Organized Activity Involvement Across the Transition to College: Multiple Dimensions Predicting Adjustment

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This longitudinal study examined multiple dimensions of organized activity involvement during the first semester of college – including intensity, breadth, and continuity– and their relation to college adjustment. Results indicated that organized activity intensity during the first semester was positively associated with optimism, and organized activity continuity discrepancy from high school to college was positively associated with positive affect. Additionally, residential status moderated the relation between organized activity continuity discrepancy and optimism, as well as the relation between organized activity intensity and positive affect. Gender also moderated the relation between organized activity breadth and positive affect.

Introduction

The majority of youth in the United States attend college after completing high school, making this an increasingly normative event (U.S. Department of Labor, 2020). During this transition, students are faced with an array of challenges including academic stress, homesickness, financial issues, and the development of serious interpersonal relationships (Beiter et al., 2015; Burt & Masten, 2010). Within this critical juncture, youth are also transitioning from adolescence to emerging adulthood. This developmental transition, characterized by major life changes in social roles and contexts, may be a time of potential growth or risk in the course of mental health (Schulenberg et al., 2004; Seidman & French, 2004). Thus, the transition to college may be a critical point of vulnerability and an ideal context to examine patterns of adjustment and potential buffers of maladjustment. Given that organized activity involvement has been linked to markers of positive development, this may be harnessed to mitigate the potential stress of the college transition, particularly for at-risk students. In the college context, well-being has been found to differ by students' gender and residential status, such that women and residential students experience greater levels of distress during the initial transition. Thus, the current study examined the moderating effects of gender and residential status on the relation between organized activity involvement and college adjustment.

Adjustment to College

A large proportion of students report high levels of stress and psychological distress during the transition to college (Conley et al., 2014), with higher rates of clinically significant distress than adult, youth, and general population samples (Bayram & Bilgel, 2008; Stallman, 2010). More concerning is research indicating that approximately 40% of college students report current depressive symptoms, half of whom describe symptoms

of severe intensity (American College Health Association [ACHA], 2019). During this transition, experiencing depressive symptoms is associated with poorer academic outcomes, including lower grade point averages and retention rates, as well as interpersonal difficulties (Kessler et al., 2006; Stinebrickner & Stinebrickner, 2013). Positive markers of adjustment may be equally important to explore in creating a comprehensive picture of the college transition since they are developed and maintained differently (Mahoney & Bergman, 2002). Indeed, indicators of psychological well-being may act as protective factors against stress and psychological distress amongst college students (Pritchard et al., 2007; Terry et al., 2013). Optimism and positive affect are markers of positive functioning that have been shown to play important roles in adjustment to stressful life events (Kleiman et al., 2017; Lee et al., 2013). Higher levels of optimism predict better psychological adjustment and more effective coping strategies during the transition to college (Perera & McIlveen, 2014), and enhancements in positive affect yield improvements in well-being, stress, and depression (Bolier et al., 2013; Schiffrin & Nelson, 2010).

Given the high levels of stress experienced by first-year college students, the staggering number of students reporting depressive symptoms, and the detrimental impact of poor adjustment, it is essential to identify contexts or experiences that may protect against depressive symptoms and negative affect, as well as bolster optimism and positive affect, during the transition to college. Such research can help university administrators to better understand ways to support students' well-being, and thereby advance higher-level goals of improving retention.

Organized Activities and Adjustment

Organized activities may be one accessible context that contributes to healthy adjustment during the transition to college. The current study examines whether several dimensions (i.e., intensity, breadth, and continuity) of college organized activity (OA) involvement are associated with better adjustment during the first semester of college. The relevance of OAs – voluntary activities with regular meetings that are organized around developing skills or goals, and involve supervision or guidance – in promoting development in adolescence has been widely documented (Agans et al., 2014), though findings vary depending on which dimension of OA involvement is assessed. Assessing multiple dimensions of OA involvement is imperative because each may represent a unique experience and have varying effects across development (Bohnert et al., 2010). OA intensity (i.e., frequency of participation) and breadth (i.e., number of different activity contexts participated in) are both considered important for experiencing the benefits of participation, as intensity allows more frequent exposure to positive developmental outcomes, and breadth allows more opportunities to learn skills and develop relationships that may be helpful in coping with changes (Bohnert et al., 2010).

Breadth of involvement has been consistently associated with better psychological and academic adjustment for adolescents (Agans et al., 2014; Denault & Poulin, 2009; Knifsend & Graham, 2012). Research examining OA intensity and mood in adolescence has yielded mixed results, but some cross-sectional studies link higher intensity with lower levels of depressive symptoms and distress (Mahoney & Vest, 2012; Simpkins et al., 2006). Continuity of OA involvement (i.e., the stability of participation in an activity over a period of time) is another important dimension because it is thought to strengthen identity formation—a key task during college (Feldman & Matjasko, 2005). Among adolescents, continuity of OA involvement in high school is associated with lower levels of depression (Bohnert et al., 2013), higher levels of self-esteem and support (Oosterhoff et al., 2017), and better social and emotional adjustment (Bohnert et al., 2007). Continuity of activity involvement beyond high school also has been linked with lower levels of depressive symptoms one year post-high school (Barber, et al., 2001).

While the cumulative research on intensity, breadth, and continuity of organized activity involvement is

positively associated with adjustment during high school, it remains unclear whether similar benefits exist for college students. Only several studies have assessed the impact of OA involvement in a college population. Bohnert and colleagues (2007) found that more intense OA involvement during the first year of college was associated with better friendship quality, lower ratings of loneliness, and lower social dissatisfaction for those with poor social adaptation before college. Similarly, Busseri and colleagues (2011) found that increases in OA breadth and intensity from high school to college were associated with more positive psychological, interpersonal, and academic functioning, including lower levels of depressive symptoms. Further, Knifsend (2020) highlighted the benefits of student involvement in campus activities, with those who were most intensely involved exhibiting the greatest benefits in loneliness, belongingness, and interpersonal anxiety. Other studies have examined the impact of OA involvement on college academic functioning, which generally support a positive relation both in the short- and long-term (Gardner et al., 2008; Greene & Maggs, 2015). Although these studies suggest beneficial outcomes for intensity and breadth of OA involvement in a college population, little is known about the impact of continuity of OA involvement on adjustment in college students. Given that different dimensions of OA involvement may have unique impacts across development and contexts (Bohnert et al., 2010), it is imperative to tease apart these experiences during the highly sensitive and stressful transition to college.

Risk Factors During the Transition to College

While much of the literature on OAs is guided by an underlying assumption that participation is equally beneficial for all youth, a variety of studies suggest that at-risk students may experience enhanced benefits. For example, Marsh and Kleitman (2002) found that extracurricular school activities had greater benefits for students from lower, as compared to higher, socioeconomic statuses, thereby supporting the social inequality gap reduction model that posits OAs can decrease the academic achievement gap given their differential benefit based on students' socioeconomic background. Additionally, Knifsend (2020) identified that the effect of activity involvement on sense of belonging was enhanced for ethnically minoritized students. However, the roles of gender and residential status, both of which confer risk for college student mental health, in moderating the relation between OAs and outcomes have yet to be explored.

Ample research concludes that women in college experience higher levels of distress than men, and are more negatively affected by school transitions (Eisenberg et al., 2009; Garett et al., 2017). More specifically, women report greater levels of negative affect and are at a significantly greater risk for depression across the lifespan (Salk et al., 2017). Thus, OA involvement may be particularly important for women during the college transition. To date, results are mixed regarding whether gender moderates the effects of OA participation (Fredricks & Eccles, 2006b; Oosterhoff et al., 2017). Given the possible differential impact of OA involvement for men and women, as well as women's increased risk for poor adjustment, this study examines whether gender moderates the relation between OA involvement and adjustment.

Residential campus-based students also may be at greater risk for poor adjustment during the initial transition to college since they must leave their support networks, adjust to a new environment, and live independently. Indeed, research demonstrates that residential campus-based students have higher levels of psychological distress than home-based, commuter students during the first semester of college (Asaoka et al., 2004). However, campus-based students likely have more opportunities to become involved in and reap the benefits of OAs. Given this, campus-based residential students may be another initial at-risk group that receives greater benefits from OA involvement. Thus, the current study considered the unique role that residential status might have in moderating the links between OA involvement and adjustment outcomes for first-year college students.

The Current Study

The current longitudinal study examined the relation between multiple dimensions of college OA involvement (i.e., intensity, breadth, and continuity from high school) and measures of adjustment across the first semester of college (i.e., depression, optimism, positive affect, and negative affect) after accounting for adjustment levels at the start of college. It was predicted that college OA intensity, breadth, and continuity would be negatively associated with depressive symptoms and negative affect, and positively associated with optimism and positive affect. The study also examined whether the association between the OA dimensions and the adjustment variables is moderated by gender and residential status. It was predicted that the association between OA and adjustment would be strongest for women and campus-based students.

Method

Participants

Participants in this study included 135 (105 women, 29 men) first-semester, first-year college students enrolled at a Midwestern urban university. The mean age of the sample was 18.74 years (SD = 0.70). The students in the sample identified their race/ethnicity as follows: 62.2% White, 14.8% Asian/Pacific Islander, 10.4% Hispanic, 4.4% Middle Eastern, 3.7% African American, 3.7% Biracial, and 0.7% Other. Both the gender and ethnic composition of the sample were similar to the population of the university (67% women, 61% White). Students received credit in their Introductory Psychology classes for participating in this study. Just over half of the participants (56%; n = 75; 59 women, 16 men) opted to participate in both Time 1 (T1) and Time 2 (T2), and were included in analyses. Analyses of variance (ANOVAs) indicated that participants at T1 did not significantly differ from those who participated in both time points in terms of demographic variables, high school OA involvement, or T1 adjustment levels ($Fs < 1.03$, $ps > 0.24$).

Procedure

First-year college students were invited to participate in this study through the Introductory Psychology participant pool. The study was approved by the university's Institutional Review Board. Within the first month of school (i.e., by late September; T1), participants signed written informed consent forms and completed questionnaire packets. Approximately two months later at the end of their first semester of college (i.e., late November to early December; T2), all participants were invited to return for the second survey. The end of the first semester was chosen for data collection in order to capture psychological adjustment during the transition to college. Participants filled out the same set of questionnaires at T2 with the exception of the Extracurricular Activity Inventory. Instead, participants completed a 5-minute interview about their current participation in college OAs.

Measures

Adjustment Measures

Depression (T1 and T2). The Center for Epidemiological Studies - Depression Scale (CES-D; Scheier et al., 2001) is a self-report measure that assesses depressive symptoms during the past month. It contains 21 statements, which are scored on a scale of agreement from 0 (never/rarely) to 3 (most/all of the time). Statements include "I felt depressed" and "I felt that everything I did was an effort." Responses were added

together (with 4 statements reverse-scored) for an overall composite score. The CES-D internal consistency scores in our sample at both T1 and T2 were adequate, α = 0.79-.81.

Optimism (T1 and T2). The Life Orientation Test (LOT; Radloff, 1977) assesses participants' level of optimism with 12 items that participants rate from 1 (totally agree) to 5 (totally disagree). Statements include "when things are uncertain, I usually expect the best" and "I hardly ever expect things to go my way." Responses are added together to yield an overall composite score. The internal consistency scores for the LOT in our sample was α = 0.68 for T1 and α = 0.80 for T2.

Positive and Negative Affect (T1 and T2). The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) is a 20-item measure that assesses participants' current positive and negative mood. Participants were asked to rate on a 5-point Likert scale ranging from 1 (very slightly or not at all) to 5 (extremely) the extent to which they had experienced different mood states in the past month, such as "distressed," "enthusiastic," "ashamed," and "inspired." Responses were added together to yield a Positive Affect and Negative Affect score. Both scales yielded adequate internal consistency for this sample at T1 and T2, (Positive affect scale, α = 0.69-0.72; Negative affect scale α = 0.70-0.72).

Organized Activity Measures

High-School Organized Activity Participation (T1). Participants filled out the Extracurricular Activities Inventory (EAI) to assess their level of participation in high school OAs. The EAI is divided into five activity categories (i.e., Religious/Service, Academic/Leadership, Performance/Fine Arts, Community/Vocational, and Sports). For each of these categories, participants recorded up to three activities they had participated in during the 12th grade, the average number of hours per week in each activity, and the number of months they participated. Information from this measure was only used to create the continuity variable.

College Organized Activity Participation (T2). During the T2 interview, participants were asked to list all of the OAs that they were currently involved in at college, how long they had been participating, and how many hours per week they participated. Activities were coded into the five activity categories from the EAI. The intensity and breadth indices of participation were computed based on this interview. The "intensity index" was created by calculating the average number of hours per week spent in all OAs. The "breadth index" was created by calculating the number of different types of activities (from the five EAI categories) that each person participated in, yielding a score of 0 to 5. Information from the interview and the EAI was used in creating a "continuity discrepancy" score by subtracting each participant's senior year intensity levels from their college intensity levels. This yielded negative scores if the participant's college intensity level was lower than their high school intensity level, and positive scores if their college intensity levels was higher than their high school level. Larger numbers, positive or negative, indicated greater discrepancy or change in participation level in terms of average hours of involvement. OA intensity, breadth, and continuity has been captured through similar methods in prior literature (Bohnert et al., 2007, 2010).

Results

Data Preparation

The data were examined initially for missing values. A mean imputation procedure was used in which a score for missing values was imputed if the participant responded to at least 80% of items on a scale. Composites were then calculated for the CES-D, LOT, and PANAS measures in addition to calculating the OA variables. The

data were examined for outliers and skewness. There were no outliers and most scales demonstrated non-skewed distributions. For negative affect (T1; T2), OA intensity (T2), and OA continuity discrepancy (T2), a square root transformation was used to correct for significant skew. In addition, because the continuity discrepancy variable had both positive and negative values, a constant was added to all numbers to move the distribution above zero before performing the transformation. For all subsequent analyses, with the exception of descriptive analyses, the transformed variables were used.

Descriptive Analyses

Descriptive analyses were conducted for the 75 participants who completed the survey at both T1 and T2. Mean levels of all study variables are listed in Table 1. Participants' mean level of depressive symptoms was 22.13 (SD = 10.30) at T1 and 20.92 (SD = 10.64) at T2, both notably higher than the customarily used cut-off score of 16 and nearing the more conservative cut-off point of 23, above which denotes risk for clinical depression (Asaoka et al., 2004). The average college OA intensity for participants was 4.85 hours/week (SD = 5.80) and the average breadth of college OA involvement was 1.61 (of 5) categories of activities (SD = 1.71). Notably, 61.3% of participants remained continuously involved in at least one OA across the transition to college. There were no significant differences between T1 and T2 adjustment levels (ts = -1.77 to 1.37, ps > 0.08), suggesting that there were no changes in depressive symptoms, positive affect, negative affect, or optimism over the course of participants' first semester of college.

There were no significant gender differences for any of the adjustment or OA variables (Fs < 2.63, ps > 0.16). However, when comparing residential status, campus-based students reported significantly higher OA intensity and breadth (Fs > 4.18, ps < 0.04) than home-based students. These groups did not significantly differ on any of the adjustment variables (Fs < 0.78, ps > 0.38). As displayed in Table 1, correlational analyses revealed a significant positive relation between T2 positive affect and OA intensity (r = .31) and OA breadth (r = .31). T2 optimism was significantly positively related to OA intensity (r = .26).

Table 1

Descriptives and Correlations Among Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	--													
2. Gender	0.05	--												
3. Residential Status	0.10	-0.02	--											
4. Intensity	0.01	0.04	-0.28	--										
5. Breadth	-0.07	-0.11	-0.25	0.72**	--									
6. Continuity Discrepancy	-0.03	0.01	-0.13	-0.30*	-0.21	--								
7. T1 Depressive Sxs	0.11	0.10	-0.10	0.15	-0.13	-0.08	--							
8. T1 Positive Affect	-0.09	-0.12	0.08	0.06	0.03	-0.04	-0.39**	--						
9. T1 Negative Affect	0.21	0.04	-0.07	-0.10	-0.15	-0.02	0.49**	-0.17	--					
10. T1 Optimism	0.15	-0.12	0.14	0.30**	0.19	0.14	-0.38**	0.30**	-0.11	--				
11. T2 Depressive Sxs	0.07	0.10	-0.08	-0.15	-0.15	-0.15	0.73**	-0.26*	0.42**	-0.34**	--			
12. T2 Positive Affect	-0.03	-0.15	0.02	0.31**	0.31**	0.05	-0.27**	0.26*	-0.15	0.32**	-0.25*	--		
13. T2 Negative Affect	0.21	0.08	-0.10	-0.19	-0.18	-0.09	0.40**	-0.08	0.48**	-0.04	0.39**	-0.20	--	
14. T2 Optimism	-0.02	-0.06	0.12	0.26*	0.15	0.18	-0.36**	0.28*	-0.26*	0.71**	-0.53**	0.43**	-0.22	--
Mean	18.87	0.79[a]	0.28[a]	4.85	1.61	8.78	22.13	29.2	17.26	14.32	20.92	29.14	18.29	14.77
Standard Deviation	8.15	NA	NA	5.80	1.51	11.94	10.30	6.27	5.84	2.68	10.64	7.19	6.65	3.07

Note. Sxs = symptoms; T1 = Time 1; T2 = Time 2

a Percent (dichotomous variable)

** p < .05; ** p < .01; *** p < .001*

Organized Activity Involvement, Gender, Residential Status, and Adjustment

Multiple regression analysis examined relations between dimensions of OA involvement and adjustment over time, as well as whether gender and residential status moderated these relations, using separate regression analyses for each combination of OA (3 dimensions) and adjustment outcome (4 outcomes; Baron & Kenny, 1986; Holmbeck, 2002). First, all OA variables were centered by subtracting their means, and gender and residential status were dummy coded (i.e., 0, 1). For all analyses, the T1 adjustment variable was entered in Step 1, followed by the OA variable in Step 2, and both gender and residential status in Step 3. Finally, the OA × gender and OA × residential status interaction terms were entered simultaneously in Step 4. Post-hoc tests of simple slopes probed significant interactions through regression analyses incorporating the main effect of the OA variable, a conditional moderating variable, and the interaction between the two (Holmbeck, 2002).

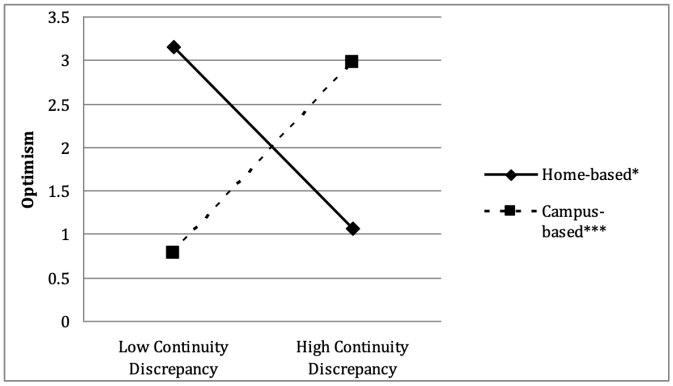
Depressive Symptoms and Negative Affect. Analyses revealed that all main and interaction effects with depressive symptoms and negative affect as separate outcomes were non-significant (βs = -.16 to .27, ps > .16). This suggests that college OA involvement across the first semester of college is not significantly associated with depressive symptoms or negative affect at the end of the first semester, after adjusting for T1 levels.

Optimism. Analyses revealed a significant main effect of college OA intensity on T2 optimism, β = .23, p = .048, f2 = .08, a small effect. This suggests that more intense college activity involvement across the first semester of college was associated with higher levels of optimism at the end of the first semester, after adjusting for initial levels of optimism.

Analyses also revealed a significant OA continuity discrepancy × residential status interaction on optimism, β = -.22, p = .028, f2 = .12, a small effect. Simple slopes tests revealed that OA continuity discrepancy from high school to college had a significant relation with optimism at the end of the first semester that was positive for campus-based participants, β = .34, p = .001, but negative for home-based participants, β = -.33, p = .041. As Figure 1 depicts, this suggests that a greater increase in OA intensity levels from high school to college (i.e., higher continuity discrepancy) was associated with lower levels of optimism for home-based students, but higher levels of optimism for campus-based students, at the end of the first semester.

Figure 1

Regression Analyses Depicting Organized Activity (OA) Continuity Discrepancy × Residential Status Interaction on Optimism



Note.* p<.05; ***p<.001

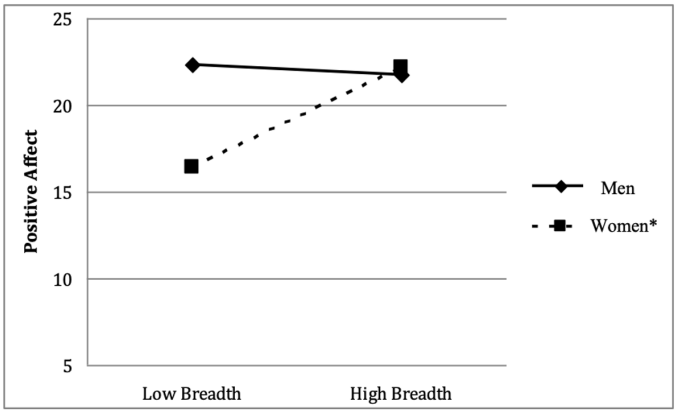
Positive Affect. A main effect for OA continuity discrepancy on T2 positive affect was also found, β = .27, p = .036, f2 = .10, a small effect. This suggests that a greater increase in hours of activity involvement from high

school to college (i.e., higher continuity discrepancy) was associated with higher levels of positive affect at the end of the first semester of college after adjusting for T1 levels of positive affect.

Regression analyses revealed a significant college OA breadth × gender interaction on positive affect, β = .52, p = .03, f2 = .15, a medium effect. Post-hoc probing revealed that OA breadth across the first semester was associated with positive affect for women, β = .40, p = .002, but not for men, β = -.04, p = .85, at the end of the first semester. As shown in Figure 2, women with high OA breadth reported significantly higher levels of positive affect than women with low OA breadth, after adjusting for start-of-college levels of positive affect.

Figure 2

Regression Analyses Depicting Organized Activity (OA) Breadth × Gender Interaction on Positive Affect

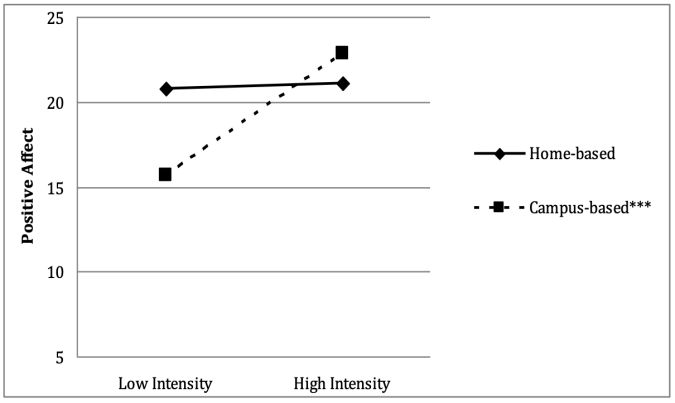


*Note. *p<.05*

Analyses also revealed a significant college OA intensity × residential status interaction on positive affect, β = -.28, p = .038, f2 = .17, a medium effect. Simple slopes tests revealed that OA intensity across the first semester was associated with positive affect for campus-based participants, β = .48, p < .001, but not for home-based participants β = .02, p = .94, at the end of the first semester. As shown in Figure 3, campus-based students with high OA intensity reported significantly higher levels of positive affect than campus-based students with low OA intensity, after adjusting for start-of-college levels of positive affect.

Figure 3

Regression Analyses Depicting Organized Activity (OA) Intensity × Residential Status Interaction on Positive Affect



Note. ***p<.001

Discussion

The primary aim of this longitudinal study was to examine whether various dimensions of OA involvement were associated with better adjustment (i.e., depressive symptoms, negative affect, positive affect, and optimism) for students making the transition to college. It was anticipated that higher levels of early college OA intensity, breadth, and continuity would be associated with better adjustment at the end of the first semester of college. Further, it was hypothesized that these relations would be moderated by gender and residential status, with the association between OA and adjustment being stronger for women and campus-based students.

Findings indicated that higher OA continuity discrepancy (i.e., greater increases in intensity levels from high school to college) was associated with more positive affect, and higher intensity of OA involvement was associated with more optimism. However, contrary to expectations, none of the OA variables were associated with depressive symptoms or negative affect. Thus, analyses suggested that OA involvement for first-semester college students was differentially associated with positive, but not negative, markers of adjustment. This pattern of results is consistent with prior studies showing that activity involvement in childhood and adolescence fosters positive psychological adjustment (Agans et al., 2014; Bohnert et al., 2007; Knifsend & Graham, 2012; Mahoney et al., 2006). More specifically, our finding that OA involvement predicted positive aspects of adjustment mirrors literature linking OA intensity and breadth with optimism as well (Busseri et al., 2011; Rose-Krasnor et al., 2006).

These results also are partially consistent with those examining OA involvement among first-year college students. Similar to our study, Busseri and colleagues found that increases in intensity levels from high school to college (i.e., continuity discrepancy) were associated with adjustment during the first year of college, particularly positive markers (Busseri et al., 2011). While activity continuity and intensity predicted positive aspects of adjustment in the current study, the index of activity breadth did not. Activity breadth promotes skill-learning and a sense of mastery in younger populations (Barber et al., 2001; Bohnert et al., 2010), but such benefits may be less valuable to college students, who are focused on academic achievement and may already have developed broad skillsets. Further, given the many demands and stressors that students juggle during college, less may be more in terms of the number of extra-curricular activities in which students become involved.

The broaden-and-build theory of emotion suggests that positive emotions fuel psychological resiliency and emotional well-being, and that psychological well-being is improved by cultivating experiences of positive emotions (Fredrickson, 2001). The results of this study suggest that participation in OAs may be associated with experiences of positive emotions, which in turn may lead to psychological well-being. This is meaningful since optimism is associated with better adjustment (Conversano et al., 2010; Leary & DeRosier, 2012) and positive affect is associated with higher quality of life, greater well-being, and lower levels of depression (Besser & Zeigler-Hill, 2014; Bolier et al., 2013; Schiffrin & Nelson, 2010).

However, contrary to study hypotheses, none of the indexes of OA involvement were associated with negative markers of adjustment, such as negative affect and depression. While prior work by Mahoney and Bergman (2002) identified an association between OA involvement and lower levels of depression, baseline levels were not accounted for. Other research has not found a significant effect of school-based OA on symptoms of depression (Bohnert et al., 2007; Darling, 2005), which is consistent with the current results. Further, other studies have identified associations between greater participation in OAs and higher levels of depression (Agans et al., 2014), and links between specific types of OA involvement (i.e., church-related activities) and higher levels of negative affect (Metzger et al., 2009). The current study did not examine the differential impact of specific types of OAs, and doing so may have revealed a more nuanced pattern. Further, adult figures like coaches and

mentors may serve as an important support for youth struggling with psychological distress (Grossman & Rhodes, 2002; Oosterhoff et al., 2017), whereas this may be less applicable for college students since most OAs are led by students as opposed to adults. Additionally, given the rising rates of distress and mental disorders on campuses (Center for Collegiate Mental Health [CCMH], 2021; Conley et al., 2018), the potential benefits of OA involvement may not be potent enough to overcome the heightened stress experienced during the transition to college. Overall, these results highlight the importance of examining both positive and negative markers of adjustment in future research.

A second major aim of this study was to examine whether gender and residential status moderated the relation between college OA involvement and adjustment. It was anticipated that the relations between OA and adjustment would be stronger for women and for campus-based students. Findings were consistent with these predictions. When examining gender, the relation between OA breadth and positive affect was only significant for women, suggesting that more varied involvement in college OAs may be particularly important for women during the transition. This coincides with work in the adolescent OA literature that found, for women only, that breadth of participation was associated with more prosocial friends and decreased depressive symptoms (Eccles & Barber, 1999; Fredricks & Eccles, 2006b). Being involved in a broader range of OAs may be differentially beneficial for women, as compared to men, due to the expanded social network that OAs can provide. Research finds that developing interpersonal relationships and engaging in social communities on campus, such as through OAs, predicts improved psychological well-being, particularly for women (Kadison & DiGeronimo, 2004; Mayhew et al., 2016). Overall, these results suggest that women, both in adolescence and emerging adulthood, may particularly benefit from a greater breadth of activity involvement.

When examining residential status, OA intensity was positively related to positive affect only for campus-based students. Similarly, a greater increase in intensity of involvement from high school to college (i.e., continuity discrepancy) was associated with higher levels of optimism for campus-based students, whereas for home-based students, a larger increase in intensity was associated with lower levels of optimism. This suggests that more time spent in activities and greater continuity of time spent in activities from high school may be beneficial for first-year college students living on campus, but could actually be detrimental for home-based students. As campus-based students face the stress of living independently, separating from their prior support networks, and needing to make new friends, OA is likely a context that facilitates these processes. Meanwhile, home-based students face unique stressors and circumstances, such as commuting and limited time spent on-campus, that may make OA involvement difficult and actually worse for adjustment. Further, home-based students may derive fewer social benefits from OAs since they are more connected to support from family and friends at home.

The notion that activity involvement may benefit some, particularly those at-risk for negative outcomes and poor adjustment, more than others has been noted in previous research (Bohnert et al., 2007; Knifsend, 2020; Marsh & Kleitman, 2002). The results of the current study build upon this previous work by exploring two groups (i.e. women and campus-based students) who may be more likely to experience adjustment challenges during the transition to college. To our knowledge, this is the first study to assess residential status as a risk group within the context of OA involvement. For all transitioning students, but particularly women and campus-based students, activity involvement may provide a supportive context for exploring interests and identities, building competencies, expanding support networks, and forging community connections (Bohnert & Garber, 2007).

This study expands on the limited work examining the impact of OAs on adjustment in college. The findings also add to the existing literature by exploring multiple dimensions of activity involvement as well as both

positive and negative markers of adjustment. Researchers are increasingly recognizing the value of examining different dimensions of OA involvement (Bohnert et al., 2010). While researchers are more commonly examining both intensity and breadth of OA involvement (e.g., Fredricks & Eccles, 2006a), our study also considered a less understood index – continuity of involvement. The importance of assessing multiple indices of OA was highlighted in our findings, as intensity, breadth, and continuity discrepancy all have unique relations with adjustment outcomes. Additionally, OA dimensions were differentially associated with adjustment for particular groups, suggesting that different types of activity involvement may be particularly beneficial for certain groups during the transition to college.

Limitations

Although this study addressed gaps in the current literature, there are several limitations. First, the size of the sample was relatively small and primarily White and female, which could raise concerns about the generalizability of the findings. Additionally, the time period examined in this longitudinal study may have limited our ability to capture the examined relations because the first semester of college may not adequately capture significant changes in adjustment. Moreover, T1 adjustment was assessed during the first month of the first-semester, a time at which participants may already have been experiencing adjustment-related distress and difficulties. Likewise, one semester may not be enough time for first-year college students to get involved in OA or express continuity to the extent they plan to, because some OAs may not be offered yet (e.g., seasonal sports). Further, the current study was not able to capture expectations of future involvement. Given this, future studies should consider assessing OA involvement at the end of the first year of college rather than just the first semester. Lastly, given the correlational nature of our study, conclusions regarding causality cannot be drawn.

Conclusions

Despite the limitations noted above, this study is an important step in examining the impact of activity involvement on adjustment in a college sample. Given the sensitive and stressful nature of the developmental transition to college and emerging adulthood, understanding contexts that aid healthy adjustment is imperative. This study has important implications for university administrators and students since it suggests that activity involvement during the transitional first year is one potential avenue for promoting positive adjustment to college, the benefits of which can cascade into other positive, higher-level outcomes (e.g., academic success, retention). It also highlights the importance of particular indices of involvement for women and campus-based students making this transition. The current findings extend a growing body of work highlighting the beneficial effects of activity involvement as a context for healthy development during college.

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