

**Alcohol Consumption and Scholastic Performance of Collegiate Physical Education Students****Arvin A. Andacao<sup>1\*</sup>, Fermar M. Lad<sup>2</sup>**<sup>1</sup>Institute of Education and Teacher Training, Davao Oriental State College of Science and Technology, Philippines<sup>2</sup>Manay National High School, Department of Education, Philippines**Article Info***Article History :**Received January 2021**Revised January 2021**Accepted March 2021**Available online April 2021**Keywords :**academic performance, alcohol consumption, college students***Abstract**

Alcohol is widely used in the world. Either for happiness or resolving problems, college students continue to have interaction with alcoholic drinks. This paper was aimed at examining the connection between alcohol intake and scholastic performance of second-year college students who took Physical Education subject in Davao Oriental State College of Science and Technology. The authors employed descriptive-correlational design with 115 students as samples out of 377 participated respondents. One set of adopted, contextualized, and tested 15-items of types of drinker instrument gaining excellent Cronbach's alpha was used. Academic grades had been acquired and generated from an electronic database school system for academic records of the students. The findings discovered that the general level of alcohol consumption of the students was moderate, while the overall educational performance score was generally determined as satisfactory. The students aged 15 to 17 years gained  $f$  value 6758.46 ( $p < 0.01$ ), while the students aged 18 to 20 years gained  $f = 3564.71$  ( $p < 0.01$ ). Each of the result defined the sizable distinction within the alcohol consumption of college students. Meanwhile, the investigation also observed an extensive distinction in the level of alcohol use analyzed by gender ( $f = 1780.55$ ;  $p < 0.01$ ). Courses and study time parameters did not show statistically significant difference in alcohol consumption. Finally, alcohol intake was not significantly correlated to instructional performance. Furthermore, the problem and high-risk of drinking in students had been found out for the maximum salience of the study. A functional and sustainable moral recovery program of each school organization that includes risk assessment, alcohol and drug education, mental health, physical exercises, games and sports, and recreational activities is recommended.

## INTRODUCTION

The façade of this paper was the prevalent and obvious use of alcohol in the institution. It led the authors to investigate the student reasons in getting engaged in a binge drinking through the school projects, practical activities, and examinations were rising and fast approaching.

Several studies on alcohol consumption conducted in different universities and colleges across the globe found that the risk of academic failure increases together with alcohol intake (López-Frías et al., 2001). For instance, 62.5% of the students failed in their first year due to drinking (Aertgeerts & Buntinx, 2002), missing classes (Martinez et al., 2008; Reda et al., 2012), social and norm acuities (Tarrant et al., 2019; Morell et al., 2020), a low academic performance (Martinez et al., 2008; Alimen & Alimen, 2012; Reda et al., 2012; Htet et al., 2020), drunkorexia (Pompili & Laghi, 2020), mental health problems (Sæther et al., 2019), fights and risky sexual behaviors (Htet et al., 2020; Mandziuk et al., 2020), and associated negative performances (El Ansari et al., 2013).

The trend of alcohol use among individuals and groups in Philippines retrieved upward in all regions from 2004 to 2012 (Salas & Hinlo, n.d.). Swahn et al., (2013) reported that 23.3% of students drank alcohol on one and more days and 20.7% were drunkenness. The Philippine Statistics Authority (2018) released a special issue on alcohol and tobacco use, that 67% of students attempted to drink alcohol before age of 14. Despite of the increase of the taxes for alcohol and tobacco use, the consumption of alcohol is still high (Villanueva, 2019; Ordinario, 2020).

The limited number of research in the locality and the dearth of data propelled the authors to probe the underlying problem of alcohol consumption among college students and the effects on their academic performance in Davao Oriental State College of Science and Technology (DOSCSST). The courses and study time added novelty to this paper.

The objectives of the study were to: (a) find out the level of alcohol consumption and level of scholastic outcome, (b) determine the significant differences related to age, gender, course or specialization, and study time, (c) examine the relationship between the two variables, and (d) identify the most salient indicator of alco-

hol consumption.

## METHODS

This paper employed a quantitative research, specifically a descriptive-correlational design. This design allowed the authors to examine and describe the relationship between alcohol consumption and scholastic performance among Physical Education students in DOSCSST.

### Participants

The second-year level students who had Physical Education subject were the target respondents of the study. The profiles of the respondents, who were considered student-drinkers, were categorized based on their age, gender, course/specialization, and the number of hours spent on studying. Table 1 displays the profile of the student-drinkers according to their age.

**Table 1.** Age of Student-drinkers

| Age      | f   | %      | Rank |
|----------|-----|--------|------|
| 18 below | 44  | 38.26  | 2    |
| 18-20    | 46  | 40.00  | 1    |
| 21-23    | 16  | 13.91  | 3    |
| 23 above | 9   | 7.83   | 4    |
| Overall  | 115 | 100.00 |      |

The data revealed that the majority of student-drinkers, 40% (f = 46), belonged to 18-20 years age group; 38.26% (f = 44) belonged to below 18 age group; 16 participants or 13.91% fell to 21-23 years age group; while the 23 above age group gained the lowest frequency (9 or 7.83%). Table 2 presents the outline of student-drinkers according to gender.

**Table 2.** Gender of Student-drinkers

| Gender  | f   | %      | Rank |
|---------|-----|--------|------|
| Male    | 90  | 78.26  | 1    |
| Female  | 25  | 21.74  | 2    |
| Overall | 115 | 100.00 |      |

The majority of student-drinkers (78.26%) were male (f = 90), while the rest were female (25 respondents or 21.74%). Table 3 discusses the distribution of student-drinkers regarding their course or area of specialization.

From the observed data, the Civil Engineering program got the highest frequency (f=12) or 10.43%. The Industrial Technology obtained 10 or 8.70%; Agricul-

ture Technology program gained 7 or 7.83%; Agribusiness, Business Management, and BS Mathematics programs all gathered 8 or 6.96%; Development Communication, Elementary Education, Information Technology, Nursing, Secondary Education with specialization of Mathematics, and School Physical Education altogether gained 5.22% (f=6); BS Biology, Secondary Education major in Biological Sciences, English, and Physical Sciences programs got 5 or 4.35%; and, BS Environmental Science program obtained 4 or 3.48%.

**Table 3.** Course of Student-drinkers

| Area of Specialization      | f   | %      | Rank |
|-----------------------------|-----|--------|------|
| Agribusiness                | 8   | 6.96   | 5    |
| Agriculture Technology      | 9   | 7.83   | 3    |
| BS Biology                  | 5   | 4.35   | 14.5 |
| BS Environmental Science    | 4   | 3.48   | 17   |
| BS Mathematics              | 8   | 6.96   | 5    |
| Business Administration     | 8   | 6.96   | 5    |
| Civil Engineering           | 12  | 10.43  | 1    |
| Development Communication   | 6   | 5.22   | 9.5  |
| Elementary Education (BEEd) | 6   | 5.22   | 9.5  |
| Industrial Technology       | 10  | 8.70   | 2    |
| Information Technology      | 6   | 5.22   | 9.5  |
| Nursing                     | 6   | 5.22   | 9.5  |
| Secondary Education (BSEd)  |     |        |      |
| Biological Sciences         | 5   | 4.35   | 14.5 |
| English                     | 5   | 4.35   | 14.5 |
| Mathematics                 | 6   | 5.22   | 9.5  |
| Physical Sciences           | 5   | 4.35   | 14.5 |
| School Physical Education   | 6   | 5.22   | 9.5  |
| Overall                     | 115 | 100.00 |      |

**Table 4.** Study of Student-drinkers

| Area of Specialization      | f   | %    | Rank |
|-----------------------------|-----|------|------|
| Agribusiness                | 8   | 2:33 | 17   |
| Agriculture Technology      | 9   | 4:13 | 5    |
| BS Biology                  | 5   | 3:06 | 16   |
| BS Environmental Science    | 4   | 3:22 | 9    |
| BS Mathematics              | 8   | 4:22 | 4    |
| Business Administration     | 8   | 3:15 | 13.5 |
| Civil Engineering           | 12  | 4:52 | 1    |
| Development Communication   | 6   | 3:15 | 13.5 |
| Elementary Education (BEEd) | 6   | 4:50 | 2    |
| Industrial Technology       | 10  | 3:15 | 13.5 |
| Information Technology      | 6   | 4:10 | 6    |
| Nursing                     | 6   | 4:00 | 7.5  |
| Secondary Education (BSEd)  |     |      |      |
| Biological Sciences         | 5   | 4:24 | 3    |
| English                     | 5   | 3:18 | 11   |
| Mathematics                 | 6   | 3:15 | 13.5 |
| Physical Sciences           | 5   | 4:00 | 7.5  |
| School Physical Education   | 6   | 3:20 | 10   |
| Overall                     | 115 | 3:44 |      |

Table 4 exhibits the statistics of student-drinkers in terms of spent hours on study in a day. Data showed

that the Civil Engineering program earned the highest study time with an average of almost five hours a day. Next in rank was Elementary Education with an average time of 4 hours and 50 minutes a day. It is followed by BSED Biological Sciences, 4:24; BS Mathematics, 4:22; Agriculture Technology, 4:13; and, Information Technology, 4:10 a day. Both Nursing and BSED Physical Sciences programs obtained 4 hours of study per day. The next were BS Environmental Science, 3:22; School Physical Education, 3:20; and BSED English, 3:18 a day. Following in ranks were Business Administration, Development Communication, Industrial Technology, and BSED Mathematics, which had the same average time of 3:15 in a single day. BS Biology obtained three hours and six minutes, while Agribusiness garnered an average amount of 2:33 per day as the least in the rank, respectively.

**Sampling Procedures**

The sampling site of the study was situated in DOSCST, Guang-guang, Dahican, City of Mati, Davao Oriental, Philippines. The purposive type of sampling procedure was primarily employed in the study. The Physical Education students were initially asked by Yes or No survey about alcohol drinking. The students who answered Yes were identified as alcoholic drinkers. Meanwhile, the respondents who answered No or not alcoholic drinkers were automatically excluded from the investigation. Out of 377 respondents who participated in the survey, there were only 115 Physical Education students who responded to drink alcoholic beverages. Hence, the 115 student-drinkers were determined and treated as a complete enumeration of the study.

**Materials and Apparatus**

One set of instrument was adopted, known as the types of drinkers (Western Cape Government, 2017), contextualized by the authors to fit the contents and validated by experts with a general mean of 4.43 indicated as high on rating the level of alcohol consumption. There were three indicators to measure alcohol consumption, specifically social drinking, high-risk drinking, and problem drinking, with five items per indicator. This instrument was pilot tested (n=30) and analysed by Cronbach’s alpha with an internal consistency of 94.64 described as excellent. Henceforth, respondents were expected to answer the 15-item questionnaire. The scores were interpreted using a Five-Point Likert Scale. The scholastic grade was used to

assess the level of academic performance. The generally weighted averages of the respondents were recorded, measured, and interpreted based on the grading system of the College.

### Procedures

The authors obtained approval to conduct the study from the Dean of the Institute of Education and Teacher Training, which offered Physical Education courses. The authors asked for help from all faculty members who handled Physical Education subjects and decided the itinerary of class schedules. The preferred students were immediately met. They were promptly received explanation regarding the purpose of the study. The informed consent was given and explained, without any coercion to join in the investigation, prior to the distribution of survey questionnaires. The retrieval of the questionnaires was administered by the researchers after the whole duration of the scheduled dates completed. The academic grades of the participants were obtained from their scholastic performance at eSMS, an electronic database system for enrollment and academic records of the school. To avoid the leak of information and to sustain confidentiality measures, the authors utilized their Identification Numbers to safeguard their identity. The responses to the gathered alcohol consumption questionnaires and records of academic performance were encoded, computed, analyzed, and interpreted to give essence to the investigation.

### Data Analysis

The gathered data were encoded using Microsoft Excel 2019 for tabulation. Tabulated data were transferred to SPSS (Statistical Package for the Social Sciences), version 22, and Minitab, version 17 software applications to organize and provide correct findings of the study.

The authors employed various statistical tools, such as frequency counts, percentages, average, and rank to describe the students' profiles. Mean was used to determine the level of alcohol consumption and their scholastic performance. Standard Deviation was also utilized to measure the variation or dispersion of observed values from their mean of alcohol consumption, as well as academic performance. Meantime, Analysis of Variance (ANOVA) was applied to test the significance of difference in the means of alcohol consumption based on age, gender, course or area of specializa-

tion, and study time of the students. Spearman's Rank Correlation Coefficient was also employed to examine the relationship between alcohol consumption and academic performance. Moreover, Dunnett's Method was applied to reveal the most salience of the study.

### RESULT

The findings of the study are presented in four parts, including the level of alcohol intake and academic scores of student-drinkers, the significant difference of alcohol use according to age, gender, course, and study time, the relationship between alcohol consumption and collegiate records of student-drinkers, and the most salience indicators of alcohol drinking.

Table 5 illuminates the level of alcohol consumption of Physical Education student-drinkers in DOSCST. The obtained mean of the alcohol consumption involved social drinking, 3.11 (SD=.73); high-risk drinking, 2.98 (SD=.62); and problem drinking, 2.92 (SD=.64), all described as moderate level. The overall mean of alcohol consumption of Physical Education students in DOSCST was 3.00 with a standard deviation of .66, which was indicated as balanced drinkers. It means that Physical Education student-drinkers were generally good at managing drinking on social occasions or events, understanding the risk and effect of the alcohol, and balancing their problems.

Table 6 illustrates the academic scores of college Physical Education alcohol drinkers. Results of the 115 respondents indicated that the general mean of scholastic performance in terms of the general weighted average was 2.27 (SD =.39), explained as a satisfactory level of grade. It indicates that their academic scores were passing the grades equal to good performance qualitative rating.

Table 7 demonstrates the significance of the difference in alcohol consumption based on age. Using the ANOVA test, the 21-23 age group indicated an  $f$  value of .46 ( $p=.502$ ), while the 24 and above age group earned  $f=.21$  ( $p=.653$ ), higher than 0.05 confidence level. On the other hand, the 17 and below age group obtained  $f=6758.46$ , while the 18-20-year age group garnered  $f$  value of 5068.94, which were notably represented by their  $p$ -values of 0.000. The overall combined  $f$  for the significance of alcohol consumption difference based on age was found significant with a  $p$ -value of

0.000 and  $f=3564.71$ . Thus, the null hypothesis is hereby rejected. It could be stated that there is a significant difference in the alcohol consumption based on age.

measure of alcohol drinking according to gender. There were two types of gender prevailed in the study: male and female. The male ( $n=90$ ) obtained the highest

**Table 5.** Level of Alcohol Consumption

| ITEMS   | Cronbach's alpha (n=30) | Social Drinking |             | High-risk Drinking |     | Problem Drinking |     | Descriptive Equivalent |
|---|-------------------------|-----------------|-------------|--------------------|-----|------------------|-----|------------------------|
|   |                         | $\bar{x}$       | SD          | $\bar{x}$          | SD  | $\bar{x}$        | SD  |                        |
| Drink on social meetings and events.                                |                         | 2.90            | .73         |                    |     |                  |     | Moderate               |
| Consider not to drive a bike or vehicle if have to drink.           |                         | 3.05            | .60         |                    |     |                  |     | Moderate               |
| Can regulate alcohol intake even there is a lot of offer to drink.  |                         | 3.75            | .65         |                    |     |                  |     | High                   |
| Feel confident, proud, and outgoing after drinking.                 |                         | 2.86            | .61         |                    |     |                  |     | Moderate               |
| Can adjust and establish 'safe zone' limit to drink.                |                         | 2.99            | .66         |                    |     |                  |     | Moderate               |
| Drink voluminous amount to death.                                   |                         |                 |             | 2.66               | .65 |                  |     | Moderate               |
| Feel sorry about the inappropriate behavior after drinking.         |                         |                 |             | 3.14               | .62 |                  |     | Moderate               |
| Experience forgetfulness, blackouts, or anxiousness after drinking. |                         |                 |             | 2.98               | .74 |                  |     | Moderate               |
| Free time or weekends are filled with spree drinking.               |                         |                 |             | 2.88               | .58 |                  |     | Moderate               |
| Put others in danger when intoxicated                               |                         |                 |             | 3.23               | .52 |                  |     | Moderate               |
| Drink alone in a dark and hidden place.                             |                         |                 |             |                    |     | 2.99             | .73 | Moderate               |
| Feel embarrass or angry when someone is around.                     |                         |                 |             |                    |     | 2.26             | .65 | Low                    |
| Skip classes to drink.  |                         |                 |             |                    |     | 3.25             | .46 | Moderate               |
| When drunk, get into trouble or fist fighting.                      |                         |                 |             |                    |     | 2.99             | .73 | Moderate               |
| Drink to forget problems (e.g., money, relationship, failure, etc.) |                         |                 |             |                    |     | 3.10             | .62 | Moderate               |
| Social Drinking   |                         | 3.11            | .73         |                    |     |                  |     | Moderate               |
| High-risk Drinking  |                         |                 |             | 2.98               | .62 |                  |     | Moderate               |
| Problem Drinking  |                         |                 |             |                    |     | 2.92             | .64 | Moderate               |
| <b>OVERALL</b>  |                         | <b>.9464</b>    | <b>3.00</b> | <b>.66</b>         |     |                  |     | <b>Moderate</b>        |

**Table 6.** Level of Scholastic Performance

| General Weighted Average (n=115) |      |      |      |      |      |      | $\bar{x}$ | SD   | Descriptive Equivalent |
|----------------------------------|------|------|------|------|------|------|-----------|------|------------------------|
| 2.15                             | 2.47 | 1.79 | 2.24 | 2.02 | 2.20 | 2.36 |           |      |                        |
| 1.83                             | 2.49 | 2.74 | 1.82 | 2.45 | 2.37 | 2.92 | 2.04      |      |                        |
| 2.29                             | 2.54 | 2.75 | 1.77 | 2.03 | 1.80 | 2.30 | 2.43      |      |                        |
| 2.15                             | 2.00 | 2.81 | 1.84 | 2.45 | 2.31 | 2.17 | 2.20      |      |                        |
| 2.17                             | 2.33 | 3.00 | 1.63 | 2.89 | 1.90 | 2.41 | 2.93      |      |                        |
| 2.25                             | 2.36 | 2.51 | 1.57 | 2.80 | 1.76 | 2.44 | 2.62      |      |                        |
| 2.57                             | 1.77 | 2.77 | 1.55 | 3.22 | 2.28 | 2.18 | 1.99      |      |                        |
| 2.64                             | 2.25 | 2.97 | 1.91 | 2.73 | 2.47 | 3.15 | 2.54      | 2.27 | .39                    |
| 2.59                             | 2.89 | 2.79 | 1.78 | 2.80 | 2.09 | 2.48 | 1.98      |      |                        |
| 2.25                             | 2.51 | 1.61 | 1.81 | 2.64 | 1.86 | 2.24 | 1.92      |      |                        |
| 2.08                             | 2.39 | 2.41 | 1.78 | 2.23 | 2.27 | 2.08 |           |      |                        |
| 2.80                             | 1.84 | 3.16 | 1.51 | 2.36 | 2.42 | 2.12 |           |      |                        |
| 2.18                             | 2.57 | 2.12 | 1.71 | 2.64 | 1.98 | 2.35 |           |      |                        |
| 2.11                             | 1.93 | 1.52 | 1.83 | 2.23 | 2.42 | 2.33 |           |      |                        |
| 2.62                             | 2.21 | 1.65 | 1.76 | 2.27 | 2.25 | 2.47 |           |      |                        |

**Table 7.** Significance of Alcohol Consumption Difference based on Age

| Age        | N   | Adjusted SS | Adjusted MS | f-value | p-value |
|------------|-----|-------------|-------------|---------|---------|
| 17 & below | 44  | 88.6716     | 88.6716     | 6758.46 | 0.000   |
| 18-20      | 46  | 44.33       | 44.336      | 5068.94 | 0.000   |
| 21-23      | 16  | 0.008       | 0.0088      | 0.46    | 0.502   |
| 24 & above | 9   | 0.064       | 0.0064      | 0.21    | 0.653   |
| Overall    | 115 | 149.72      | 149.728     | 3564.71 | 0.000   |

number of respondents compared to the female ( $n=25$ ). Based on the data, male participants gathered an f value of 2749.88, while female participants collected an f value of 114. Both of groups were represented with a p-value of 0.000. The total computed f for the significance of alcohol consumption difference, according to gender, was indicated significant with a p-value of 0.000 and  $f=1780.55$ . Hence, the null hypothesis is hereby rejected. It could be stated that there is a significant difference in the measure of alcohol consumption based on gender.

**Table 8.** Significance of Alcohol Consumption Difference According to Gender

| Age     | N   | Adjusted SS | Adjusted MS | f-value | P-value |
|---------|-----|-------------|-------------|---------|---------|
| Male    | 90  | 210.82      | 210.817     | 2749.88 | 0.000   |
| Female  | 25  | 10.302      | 10.3002     | 114     | 0.000   |
| Overall | 115 | 183.19      | 183.193     | 1780.55 | 0.000   |

Table 9 divulges the significance of alcohol user difference when computed by course or area of study.

Data revealed that only 5 out of 17 courses were exempted by p values lesser than 0.05 level of significance. These were Civil Engineering ( $p=0.000$ ), Industrial Technology ( $p=0.009$ ), School Physical Education ( $p=0.032$ ), Information Technology ( $p=0.039$ ), and BS Biology ( $p=0.044$ ). Hence, there was a significant difference in the level of alcohol use according to courses.

tween alcohol intake and their study time. Study time was asked to each respondent to reveal their studying spent hours in a day. The study time of student-drinkers indicated a total average of 3 hours and 47 minutes a day, f value of 0.626, and a p-value of 0.533, which was greater than the 0.05 confidence level. Thus, it does not

**Table 9.** Significance of Alcohol Consumption Difference based on Course

| Course                     | n   | Adjusted SS | Adjusted MS | f-value | p-value |
|----------------------------|-----|-------------|-------------|---------|---------|
| Agribusiness               | 8   | 0.248       | 0.062       | 6.21    | 0.052   |
| Agriculture Technology     | 9   | 0.284       | 0.071       | 2.178   | 0.274   |
| BS Biology                 | 5   | 0.127       | 0.042       | 7.167   | 0.044   |
| BS Environmental Science   | 4   | 0.661       | 0.22        | 2.023   | 0.467   |
| BS Mathematics             | 8   | 0.018       | 0.09        | 1.62    | 0.486   |
| Business Administration    | 8   | 0.921       | 0.184       | 17.761  | 0.054   |
| Civil Engineering          | 12  | 2.65        | 0.379       | 127.76  | 0.000   |
| Development Communication  | 6   | 0.715       | 0.179       | 8.935   | 0.245   |
| Elementary Education       | 6   | 0.982       | 0.246       | 12.278  | 0.21    |
| Industrial Technology      | 10  | 2.319       | 0.464       | 16.921  | 0.009   |
| Information Technology     | 6   | 0.569       | 0.285       | 11.47   | 0.039   |
| Nursing                    | 6   | 1.284       | 0.428       | 15.404  | 0.062   |
| Secondary Education (BSEd) |     |             |             |         |         |
| Biological Sciences        | 5   | 0.128       | 0.043       | 19.133  | 0.166   |
| English                    | 5   | 1.337       | 0.334       | 0.72    | 0.513   |
| Mathematics                | 6   | 0.697       | 0.139       | 1.41    | 0.218   |
| Physical Sciences          | 5   | 0.466       | 0.116       | 1.34    | 0.251   |
| School Physical Education  | 6   | 0.51        | 0.17        | 30.622  | 0.032   |
| Overall                    | 115 | 1.537       | 0.0961      | 0.64    | 0.846   |

**Table 10.** Significance of Alcohol Consumption Difference According to Study Time

| Gender  | n   | Average Study Time | Adjusted SS | Adjusted MS | f-value | p-value |
|---------|-----|--------------------|-------------|-------------|---------|---------|
| Male    | 90  | 3:44:00            | 11.22       | 1.603       | 1.36    | 0.285   |
| Female  | 25  | 3:57:36            | 9.34        | 1.168       | 0.99    | 0.481   |
| Overall | 115 | 3:47:01            | 0.4750      | 0.4748      | 0.626   | 0.533   |

In the contrary, the following courses, which did not meet the p-value criterion, were BSEd English ( $p=0.513$ ), BS Mathematics ( $p=0.486$ ), BS Environmental Science ( $p=0.467$ ), Agriculture Technology ( $p=0.274$ ), BSEd Physical Sciences ( $p=0.251$ ), Development Communication ( $p=0.245$ ), BSEd Mathematics ( $p=0.218$ ), Elementary Education ( $p=0.21$ ), BSEd Biological Sciences ( $p=0.166$ ), Nursing ( $p=0.062$ ), Business Administration ( $p=0.54$ ), and Agribusiness ( $p=0.52$ ). In general, the difference generated a p-value of 0.846, which was greater than the 0.05 alpha level. Thus, it does not reject the null hypothesis. It could be stated that there was no significant difference in the amount of consuming alcohol according to courses.

Table 10 discusses the significant difference be-

reject the null hypothesis. It stated that there was no significant difference in the level of alcohol consumption based on their study time per day.

Table 11 presents the correlation between alcohol consumption and scholastic performance of student-drinkers. The findings show that the computed r of social drinking was  $-0.093$  ( $p=.325$ ) and problem drinking was  $-0.071$  ( $p=.451$ ). Both of them had inverse relationships to their theoretical performance. Only high-risk drinking obtained a positive relationship with a r value  $0.029$  ( $p=.775$ ). The overall r, between alcohol consumption and scholastic performance, was  $-0.018$  with a p-value of 0.851. Since the p-value is greater than the 0.05 significance level, there is inconclusive evidence about the significance of the relationship between alcohol consumption and academic performance of college

student-drinkers. Hence, it does not reject the null hypothesis. Furthermore, the results imply that the decrease of alcohol drinking increases the school performance of the students.

**Table 11.** Significance of The Relationship between Alcohol Consumption and Scholastic Performance

| Alcohol Consumption | Scholastic Performance | H <sub>0</sub> Decision         |
|---------------------|------------------------|---------------------------------|
| Social Drinking     | -0.093<br>(.325)       | Do not reject<br>H <sub>0</sub> |
| High-Risk Drinking  | 0.029<br>(.775)        | Do not reject<br>H <sub>0</sub> |
| Problem Drinking    | -0.071<br>(.451)       | Do not reject<br>H <sub>0</sub> |
| Overall             | -0.018<br>(.851)       | Do not reject<br>H <sub>0</sub> |

**Table 12.** Salient Indicators of Alcohol Consumption

| Source        | Df  | Adjusted SS | Adjusted MS | F-value | p value |
|---------------|-----|-------------|-------------|---------|---------|
| <b>Factor</b> | 2   | 2.197       | 1.0986      | 6.39    | 0.002   |
| <b>Error</b>  | 342 | 58.841      | 0.172       |         |         |
| <b>Total</b>  | 344 | 61.038      |             |         |         |

Dunnett Multiple Comparisons with a Control

| Factor                    | N   | X      | Grouping |
|---------------------------|-----|--------|----------|
| <b>Social Drinking</b>    | 115 | 3.109  | A        |
| <b>High-risk Drinking</b> | 115 | 2.979  |          |
| <b>Problem Drinking</b>   | 115 | 2.9183 |          |

Table 12 displays the most salient indicators of alcohol consumption. Information grouping using the Dunnett method and 95 percent confidence shows that high-risk (=2.9791) drinking and problem (=2.9183) drinking were significantly different from the control level mean, which was not labeled with the letter A. This model provided a better fit gaining  $f=6.39$  with a  $p$ -value of 0.002, which was lesser than the 0.05 significance level. Hence, the null hypothesis stating that there is no salient indicator of alcohol consumption was hereby rejected.

## DISCUSSION

This study aimed to establish the association between the consumption of alcohol and learning performance. The issues of alcohol drinking of the respondents were different and could not articulate in the increase and furtherance of academic excellence. Hence, the results of the study can scaffold the lack of knowledge and become the eye-opener for those em-

ployed in academic Physical Education development for college students.

The outcome of the study can then be applied to university and college administrators, physical educators, coaches, support personnel, students, and social and behavioral science researchers. The result of the study will not only concretize the common investigation, but also provide empirical data. The level of alcohol consumption and its factors on college Physical Education students give a clear information and a significant action to the system of education and society.

Alcohol consumption can be found anywhere and everywhere in college student life (Brenman & Wade, 2020; Counts & John-Henderson, 2020; Greene & Maggs, 2020; Jenzer et al., 2020; Larimer et al., 2020; Yoo et al., 2020). In this study, student-drinkers varied their levels of alcohol consumption into social drinking, high-risk drinking, and problem drinking (Western Cape Government, 2017).

Social drinkers are those students who only drink at parties and other social occasions (Meriam-Webster, n.d.). Students were able to socially drink for satisfaction (Hamilton et al., 2020; Nyandu & Ross, 2020), social identification, and reducing conflict for men (Kim & Kuan, 2020). Greene and Maggs (2020) revealed that, when entering college, students were slightly prone to drink, generally withdraw or turn down invitations. Moreover, social student-drinkers consume alcohol due to positive feelings with strict regulation (Sayette, 2017, as cited in Ingram et al., 2020). The findings of the study were typical. In this COVID-19 pandemic, social student-drinkers were predicted taking a high consumption during the quarantine period for their coping and social reasons (Bollen et al., 2020).

Another level of student-drinker is a high-risk drinker. High-risk drinkers are also known as heavy drinkers (Novello, 2019) or often referred to binge drinking (Frostburg State University, 2020). High-risk drinking starts with the availability of alcohol and peers during the teen period (Edwards et al., 2020). In College, a relationship, either sexually active or not active, is involved in heavy drinking (Corbin et al., 2020). Further research reported that college students who went to a binge drinking were considered using alcohol mixed with energy drink (Graczyk et al., 2020), cigarettes and drugs (Conegundes et al., 2020), and engaging in skipping classes (Allen et al., 2020). Consequently, high-

risk college drinkers were vulnerable to illness (Davoren et al., 2016; Dumbili, 2020; Kazemi et al., 2020), brain damage (Granja et al., 2020), physical and sexual violence (Corbin et al., 2020; Edwards et al., 2020; Granja et al., 2020; Kazemi et al., 2020), driving under alcohol influence (Graczyk et al., 2020), and death (Kazemi et al., 2020, Kwon et al., 2020). The level of high-risk drinkers of Physical Education students was in a normal range compared to the study of Chavarria et al., (2020) that found that high-risk drinkers exhibited a greater need for alcohol as their stimulants.

Problem drinkers are those students who take alcoholic drinking due to problems in their life (Editorial Staff, 2020). Hernandez et al., (2020) found that problem drinkers had a weak self-esteem showing a little or no social phobia. College students tend to drink alcohol due to anxieties (Smith, 2020), having overslept, missing the examination (Dumbili, 2020), and using e-cigarettes (Roys et al., 2020). Problem drinkers are vivid and susceptible in women (Hahn et al., 2020; Rose et al., 2020) as detected by dietary self-monitoring (Hahn et al., 2020) and more reported negative consequence incidents, such as sexual assault and harassment (Rose et al., 2020). Smith (2020) added that college problem drinkers are connected to physical violence, lawful crises, and loss of life. The findings of the study show that, normally, they drink alone (Corbin et al., 2020), skip classes (Dumbili, 2020), get into trouble, and forget their problems (Smith, 2020).

Authors and scholars found that student-drinkers obtained a low scholastic performance (El Ansari et al., 2013; Conegundes et al., 2020; Dumbili, 2020; Frederick, 2020). Gierski et al (2020) discovered that binge drinking is perhaps partly related to academic failure. Meanwhile, Nyandu and Ross (2020) reported a high proportion (78%) of not performing poorly on a test examination despite their alcohol consumption.

A lot of studies supported the results and found that the age range starts from 11 to 15 (Oldham et al., 2020), 16 to 19 (Caamano-Isorna et al., 2020; Gervilla et al., 2020), 19 and 20 (Patrick et al., 2020), and above 18 years old (Caamano-Isorna et al., 2020). Meantime, similar results of another study found that alcohol use was significantly differed by sex (Brenman & Wade, 2020; Gervilla et al., 2020; Patrick et al., 2020; Romano et al., 2020), including hazardous drinking (Granja et

al., 2020) and problem drinking (Corbin et al., 2020). The treatment data showed that some courses were significantly different in alcohol consumption, but it did not exist in general findings. There were correlational findings that indicated that study discipline did not have a significant association with alcohol use (El Ansari, et al., 2020). Pilatti et al (2020) uncovered that classes significantly existed to alcohol use and alcohol-related variables. In the amount of studying time, Allen et al (2020) explained that students spent more time on schoolwork on weekdays when they did not drink alcohol and spent less time of study when they were engaged in drinking, both in weekdays and weekends. Later, Oluwafemi (2020) added that the academic performance of students who drink alcohol and those who do not is significantly different.

The study revealed an inverse relationship between alcohol consumption and the scholastic performance of college student-drinkers. These data were relevant with various past investigations with negative association results (Singleton, 2007; Singleton & Wolfson, 2009). The prevalent use of alcohol was significantly correlated to poor academic performance (Tembo et al., 2017; Oluwafemi, 2020). Other findings found that heavy drinkers were associated with lower attempts in academics (Allen et al., 2020). However, the results of the study, which were not significantly correlated, are recently supported by the study conducted by El Ansari et al (2020) that stated that academic performance and good grade variables were not associated with any alcohol consumption behaviors.

In terms of the most salience of the study, the high-risk and problem drinkers become the topmost priorities to assess and have preferential investigation by the school to address the prevalence, behaviors, factors, and other mitigating conditions (Allen et al., 2020; Corbin et al., 2020; Dumbili, 2020; El Ansari et al., 2020; Gierski et al., 2020; Granja et al., 2020; Kazemi et al., 2020; Hahn et al., 2020; Hernandez et al., 2020; Oluwafemi, 2020; Rose et al., 2020; Smith, 2020).

As a whole, the authors observed mainly the relationships between the two variables with the focus on other parameters intervening alcohol consumption and the critical type of drinkers. The level of alcohol consumption and academic performance, with significant differences, catapult the establishment of the contextualized homegrown phenomenon.



There were limitations noted by the authors during the process of the investigation. One of the limitation is the consideration of the number of participants to represent their courses or discipline and the spent hours of study since the paper is quantitative in nature. The types of drinkers must be separately investigated with specific instruments to their status of drinking. The authors acknowledged the difficulty to predict academic performance due to a number of associated factors. The amalgamation of qualitative research is strongly recommended to unveil the deep reasons.

Albeit controls, the authors prudently proved the findings. There was no previous study investigated the locality, while the findings of this paper emerged as a novel baseline data. The inclusion of courses and study time spent contributed to the uniqueness of the study. The high-risk and problem drinking groups revealed a better fit model of alcohol consumption.

## CONCLUSION

A moderate level of alcohol consumption and a satisfactory level of scholastic performance obtained by student-drinkers. Significance of difference was investigated statistically between alcohol consumption and parameters of age, gender, and some courses. Significance difference between alcohol use and the area of study, as well as their study time per day, was found not statistically significant. There was no statistically significant relationship between alcohol consumption and scholastic performance. High-risk drinking and problem drinking were the most salience of alcohol consumption.

The study implies that high-risk drinking and problem drinking in college are critical behaviors to become everybody's concern. Risk assessment of student-drinkers is required to address the risk and associated problems. Access to alcohol and drug education are crucial parts of the program to enlighten the college drinkers. Implementation of a reasonable mental health, physical exercises, games, sports, as well as recreational activities are needed programs to help shape and focus a college student's quality of life. Hence, a functional and sustainable moral recovery program covering the above-stated courses of action to each school organization is vastly recommended. The recommended programs will not be successful without the help of any or

participation of school administrators, professors, guidance of counselors, physicians, physical educators, sports coach-trainers, supporting staff, parents, students, and researchers.

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