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ACADEMIC STRESS AND EXTRACURRICULARS: AN EXAMINATION
OF IN-GROUP IDENTIFICATION, PARTICIPATION
MOTIVATION, AND STRESS
IN COLLEGE

by

REBECCA ROTEN

Presented to the Faculty of the Honors College of
The University of Texas at Arlington in Partial Fulfillment
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April 22, 2022

ABSTRACT

ACADEMIC STRESS AND EXTRACURRICULARS: AN EXAMINATION OF IN-GROUP IDENTIFICATION, PARTICIPATION MOTIVATION, AND STRESS IN COLLEGE

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The University of Texas at Arlington, 2022

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Academic stress is a common feature of college life, but excessive stress can have negative effects on academic outcomes, health, and general well-being. The purpose of this study was to investigate the relationships between academic stress and factors of extracurricular participation, including in-group identification, participation time, and participation motivation. It was hypothesized that higher in-group identification and internal motivation would relate to lower academic stress. A sample of undergraduate college students ($n = 296$) completed a survey consisting of an academic stress scale and a series of questions about their extracurricular participation. Academic stress was not associated with any of the factors of participation; however, in-group identification was positively correlated with both internal and external motives, and participation motivation

differed between activity types. These findings suggest that students experience similar levels of academic stress regardless of involvement.

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CHAPTER 1

INTRODUCTION

1.1 Academic Stress and Extracurricular Activities

Academic stress (AS) is a common part of the educational experience for many college students, and the factors that elicit it are often unavoidable. Stress is sometimes defined as the “nonspecific response,” both physiological and psychological, to demands in life that we feel underequipped to handle (Selye, 1974). Stress can result from both pleasant and aversive causes, and it can have varying intensities; however, typically when people refer to stress, they mean stress that is intense and unpleasant (Selye, 1974). AS is stress that arises from academic demands (Kohn & Frazer, 1986). Examinations, homework, and grades are some of the most salient academic stressors, but students may also experience feelings of stress from a wide variety of other academic problems and concerns, such as boredom, an uncomfortable classroom environment, and unclear assignments or class expectations (Kohn & Frazer, 1986). AS can have detrimental effects on students’ well-being and academic performance. High reported levels of AS have been related to poor sleep quality, increased rates of substance use, decreased physical activity, poor academic performance, decreased intrinsic academic motivation, an increased risk of school dropout, decreased life satisfaction, and negative mental health outcomes like anxiety and depression (Pascoe et al., 2020; Wang et al., 2020). Some of these consequent problems, like poor sleep quality, anxiety, and depression, may further contribute to attention and learning difficulties in school (Pascoe et al., 2020).

Another important feature of college life for many students is extracurricular involvement. A study conducted in Switzerland found that roughly four-fifths, or around 80%, of university students participated in at least one extracurricular activity (Roulin & Bangerter, 2013). Another study conducted in the United States found that students spent an average of two hours on organized extracurricular activities per day, and the same students spent approximately three hours a day on their classes (Greene & Maggs, 2015). This study will explore the possible relationships between AS and factors of extracurricular involvement, particularly in-group identification, participation motivation, and participation time.

1.2 The Stress Buffering Hypothesis and In-Group Identification

The Stress-Buffering Hypothesis of Social Support is the term used to denote the hypothesized protective benefit of social support on health and well-being under stressful conditions. The Stress-Buffering Hypothesis predicts that individuals with strong social networks will experience less stress or less perceived stress, because social networks may increase access to “tangible support,” “appraisal support,” and “emotional support” resources (Cohen & McKay, 1984).

Cohen and McKay (1984) describe “tangible support” as access to additional resources that could be used to respond to stressors, which would thereby reduce perceived stress by eliminating the stressor or increasing the individual’s confidence to cope with the stressor. “Appraisal support” reduces perceived stress by enabling individuals to reevaluate their stressors, and it is particularly effective when the support group consists of similar individuals who have in the past or are currently dealing with similar difficulties (Cohen & McKay, 1984). The final type of support described by Cohen and McKay (1984),

“emotional support,” helps individuals by protecting their self-esteem or feelings of belonging and solidarity, particularly when stressors involve the loss of relationships or result in negative self-attributions. Based on this conceptualization of the Stress-Buffering Hypothesis, extracurricular participation has the potential to buffer student stress. Tangible support in the context of extracurricular groups might include scholarships for members of an organization, homework and studying assistance from other students, or even free pizza at meetings. We might expect appraisal support in extracurricular activities, because groups of students are likely to have commonalities and shared academic stressors. Extracurricular groups could provide emotional support through friendships with group members.

Extracurricular groups and leisure activities may also help to reduce stress simply through the perception of support (Coleman & Iso-Ahola, 1993). Students may feel like their groups could offer support during stressful events, so they may perceive themselves as better equipped to deal with academic stressors even without actual support resources.

A study investigating AS in undergraduate social work students found that AS was negatively correlated with both friend support and overall social support (Wilkes & Spivey, 2010). The study also found a negative correlation between AS and resilience, a personality trait of adaptability to new challenges. Friend support was the only support factor in the study that had a moderating effect on the AS-resilience relationship. This suggests that supportive social networks, particularly friend support, could reduce feelings of AS or function as a stress coping resource for college students (Wilkes & Spivey, 2010).

As Cohen and McKay (1984) theorized, feelings of belonging within a group and similarity with group members are likely important features of social support. Civiti (2015) researched perceived stress, life satisfaction, feelings of belonging, and extracurricular

involvement in college students. He found that high major belonging, college belonging, and life satisfaction were all related to lower levels of perceived stress; however, there was no relationship between extracurricular involvement and perceived stress or life satisfaction. There was also a slight moderating effect of college belonging on the relationship between life satisfaction and stress, which suggests that feelings of belonging may buffer some of the negative impact of stress. Civiti (2015) acknowledged a few limitations that are relevant to the present study: extracurricular participation was assessed with a yes-or-no question, so participants were categorized as either involved or not involved; additionally, his study did not separate or exclude activities that were not affiliated with the university. Those activities may be important sources of support for students' general lives, but the resources they provide might not always transfer to the academic context. Treating activity participation as a dichotomous variable ignores both the quality and quantity of the activity.

In-group identification is the degree to which individuals identify with their group, define themselves as group members, and feel connected to or invested in their group. Leach and colleagues (2008) determined that in-group identification includes at least five elements. The first is individual self-stereotyping, considering oneself to be like the typical group member. The second is in-group homogeneity, believing that one's group has shared qualities that separate it from out-groups. The third is satisfaction, positive feelings about the group and membership in it. The fourth is solidarity, connection or a "sense of belonging" with the group. Finally, the fifth is centrality, the importance of group membership as part of one's self-concept. In-group identification meets most of Cohen and McKay's (1984) criteria for social support within a group, particularly a sense of similarity

and belonging. This is supported by studies like one by Sani and colleagues (2012), which found that higher group identification in the army related to lower depression and higher life satisfaction among enlisted personnel.

1.3 Participation Motivation and Self-Determination

Extracurricular and leisure activities could also buffer stress by helping to fulfill innate needs like competence, autonomy, and social connections; an argument which is based on Self-Determination Theory (Coleman & Iso-Ahola, 1993). Self-determination dispositions could serve as stress coping resources by improving students' perceptions of their own ability to deal with and overcome negative events.

Students who are close to entering the job market are more likely to start new extracurricular activities for external motives like building their resume, and this may be because those students are trying to increase their employability (Roulin & Bangerter, 2013). Students are also more likely to take leadership positions within their student organizations for externally motivated reasons (Roulin & Bangerter, 2013). However, internally motivated activities may offer more benefit when it comes to coping with stress, because inter-personal relationships and self-determination dispositions are more likely to develop as a result of internally motivated activity participation (Coleman & Iso-Ahola, 1993). The relationships formed in those internally motivated activities may provide social support, while self-determination dispositions and relationships may lead to greater feelings of in-group identification. Therefore, participation in internally motivated extracurriculars should be related to reduced academic stress and increased in-group identification.

Some research has found evidence for a crowding effect of motivation, the idea that high external motivation will reduce feelings of internal motivation (Deci et al., 1999). However, a study conducted by Vaidyanatha and Charness (2020) failed to find support for the “crowding effect.” In their experiment, the researchers encouraged gamers entering a video game tournament to bring their own gaming consoles for public use (an internally motivated activity), and then the researchers offered varying entry fee discounts (an external motivator) to bring consoles on certain days of the tournament. They found that the financial incentive, which ranged between a zero-dollar and a five-dollar discount, did not affect the number of consoles that gamers brought. Instead, gamers with high in-group identification were consistently more likely to provide consoles across conditions. This suggests that external motivation does not always lessen internal motivation, and it also suggests that higher in-group identification relates to higher internal motivation (Vaidyanatha & Charness, 2020).

1.4 Quantity of Involvement

Just as there are differences in the quality of extracurricular involvement, there are differences in the quantity of participation. A study by Greene and Maggs (2015) found that students at one university spent an average of two hours a day on organized extracurricular activities. Participation time varied between students, and students who had at least one college degreed parent spent significantly more time participating in activities than first-generation students. Conversely, first-generation students spent significantly more time on employment.

Extracurricular participation may be beneficial up to a point. In one study, high school students who were involved in two extracurricular activities had greater school

belonging and higher GPAs on average than students who were involved in more or fewer activities (Knifsend & Graham, 2012). Additionally, students who participated in two activities in eleventh grade appeared to have higher school belonging and academic engagement in twelfth grade. This suggests that moderate participation could result in beneficial academic outcomes (Knifsend & Graham, 2012). On the other hand, Knifsend and Graham (2012) also found that high school students who are over-involved in extracurriculars have lower feelings of school belonging and lower GPAs on average than students who are involved in fewer or no activities. This suggests that excessive participation could function as an additional stressor.

Extracurricular participation could contribute to student stress by increasing overall time commitments. The study by Greene and Maggs (2015) investigated the time trade-off hypothesis regarding employment, academic, and extracurricular commitments. They began their study considering extracurricular participation to be a drain on students' time, which would result in a loss of time elsewhere in their schedule. The results showed that participation time and academic time were negatively correlated for individual days, but greater extracurricular participation time did not relate to less time spent on academic work across the entire semester. This meant that a student who spent more time on extracurricular activities in a given day would have less time for academic work, but that time would then be balanced out across other days (Greene & Maggs, 2015). Greene and Maggs (2015) interpreted this as support against the hypothesis, because it showed that some students may organize their time so that they can participate in extracurriculars between academic obligations.

1.5 Activity Types

A study that looked at stress and burnout in pre-clinical medical students in Lebanon found that students who participated in physical exercise activities had lower reported stress than other students; however, other types of activities (i.e., music-related activities, reading, and social activities) were not related to differences in stress (Fares et al., 2016). The relationship between physical activities and stress may be explained by the exercise alone. In general, physical activity and exercise has been associated with reduced general stress, reduced AS, and increased life satisfaction (Stults-Kolehmainen & Sinha, 2014; Wang et al., 2020). However, it can be difficult to entirely separate social interaction and exercise, particularly in correlational studies, because participants may engage in group activities like team sports. Peer support and social interaction may be contributing to some of exercise's protective benefits, as postulated by some researchers (e.g., Wang et al., 2020).

Previous studies have grouped extracurricular activities in a variety of ways. As mentioned previously, Fares and colleagues (2016) used four categories: physical, music related, reading, and social activities. Knifsend and Graham (2012) decided on the categories of academic/leadership groups, arts activities, clubs, and sports. Roulin and Bangerter (2013) sorted activities into individual sports, team sports, student associations or volunteering, and artistic activities. The groupings in all three articles appear to be somewhat arbitrary, but they may reflect the authors' views on the activities of their studied populations: Lebanese preclinical medical students, United States high school students, and Swiss university students respectively.

Knifsend and Graham (2012) did not find significant relationships between activity type and school belonging, academic engagement, or GPA; however, the study by Fares and colleagues (2016) suggests that certain activity types may relate to differences in some academic measures, like burnout. The study by Roulin and Bangerter (2013) found differences in motivation between activity types. Students engaging in individual sports and associations/volunteer activities had lower internal motivation than students participating in team sports or artistic activities. Students participating in associations and volunteer activities also had higher external motivation than students in other groups.

1.6 Current Study

The purpose of this study is to investigate the potential relationship between AS and extracurricular involvement, while building on previous studies by incorporating measures of in-group identification, participation motivation, and participation time. This research is important because AS and extracurricular involvement are both prominent features of college life. Research on AS and involvement could help in identifying behaviors or activities that may promote student success and general well-being.

The primary hypothesis in this study is that students with higher in-group identification will have lower levels of AS than uninvolved students and other involved students with lower in-group identification. Based on the stress-buffering hypothesis, extracurricular activities should expand social support networks by increasing students' opportunities to connect with others who share common interests or experience similar stressors. Thus, participation in certain activities may help relieve AS. This should be particularly true for students participating in organizations with which they have high in-

group identification, because high in-group identification should indicate stronger relational bonds, satisfaction, and perceived similarity with group-members.

Additionally, it was hypothesized that internal motivation will be negatively correlated with AS. Internally motivated activity participation may improve students' self-determination dispositions – as proposed by Coleman and Iso-Ahola (1993) – and internal motivation may also relate to greater in-group identification. Therefore, students who participate for internally motivated reasons should have greater perceived coping resources and reduced academic stress.

Based on the findings of Vaidyanatha and Charness (2020), it is hypothesized that students with high in-group identification in their activities will also have high internal motivation and participation time. Participants will be more likely to participate for internal motives if their in-group identification is high, and they will also likely devote more time to an activity if they feel greater in-group identification. Finally, it is expected that AS, in-group identification, and motivation will differ between activity types. Activity types that center around shared common interests or beliefs – specifically religious and personal interest organizations – should promote greater internal motivation and in-group identification. Consequently, it is hypothesized that those activity types will also relate to the lower AS.

CHAPTER 2

METHODOLOGY

2.1 Participants

Study participants (n = 296) were recruited at the University of Texas at Arlington through the SONA pool, a participant pool consisting primarily of students enrolled in an introductory psychology course. All participants took part in this study for course credit, and all were undergraduate students who were 17 years old or older.

2.2 Procedure

Participants completed an asynchronous, online survey that was administered through QuestionPro. Participants signed up for the study on the SONA website and then completed the survey remotely, outside of the laboratory, at the time and location of their choosing. The participants each received 0.5 research credits (the standard amount for approximately thirty minutes of participation) after completing the survey. Data was analyzed using IBM SPSS version 28.0.0.0 (190).

2.3 Materials

The survey consisted of a short demographic questionnaire, an AS scale, and a series of questions for each of up to five student organizations. Appendix A contains images of the QuestionPro survey, from the informed consent up to the end of the first organization question set. The survey terminated after the student answered all five question sets or immediately after they indicated that they were not involved in any additional organizations. The organization question sets asked about the name of the

organization, the average time spent participating in the organization per week, the type of organization, the student's in-group identification, and the student's motivation for participating.

2.3.1 Academic Stress

AS was measured with the Academic Stress Scale (ASS; Kohn & Frazer, 1986), which is a 35-item inventory. The ASS was formatted on a 7-point Likert scale, and participants were asked to report their general level of stress for each item. The response options ranged from (1) "not at all stressful" to (7) "extremely stressful."

2.3.2 Student Organizations

Student organizations were defined in the survey as "official extracurricular activity groups, of the type that can be found on the UTA MavOrgs website." MavOrgs is the University of Texas at Arlington's official website for student organizations. The definition given explicitly included honors societies and fraternities/sororities to reduce possible ambiguity. Students reported the total number of organizations that they were involved in.

For the analyses with AS, organizations were grouped into three categories: each student's first-reported organization on the survey, each student's organization with the highest in-group identification, and each student's organization with the greatest participation time. This was done so that the factors of extracurricular involvement could be compared with AS even for students who reported multiple student organizations.

2.3.3 Organization Type

The survey assessed organization type by having participants select one of five options that best defines their organization. The five options were as follows: 1) volunteer, community service, or awareness; 2) sports, athletics, or physical activity; 3) religious or

spiritual; 4) social, personal interests, Greek life, or cultural; and 5) professional, academic, or honors. For the remainder of this paper, these categories are referred to as “volunteer activities,” “sport activities,” “religious activities,” “social activities,” and “professional activities” respectively.

2.3.4 Participation Time

The survey measured the average weekly time participating in each organization with a single self-report question. The survey informed participants that the estimated time could include “meetings, tabling, organization events, competitions, and official organization socials,” along with any similar activities.

2.3.5 In-Group Identification

In-group identification was assessed with the Multicomponent In-group Identification Scale (MIIS; Leach et al., 2008), which is a 14-item scale that measures solidarity, satisfaction, centrality, individual self-stereotyping, and in-group homogeneity. The scale was presented in a 7-point Likert format with responses ranging from (1) “completely disagree” to (7) “completely agree.” The lowest and highest possible mean scores were 1 and 7 respectively. Higher scores denoted a greater degree of in-group identification. The in-group identification scale had high internal consistency in this study (Cronbach’s Alpha = .93).

2.3.6 Participation Motivation

Participation motivation was measured with five scaled items. The five scaled items were adapted from Roulin & Bangerter (2013). Three of the items were intended to measure external motivation: “to expand my professional/academic network,” “to acquire practical experience,” and “to improve my resume.” The remaining two items were meant

to measure internal motivation: “because of an interest or passion” and “to make new friends or spend time with friends.” The items were formatted on a 7-point Likert scale, with responses ranging from (1) “completely disagree” to (7) “completely agree.”

I used a Cronbach's alpha test to determine if the items could be treated as a scale. The external motive items had high reliability (Cronbach's alpha = .83), so they were treated as a single scale for external motivation; however, the internal motivative items had low reliability (Cronbach's alpha = .46). Therefore, the two internal motive items were not considered a unified scale and were used in the analyses independent of each other. Participating because of an “interest or passion” was named Internal Motive 1, and participating to “make friends or spend time with friends” was labeled Internal Motive 2. Scores for external motivation and the internal motives ranged from 1 (low motivation) to 7 (high motivation)

CHAPTER 3

RESULTS

3.1 Participant Demographics

Of the 296 students who completed the survey, the majority identified as women ($n = 228$). The remaining students either identified as men ($n = 65$) or another gender ($n = 3$). The average age of participants was approximately 20 years ($M = 20.37$, $SD = 4.61$). The majority of survey respondents, 34.80%, identified as “Hispanic or Latinx” ($n = 103$). The second largest race/ethnicity group was students who identified as “Asian or Pacific Islander” ($n = 69$), followed by “White or Caucasian” ($n = 60$), “Black or African American” ($n = 44$), “Multiracial or Biracial” ($n = 15$), and “Native American or Alaskan Native” ($n = 1$). Three students selected “a race/ethnicity not listed here” ($n = 3$), and one student chose “prefer not to answer” ($n = 1$).

Around 62.16% of students were not involved in any extracurricular activities ($n = 184$). About 26.35% of surveyed students reported participating in one activity ($n = 78$), 9.12% reported being involved in two ($n = 27$), 1.69% reported three organizations ($n = 5$), and less than 1% of students reported as many as four organizations ($n = 2$). Approximately half of the students were freshman ($n = 156$), just under a quarter were sophomores ($n = 70$), and the remaining quarter were juniors ($n = 45$) and seniors ($n = 25$). Most students were from the College of Nursing and Health Innovation ($n = 111$) and the College of Science ($n = 73$), and the most common majors were Nursing ($n = 89$), Biology ($n = 34$), and Psychology ($n = 33$).

A total of 156 organizations were reported across all survey respondents. The largest organization category was professional activities (n = 49), followed by social activities (n = 46), volunteer activities (n = 24), sport activities (n = 19), and religious activities (n = 18). Table 3.1 shows the mean in-group identification, external motivation, Internal Motive 1, Internal Motive 2, and participation time across all organizations.

Table 3.1: Descriptive Statistics for Organization Factors

	<i>M</i>	<i>SD</i>
In-group Identification	5.40	1.05
Solidarity	5.26	1.34
Satisfaction	5.94	1.10
Centrality	4.94	1.68
Individual Self-stereotyping	5.27	1.14
In-group Homogeneity	5.32	1.10
External Motivation	5.28	1.39
Internal Motive 1	5.96	1.06
Internal Motive 2	5.76	1.28
Participation Time	3.83	4.73

3.2 Primary Analyses

An independent samples t-test was used to test the broad hypothesis that involved students would have lower AS than uninvolved students. However, AS score for students who reported extracurricular participation ($M = 4.50$, $SD = .77$) were not significantly different from those of uninvolved students ($M = 4.62$, $SD = .83$), $t(294) = 1.28$, $p = .101$ (one-sided).

To analyze any possible relationships between AS and extracurricular participation, the organizations that students reported were categorized into groups. Since most students only reported one organization, the majority had the same organization analyzed in each grouping; however, 21 out of the 112 involved students had a different organization in at least one of those categories. For all three extracurricular groupings, AS was not significantly correlated with participation time, Internal Motive 1, in-group identification or any of its sub-components (Table 3.2). AS was only correlated with external motivation and Internal Motive 2 for the first reported organization. AS was also not significantly correlated with total participation time across activities. A one-way ANOVA was used to test for differences in AS between activity types (religious/spiritual, sports/athletics/physical activity, etc.); however, the activity types were not significantly different. Overall, this fails to support the primary hypothesis that high extracurricular in-group identification buffers AS. It also fails to support the broader hypothesis that extracurricular participation in college affects AS.

Tests for correlations revealed significant relationships for factors within extracurricular organizations (Table 3.3, Figure 3.1). External motivation was positively correlated with in-group identification, $r(154) = .25, p < .001$ (one-tailed). It was also positively correlated with Internal Motive 1, $r(154) = .26, p < .001$ (one-tailed). In-group identification was positively correlated with both Internal Motive 1 – $r(154) = .46, p < .001$ (one-tailed) – and Internal Motive 2 – $r(154) = .41, p < .001$ (one-tailed). Participation time was not correlated with in-group identification, but it was positively correlated with one of the sub-factors, centrality, $r(154) = .20, p = .006$ (one-tailed). Participation time was also positively correlated with Internal Motive 1, $r(154) = .20, p = .007$ (one-tailed).

Table 3.2: Organization and Academic Stress Correlations

	<i>r</i>	<i>p</i>
Total Participation Time	.003	.487
First Reported Organization		
In-group Identification	-0.05	.319
Solidarity	-.10	.154
Satisfaction	-.10	.147
Centrality	.05	.298
Individual Self-stereotyping	.05	.305
In-group Homogeneity	-.09	.185
Participation Time	-.06	.250
External Motivation	.19*	.020
Internal Motive 1	.03	.399
Internal Motive 2	.17*	.036
Highest In-Group Identification Organization		
In-group Identification	-.05	.293
Solidarity	-.08	.198
Satisfaction	-.10	.139
Centrality	.04	.335
Individual Self-stereotyping	.01	.446
In-group Homogeneity	-.10	.148
Participation Time	-.07	.228
External Motivation	.15	.064
Internal Motive 1	.01	.468
Internal Motive 2	.15	.053
Highest Participation Time Organization		
In-group Identification	-.02	.417
Solidarity	.01	.472
Satisfaction	-.08	.198
Centrality	-.001	.494
Individual Self-stereotyping	.09	.154
In-group Homogeneity	-.08	.210
Participation Time	-.06	.259
External Motivation	.05	.310
Internal Motive 1	-.05	.297
Internal Motive 2	.15	.055
	<i>F</i>	<i>p</i>
First Reported Type	.69	.600
Highest In-group Identification Type	.55	.699
Highest Participation Time Type	.67	.615

* $p < .05$ (one-tailed)

Table 3.3: Pearson's Correlation Coefficients for Organization Factors

	1	2	3	4	5
1 In-group Identification	1	.12	.25**	.46**	.41**
Solidarity	.88	.11	.15+	.36**	.43**
Satisfaction	.83	.03	.24*	.42**	.33**
Centrality	.83	.20*	.29**	.47**	.28**
Individual Self-stereotyping	.80	.02	.21*	.26**	.38**
In-group Homogeneity	.65	.07	.03	.21*	.30**
2 Participation Time		1	-.02	.20*	.10
3 External Motivation			1	.26**	-.01
4 Internal Motive 1				1	.30**
5 Internal Motive 2					1

+ $p < .05$, * $p < .01$, ** $p < .001$ (one-tailed)

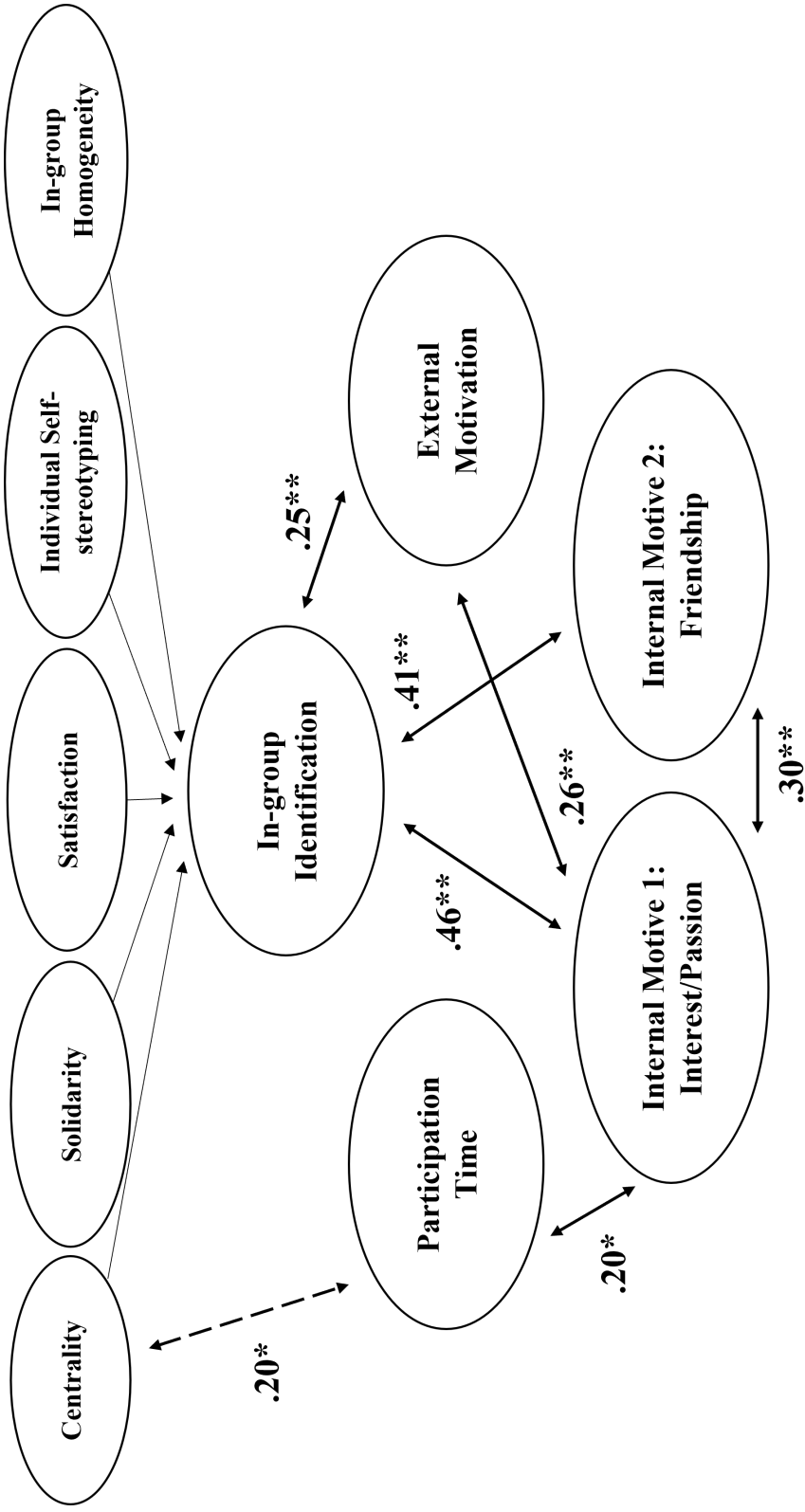


Figure 3.1: Correlations Between Organization Factors. This figure shows the correlations between organization factors. All the displayed correlations are significant. (* $p < .01$, ** $p < .001$)

This suggests that students with greater participation motivation also have higher in-group identification in their extracurricular groups. Furthermore, it suggests that students with greater feelings of centrality, and perhaps certain internal motives, spend more time participating in extracurricular activities.

To test the hypothesis that within organization factors would differ by organization type, a one-way ANOVA was used. In-group identification and ratings for Internal Motive 1 did not differ significantly between different organization types, $F(4, 151) = 1.17, p = .327$ and $F(4, 151) = 1.45, p = .219$ respectively; however, there were significant differences for Internal Motive 2, $F(4, 151) = 3.92, p = .005, \eta^2 = .094$, and for external motivation, $F(4, 151) = 12.937, p < .001, \eta^2 = .255$. A post-hoc analysis revealed that Internal Motive 2 only differed between social activities ($M = 6.11, SD = 1.16$) and professional activities ($M = 5.24, SD = 1.47$). For external motivation, both volunteer activities ($M = 5.93, SD = 1.08$) and professional activities ($M = 6.00, SD = .97$) were significantly different from sport activities ($M = 4.11, SD = 1.18$), religious activities ($M = 4.63, SD = 1.36$), and social activities ($M = 4.91, SD = 1.44$). This does not support the hypothesis that social and religious activities would have higher in-group identification, internal motivation, and participation time; however, it does suggest that students are more likely to participate in social activities rather than professional activities to develop friendships (Internal Motive 2). It also suggests that students tend to have greater external motivation for participating in volunteer and professional activities compared to other activity types (Figure 3.2).

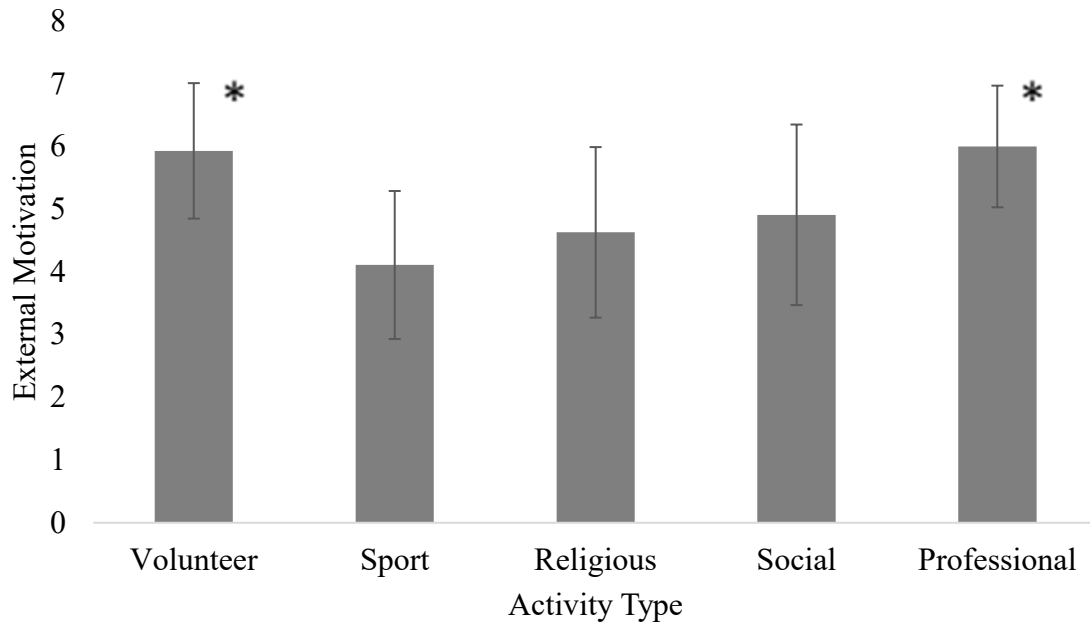


Figure 3.2: Differences in External Motivation Between Activity Types. This graph shows the difference in average external motivation between extracurricular activity types. Students participating in the organization types labeled with an asterisk (*) had significantly greater external motivation than those participating in the other activity types ($p < .05$). The error bars represent standard deviation.

3.3 General Analyses

An independent samples t-test comparing AS between genders found that women had higher AS scores ($M = 4.66, SD = .80$) than men ($M = 4.31, SD = .80$), $t(291) = 3.10$, $p = .001$, $d = .436$ (one-sided). This suggests that female students experience more AS than male students (Figure 3.3). Students who identified with a gender other than man or woman were excluded from the gender analyses due to the small sample size.

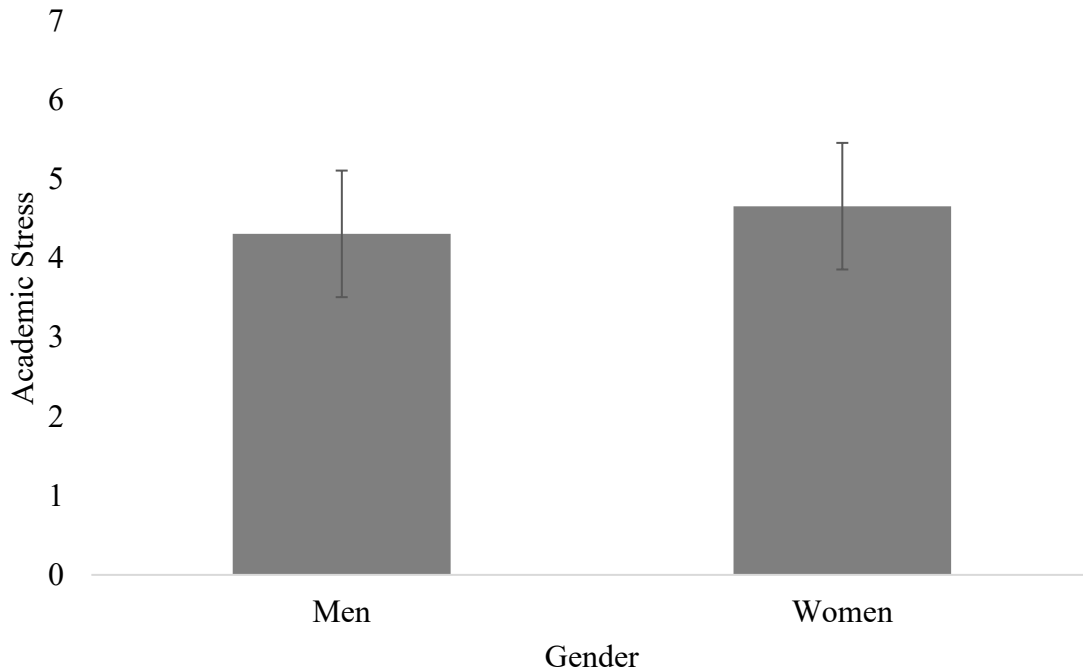


Figure 3.3: Difference in AS Between Men and Women. This graph shows the difference in AS between men and women. The error bars represent standard deviation. Although the error bars overlap, women have significantly greater AS than men ($p = .001$)

A one-way ANOVA also revealed significant differences in AS between different race/ethnic groups, $F(4, 286) = 3.47, p = .009, \eta^2 = .046$. Only participants who identified as “Black or African American” ($M = 4.34, SD = .81$) and participants who identified as “Multiracial or Biracial” ($M = 5.03, SD = .75$) were significantly different. Students who selected “Native American or Alaskan Native” or “Other” were excluded from the race/ethnicity analyses due to a small sample from those groups. One student who selected “prefer not to answer” in response to the race/ethnicity question was also excluded.

Age was not significantly correlated with AS, $r(296) = .031, p = .596$ (two-tailed); however, age and the number of extracurricular organizations that students reported ($M = .52, SD = .79$) were weakly correlated, $r(294) = -.17, p = .003$ (two-tailed). Older students participated in fewer extracurricular activities on average than younger students. Year in

college (i.e., freshman, sophomore, junior, senior) did not differ based on AS, $F(3, 292) = 1.19, p = .315$, or the number of organizations that students reported, $F(3, 292) = .42, p = .736$.

CHAPTER 4

DISCUSSION

4.1 General Discussion

The results of this study suggest that extracurricular participation is not associated with AS. Although the results seemed to show a negative trend between AS and in-group identification, they were not significantly correlated, which is inconsistent with what might be expected if extracurricular activities provide a supportive network to buffer perceived AS. Only external motivation and Internal Motive 1 for the first reported organization were positively correlated with AS. If these variables are related to AS, we would expect to see similar trends in the results for the groups with highest participation time and highest in-group identification. This is especially true since many students only reported one activity, so the same activity was analyzed for each grouping. The results did not show any such correlations; therefore, it is highly unlikely that external motivation or the internal motive of friendship are related to perceived AS. Participation time and AS were not correlated, so the results of this study also failed to support an alternative hypothesis that extracurricular participation would contribute to AS by adding to the net time commitment in school. Participating does not relate to increased student stress.

There are several possible explanations for these results. The first, and perhaps most obvious, is that extracurricular activities may not influence or be influenced by students' AS. Alternatively, it is possible that extracurricular participation could buffer AS, but that uninvolved students receive social support from other sources. This study only

looked at in-group identification for organized, university-affiliated activities, which excludes other potential sources of academic-related social support, like friend groups, living on-campus, campus events and activities, and informal or non-university-affiliated extracurricular groups. Uninvolved students may spend more of their leisure time engaged in other activities or relationships, and the additional support from those sources may influence AS in a way that is comparable to support from extracurricular participation.

Both internal motives and external motivation were positively correlated with in-group identification. Furthermore, external motivation was positively correlated with Internal Motive 1, extracurricular participation due to an interest or passion. This provides support for the hypothesis that in-group identification would be related to internal motivation, but it also demonstrates an unanticipated relationship with extracurricular involvement. The relational design of this study leaves us with several possible explanations for these results. It is possible that one of these factors might facilitate growth of the other two. For instance, students may join an activity for externally motivated reasons but then develop a sense of community and internal motives within the group. It is also possible that students seek out activities that offer all three factors. Finally, this could be an example of a halo-effect. Students who have high opinions of their organizations may be reporting slightly inflated motivations or in-group identification.

In-group identification was not related to participation time, which suggests that a large time commitment is not necessarily a prerequisite of high in-group identification. It also suggests that students who identify strongly with their activity do not always devote more time to participation.

Centrality was the only within organization factor that was correlated with participation time. Centrality is the degree to which an individual incorporates group membership into their self-concept (Leach et al., 2008). Students who feel that group membership makes up a greater portion of their identity may invest more time into the group, or, conversely, students who invest more time might begin to integrate group membership into their self-concept; however, it is unclear why other aspects of in-group identification do not relate to participation time. The correlation was also relatively weak compared to the correlations between some of the other factors; therefore, additional research should be done to discover if and why centrality relates to participation time while other components of in-group identification might not.

Contrary to predictions, AS did not differ between social or religious activities and other activity types. Students in this study had greater ratings on Internal Motive 2 – participation to make friends or spend time with friends – for social activities than for professional activities. They also reported greater external motivation for professional activities and volunteer activities. This is somewhat consistent with the finding of Roulin and Bangerter (2013), which showed that students had higher external motivation for participating in volunteer activities and student associations. Professional and volunteer activities could offer greater external rewards, like resume-building and networking, than other activity types; meanwhile, students seek out social activities for friendship. Interestingly, Internal Motive 1 (participation due to an interest or passion) was not significantly different for social activities compared to other activities, even though social activities included activities categorized as “personal interests.” It is likely that organizations within the other activity types all have elements of personal interest. For

example, students in their school's Psychology Society may be participating due to a personal interest but also categorize their group as an "academic organization." This could explain the lack of difference in Internal Motive 1 between activity types.

The gender difference in AS is consistent with previous research which found that females report higher AS and academic anxiety than males (Abouserie, 1994; Pascoe et al., 2020). Men and women react differently to stressors (Verma et al., 2012), so it is possible that women experience academic stress differently than men. Women may also face different academic pressures, particularly in STEM disciplines where they are often outnumbered and underrepresented. Another possibility is that men underreport their perceived academic stress. Despite the significant difference in AS scores, there was a lot of variability within both groups. Gender does not appear to be a highly predictive of AS.

Multiracial or biracial students had significantly greater AS than Black or African American students, but neither group differed significantly from any other group in this study. The racial/ethnicity difference in AS between Black or African American students and multiracial or biracial students should be interpreted with caution for a few reasons. This study did not predict a difference in AS between the groups, and none of the other groups were significantly different. The sample for multiracial/biracial students ($n = 15$) was also relatively small, and it is unlikely that the category represented a homogenous population. The survey did not ask multiracial/biracial participants to specify the races or ethnicities that they identified with, so the data only shows that the students identified with more than one group, not which groups they each identified with. Finally, there was a lot of variability in individual AS scores within all the studied groups. Although these results

suggest a possible difference in AS between the two groups, additional research would need to be conducted to draw any conclusions.

4.2 Limitations

One limitation of this study is the age of the ASS. Kohn and Frazer's ASS was created more than thirty years ago, so it may not represent the most salient academic stressors for the current generation of college students. This is especially true since the COVID-19 pandemic began. Kohn and Frazer (1986) found that academic obligations and assessments were some of the most salient stressors, while environmental stressors, like cold classrooms, contributed less to student stress. However, environmental stressors appear to be even less relevant now than they were in the 1980s. This may be due to changes like improvements in indoor climate control or the availability of online class options. Newer potential stressors – like learning from video lectures, technology failures, and safe distancing in classrooms – are not considered in the ASS. Additionally, this study found evidence that the average ratings of items on the ASS may now differ from the levels originally reported by Kohn and Frazer (1986). Table 4.1 shows the ranked importance of items on the scale and how the importance has changed. On average, each item moved 5.74 positions in the scale's ranked order, and only two items retained their original relative rank. A newer scale or the addition of items related to technology and post-COVID concerns may serve as a better metric for AS.

Another possible limitation is under-reporting of participation. When filling out the survey for this study, participants were asked to report their total number of organizations prior to answering a question set about each activity. Thirteen respondents filled out question sets for fewer activities than they initially reported, and two respondents filled out

Table 4.1: Ranking of Items on the Academic Stress Scale (ASS)

Rank	Stressor (Original order) *	Rating		Stressor (Order for this study)	Rating	
		Adjusted*	Change		M	Adjusted
1	Final grades	100	+9	Forgotten assignments	6.12	100
2	Excessive homework	85	-1	Final grades	5.99	98
3	Term papers	84	+1	Examinations	5.95	97
4	Examinations	84	+7	Incomplete assignments	5.88	96
5	Studying for examinations	82	+7	Unclear assignments	5.78	94
6	Class speaking	81	+7	Unprepared to respond to questions	5.77	94
7	Waiting for graded tests	76	+8	Studied wrong material	5.66	92
8	Fast-paced lectures	70	-6	Excessive homework	5.58	91
9	Pop quizzes	67	-4	Studying for examinations	5.43	89
10	Forgotten assignments	66	-7	Term papers	5.37	88
11	Incomplete assignments	61	-2	Pop quizzes	5.33	87
12	Unclear assignments	61	+4	Incorrect answers in class	5.15	84
13	Unprepared to respond to questions	57	-7	Class speaking	5.06	83
14	Announced quizzes	57	-6	Fast-paced lectures	4.94	81
15	Studied wrong material	57	+5	Unclear course objectives	4.92	80
16	Incorrect answers in class	54	-9	Waiting for graded tests	4.81	79
17	Missing class	54	+10	Arriving late for class	4.69	77
18	Buying textbooks	51	+6	Attending wrong class	4.43	72
19	Learning new skills	49	-2	Missing class	4.39	72
20	Unclear course objectives	48	+11	Irrelevant classes toward major	4.23	69
21	Hot classrooms	48	+11	Crowded classes	4.19	68
22	Nonnative language classes	43	+8	Noisy classroom	4.12	67
23	Boring classes	39	-1	Nonnative language classes	4.10	67
24	Attending wrong class	39	-10	Announced quizzes	3.97	65
25	Late dismissals of class	38	0	Late dismissals of class	3.91	64
26	Cold classrooms	37	-9	Buying textbooks	3.82	62
27	Arriving late for class	36	-6	Hot classrooms	3.79	62
28	Forgotten pencil/pen	36	0	Forgotten pencil/pen	3.77	62
29	Note-taking in class	36	+5	Evaluating classmates' work	3.62	59
30	Noisy classroom	36	-7	Boring classes	3.52	58
31	Irrelevant classes toward major	34	-12	Learning new skills	3.5	57
32	Crowded classes	33	-3	Note-taking in class	3.26	53
33	Classes without open discussion	30	-7	Cold classrooms	3.24	53
34	Evaluating classmates' work	29	+1	Poor classroom lighting	3.11	51
35	Poor classroom lighting	28	-2	Classes without open discussion	2.84	46

* *The original order and original adjusted rating are taken from Kohn and Frazer (1986)*

more than initially reported. Some participants may have completed fewer sections in order to finish the survey and receive participation credit in less time. Therefore, the data collected in this survey may be partially incomplete.

The internal motivation items used in this study were another limitation because they did not represent a unified measure of internal motivation. Instead, they had to be analyzed independently as two motives that appear to be internally driven.

Finally, this study did not control for the time of the semester. The data for this study was all collected during the first half of a single semester, when we might expect stress to be slightly lower because of lighter workload and fewer examinations. The decent sample size for this study should also balance out any differences in academic obligations between students.

4.2 Future Directions

Future studies could look at how the COVID-19 pandemic has influenced or changed the most salient academic stressors for college students, as well as how extracurricular participation may have changed because of the pandemic. Extracurricular activities, like some classes, may still be hosted virtually or in a hybrid modality with both in-person and virtual components. Research should investigate whether virtual participation relates to lower in-group identification and potentially lower social support. Investigating these changes is important for understanding the experiences of college students and for ensuring the validity of other future studies that consider these factors.

Although AS did not relate to extracurricular involvement, it is still possible that involvement may limit some of the adverse effects of AS on academic outcomes, health, and well-being. In other words, support from extracurricular involvement may buffer the

outcome of AS rather than perceived stress. Future studies could test whether extracurricular participation moderates some of these established relationships.

Lastly, future research could also investigate the causality behind these relationships with a longitudinal study. This study was limited by its correlational design, which makes it impossible to draw causal conclusions. Since factors of extracurricular participation would be difficult or impossible to manipulate experimentally, a longitudinal study may provide the best evidence for possible effects. It would also have the additional benefit of tracking academic stress and extracurricular participation at different time points, which could offer insight into how those factors change across the college career and how they relate to academic outcomes.

CHAPTER 5

CONCLUSION

Overall, this study shows that extracurricular participation does not seem to buffer perceived AS in college, even when students have high in-group identification and internal motivation. However, it also demonstrates that participation and greater participation time do not seem to contribute to AS. Even without an effect on AS, there are still other benefits to participating in extracurricular activities. For instance, previous studies have found that students who are involved outside of the classroom develop better interpersonal skills, have higher feelings of belonging, and have greater academic achievement than uninvolved students (Eccles et al., 2003; Knifsend & Graham, 2012; Rubin et al., 2002). The activities that students are most motivated to participate in also appear to be the ones in which they feel the greatest in-group identification. Encouraging students to participate in extracurriculars could be beneficial, because it may be a way of promoting formative experiences and developing a sense of community in college without adding academic demands that might lead to increased academic stress.

APPENDIX A
THE SURVEY FROM QUESTIONPRO

My name is Rebecca Roten, and I am asking you to participate in a UT Arlington research study titled, "The Relationship between Academic Stress and Extracurricular Involvement." This research study is about academic stress and extracurricular involvement in college students. You can choose to participate in this research study if you are at least 17 years old and an undergraduate college student.

Reasons why you might want to participate in this study include to see an example of what survey research in psychology looks like, or to contribute to a research study; but you might not want to participate if you are uncomfortable answering questions about potential academic stressors or your extracurricular activities, or if you are not able to commit to taking a survey for 30 minutes in one sitting. Your decision about whether to participate is entirely up to you. If you decide not to be in the study, there won't be any punishment or penalty; whatever your choice, there will be no impact on any benefits or services that you would normally receive. Even if you choose to begin the study, you can also change your mind and quit at any time without any consequences.

If you decide to participate in this research study, the list of activities that I will ask you to complete for the research are: answer a series of questions in the following survey. It should take about 30 minutes to complete. Although you probably won't experience any personal benefits from participating, the study activities are not expected to pose any additional risks beyond those that you would normally experience in your regular everyday life or during routine medical / psychological visits.

You will not be paid for completing this study. You will receive 0.5 SONA credits for participating in this research study, which will be given to you within 3 days of your full completion of this study. You can choose to complete other research studies, or to complete the "Paper Summary Alternative" as an alternative option for earning SONA credit. You can find details about that option on your SONA account.

The research team is committed to protecting your rights and privacy as a research subject. We may publish or present the results, but your name will not be used. While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. If you have questions about the study, you can contact me at rebecca.roten@mavs.uta.edu, or you can contact my faculty mentor, Dr. Jared Kenworthy, at kenworthy@uta.edu. For questions about your rights or to report complaints, contact the UTA Research Office at 817-272-3723 or regulatoryservices@uta.edu.

You are indicating your voluntary agreement to participate by clicking on the "Accept" button below.

*

- Accept
- Decline

What is your 10-digit UTA student ID number?

What is your current age in years?

What is your gender?

- female
- male
- other
- Prefer not to answer

What is your current designation?

- freshman (0 to 29 credit hours)
- sophomore (30 to 59 credit hours)
- junior (60 to 89 credit hours)
- senior (90 or more credit hours)

What is your academic major?

Which option best describes you?

- Asian or Pacific Islander
- Black or African American
- Hispanic or Latinx
- Native American or Alaskan Native
- White or Caucasian
- Multiracial or Biracial
- A race/ethnicity not listed here
- Prefer not to answer

Please rate your general level of stress for each of the following items.

	Not at all stressful					Extremely stressful	
	1	2	3	4	5	6	7
Final grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excessive homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Term papers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Studying for examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waiting for graded tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fast-paced lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pop quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgotten assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all stressful					Extremely stressful	
	1	2	3	4	5	6	7
Incomplete assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unclear assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unprepared to respond to questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Announced quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Studied wrong material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorrect answers in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Missing class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying text books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning new skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unclear course objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all stressful					Extremely stressful	
	1	2	3	4	5	6	7
Hot classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nonnative language lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boring classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending wrong class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Late dismissals of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cold classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arriving late for class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgetting pencil/pen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Note-taking in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Noisy classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all stressful					Extremely stressful	
	1	2	3	4	5	6	7
Irrelevant classes toward major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crowded classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Classes without open discussion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluating classmates' work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor classroom lighting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Student organizations are official extracurricular activity groups, of the type that can be found on the UTA MavOrgs website. For the purposes of this study, honors societies and fraternities/sororities (Greek Life) are included in our definition of student organizations.

*How many student organizations are you involved in at UTA?

- None
- 1
- 2
- 3
- 4
- 5
- more than 5

Please indicate the number of student organizations that you are involved in.

This survey will collect data for a maximum of five (5) organizations. For the remainder of this survey, please answer for only the five organizations that you spend the most time actively participating in.

Please answer the following questions about your student organization and your experience as a member. If you are involved in more than one organization, please answer for the organization that you spend the most time participating in. You will be asked about your other organization(s) later in the survey.

What is the name of your first student organization?

Please select the category that best describes this organization

- Volunteer/Community Service/Awareness
- Sports/Athletics/Physical Activity
- Religious/Spiritual
- Social/Personal Interests/Greek Life/Cultural
- Professional/Academic/Honors

How many hours on average do you spend participating in this organization each week?
Participation could include (but is not limited to) meetings, tabling, organization events, competitions, and official organization socials.

Thinking about this same organization, please rate your level of agreement with each of the following statements.

	completely disagree	mostly disagree	disagree slightly	neither agree nor disagree	agree slightly	mostly agree	completely agree
I feel a bond with members of my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel solidarity with members of my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel committed to my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am glad to be a part of my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that my organization has a lot to be proud of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is pleasant to be an organization member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being an organization member gives me a good feeling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often think about the fact that I am a member of my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fact that I am an organization member is an important part of my identity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a member of my organization is an important part of how I see myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	completely disagree	mostly disagree	disagree slightly	neither agree nor disagree	agree slightly	mostly agree	completely agree
I have a lot in common with the average member of my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am similar to the average member of my	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

organization

Organization members have a lot in common with each other

Organization members are very similar to each other

Why do you participate in your first student organization? You can include multiple reasons.

Examples: to make friends, to develop skills, to add it to my resume, etc.

Please rate your level of agreement with each of the following statements.

	completely disagree	mostly disagree	disagree slightly	neither agree nor disagree	agree slightly	mostly agree	completely agree
I participate in this organization to expand my professional/academic network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in this organization because of an interest or passion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in this organization to acquire practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in this organization to make new friends or spend time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in this organization to improve my resume	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

REFERENCES

- Abouserie, R. (1994). Sources and levels of stress in relation to locus of control and self esteem in university students. *Educational Psychology, 14*(3): 323-330.
<https://doi.org/10.1080/0144341940140306>
- Civitci, A. (2015). Perceived stress and life satisfaction in college students: Belonging and extracurricular participation as moderators. *Procedia – Social and Behavioral Sciences, 205*: 271-281. <https://doi.org/10.1016/j.sbspro.2015.09.077>
- Cohen, S., & McKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis. In Taylor, S. E., Singer, J. E., & Baum, A. (Eds.), *Handbook of Psychology and Health (Volume IV)* 1st Edition. (pp. 253-267). ISBN: 9781003044307
- Coleman, D., & Iso-Ahola, S. E. (1993). Leisure and health: The role of social support and self-determination. *Journal of Leisure Research, 25*(2): 111-128.
<https://doi.org/10.1080/00222216.1993.11969913>
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*(6): 627-668. <http://dx.doi.org/10.1037/0033-2909.125.6.627>
- Eccles, J. S., Barber, B. L., Stone, M., & Hunt, J. (2003). Extracurricular activities and adolescent development. *Journal of Social Issues, 59*(4): 865-889. <https://doi-org.ezproxy.uta.edu/10.1046/j.0022-4537.2003.00095.x>

- Fares, J., Saadeddin, Z., Tabosh, H. A., Aridi, H., Mouhayyar, C. E., Koleilat, M. K., Chaaya, M., & Asmar, K. E. (2016). Extracurricular activities associated with stress and burnout in preclinical medical students. *Journal of Epidemiology and Global Health*, 6(3): 177-185. <https://doi.org/10.1016/j.jegh.2015.10.003>
- Greene, K. M., & Maggs, J. L. (2015). Revisiting the time trade-off hypothesis: Work, organized activities, and academics during college. *Journal of Youth and Adolescence*, 44: 1623-1637. <https://doi.org/10.1007/s10964-014-0215-7>
- Knifsend, C. A., & Graham, S. (2012). Too much of a good thing? How breadth of extracurricular participation relates to school-related affect and academic outcomes during adolescence. *Journal of Youth and Adolescence*, 41: 379-389. <https://doi.org/10.1007/s10964-011-9737-4>
- Kohn, J. P., & Frazer, G. H. (1986). An academic stress scale: Identification and rated importance of academic stressors. *Psychological Reports*, 59: 415-426. <https://doi.org/10.2466%2Fpr0.1986.59.2.415>
- Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., Ouwerkerk, J. W., & Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, 95(1): 144-165. <http://dx.doi.org.ezproxy.uta.edu/10.1037/0022-3514.95.1.144>
- Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25(1): 104-112. <https://doi.org/10.1080/02673843.2019.1596823>

- Roulin, N., & Bangerter, A. (2013). Extracurricular activities in young applicants' resumes: What are the motives behind their involvement. *International Journal of Psychology, 48*(5): 871-880. <http://dx.doi.org/10.1080/00207594.2012.692793>
- Rubin, R. S., Bommer, W. H., & Baldwin, T. T. (2002). Using extracurricular activity as an indicator of interpersonal skill: Prudent evaluation or recruiting malpractice? *Human Resource Management, 41*(4): 441-454. <https://doi-org.ezproxy.uta.edu/10.1002/hrm.10053>
- Sani, F., Herrera, M., Wakefield, J. R. H., Boroch, O., & Gulyas, C. (2012). Comparing social contact and group identification as predictors of mental health. *British Journal of Social Psychology, 51*: 781-790. <https://doi-org.ezproxy.uta.edu/10.1111/j.2044-8309.2012.02101.x>
- Selye, H. (1974). *Stress without Distress* (1st ed.). Lippincott.
- Stults-Kolehmainen, M. A., & Sinha, R. (2014). The effects of stress on physical activity and exercise. *Sports Medicine, 44*: 81-121. <http://dx.doi.org/10.1007/s40279-013-0090-5>
- Vaidyanatha, A., & Charness, G. (2020). In-group identification and motivation crowding. *Journal of Economic Behavior & Organization, 178*: 866-874. <https://doi-org/10.1016/j.jebo.2020.08.012>
- Verma, R., Balhara Y. S., Gupta, C. (2012). Gender differences in stress response: Role of developmental and biological determinants. *Industrial Psychiatry Journal, 20*(1): 4-10. <https://doi-org/10.4103/0972-6748.98407>

Wang, G. H., Li, W. D., & Dou, K. (2020). Extracurricular sports participation increases life satisfaction among Chinese adolescents: A moderated mediation model. *Social Behavior and Personality*, 48(8): e8993. <https://doi.org/10.2224/sbp.8993>

Wilkes, S. E., & Spivey, C. A. (2010). Resilience in undergraduate social work students: Social support and adjustment to academic stress. *Social Work Education*, 29(3): 276-288. <https://doi-org.ezproxy.uta.edu/10.1080/02615470902912243>

BIOGRAPHICAL INFORMATION

Rebecca Roten is a senior undergraduate student at the University of Texas at Arlington. She is currently completing an Honors Bachelor of Science in Psychology and a Bachelor of Arts in Critical Languages & International Studies with minors in Neuroscience, Biology, and Clinical Health Psychology. Rebecca has been an undergraduate research assistant in Dr. Jared Kenworthy's social psychology research lab since Spring of 2020. More recently, she has begun working in the Attention Memory and Aging lab led by Dr. Hunter Ball, where she has been assisting with a project on prospective memory strategy training for older adults. Following graduation, Rebecca plans on applying to Clinical Psychology PhD programs.