# Differences in Drinking Patterns in Graduate Students Based on Degree Type

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## Introduction

- Attending graduate education is accompanied by high levels of stress, as graduate students are faced with both adult and professional responsibilities (El-Ghoroury et al., 2012; Offstein et al., 2004).
- Many graduate students have barriers to mental health services, resulting in the use of alcohol as a way to cope (Ayala et al., 2017).
- Related, professional doctoral students engage in problematic drinking, with a range of 33-50% drinking heavily (Organ et al., 2016; Waring et al., 1984).
- There is limited research examining the drinking patterns of students enrolled in academic doctoral programs and master's programs.
- We aimed to examine differences in drinking patterns and well-being among various degree types (i.e., masters programs, professional doctoral students, and academic doctoral students.

## Methodology

- Graduate students were recruited via social media to participate in the current study and earned a $20 Amazon gift card for completing the survey.
- Inclusion criteria: at least 18 years old and enrolled in a graduate school program.
- Measures
  - Daily Drinking Questionnaire (DDQ)
  - Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ)
  - AUDIT
- Demographics by degree type (Table 1).

*Table 1.* Participant demographics by degree type

| | | Degree Type | | |
|---|---|---|---|---|
| | | Masters (N=129) | Academic Doctoral (N=50) | Professional Doctoral (N=149) |
| Age | M | 25.570 | 27.08 | 26.42 |
| | SD | 3.35 | 3.45 | 3.14 |
| Sex | Female | 66.7% (N =86) | 54% (N=27) | 45.6% (N=68) |
| | Male | 31.8% (N=41) | 46% (N=23) | 54.4% (N=81) |
| Race | White | 84.5% (N=109) | 76% (N=38) | 59.1% (N=88) |
| | Black | 5.4% (N=7) | 14% (N=7) | 36.9% (N=55) |
| | Asian | .8% (N=1) | 8% (N=4) | .7% (N=1) |
| | Native American or Native Alaskan | 9.3% (N=12) | 2% (N=1) | 2.7% (N=4) |
| | Native Hawaiian or other Pacific Islander | 0 | 0 | .7% (N=1) |
| Ethnicity | Hispanic | 30.2% (N=39) | 28% (N=14) | 49% (N=73) |
| | Non Hispanic | 63.6% (N=82) | 72% (N=36) | 49.7% (N=74) |
| First Generation | Yes | 44.2% (N=57) | 34% (N=17) | 60.4% (N=90) |
| | No | 55.0% (N=71) | 66% (N=33) | 39.6% (N=59) |

*Table 2.* Means of all dependent variables by degree type

| Dependent variable | Masters | Academic Doctoral | Professional Doctoral |
|---|---|---|---|
| Drinks per week | 6.20 (6.18)[a] | 11.92 (11.88)[b] | 9.44 (9.35)[b] |
| Alcohol-related consequences | 6.10 (5.36)[a] | 7.26 (4.47)[ab] | 8.93 (5.36)[b] |
| AUDIT scores | 10.47 (8.75)[a] | 13.52 (6.53)[b] | 14.81(6.84)[b] |

*Note:* Different subscripts demonstrate significant differences at the .05 level

## Results

- A negative binomial regression was used to explore how degree type predicted drinks per week. The results indicated that degree type was significantly predictive of drinks per week ($\chi^2$ =23.56 , df = 2, p < .001). A Tukey's post-hoc analysis results can be found in Table 2.
- A second negative binomial regression was used to explore how degree type predicted alcohol-related consequences. The results indicated that degree type was significantly predictive of alcohol-related consequences. ($\chi^2$ =11.25 , df = 2, p < .01). A Tukey's post-hoc analysis results can be found in Table 2.
- Lastly, a generalized linear model was used to explore how degree type predicted hazardous drinking (i.e., AUDIT scores). The results indicated that degree type was significantly predictive of hazardous drinking. ($\chi^2$ =1329, df = 2, p < .001). A Tukey's post-hoc analysis results can be found in Table 2.

## Conclusion

- We hope the results of this study can inform intervention efforts aimed at addressing heavy drinking behaviors among graduate students.
- Personalized normative feedback (PNF) interventions represent a promising approach to reducing heavy drinking among college students (Dotson et al., 2015; Lewis & Neighbors, 2006).
- In PNF interventions personalizing the feedback to the participant is essential in reducing drinking habits (Lewis & Neighbors, 2006).
- Undergraduate PNF interventions typically provided feedback based on all college students.
- Our findings highlight that master's versus doctoral students engage in different drinking habits, suggesting PNF interventions for graduate students should use normative feedback based on degree type to ensure efficacy.