that in college, drinking is more closely associated with social maturation than with intellectual development. This suggests that students who are consuming alcohol are probably adjusting better socially than academically. This, of course cannot be supported without further research. Another finding of the research was that educational level of parents appeared to relate to drinking among students. Unlike the current study aimed at freshmen students, the Glassco study assessed drinking in college seniors; however the findings can still be important to help form hypotheses involving similar variables. Except for the group of seniors whose fathers had attended high school only, Glassco found that the percentage of seniors who reported drinking increased in direct proportion to the years of the fathers' formal education. Eighty-one percent of male seniors reported being alcohol consumers when their fathers' education was below that of high school level, while 94% of male seniors indicated they drank when their fathers' education extended through college. Fifty-four percent of female seniors reported to be drinkers when their fathers' education was below high school level, while 89% indicated they drank when their fathers' education extended through college. With respect to the mothers' educational level, the percentage of seniors who reported drinking increased gradually in proportion to the increase in mothers' educational level. The percentages of drinkers for the mothers' education were similar (47% males/71% females reported drinking when mothers' education was below high school level. 92% males/87% females reported drinking when mothers' education was college education

or higher). The findings of this study indicate that generational status, or educational level of parents as reported in the Glassco study, may be directly related to drinking among college students. This would suggest that first-generation college students would have lower drinking rates than non-first-generational college students.

Purpose of the Current Study

The current study is relevant because it addresses adjustment on many different levels that have not yet been fully investigated together. A study by Martinez et al. (2009) studied attrition in first-generation students, and specifically noted that an association between parental education, substance use, and attrition (as we can relate to academic adjustment) has not been well studied. Because all of these variables could have effects on each other, it is important to investigate them together and find out how they could affect each other if one or many of them are changed.

The current study will assess possible differences in academic adjustment, social adjustment, or alcohol consumption by students' generational status. Based on previous literature, three hypotheses will be tested specifically: 1) first-generational college students will yield a higher score on the academic adjustment scale than non-first generational students, meaning that first-generational students exhibit better academic adjustment; 2) non-first-generational college students will score higher on the social adjustment scale than first-generational students, therefore exhibiting better social adjustment than first-generational college students; and 3) non-first-generational college students will exhibit higher alcohol consumption than first-generational college students.

Method

Participants

Participants were freshmen from a small, private liberal arts college in the Northeast. Approximate enrollment at the college is 1,400 undergraduate students (55% female, 96.4% Caucasian), 80% of whom live on campus. The data for the study were derived from two freshmen classes over the course of two academic years (2011-2012, and 2012-2013). The data set for the present study was created by merging the data files from 2011-2012 and 2012-2013.

Measures

Alcohol Consumption. Alcohol consumption was measured in two ways: Frequency of alcohol consumption and binge drinking.

Frequency of Alcohol Consumption. Frequency of alcohol consumption was measured with the following question: “In the last six months, how often have you had any kind of beverage containing alcohol, whether it was beer, a wine cooler, shots, or any other alcoholic drink?” Students chose one of seven response options, ranging from ‘no alcohol in the last 6 months’ through monthly, weekly, and daily options. The students’ responses to this question were used to separate them into one of two groups. Group one consisted of students who had consumed alcohol either rarely or not at all in the last six months. Group two consisted of students who had consumed alcohol either monthly or more frequently in the last six months. The groups were separated based on whether their response indicated regularity in their drinking patterns in the past 6 months.

Binge Drinking. Binge drinking was measured using the following question: “in the last 30 days, how often did you have 4 or more (if female) or 5 or more (if male) drinks in a two hour

period?” This measure is consistent with the definition of binge drinking used by NIAAA (2004). Students chose one of five response options consisting of never, daily, monthly and weekly options. Students’ responses separated them into one of two groups: a group who had participated in binge drinking in the last 30 days, and a group who had not.

College Adjustment. Adjustment was measured using the Student Adjustment to College Questionnaire (SACQ; Baker & Siryk, 1984). The SACQ covered overall aspects of adjustment, but also looked at various aspects of adjustment separately. Baker and Siryk (1984) established four areas within their scale, including academic, social, personal-emotional adjustment, and institutional and/or goal commitment. The student’s response assesses how well he/she is dealing with that specific area relating to one of the four subscales. Each item had a 9-point Likert scale labeled “Applies very closely to me” at one end and “Doesn’t apply to me at all” at the other. Students were asked to select the point from the scale that represented the degree to which the statement was true for them. For all subscales, a higher score was indicative of better adjustment. For the current study, the academic and social adjustment subscales were used.

The academic subscale consisted of 24 items, with a score range from 24-216. Some items asked students to evaluate their attitudes towards academic goals and the academic work required of them (e. g., “I enjoy my academic work”). They were also asked how well they were applying themselves (e. g., “I keep up to date with academic work”); the effectiveness and efficiency of their efforts (e. g., “I have trouble concentrating when studying”); and their satisfaction with their academic environment and what it was offering them (e. g., “I am satisfied with my program of courses”). Internal reliability of this subscale was good (Cronbach’s standardized $\alpha = 0.916$). The social adjustment scale consisted of 19 items total, with a score

range of 19-171. Some items in the scale pertained to the extent and success of social activities and functioning (e. g., “I am very involved with college social activities”). Other items dealt directly with interpersonal relationships (e. g., “I am meeting people and making friends”); social relocation (e. g., “I am lonesome for home”); and student’s acceptability with their social environment (e. g., “I fit in well with the college environment”). Internal reliability of this subscale was acceptable (Cronbach’s standardized $\alpha = 0.897$).

Generational Status. Generational status was determined from students’ responses to a question in the demographics questionnaire. The question asked students to identify the highest level of education completed by their mother and the highest level of education completed by their father. In the 2011-2012 data set, students were asked to select which degree of schooling each of their parents had completed. The degree options were elementary, high school, college, or other. Students reported their mothers’ education level as follows: 0.3% elementary school, 12.4% high school, 12.6% college, and 2.6% other. For father’s education level, 0.6% reported elementary, 13.2% reported high school, 9.7% reported college, and 4.1% reported other. The 2012-2013 data set was measured differently in that students had to select which type of education each parent completed specifically, ranging from 8th grade or less through post-graduate. If any of the first four options were selected for both parents (8th grade or less, some high school, high school graduate, vocational/technical), the student was considered first-generation. If any of the remaining four options were selected for both parents (some college/university, college degree- B.A./B.S., graduate degree, post-graduate), the student was considered non-first-generation. Of these students, none reported that their mother had schooling 8th grade or less, 1.2% reported some high school, 13.1% reported high school graduate, 2.9% reported vocational/technical school, 8.6% reported some college/university, 19.6% reported

college degree, and 8.1% reported graduate/post-graduate education. For father's education, 2.0% reported education below high school level, 13.1% reported high school graduate, 4.5% reported vocational/technical school, 6.9% reported some college/university, 16.3% reported college degree, and 9.0% reported graduate/post graduate education. Although measured differently, the generational status of the student can be determined similarly from each data set. For both data sets, first-generation students were only identified as such if neither parent had an education level beyond that of high school. Consequently, the study only included students who reported on the education levels of both of their parents.

Procedure

Data reported in the present study was collected over 2 academic years as part of a larger longitudinal study of college students' health behaviors (2011-present). All research procedures for the current study were approved by the participating college's Institutional Review Board. Criteria for inclusion in the study were that students had to be incoming freshmen (just prior to matriculation), and that the students were able to provide informed consent. Students interested in participation were asked to complete a packet of questionnaires during first weekend (prior to the first day of classes in August) that provided baseline data. Students who consented and provided contact information were re-contacted for follow-up surveys. In 2011-2012, follow-up surveys were administered in the spring semester (February). In 2012-2013, follow-up surveys were administered in both the fall (October) and spring (February) semesters.

Follow-up Survey: Upon completion of the questionnaire packet during first weekend, students provided contact information (email address) for follow-up surveys. Follow-up surveys were provided electronically via email invitation through SurveyMonkey (surveymonkey.com). Surveys were maintained and kept password protected at this website. The email invitation

included a consent form providing research information to students that included: 1) the purpose of the research; 2) the methods that would be used; 3) what was expected of participants, including potential risks and benefits; 4) the voluntary nature of participation and the right to discontinue at any time; and 5) the steps that would be taken to protect privacy and confidentiality of each student. Each email invitation included a unique, randomly selected code number that students were asked to enter after clicking on a web link (to either participate or decline). This randomly generated number is the only identifying information in the database, which preserves the confidentiality of survey responses. Code numbers served several purposes: 1) recording students who completed the survey in order to award their monetary incentives; 2) recording students who declined the survey to avoid sending additional emails about participation; and 3) combining survey responses from the baseline and follow-up questionnaires. The current study will only include data from the spring 2012 and spring 2013 follow-ups for 2 reasons: 1) At baseline, students were only reporting alcohol consumption before attending college, while the current study is more interested in alcohol consumption post-college matriculation; and 2) the SACQ (Baker & Siryk, 1984) being used to assess adjustment was not included in baseline data since participants had not yet started to attend college.

Analysis Plan

First, descriptive statistics were run on demographics and study variables to describe the sample. Second, independent sample t-tests and chi-square analyses were used to compare demographic data by generational status and cohort group to assess the need for possible covariates in subsequent analyses. Third, chi-square analyses were used to examine differences in frequency of alcohol use and binge drinking between first-generational and non-first-generational students. Finally, a multivariate analysis of covariance (MANCOVA) was

conducted to assess differences in social and academic adjustment by generational status. All statistical analyses were run in SPSS, version 20 (IBM, 2011).

Results

Demographic Data

The current sample was comprised of freshmen students who completed the follow-up survey during the 2011-12 and 2012-13 academic years. Of the 227 participants, 28.3% were male and 71.7% were female. Participants were primarily Caucasian (85.4%), with 5.3% being of African-American ethnicity, and 9.3% of other ethnicities. Average age of participants was 18.56 years ($SD=0.89$, range= 17-29). The sample was comprised of all freshmen students, who were primarily residential (92.1%), with a small number of commuters (7.9%). Sixty-one percent ($n = 136$) were first generation, with the remaining 39% ($n = 87$) considered non-first generation. Comparisons were also made by generational status for all demographics. There were no significant differences found for any demographic variable ($p > .05$; see Table 1).

Comparisons were made between cohort years for all demographics. There was a significant difference in gender composition between cohort groups, $\chi^2(1, N=226) = 3.932, p = .047$. In the 2011-12 cohort, 21.3% of the sample was male and 78.7% was female, while in the 2012-13 cohort, 33.3% of participants were males and 66.7% were female. A significant difference in generational status was also observed between cohort groups, $\chi^2(1, N=223) = 6.331, p = .012$. There were a greater proportion of first-generation students in the 2011-2012 cohort (70.5%) than in the 2012-13 cohort (53.9%). Given these significant demographic differences by academic year, cohort was used as a covariate in subsequent analyses

(MANCOVA). All other demographics did not differ significantly between cohort years (See Table 2).

Descriptive Statistics for Dependent Variables

Alcohol consumption was measured in two different ways: binge drinking and frequency of alcohol consumption. Among all participants, 47.3% of the sample reported binge drinking in the last 30 days. Frequency of alcohol consumption in the past six months was also measured, with 48% of participants reporting that they consumed alcohol rarely or not at all, and 52% reporting monthly or more frequent alcohol use.

Both alcohol measures were compared between cohort years. Binge drinking differed significantly by cohort year, with 36.2% of participants reporting binge drinking in 2011-12 and 55.3% in 2012-13 ($\chi^2(1, N = 226) = 8.062, p = .005$). A difference was also observed in the frequency of alcohol consumption ($\chi^2(1, N = 226) = 9.397, p = .002$). In 2011-12, 60% of participants reported drinking rarely or not at all, while 40% said they drank monthly or more frequently. In 2012-13, 39.4% of participants reported drinking rarely or not at all, while 60.6% reported drinking monthly or more frequently (See Table 3b).

Adjustment was assessed among all participants, with a mean academic adjustment score of 146.92 (SD= 32.80; range= 50-213) and a mean social adjustment score of 119.43 (SD=27.91; range= 44-163). Adjustment scores were compared between the 2011-12 and 2012-13 academic years. The mean academic adjustment score for the 2011-12 year (M=147.75, SD=32.48) did not differ significantly from the 2012-13 year (M=146.26, SD= 33.18; $t(193) = .007, p = .933$). In contrast, there was a marginally significant difference in mean social adjustment scores between the 2011-12 (M=113.34, SD=28.70) and 2012-13 participants (M=123.77, SD=26.61; $t(200) = 3.136, p = .078$) (See Table 3a).

Comparisons by Generational Status

Differences in alcohol use between first-generation and non-first generation groups were assessed. No significant difference in binge drinking was observed between the first-generation group ($n = 63$; 46.7%) and the non-first generation group ($n = 43$; 49.4%; $\chi^2(1, N = 222) = .161$, $p = .688$). There were also no significant differences in frequency of alcohol consumption between the 2 groups. The first-generation group had 47.1% of participants report drinking rarely or not at all (compared to non-first's 48.3% report on this). The first-generation group had 52.9% of participants report drinking monthly or more frequently, (compared to non-first's 51.7%), $\chi^2(1, N = 223) = .032$, $p = .859$; See Table 4).

Differences in adjustment between first-generation and non-first generation groups were also assessed. No significant difference in academic adjustment was observed between the first-generation group ($M = 146.5$, $SD = 32.45$) and non-first generation group ($M = 146.57$, $SD = 34.32$; $F(1, 175) = .012$, $p = .914$). In terms of social adjustment, there was a marginally significant difference between the first-generation group ($M = 115.89$, $SD = 27.62$) and non-first generation group ($M = 125.59$; $SD = 24.62$), in that first-generational students reported lower social adjustment than their non-first generational peers, $F(1, 175) = 3.782$, $p = .053$ (See Table 5).

Discussion

The current study was relevant to the psychological literature because it addressed adjustment with first-generation students in ways that have not yet been investigated. Capriccioso (2006) reported that one in six freshmen were considered first-generation college students, and he emphasized the ways in which they could be affected in college. Because of this

report, the aim of the current study was to assess both adjustment and alcohol consumption among these students.

There was no difference observed in academic adjustment between the generational groups. One reason for this could be because non-first generational students are more familiar with the overall college life. This familiarity could help to compensate for their hypothesized lower academic adjustment, and raise their academic adjustment to a score similar to those of their first-generational peers. A study by Pike and Kuh (2005) reported that compared to non-first generational college students, first-generation students have less knowledge and fewer experiences with college campuses, behaviors, and role models. This would explain why the current study's hypothesis that first-generational students would exhibit better academic adjustment was not supported. If non-first generational students are more knowledgeable overall about college, then they may also excel academically, minimizing the expected academic difference between themselves and first-generational students. This could also help to explain why these non-first generational students still reported slightly better social adjustment as well. Although this difference was marginal, it was trending in the right direction to support the current study's hypothesis that non-first generational students would exhibit better social adjustment.

In disagreement with the initial hypothesis, neither binge drinking nor frequency of alcohol consumption differed between the first and non-first generation groups. One reason for this lack of difference could be due to the follow-up time period in which students were surveyed. Baker and Siryk (1986) reported that overall adjustment scores of less well-adjusted students increased from the first to second semester. Because the current study did not look at participants during baseline (first semester), it is possible that the first-generational students

could have had lower social adjustment scores, and therefore lower alcohol consumption at this time. The first-generation students may have improved their adjustment scores by follow-up (second semester) to more closely match those of the non-first generational students, and therefore, report similar alcohol consumption. There may be other reasons that there was no significant difference in alcohol consumption between generational groups: Bui (2002) reported that while first-generation and non-first generation students did differ in several categories, there was no noted difference in the way each group made friends and how they felt accepted at their university (both social aspects). Because social activities are related to alcohol consumption (Martinez, Sher, & Wood, 2008), similar social activities among first and non-first generational groups may also mean similar alcohol consumption.

Because the study included participants over the course of two academic years, cohort differences were assessed for all basic demographic data. A significant difference in gender composition and generational status was observed between the cohorts. No differences were observed by generational status for any of the demographic variables, including age, gender, ethnicity, and student type.

Cohort differences were also observed among the alcohol consumption and adjustment variables. Concerning Alcohol consumption, binge drinking and frequency of alcohol intake differed significantly by cohort year. In 2012-13, an increased percentage of students reported binge drinking from the 2011-12 year. This increase was also observed for frequency of alcohol consumption in the 2012-13 year. These consistencies show that participants drank more heavily and more often in this academic year. One interesting finding was that there were more females than males in the 2012-13 year when the heaviest drinking occurred. Although in past research it has seemed that men tend to participate in heavier drinking (Emslie, Hunt, & Macintyre, 2002), a

study by Young, Morales, McCabe, Boyd, and D'Arcy, (2005) suggests that undergraduate college women may not only be binge drinking as much or more than men, but also doing so more frequently. Young et al. (2005) found that 25% of their female sample reported these heavy and frequent drinking behaviors. This finding is consistent with the current study in that the heavy and frequent alcohol consumption occurred even in years when female participants outnumbered males.

Aside from drinking, adjustment differences among cohort years were also observed. Between both years, there was no observed difference in academic adjustment. A marginally significant difference was observed for social adjustment among the years. Slightly greater social adjustment was reported in 2012-13 than in the previous year. Although this difference is small, it is relevant in that it suggests a connection between alcohol consumption and social adjustment. This is also demonstrated in a previously mentioned study that reported attendance at social events was related to alcohol consumption (Martinez, Sher, & Wood, 2008). Because both alcohol consumption and social adjustment were greater in 2012-13 for the current study, it suggests a trend that agrees with the research done by Martinez and colleagues (2008).

Limitations

The current study provides new insights into the drinking trends and adjustment styles of first and non-first generational students. However, there are limitations that need to be acknowledged and considered for future research. First, this study is correlational and cannot make any conclusions about causality. Given that the study took place at a small private liberal arts college, the sample sizes were small. It is possible that with larger sample sizes the marginal results could have reached statistical significance. Furthermore, as with most questionnaires, the current study had missing data, causing slight fluctuations in sample sizes across different

variables. Another important limitation arises from the lack of diversity of the sample. The majority of the current sample was Caucasian females. This specific sample from the small liberal arts college may have low external validity, and may not generalize to more diverse populations. It is also relevant to note that the assessment of alcohol consumption was limited to two self-report questions addressing specific quantity and frequency of drinking, and not overall consumption behaviors. Similarly, both social and academic adjustment scores were obtained from one general measure, and not assessed with any personalized questions. As for generational status, the literature showed inconsistencies in how to define the term. The current study identified students as first-generation if neither parent had an education level beyond that of high school, and 61% of the sample met this criterion. When compared with Capriccioso's (2006) national study that reported 1 in 6 freshmen (or approximately 17%) were first-generation, the current study found a very high number of first-generational students. This difference may be due to the specific definition used in the current study, or it could be due to the student demographics at the college where the study was conducted. Future research could choose an alternative definition or a more diverse range of student demographics, which could lead to different results.

Future Research

With limitations in mind, future research could expand on the current topic in hopes of supporting more connections between generational status, college adjustment, and alcohol consumption. As previously mentioned, a larger sample size could lead to more significant results. Similarly, additional means of measuring alcohol consumption could be added. For alcohol consumption, the types of alcohol being consumed could also be assessed. In addition, it could be useful to consider other factors that could influence drinking behaviors in college

students. Some factors may include previous drinking habits, fraternity/sorority membership (Montgomery & Haemmerlie, 1993), attendance to college events such as residence hall parties or sports events (Martinez, Sheer, & Wood, 2008), age (Connor et al., 2014), or involvement in college athletics (Weaver et al., 2013). Additional means of measuring adjustment could also be useful. For example, previous studies have included GPA and attrition rates to allow for a more thorough definition of academic adjustment. It would also be beneficial to assess social adjustment via personalized questions asking about the types of social activities in which students participate (school parties, bars, alcoholic, non-alcoholic, etc.). It would be informative to include other types of adjustment in the current research as well. This would help give further insight into other aspects that generational status might be affecting. Along these lines, generational status among students could be a beneficial variable to consider over longer time periods. The current study saw a decrease in first-generation students from 2011-12 (70.5%) to 2012-13 (53.9%). Because variables were only assessed over two academic years, it cannot be concluded that this generational trend is consistent. Future generational status research should aim to identify possible changes or consistencies in the increase or decrease of first-generation students. The knowledge and application of these changes would allow new research to build on what has already been assessed, and generate stronger conclusions.

The current study demonstrated the usefulness of considering the effect of generational status on important aspects of college. This research is significant when it comes to understanding ways to improve student adjustment and support healthier drinking habits. By aiming to support these improvements and incorporating new ideas into future research, we help to build a better future for many college students, and ensure a better environment for their education.

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Table 1

Demographic Data by Generational Status (N =223)

Variable	All Participants			First-generation			Non-first generation		
	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>
Age	18.56 (.89)	17-29	227	18.56 (0.54)	17-20	136	18.54 (1.27)	18-29	87
Gender									
Male			64 (28.3)			36 (58.1)			26 (41.9)
Female			162 (71.7)			99 (61.9)			61 (38.1)
Ethnicity									
Caucasian			193 (85.4)			113 (83.7)			77 (88.5)
African-American			12 (5.3)			7 (5.2)			4 (4.6)
Other			21 (9.3)			15 (11.1)			6 (6.9)
Student Type									
Resident			209 (92.1)			124 (60.5)			81 (39.5)
Commuter			18 (7.9)			12 (66.7)			6 (33.3)

Table 2

Demographic Data by Cohort Year (N =227)

Variable	All Participants			2011-2012			2012-2013		
	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N (%)</i>
Age	18.56 (.89)	17-29	227	18.48 (.56)	18-20	95	18.61 (1.1)	17-29	132
Gender*									
Male			64 (28.3)			20 (21.3)			44 (33.3)
Female			162 (71.7)			74 (78.7)			88 (66.7)
Ethnicity									
Caucasian			193 (85.4)			80 (84.2)			113 (86.3)
African-American			12 (5.3)			8 (8.4)			4 (3.1)
Other			21 (9.3)			7 (7.4)			14 (10.6)
Student Type									
Resident			209 (92.1)			89 (93.7)			120 (90.9)
Commuter			18 (7.9)			6 (6.3)			12 (9.1)
Generational Status*									
First-generation			136 (61.0)			67 (70.5)			69 (53.9)
Non-first generation			87 (39.0)			28 (29.5)			59 (46.1)

*Significant difference ($p < .05$) between 2011-2012 and 2012-2013 cohorts

Table 3a

Descriptive Data on Study Variables (N =197)

Variable	Health Behaviors			2011-2012			2012-2013		
	<i>Mean (SD)</i>	<i>Range</i>	<i>N</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N</i>	<i>Mean (SD)</i>	<i>Range</i>	<i>N</i>
Academic Adjustment	146.92 (32.80)	50-213	197	147.75 (32.48)	52-203	87	146.26 (33.18)	50-213	110
Social Adjustment*	119.43 (27.91)	44-163	204	113.34 (28.70)	44-159	85	123.77 (26.61)	55-162	119

*Significant difference ($p < .05$) between 2011-2012 and 2012-2013 cohort

Table 3b

Descriptive Data on Study Variables (N =197)

Variable	Health Behaviors	2011-2012	2012-2013
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>
Binge Drinking*			
Yes	107 (47.3)	34 (36.2)	73 (55.3)
No	119 (52.7)	60 (63.8)	59 (44.7)
Frequency of Alcohol Consumption*			
Rarely/Not at all	109 (48.0)	57 (60.0)	52 (39.4)
Monthly or more frequently	118 (52.0)	38 (40.0)	80 (60.6)

*Significant difference ($p < .05$) between 2011-2012 and 2012-2013 cohorts

Table 4

Chi-square Analyses Examining Differences in Alcohol Use (N =223)

Variable	First-Generation <i>n</i> = 136	Non-first Generation <i>n</i> = 87
	<i>N</i> (%)	<i>N</i> (%)
Binge Drinking		
Yes	63 (46.7)	43 (49.4)
No	72 (53.3)	44 (50.6)
Frequency of Alcohol Consumption		
Rarely/Not at all	64 (47.1)	42 (48.3)
Monthly or more frequently	72 (52.9)	45 (51.7)

Note: Binge drinking ($\chi^2 (1, N = 222) = .161, p = .688$), and frequency of alcohol consumption ($\chi^2 (1, N = 223) = .032, p = .859$) were not significantly different by generational status.

Table 5

Multivariate Analyses of Covariance Examining Adjustment Differences by Generational Status (N =178)

Dependent Variable	F (df)	p	η^2	n	Mean
Academic Adjustment	.012 (1,175)	.914	.000		
First-Generation				108	146.50
Non-first Generation				70	146.57
Social Adjustment	3.782 (1,175)	.053	.021		
First-Generation				108	115.89
Non-first Generation				70	125.59

Note: Analyses control for cohort year.