Relationship between community events and activities on campus and student stress

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PSYC 321

April 25, 2016

Executive Summary

In our present study, we investigated whether frequency of engagement in community events and activities on the UBC campus influence student's stress levels on campus. In order to find the correlation between year-level & stress level of students with frequency of engagement in annual campus events and activities, we conducted a self-report online survey where participants were asked to provide answers to the questions regarding their perceived stress level and frequency of engagement with community events on campus. We have found that there is no correlation between the year-level & stress level with the frequency of engagement. We have obtained the result by calculating the Pearson's correlation coefficient and the value $r=-0.0011$ indicated that there is no significant correlation. Moreover, the means of stress level for Freshmen and Seniors were relatively similar ($M=23.21$ for freshmen and $M=22.72$ for seniors) indicating that perceived stress plateaus throughout university experience regardless of their engagement in community events.

List your group name and student names

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Project title:

Relationship between community events and activities on campus and student stress.

Research question:

Does frequency of engagement in community events and activities on the UBC campus influence students' recent stress levels on campus?

Hypothesis:

We hypothesize that students who engage in annual events on campus three or more times a month will experience lower stress than those who attend fewer **(H₁)**. We also hypothesize that seniors (above year 3) will engage in more community events and activities on campus than freshmen (year 1 and 2); thus they will experience lower stress levels than Freshmen **(H₂)**.

Participants:

We initially recruited 121 participants, however, 14 surveys were incorrectly completed. Our final number of participants was 107 students recruited from University of British Columbia (22 male, 84 female, and 1 prefer not to say). 53 participants were freshmen and the rest were seniors.

Conditions:

We had two different conditions regarding the year level of students. Our first condition consists of the students who are in year 1 and 2 (freshmen) and the second condition consists of the students in year 3 and above (seniors).

Measures:

We used the Perceived Stress Scale (PSS) to measure the students' stress levels (Appendix H). We also designed a survey to examine students' awareness on wellness resources and their engagement in community events and recreational activities on campus (Appendix I).

Procedure:

We posted the online survey on various social media websites as well as attended different buildings throughout the UBC Campus, such as the Nest and Irving K Barber Library, to recruit participants. Participants were asked to complete a short 10 minute online survey regarding the current stress levels (PSS) and the frequency of participation in community events and activities on campus. They were also asked to answer few questions regarding the locations related to perceived stress and relaxation level on campus. Upon the completion of the survey, participants were offered a chance to win a $50 gift card from the UBC Bookstore.

Results:

A Pearson correlation coefficient was computed using SPSS to examine the relationship between the student stress level and frequency of student engagement in community events. There was a negative correlation between the two variables, $r= -0.011$, $N=107$, $p=0.908$. A scatter plot summarizes the results (Appendix G). Overall, there was no significant correlation between two variables. An independent-samples t test was conducted using SPSS to compare the stress levels of Freshmen and Seniors. There was no significant difference in stress levels between Freshmen ($M=23.21$, $SD=6.77$) and Seniors ($M=22.72$, $SD=6.90$); $t(105)=0.37$, $p=0.715$. (Appendix B). Since the $p>0.05$, we can determine that two means do not differ significantly. Thus, we fail to reject the both null hypotheses.

The additional data regarding the most stressed and relaxed place on campus and the type of activities that students engage in to relieve stress was collected for our SEEDS client. The data shows that the students are the most stressed in classroom compared to other places on campus. The number of responses varied due to the format of the questions since the questions were open-ended. Among 63 participants who have given short answer to the question on the most stressed place on campus, 26 reported the classroom as the most stressed and only 4 reported campus residence as the most stressed place on campus (Appendix D). The data also reveals that most students engage in social and recreational activities as the means of relieving stress. Moreover, among 44 participants, 13 answered that they attend club events to relieve stress and only four people in total answered that they attend volunteering and pet visits to relieve stress (Appendix E). The data reporting the most relaxed place on campus shows that the students are relaxed the most

in their residence. Among 80 participants, 23 answered residence as the most relaxed place on campus and only 3 answered coffee shop as the most relaxed place on campus (Appendix F).

Discussions:

Based on our results, seniors and freshmen experience no difference in stress levels, and higher frequency of attendance of annual events do not correlate with lower stress levels. Thus, we failed to reject both of our null hypotheses.

Some of the limitations that may have contributed to obtaining a non-significant result was that our study had a relatively small sample size of 107 participants; to obtain a representative sample, we would require at least a sample of 400 students. In addition, our method relied strictly on the self-report of students concerning their stress level, attendance in community events, and awareness on wellness resources. Future studies should employ a longitudinal design by using physiological measures of stress (such as salivary cortisol level, blood pressure, and heart rate) throughout the school year. This measure in addition to a self report could possibly eliminate confounds associated with self report measures and likely provide a more accurate measure of long term stress levels. Furthermore, we conducted this study in March, which is a more stressful period compared to January or during other times of the school year due to the academic workload. Lastly, most annual events occur in the beginning of the school semesters, and thus may not have any effect on current student stress levels.

Recommendations for the client & contribution to UBC:

Based on our results from the survey, as shown in Appendix E, students find the most relief when engaging in club events, recreational activities, and other social events, as well as those held by the AMS. Thus, we encourage coordination of more frequent campus events that are free and accessible to students of all year levels.

In addition, based on our survey data (Appendix D), students experience most stress in classrooms compared to other places on campus. It would be beneficial to investigate the effect of specific factors of lectures that elicit stressful reactions in students. For example, the size of the classroom could have an impact students' ability to participate in meaningful discussions. In addition, the lack of windows and the proximity of seats may also be useful to investigate as factors influencing stress levels.

Since our research findings reveal that there is no relationship between student stress levels and the frequency of engagement in community events and activities, it is recommended to conduct a future study examining the relationship between the student awareness of wellness resources on campus and student stress level.

References

Cohen, S. and Williamson, G. Perceived Stress in a Probability Sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) The Social Psychology of Health. Newbury Park, CA: Sage, 1988.

Cuttler, C. (2011). *A student guide to SPSS*. Dubuque, IA: Kendall Hunt Pub.

Appendix

Appendix A:

Correlations

		stressscale	frequency
stressscale	Pearson Correlation	1	−.011
	Sig. (2−tailed)		.908
	N	107	107
frequency	Pearson Correlation	−.011	1
	Sig. (2−tailed)	.908	
	N	107	107

Table 1: The Pearson's Correlation Coefficient of stress scale and frequency of engagement

Appendix B:

Group Statistics

	yearlevel	N	Mean	Std. Deviation	Std. Error Mean
stressscale	1.00	53	23.2075	6.78618	.93215
	2.00	54	22.7222	6.90479	.93962

Table 2: Mean of Student Stress Level & year-level

Appendix C:

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
stressscale	Equal variances assumed	.003	.956	.367	105	.715
	Equal variances not assumed			.367	105.000	.715

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
stressscale	Equal variances assumed	.48532	1.32377	-2.13947	3.11012
	Equal variances not assumed	.48532	1.32356	-2.13904	3.10969

Table 3: Independent Samples T-test between mean of Student Stress Level, year-level and frequency of engagement on annual events and activities on campus.
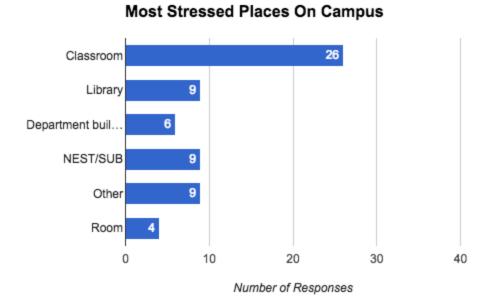
Appendix D:

Most Stressed Places On Campus

Place	Number of Responses
Classroom	26
Library	9
Department buil...	6
NEST/SUB	9
Other	9
Room	4

Number of Responses

Figure 1: The most stressed places on campus categorized based on the self-reports on the survey

Appendix E:

Activities that helped relieve stress on campus

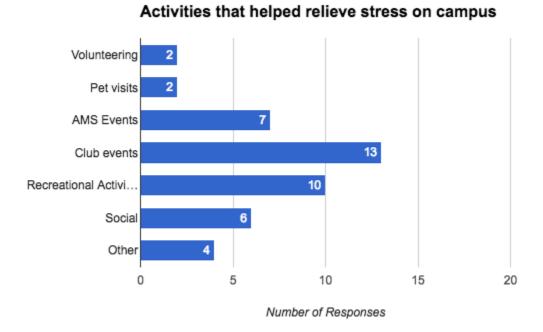| Activity	Number of Responses
Volunteering	2
Pet visits	2
AMS Events	7
Club events	13
Recreational Activi...	10
Social	6
Other	4

Number of Responses

Figure 2: The activities that helped relieve stress on campus for students categorized based on the self-reports on the survey

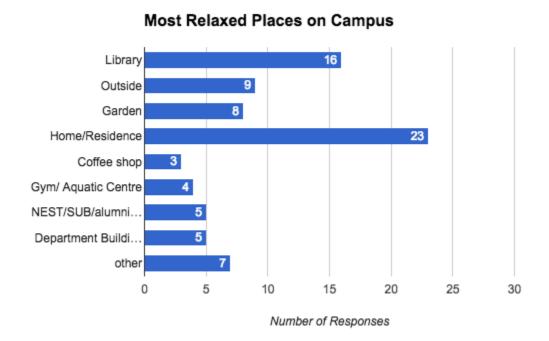Appendix F:

Most Relaxed Places on Campus

Figure 3: Most relaxed places on campus for students categorized based on the self-reports on the survey
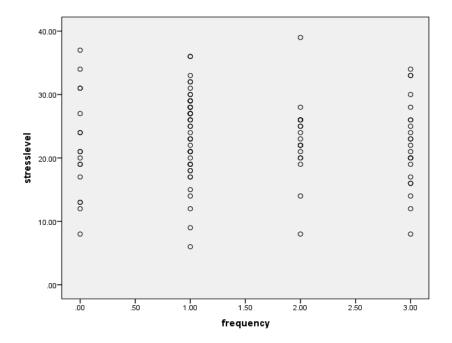
Appendix G:

Figure 4: The scatterplot between frequency of engagement on annual events and stress level

Appendix H:

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name _____ Date _____

Age _____ Gender (*Circle*): M   F   Other _____

0 = Never   1 = Almost Never   2 = Sometimes   3 = Fairly Often   4 = Very Often

1. In the last month, how often have you been upset
   because of something that happened unexpectedly?.................................. 0   1   2   3   4

2. In the last month, how often have you felt that you were unable
   to control the important things in your life? 0   1   2   3   4

3. In the last month, how often have you felt nervous and "stressed"? 0   1   2   3   4

4. In the last month, how often have you felt confident about your ability
   to handle your personal problems? 0   1   2   3   4

5. In the last month, how often have you felt that things
   were going your way?.. 0   1   2   3   4

6. In the last month, how often have you found that you could not cope
   with all the things that you had to do? 0   1   2   3   4

7. In the last month, how often have you been able
   to control irritations in your life? 0   1   2   3   4

8. In the last month, how often have you felt that you were on top of things?.. 0   1   2   3   4

9. In the last month, how often have you been angered
   because of things that were outside of your control?........................... 0   1   2   3   4

10. In the last month, how often have you felt difficulties
    were piling up so high that you could not overcome them? 0   1   2   3   4

Please feel free to use the *Perceived Stress Scale* for your research.

Figure 5: Example of the Perceived Stress Scale used on the survey conducted. There are 10 questions in total.

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Appendix I:

2. Which of the following events that occur annually on campus, do you attend? Mark all that apply.

☐ Imagine Day

☐ AMS Welcome back Barbeque

☐ AMS Block Party

☐ Longboat

☐ Faculty Cup

☐ Storm the Wall

☐ Bike Rave

☐ Farm-Aid

☐ Rail Jam

☐ Harvest Feast

☐ Other: _____

3. How many times have you participated in such events?

☐ Once

☐ Twice

☐ Three or more

☐ Never

Figure 6: Example of survey questions administered