

An Investigation into Alcohol Use among Female Undergraduate Psychology Students at the University of Limpopo, South Africa

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ABSTRACT This paper investigates alcohol use among female undergraduate students at the University of Limpopo, South Africa using a cross-sectional survey. The sample was 700 female undergraduate psychology students. The self-administered questionnaire consisted of demographic information, the Michigan Alcohol Screening Test – revised, five questions from the Protection Motivation Theory, and the Alcohol Use Disorders Identification self-report test. One hundred and thirty questionnaires were completed (19%) of the first-year students, 27.1 percent had attended an Alcoholics Anonymous meeting, 22.9 percent had lost a job, 16.7 percent have liver problems, 18.8 percent had been arrested for drinking and driving, and twenty-five percent had been in trouble at the university. There was a statistically significant difference ($p = 0.00$) between respondents across different years of study for these results. First-year respondents had the most alcohol-related problems. Alcohol use in a significant proportion of female students is concerning. Many participants had not considered stopping using alcohol and would not change their drinking behaviour.

INTRODUCTION

Alcohol consumption is a considerable public health concern and a leading cause of global suffering. Of particular concern are the health issues and social effects associated with its use (Davoren et al. 2016). South African household surveys report that nearly fifty percent of males and twenty percent of females in South Africa regularly consume alcohol, although this is probably an underestimate (Mogotsi 2011).

The use of alcohol is present in all age groups. However, of greater concern is the consumption by adolescents and youth. On entering university this age group acquires social mobility from specific rules where behaviours are built from the process of social comparison. Thus these teenagers, especially the females, tend to model their actions on searching for similarities with the reference group; in this case, university students who overestimate alcohol use. Social remodelling intensifies when an indi-

vidual is presented with little experience in a new place, which occurs on entry to a university (Brandão et al. 2011).

Alcohol use among tertiary education students, particularly female undergraduates, is an increasing problem. Elevated levels of alcohol consumption among young adults aged 18-29 years, of whom university students represent a unique population, is of concern. Students today drink more, with increasing emphasis on binge drinking and drunkenness, than earlier generations (Brandão et al. 2011). Heavy alcohol use by university students leads to a variety of problems such as property damage, poor academic performance, problematic peer relationships, high dropout rates, unprotected sexual activity, physical injuries, date rape, and suicide (Richardson and Barrow 2000; Mogotsi 2011).

Patterns of alcohol consumption vary between continents and countries (Davoren et al. 2016). Tertiary education students in America and England consume more alcohol than young adults of similar age who do not attend university (Hingson et al. 2005). University students see the heavy use of alcohol as normal and as something expected of them (Richardson and Barrow 2000).

University students, especially undergraduates, often experiment with alcohol, which can

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lead to physical, social, emotional and academic problems (Joe et al. 2009; Mogotsi 2011; Govender et al. 2015). As undergraduate students are away from parental or caregiver supervision, they have an unrealistic sense of independence and may misuse alcohol (Peltzer et al. 2011).

Mogotsi (2011) conducted a study that was underpinned by the Health Belief Model (HBM) and the Protection Motivation Theory (PMT) at a tertiary institution in South Africa. She found that males and females have similar drinking patterns in terms of when they drink, how much they drink and the types of alcohol they drink. However, some students considered excessive drinking, by both males and females, problematic.

Abuse of alcohol is attributed to curiosity and experimentation, peer pressure, low self-esteem, enjoyment, parental modelling, socio-cultural influences, stress and life events, self-medication, and concerns about weight and appearance (Grave 2000; Simons-Morton et al. 2001; Bezuidenhout 2006; Mogotsi 2011; National Institute on Alcohol Abuse and Alcoholism 2017; Mancinell 2013).

There is a scarcity of research on alcohol use among female university students. The researchers' survey aims to fill this gap by investigating alcohol use amongst female undergraduate psychology students.

METHODOLOGY

The PMT method was used as a framework to guide the study. According to Monat and Lazarus (1991), the PMT method comprises:

1. Pre-contemplation – when change is not really considered in a serious manner;
2. Contemplation – people become aware of the benefits of change;
3. Preparation – individuals prepare to make changes; and
4. Action – people implement what is perceived as a positive change.

The PMT is underpinned by the concept that protection motivation is fundamentally an evaluation of the threat appraisal and the coping appraisal. The threat appraisal relates to the estimation of the chance of contracting a disease (vulnerability) and it estimates the significance of a disease (severity). Coping appraisal entails response efficacy and self-efficacy. Response efficacy is an individual's expectancy that carrying out recommendations can eliminate a

threat. Protection motivation is thus a mediating variable whose function is to arouse, sustain and direct protective health behaviours (Boer and Seydel 1996).

Research Design

This was a cross-sectional survey using a self-administered questionnaire.

Setting of the Study and Sample

The University of Limpopo (Turffloep campus) is approximately 30 km east of Polokwane in Limpopo province. The sample was female students in the first, second and third year psychology classes, and questionnaires were distributed to all 700 registered students in the sample.

Data Collection

Permission was obtained from the undergraduate psychology coordinators to hand out questionnaires in class. The students were asked to return the completed questionnaires to a marked box in the Department of Psychology. It took respondents 15-25 minutes to complete the questionnaires.

Survey Questionnaire

The first section of the questionnaire elicited demographic information. The main section of the survey used the Michigan Alcohol Screening Test – revised (MAST-R), which was developed by Selzer (1971). It is a 22-item questionnaire designed to provide a rapid and effective screening for alcohol-related problems and alcoholism. The third section of the questionnaire used five questions underpinned by the PMT adapted from Mogotsi (2011). The fourth section was the Alcohol Use Disorders Identification (AUDIT) self-report test, which consists of 10 questions about alcohol usage. The final section of the questionnaire had five open-ended questions. The qualitative results are presented in another paper.

Analysis of Quantitative Data

Descriptive statistics were used to analyse data. The Chi square (X^2) test was used to determine whether or not there were any significant

differences. The MAST-R is a standardised instrument with reported alpha coefficients from nine different studies ranging from 0.83 to 0.95 (Shields et al. 2007).

Ethical Considerations

Informed consent was obtained from all participants. Anonymity and confidentiality was ensured throughout the research. Ethical clearance was obtained from the University of Limpopo's research and ethics committee.

RESULTS

There were 130 completed questionnaires (19% response rate). Of these, 48 (37%) were from first-year students, 40 (31%) from second-year students, and 42 (32%) from third-year students.

Demographics

Table 1 shows that 73 students (56.2%) were aged between 18 and 21 years, and 115 (88.5%) were Christian.

Table 1: Characteristics of the participants

	Frequency	%
<i>Age (yrs)</i>		
18-21	73	56.2
22-35	57	43.8
<i>Religion</i>		
Christian	115	88.5
Other	15	11.5
<i>Year of Study</i>		
First	48	37
Second	40	31
Third	42	32
Total	130	100

Michigan Alcohol Screening Test – Revised (MAST-R)

The results of the MAST -R are presented in Table 2.

Can You Stop Drinking without Difficulty after One or Two Drinks?

Of the second-year students, 62.5 percent indicated that they can stop drinking with any difficulty after one or two drinks.

Do You Ever Feel Guilty about Your Drinking?

Within the sample group, 37.5 percent indicated that they do not feel guilty about drinking.

Have You Ever Got Into Trouble at Work (or University) because of Drinking?

Among the first-year students, twenty-five percent indicated that they have been in trouble at university because of their drinking. There is a statistically significant ($p = 0.00$) difference between female respondents across different levels of study. More first-year students reported getting in trouble because of their drinking. This is an indicator that first-year female students, away from home for the first time, are more likely to drink and get into trouble.

Have You Ever Lost a Job because of Your Drinking?

Among the first-year students, 22.9 percent indicated that this had occurred. There is a statistically significant difference ($p = 0.00$) between female respondents across different years of study, and it seems that the most problematic level is first year.

Have You Ever Been Told You Have a Liver Problem?

Among the first-year students, 16.7 percent have been told that they have liver problems. There is a statistically significant difference ($p = 0.00$) between responses.

Have You Been Arrested for Driving under the Influence of Alcohol?

Among the first-year students, 18.8 percent indicated that they had been arrested for this. There is a statistically significant difference ($p = 0.00$) between females across the different year levels.

Have You Ever Been Arrested or Detained by an Official for a Few Hours, because of Bad Driving while Drinking?

Among the first-year students, 16.7 percent indicated that this had occurred. There is a statistically significant difference ($p = 0.01$) across the different year levels. Again the majority involved in this were first-year students.

Table 2: MAST-R

	<i>No</i>	<i>Yes</i>	<i>%</i>	<i>P value</i>
<i>Do You Feel you are a Normal Drinker?</i>				0.49
First year	48	65.0		35.0
Second year	40	56.3	43.8	
Third year	42	52.4	47.6	
<i>Have You Ever Awakened the Morning After Drinking the Night Before and Found Out that You Could not Remember Part of the Evening?</i>				0.19
First year	48	20.8	79.2	
Second year	40	40.0	60.0	
Third year	42	14.3	85.7	
<i>Does any Near Relative or Close Friend Ever Worry or Complain about Your Drinking?</i>				0.09
First year	48	25	75	
Second year	40	37.5	62.5	
Third year	42	16.7	83.3	
<i>Can You Stop Drinking without Difficulty After One or Two Drinks?</i>				0.61
First year	48	64.6	35.4	
Second year	40	62.5	37.5	
Third year	42	54.8	45.2	
<i>Do You Ever Feel Guilty about Your Drinking?</i>				0.49
First year	48	37.5	62.5	
Second year	40	30	70	
Third year	42	26.2	73.8	
<i>Have You Ever Attended an Alcoholics Anonymous Meeting?</i>				0.00
First year	48	27.1	72.	
Second year	40	5	95	
Third year	42	0	100	
<i>Have You Ever Got into a Physical Fight when Drinking?</i>				0.93
First year	48	18.8	81.3	
Second year	40	20	80	
Third year	42	16.7	83.3	
<i>Has Drinking Ever Created Problems between You and a Near Relative or Friend?</i>				0.73
First year	48	20.8	79.2	
Second year	40	27.5	72.5	
Third year	42	21.4	78.6	
<i>Has Any Family Member or Close Friend Gone to Anyone for Help about Your Drinking?</i>				0.43
First year	48	18.8	81.3	
Second year	40	12.5	87.5	
Third year	42	9.5	90.5	
<i>Have You Ever Lost Friends because of Your Drinking?</i>				0.76
First year	48	22.9	77.1	
Second year	40	20	80	
Third year	42	16.7	83.3	
<i>Have You Ever Got into Trouble at Work (or University) because of Drinking?</i>				0.00
First year	48	25.0	75.0	
Second year	40	12.5	87.5	
Third year	42	4.8	95.2	
<i>Have You Ever Lost a Job because of Your Drinking?</i>				0.00
First year	48	22.9	77.2	
Second year	40	2.5	97.5	
Third year	42	0.0	100	
<i>Have You Ever Neglected your Obligations, Family, or Work, for Two or More Days in a Row because You were Drinking?</i>				0.39
First year	48	27.1	72.9	
Second year	40	17.5	82.5	
Third year	42	16.7	83.3	
<i>Do You Drink Before Noon Fairly Often?</i>				0.82
First year	48	29.2	70.8	
Second year	40	32.5	67.5	
Third year	42	26.2	73.8	

Table 2: Contd...

	No	Yes	%	P value
<i>Have you Ever Been Told You Have a Liver Problem?</i>				0.01
First year	48	16.7	83.3	
Second year	40	0.0	100	
Third year	42	0.0	100	
<i>After Drinking, Have You Ever Had Delirium Tremens (DTs)?</i>				0.68
First year		48	22.9	77.1
Second year	40	10.0	90.0	
Third year	42	7.1	92.9	
<i>Have You Ever Gone to Anyone for Help About Your Drinking?</i>				0.14
First year	48	16.7	83.3	
Second year	40	7.5	92.5	
Third year	42	4.8	95.2	
<i>Have You Ever Been Hospitalised Because of Drinking?</i>				0.31
First year	48	14.6	85.4	
Second year	40	2.5	97.5	
Third year	42	2.4	97.6	
<i>Has Your Drinking ever Resulted in Your Being Hospitalised in a Psychiatric Ward?</i>				0.01
First year	48	18.8	81.3	
Second year	40	0	100	
Third year	42	2.4	97.6	
<i>Have You Ever Gone to any Doctor, Social Worker, Clergyman, or Mental Health Clinic, for Help with any Emotional Problem in Which Drinking was Part of the Problem?</i>				0.00
First year	48	27.1	72.1	
Second year	40	0	100	
Third year	42	0	100	
<i>Have You Been Arrested for Driving under the Influence of Alcohol?</i>				0.00
First year		48	18.8	81.2
Second year	40	0.0	100	
Third year	42	7.1	92.9	
<i>Have You Been Arrested or Detained by an Official for a Few Hours, because of Bad Driving While Drinking?</i>				0.01
First year	48	16.7	83.3	
Second year	40	2.5	97.5	
Third year	42	9.5	90.5	
<i>Have You Ever Missed a Class because of Drinking Alcohol?</i>				0.91
First year	48	25	75	
Second year	40	25	75	
Third year	42	28.6	71.4	
<i>Have You Ever Failed a Test or Exam because of Drinking Alcohol?</i>				0.69
First year	48	25	75	
Second year	40	21.4	78.6	
Third year	42	21.5	78.5	
<i>Have You Ever Lost Friends because of Drinking Alcohol?</i>				0.75
First year	48	25.0	75.0	
Second year	40	25.0	75.0	
Third year	42	19.0	81.0	

Have You Ever Missed a Class because of Drinking Alcohol?

Of the first-year students, twenty-five percent indicated that they had missed a class because of drinking alcohol.

Have You Ever Failed a Test or Exam Because of Drinking Alcohol?

Among the first-year students, twenty-five percent indicated that they had failed a test or exam because of drinking alcohol.

Changes to Drinking Patterns

The following questions regarding changes to drinking patterns is adapted from Mogotsi (2011) from her research at the University of Limpopo investigating alcohol, and is presented in Table 3.

Do You Want To Stop Drinking Altogether?

Among the first-year students, 47.9 percent indicated that they do want to stop drinking. There is no statistically significant difference (p

= 0.83) across the different years, which implies that there is no statistically significant difference across the levels.

How Often During the Last Year Have You Found that You Were Not Able to Stop Drinking When You Started?

Of the first years, 64.6 percent indicated that they were able to stop drinking after they had started. There is no statistically significant difference ($p = 0.07$) across levels.

The Alcohol Use Disorders Identification (AUDIT) Self-report Test

The results are presented in Table 4, and the significant results will be elaborated upon.

How Often Do You Have a Drink Containing Alcohol?

Among the first-year students, 35.4 percent have had a drink containing alcohol in a month or in a period less than that. There is a statistically significant difference ($p = 0.04$) across the levels.

How Many Drinks Containing Alcohol Do You Have on a Typical Day When You are Drinking?

Of the first-year students, 14.6 percent have five to six drinks containing alcohol. In this case

$p = 0.003$, which implies that there is no statistically significant difference across the levels.

How Often During the Last Year Have You Found that You Were Not Able to Stop Drinking When You Started?

Of the first years, 64.6 percent indicated that they were able to stop drinking after they had started. There is no statistically significant difference ($p = 0.07$) across levels.

DISCUSSION

Impact of Alcohol on Social Relationships

The majority of female respondents across different year levels did not report a loss in social relationships as a result of their drinking. However, there were a notable number of participants that did report a negative impact on social relationships. For instance, twenty-five percent of first and second-year students and nineteen percent of third-year students reported losing a friend because of drinking alcohol.

To assess contemplation of stopping use, 47.9 percent of first-year students, twenty-eight percent of second-year students and 53.1 percent of third-year students said they wanted to stop alcohol use totally. In terms of the PMT this reflects that these individuals are in the contemplation phase, in which they think that change

Table 3: Changes to drinking patterns

	<i>Freq</i>	<i>Yes (%)</i>	<i>No (%)</i>	<i>P value</i>
<i>Do You Ever Seriously Think about Changing Your Drinking Habits?</i>				0.49
First year	48	42.5	57.5	
Second year	40	40.5	59.5	
Third year	42	45.4	53.8	
<i>Would You Benefit in Any Way by Changing Your Drinking Habits?</i>				0.45
First year	48	47.9	50	
Second year	40	62.5	37.5	
Third year	42	50	50	
<i>Have You Made Any Changes to the Way You Drink in the Last Two Months?</i>				0.12
First year	48	47.9	50	
Second year	40	28.6	71.6	
Third year	42	36.2	63.8	
<i>Have You Ever Cut Down on Your Drinking in the Last Two Months?</i>				0.18
First year	48	47.9	50	
Second year	40	33.5	67.5	
Third year	42	28.6	71.4	
<i>Do You Want to Stop Drinking Altogether?</i>				0.83
First year	48	47.9	50	
Second year	40	28.6	71.6	
Third year	42	53.1	45.4	

Table 4: The AUDIT self-report test

<i>How Often Do You Have a Drink Containing Alcohol?</i>	<i>Frequency</i>	<i>Never (%)</i>	<i>Monthly or less (%)</i>	<i>2-4 times a month (%)</i>	<i>2-3 times a week (%)</i>	<i>4 or more times a week (%)</i>
First year	48	41.7	35.4	12.5	4.2	6.3
Second year	40	10	60	10	17.5	2.5
Third year	42	47.6	33.3	11.9	2.4	4.8
<i>How Many Drinks Containing Alcohol Do You Have on a Typical Day When You are Drinking?</i>		<i>1 or 2</i>	<i>3 or 4</i>	<i>4 or 5</i>	<i>7, 8, 9</i>	<i>10 or more</i>
First year	48	62.5	22.9	14.6	0	0
Second year	40	37.5	15	27.5	7.5	12.5
Third year	42	61.9	26.2	2.4	2.4	7.1
<i>How Often Do You Have Six or More Drinks on One</i>	<i>Frequency</i>	<i>Never (%)</i>	<i>Monthly or less</i>	<i>2-4 times a month</i>	<i>2-3 times a week</i>	<i>4 or more times a week</i>
First year	48	56.3	16.7	16.7	8.3	2.1
Second year	40	30	30	27.5	12.5	0
Third year	42	59.5	19	11.9	9.5	0
<i>How Often During the Last Year Have You Found that You Were Not Able to Stop Drinking When You Started?</i>						
First year	48	64.6	25	4.2	4.2	2.1
Second year	40	72.5	10	7.5	2.5	7.5
Third year	42	85.7	2.4	7.1	0	4.8
<i>How Often During the Last Year Have You Failed to do What was Normally Expected of You Because of Drinking?</i>						
First year	48	62.5	14.6	10.4	10.4	2.1
Second year	40	62.5	25	7.5	5	0
Third year	42	81	11.9	4.8	2.4	0
<i>How Often During the Last Year Have You Needed a First Drink in the Morning to Get Yourself Going after Heavy Drinking Session?</i>						
First year	48	75	16.7	4.2	2.1	2.1
Second year	40	75	15	2.5	2.5	5
Third year	42	85.7	7.1	2.4	2.4	2.4
<i>How Often During the Last Year Have You Had a Feeling of Guilt or Remorse After Drinking?</i>						
First year	48	66.7	16.7	8.3	2.1	6.3
Second year	40	67.5	20	5	5	2.5
Third year	42	73.8	11.9	4.8	0	9.5
<i>How Often During Last Year Have You Been Unable to Remember what Happened the Night Before because You Had Been Drinking?</i>						
First year	48	79.2	8.3	8.3	2.1	2.1
Second year	40	67.5	22.5	7.5	2.5	0
Third year	42	83.3	9.5	4.8	0	2.4

Table 4: The AUDIT self-report test

<i>How Often Do You Have a Drink Containing Alcohol?</i>	<i>Frequency</i>	<i>Never (%)</i>	<i>Monthly or less (%)</i>	<i>2-4 times a month (%)</i>	<i>2-3 times a week (%)</i>	<i>4 or more times a week (%)</i>
<i>Have You or Someone Else Been Injured as a Result of Your Drinking?</i>		<i>No (%)</i>	<i>Yes (%)</i>	<i>Yes, but not in the last year (%)</i>	<i>(%) Yes, during the last year (%)</i>	
First year	48	72.9	2.1	18.8	6.3	
Second year	40	87.5	0	10	2.5	
Third year	42	88.1	0	18.8	33.3	
<i>Has a Relative or Friend or Doctor or Another Health Worker been Concerned about Your Drinking or Suggested You Cut Down?</i>						
First year	48	85.4	2.1	6.3	6.3	
Second year	40	85	2.5	2.5	10	
Third year	42	92.9	0	0	7.1	

is necessary. This is contrary to the findings of Nqojane (2009), who noted that almost all participants at a rural university in KwaZulu-Natal were in the pre-contemplation stage of the PMT.

Academic Performance and Drinking Alcohol

A quarter of first and second-year students and 28.6 percent of the third-year students reported missing classes. As the overall dropout rate is high (Mogotsi 2011), this is a worrying finding. Of the students, 20.8 percent of the first years, forty percent of the second years, and 14.3 percent of the third years cannot remember what happened the morning after a night of drinking. It is reasonable to expect that at least some of these respondents miss classes or, worse, may have been engaged in risky and negative behavior. Furthermore, a quarter of the first-year sample, 21.4 percent of the second-year students and 21.5 percent of the third-year students reported failing a test because of drinking.

Additionally, a quarter of the first-year students, 12.5 percent of the second-year students and 4.8 percent of the third-year students reported getting into trouble at university because of drinking. This is a statistically significant result ($p=0.000$), with more first-year students reportedly getting into trouble. More first-year students attend Alcoholics Anonymous (AA) meetings. This is another significant result, with 27.1 percent of first-year students attending these meetings ($p=0.000$).

Over a quarter of respondents across all year levels reported drinking before noon. This is an

indicator that they do not attend some academic activities and, if they do attend, they may not be able to concentrate on the academic activities. It may also be an indicator that these students may experience alcohol dependence.

In terms of the PMT it can be inferred that a number of participants have passed the pre-contemplation phase and have contemplated change. The first-year students, in particular, have begun to make positive behavioral changes by taking direct action and, for instance, attending AA meetings. This is underpinned by research by Nqojane (2009) and Mogotsi (2011).

Differences in Female Undergraduate Drinking Patterns across Year Levels

In eight of the questions significant differences in female undergraduate drinking patterns were noted across the year levels, with first-year students having more problems associated with alcohol use. Questions that do not demonstrate results in terms of statistical significance also infer a trend towards a difference in drinking patterns among the different year levels, with first-year students reporting more negative drinking behaviors.

Significantly more first-year students attend AA meetings, get into trouble at university, have liver problems and have lost a job. Problematically, 18.8 percent of first-year students report to having been admitted to a psychiatric ward after drinking ($p = 0.01$). This may infer that these students have underlying mental health issues

which are masked (or they attempt to self-medicate) by their drinking.

Over a quarter of first-year students (27.1%) report having been arrested for driving while under the influence of alcohol ($p = 0.00$). Also, significantly more first-year students admit to having sought help for emotional problems from a doctor, social worker, clergyman or mental health clinic ($p = 0.00$). Many students, especially those in their first year, had also been detained by an official because of drinking. This confirms that many students behave irresponsibly and dangerously when they are drunk.

There was evidence supporting the overall trend that first-year students have more problems related to alcohol consumption. More of the first-year sample (27.1%) than the second (17.5%) or third-year students (16.7%) reported that a close friend or family member has sought help for these students to stop alcohol use. The first-year sample (27.1%) also neglected familial obligations more than the second (17.1%) or third-year students (16.7%). They also reported suffering DTs more than the second- and third-year students. Many first-year students (16.7%) reported that they had sought help because of their drinking. They also reported having been hospitalized because of their drinking (14.6%). These results are similar to those of Nqojane (2009) and Mogotsi (2011).

If these results are viewed in terms of the PMT, they suggest that overall between sixteen percent and twenty-eight percent of the first-year students are only in the pre-contemplation stage.

Other Results Reported in Terms of the PMT

Many of the students were aware that drinking alcohol excessively is not a healthy behavior, and thus they either do not drink or drink responsibly. However, a portion of the sample may be aware but still have negative drinking behavior – due, in some part, to peer pressure. Being aware does not necessarily mean that the respondents are at the point of preparing to change or taking action in order to change their drinking patterns. It does however imply that they are beyond the pre-contemplation stage in which they are aware of the benefits that are linked to changing behavior. This is supported by the number of students across all levels who feel they would benefit by changing their drink-

ing habits (47.9% of first-year students, 62.5% of second-year students and 50% of third-year students). This is reinforced by the fact that 42.5 percent of first-year students, 40.5 percent of second-year students and 45.4 percent of third-year students have seriously thought about changing their drinking habits. Changes in drinking behavior in the last two months were also reported by all levels. It was also reported that participants across all year levels had tried to cut down their drinking. Finally, a large proportion of the sample reported that they wanted to stop drinking altogether (47.9% of first-year students, 28.6% of second-year students and 53.1% of third-year students).

Drinking Behavior across Year Levels

Some students reported negative behaviour associated with alcohol consumption. It is likely that these participants are in the pre-contemplation and contemplation stages, and have not yet become aware of how behavior change would positively benefit them. They are not prepared to make positive behavior changes by taking direct action in terms of cutting down, stopping or getting help because of their self-reported negative drinking behavior.

In terms of how often they drank, second-year students drank monthly or less (60%), which was lower than the other year levels; 35.4 percent of the first-year students and 33.3 percent of the third-year students reported drinking monthly or less. This difference is significant ($p = 0.04$), inferring that the group that drinks least overall is the second-year group. It is likely that those who report to drinking four or more times a week are at risk of developing alcohol-related disorders.

Of first-year students 41.8 percent reported never having had a drink containing alcohol, as did 47.6 percent of third-year participants, while ten percent of the second-year sample reported this. Overall, second-year students reported low levels of problems relating to alcohol consumption. Although most students reported consuming between one and four drinks daily, more first-year students (62.5%) had one or two drinks daily.

Only first-year participants reported that they drink six or more drinks daily (2.1%), and they are at risk of developing alcohol-related diseases. Some students reported not being able to stop drinking after they started. This also pre-

sents a risk of developing alcohol-related disorders, as is a sign of addiction. Also, 10.4 percent of first-year students, five percent of second-year students and 2.4 percent of third-year students reported failing to do what is normally expected of them on a weekly basis because of their drinking.

These participants can be considered to be vulnerable to alcohol-related disorders, as their drinking interferes with their ability to function normally. Problematically, some of the respondents reported needing a drink first thing in the morning to get themselves going after heavy drinking the night before. These results are a strong indicator that these participants are dependent on alcohol.

During the past year a number of participants have felt guilt or remorse after drinking. Those who feel guilty are likely to be at risk of developing drinking disorders and/or alcohol dependence. More first- and third-year students feel guilty daily.

A few first- and third-year students reported being unable to remember what happened the night before because of drinking on a daily basis. These female respondents are not only at risk of developing alcohol-related disorders, they are also at risk of being raped. Another finding is that more than one in 10 students reported to someone else being injured because of their drinking. Many reported that relatives and/or friends are concerned about their drinking, and this suggests that these participants have already been approached by people who were concerned that they may have a drinking problem.

CONCLUSION

Although the majority of participants reported responsible drinking behavior, this study found that the drinking behavior of a significant proportion of female students across all year levels remains a cause for concern both socially and academically. There was a significant difference in drinking patterns across year levels, with first-year students exhibiting more problematic behavior. It is evident from the results that many participants have not considered stopping alcohol use in a serious manner and were not necessarily ready to make a positive and active commitment to any kind of change in their drinking behaviour, even though it is affecting their social and academic functioning and there is also evidence of alcohol dependency.

RECOMMENDATIONS

There needs to be future research into alcohol use among both genders registered in the different year levels.

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