2012

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

Nicole Arola
Loyola University Chicago

Recommended Citation
Arola, Nicole, "Organized Activity Involvement Across the Transition to College: Multiple Dimensions Predicting Adjustment" (2012). Master's Theses. 843.
https://ecommons.luc.edu/luc_theses/843

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.
Creative Commons License
This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 2012 Nicole Arola
# TABLE OF CONTENTS

LIST OF TABLES .................................................................................................................. v

LIST OF FIGURES ............................................................................................................... vi

ABSTRACT ........................................................................................................................... vii

CHAPTER ONE: INTRODUCTION ....................................................................................... 1
  Transition to College and Adjustment .............................................................................. 2
  Organized Activity Involvement and Adjustment .............................................................. 5
  Moderating Variables ....................................................................................................... 9
  Adjustment and Organized Activity Involvement ............................................................. 12

CHAPTER TWO: SPECIFIC AIMS AND HYPOTHESES ..................................................... 14
  Specific Aim 1 ................................................................................................................... 14
  Specific Aim 2 ................................................................................................................... 14
  Specific Aim 3 ................................................................................................................... 15

CHAPTER THREE: METHOD .............................................................................................. 16
  Participants ....................................................................................................................... 16
  Procedure ......................................................................................................................... 16
  Measures ......................................................................................................................... 17
  Adjustment Measures ...................................................................................................... 17
  Organized Activity Measures .......................................................................................... 19

CHAPTER FOUR: RESULTS ............................................................................................... 22
  Data Preparation ............................................................................................................. 22
  Descriptive Analyses ....................................................................................................... 22
  Organized Activity Involvement, Gender, Residential Status, and Adjustment ............ 27
  Associations Between T1 Adjustment and T2 Organized Activity Involvement .......... 31

CHAPTER FIVE: DISCUSSION ............................................................................................ 33
  Limitations and Future Directions .................................................................................. 38

APPENDIX A: EXTRACURRICULAR ACTIVITY INVENTORY ........................................... 40

APPENDIX B: T2 ACTIVITIES INTERVIEW SCRIPT .......................................................... 46

APPENDIX C: CENTER FOR EPIDEMIOLOGICAL STUDIES–DEPRESSION SCALE ............ 48

APPENDIX D: LIFE ORIENTATION TEST .......................................................................... 50

APPENDIX E: POSITIVE AND NEGATIVE AFFECT SCHEDULE .................................. 52

APPENDIX F: CATEGORIES OF ORGANIZED ACTIVITY INVOLVEMENT .................. 54
APPENDIX G: EXAMPLES OF CONTINUITY CODING ........................................56

REFERENCES ........................................................................................................58

VITA ..........................................................................................................................66
LIST OF TABLES

Table 1. Descriptives and Correlations Among Study Variables........................................24
LIST OF FIGURES

Figure 1. Gender differences on OA and adjustment variables. ................................................26
Figure 2. Residential status differences on OA and adjustment variables. *p < .05*.
    **p < .01.................................................................................................................................26
Figure 3. Regression analyses depicting OA continuity discrepancy × residential
    status interaction on optimism. *p < .05. ***p < .001............................................................29
Figure 4. Regression analyses depicting OA breadth × gender interaction on
    positive affect. *p < .05...............................................................................................................30
Figure 5. Regression analyses depicting OA intensity × residential status interaction
    on positive affect. ***p < .001. .................................................................................................31
Figure 6. Regression and moderation models. ............................................................................32
ABSTRACT

Utilizing a sample of first semester first year college students, this study examined the relation between multiple dimensions of college organized activity (OA) involvement (i.e., intensity, breadth, identity relevance, and continuity) and measures of adjustment (i.e., depressive symptoms, optimism, positive affect, and negative affect). This study also explored whether the degree of association between the OA dimensions and the adjustment variables was moderated by gender and residential status. Additionally, this study examined whether adjustment at the start of college was associated with patterns of OA involvement in college. Participants completed measures of depressive symptoms, optimism, positive affect, negative affect, and organized activity involvement at the beginning and end of their first semester of college. Results showed that OA intensity was positively associated with optimism and OA continuity discrepancy was positively associated with positive affect. Additionally, residential status moderated the relation between continuity discrepancy and optimism as well as the relation between intensity and positive affect. Gender also moderated the relation between breadth and positive affect. These findings have important implications for those working with first year college students making the transition to college and for the larger organized activity literature.
CHAPTER ONE
INTRODUCTION

Organized activities (OA) play a significant role in the lives of many youth, adolescents, and emerging adults. According to Mahoney, Larson, Eccles, & Lord (2005) organized activities are voluntary activities with regularly scheduled meetings that develop expectations and rules for participants, are organized around developing or achieving particular skills or goals, and involve supervision or guidance from adults. A recent national survey reported that more than 70% of children and adolescents report participation in one or more organized activities over the past year (Feldman, 2005; Mahoney, 2006).

A great deal of research has been done looking at the effects of participation in organized activities on adjustment, the majority of it focusing on youth and adolescents. This research has demonstrated a variety of positive effects associated with organized activity involvement including decreases in both internalizing and externalizing symptoms, reduced dropout and delinquency rates, and increased academic performance and motivation (e.g., Barber, 2001; Mahoney, 2002; Mahoney & Cairns, 1997). While the literature has begun to look at OA involvement during emerging adulthood, it is still unclear whether OA involvement during this developmental period has the same beneficial outcomes for emerging adults as it does for youth and adolescents.
Emerging adulthood is a distinct developmental period between 18 and 25 years of age characterized by change, instability, lack of adult responsibilities, and exploration of identity and possible life directions (Arnett, 2000). Research has suggested that adolescent OA may be a predictor of positive outcomes during this sensitive transitional period (e.g., Barber, 2001; Fredricks & Eccles, 2010). In the few studies that have looked at OA involvement during emerging adulthood, OA has been associated with better friendship quality, more positive psychological, interpersonal, and academic functioning, and less loneliness and social dissatisfaction (Bohnert, Aikins, & Edidin, 2007; Busseri et al., 2010). The current study seeks to build upon this work by exploring the relation between OA involvement and adjustment in 1st year college students. The primary aim of this longitudinal study is to investigate whether several dimensions (i.e., intensity, breadth, identity relevance, and continuity) of activity involvement in college are associated with better adjustment during the transition to college and to examine possible moderators of these relations, including gender and residential status. In addition, the relevance of adjustment variables predicting continuity of OA involvement across the transition to college will be explored.

**Transition to College and Adjustment**

Development necessarily involves change and those points that involve the greatest degree of change are known as developmental transitions. These transitions have long been thought of as providing opportunities for growth as well as potential risks to adaptation (Bronfenbrenner, 1979; Dohrenwood & Dohrenwood, 1974). Transitions represent major life changes in both social roles and contexts that may contribute to
alterations in the course of mental health and psychopathology (Schulenberg, Sameroff, & Cicchetti, 2004). Because transitions naturally involve a great deal of change, they create a shift in the level of control available to the individual. According to Fisher and Hood (1987), this shift in control leads to perceptions of increased threat because individuals may feel unsure of the appropriate action to cope with all the changes.

The transition from adolescence to adulthood may be one of the most critical and sensitive developmental transitions because it involves pervasive and simultaneous contextual and social role changes (Schulenberg et al., 2004), including changes in relationships, environments, roles, responsibilities, and worldviews. Approximately 60% of high school seniors go directly to college after high school each year (Hamilton & Hamilton, 2006) making this an increasingly normative event for emerging adults. While this is an exciting time for many, students are also faced with an array of issues during this transition including time constraints, academic stress (Nonis, Hudson, Logan, & Ford, 1998), homesickness (Fisher & Hood, 1987), financial issues, and the development of serious interpersonal relationships (Arnett, 2000).

Given these issues, it is not surprising that a large proportion of students report experiencing high levels of stress during the transition to college (Abouserie, 1994; Deckro et al., 2002, Edwards et al., 2001, Fisher & Hood, 1987). This is especially concerning because high levels of stress are associated with poor academic and interpersonal adjustment and are predictive of later depressive affect in first-year college students (Dyson & Renk, 2006). In fact, more than 50% of college students report experiencing significant depression since the start of college (Furr, Westefeld,
McConnell, & Jenkins, 2001). Sax (1997) found even more alarming results. In a national review of approximately 300,000 freshmen, Sax (1997) found that 97% of the sample reported feeling depressed at least occasionally. During this transition, depressive symptoms are associated with poor educational outcomes such as decreased grade point averages and significant increases in the likelihood of student dropouts (Deckro et al., 2002) as well as interpersonal difficulties such as problems with friends, family, and significant others (Kessler et al., 2006).

While emerging adults are particularly at risk for depression and it is one of the most commonly assessed indicators of adjustment, other indicators may be equally important to explore in creating an overall picture of adjustment to college. It has been noted that positive and negative functioning are not always polar opposites of each other and that different processes can be involved in their development and maintenance over time (e.g., Mahoney & Bergman, 2002). This highlights the importance of exploring markers of positive functioning in addition to those that mark negative functioning.

Optimism is one marker of positive functioning. Defined as “a temporary state and a trait-like factor reflecting generalized expectations for good outcomes in one’s life” (Jackson, Weiss, Lundquist, & Soderlind, 2002, p. 521), research has shown that people who are more optimistic adjust better in many situations, including the transition to college (Aspinwall & Taylor, 1992). Given this, optimism may be an important factor to explore as a marker of healthy adjustment.

Mood is another factor that may be important to explore as a marker of adjustment. Research has indicated that mood consists of two independent dimensions of
emotional experience that can be assessed as traits or states (Diener & Emmons, 1984; Watson & Tellegen, 1985). Positive affect (PA) refers to an individual’s pleasurable engagement with the environment and reflects enthusiasm, mental alertness, energy, and determination (Watson, 1988). Negative affect (NA) is more of a general factor of subjective distress and reflects a range of negative moods including distress, nervous, afraid, angry, guilty, and scornful (Watson, 1988). Research has focused primarily on negative affect and has consistently found associations with depressive symptoms, perceived stress, and poor adjustment (Vranceanu, Gallo, & Bogart, 2009; Watson, 1988). However, as suggested by Vranceanu et al. (2009), positive emotions are important to explore as well, as they are associated with quality of life, enhanced well-being, and lower levels of depression. Assessing each of these may broaden the picture of adjustment that will be explored in this study.

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 factors that may protect against depressive symptoms and negative affect and bolster optimism and positive affect during the transition to college. Many factors have been identified in the literature as potential influences on adjustment, but this study explores the role of organized activity involvement in emerging adults making the transition to college.

**Organized Activity Involvement and Adjustment**

The importance of organized activity involvement in promoting development in adolescents has been widely documented. However, findings vary depending on which
dimension of OA involvement is assessed. According to Bohnert and colleagues (2010), assessing multiple dimensions of OA involvement is imperative because each dimension may represent a unique experience and have unique effects at different points of development.

Intensity of involvement has been one of the most frequently studied dimensions of organized activity involvement. It refers to the frequency of participation in a particular activity or activity context (Bohnert et al., 2010) and is important to assess as a separate index because frequent exposure to an activity is essential to experience the positive developmental outcomes associated with the activity context (Hansen & Larson, 2007). Intensity of involvement has been linked to a number of positive outcomes in adolescents including better academic outcomes, decreased risky behavior, higher self-esteem, and greater emotional well-being (Darling, 2005; Mahoney, 2000; Mahoney et al., 2006; McHale, Crouter, & Tucker, 2001; Rose-Krasnor et al., 2006; Simpkins, Fredricks, Davis-Kean, & Eccles, 2006). However, research exploring measures of adjustment as outcomes has yielded mixed results. Rose-Krasnor et al. (2006) found no association between intensity of activity involvement and depressive symptoms, but found a positive relation between intensity and optimism. Other cross-sectional studies have found links between higher intensity and lower levels of depressive symptoms (Fredricks & Eccles, 2005; Mahoney et al., 2006; McHale, Crouter, & Tucker, 2001; Simpkins, Fredricks, Davis-Kean, & Eccles, 2006).

Breadth of involvement refers to the number of different activity contexts participated in (Bohnert et al., 2010). It is important to assess because it allows greater
exposure to challenging activities and more opportunities to learn skills and develop relationships that may be helpful in coping with changes (Hansen, Larson, & Dworkin, 2003). Breadth of involvement has consistently been associated with better psychological and academic adjustment as well as fewer risk behaviors in adolescents (Bartko & Eccles, 2003; Blomfield & Barber, 2009; Harrison & Narayan, 2003; Zarret et al., 2009).

Identity relevance may be another important dimension of organized activity involvement (Feldman & Matjasko, 2005). Identity relevance refers to the extent to which individuals identify with an activity. It is important because identity development is a major psychosocial task of emerging adulthood that has important implications for healthy psychological development (Kroger, 2007). Moreover, for college students, identity work takes on a unique urgency and significance (McLean, 2005). This suggests that participation in identity relevant activities may be important in facilitating identity exploration. Research has suggested that participation in identity-building or identity relevant activities decreases stress levels (Larson, Hansen, & Moneta, 2006) and may be beneficial in making the transition to adulthood (Mahoney, Larson, Eccles, & Lord, 2005).

One final dimension of OA that may be important to explore during the transition to college is continuity of involvement. Continuity refers to the stability of participation and ongoing commitment to an activity over a period of time (Bohnert et al., 2010). It is important to assess because ongoing commitment can help strengthen identity formation (Fredricks et al., 2002), an essential and primary task during emerging adulthood. Continuity of OA involvement may be especially important across transitions which are
characterized by high levels of change. Research using continuity as a measure of activity involvement is extremely limited; however, there is some evidence to suggest that continuity of activity involvement across multiple years of high school is associated with lower levels of depression (Fauth, Roth, & Brooks-Gunn, 2007) and higher levels of self-esteem and locus of control (Barber et al., 2001; Broh, 2002). Only one study, to date, has looked at continuity of activity involvement past high school. Barber et al. (2001) found that adolescents who were heavily involved in a particular OA in high school had lower levels of depressive symptoms one year post-high school if they were still participating in that activity or another similar one. Clearly, continuity of OA involvement across transitions may be important.

The prior studies suggest that the different dimensions of organized activity involvement may be associated with positive adjustment and lower levels of depressive symptoms in adolescents, however, it remains unclear whether similar beneficial outcomes would be found with emerging adults. Few studies have assessed the impact of OA involvement in a college population, let alone the impact of the four different dimensions of OA involvement discussed above. Two studies have assessed multiple dimensions of OA involvement in a college population with promising results. Bohnert et al. (2007) examined intensity and breadth of OA involvement across the transition to college. Although they found no significant findings related to breadth of activity involvement in college, more intense involvement in activities during the first year of college was associated with better friendship quality, lower ratings of loneliness, and lower social dissatisfaction for those emerging adults with poor social adaptation before
college. Busseri et al. (2010) also investigated intensity and breadth of OA involvement across the transition to college. They found that increases in breadth and intensity of OA involvement from high school to college was associated with more positive psychological, interpersonal, and academic functioning, including lower levels of depressive symptoms.

Although the Bohnert et al. (2007) and Busseri et al. (2010) findings suggest beneficial outcomes for intensity and breadth of OA involvement in a college population, we still know very little about the impact of identity relevance and continuity of OA involvement on adjustment in emerging adults. As discussed previously, different dimensions of OA involvement may represent unique experiences at different points of development (Bohnert et al., 2010). Given this, it is imperative to tease apart these unique experiences during the highly sensitive and stressful developmental transition to college. Our study seeks to do so by exploring the relation between multiple dimensions of college OA involvement and adjustment for first-year college students.

**Moderating Variables**

Much of the literature on organized activities is guided by an underlying assumption that participation is equally beneficial for all youth, but the association between involvement and developmental outcomes may vary across individuals (Darling, 2005). For example, a variety of studies have suggested that at-risk individuals may experience greater benefits from participation in organized activities (Bohnert et al., 2007; Mahoney, 2000; Marsh & Kleitman, 2002). However, rather than considering demographic variables as moderators, most studies control for them in analyses. The
current study considered the unique role gender and residential status might have in moderating the link between OA involvement and adjustment outcomes for first year college students.

**Gender.** Overall, females tend to be at greater risk for poor adjustment. Zivcic-Becirevic and colleagues (2007) reported that females have poorer emotional adjustment to college than males. Looking at more specific adjustment measures, women have been found to report more negative affect than men (Costa et al., 1987; Fujita, Diener, & Sandvik, 1991). Depressive symptoms have the most striking gender disparities. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), women are at significantly greater risk to develop depression. In fact, depressive episodes occur twice as frequently in women as in men (APA, 2000). When looking at lifetime risk, men have an 8-12% chance of experiencing unipolar depression (Body & Weissman, 1981), while women have a 25% chance (McGrath et al., 1990). According to Gladstone and Koenig (1994), the 2:1 gender disparity in depression continues from adolescence through adulthood, including the 18-25 year old period characterized as emerging adulthood.

Given this increased risk, OA involvement may be particularly important for females as they transition to college. Only a few studies to date have examined whether sex moderates the effects of OA participation, and results have been mixed (Simpkins et al., 2008). Although some studies have not identified sex differences in the benefits of OA participation, other research has suggested that males and females are differentially impacted by involvement. For example, for males only, performance in performing arts
or school clubs has been associated with fewer risky behaviors and lower levels of substance abuse (Eccles & Barber, 1999; Fredricks & Eccles, 2006). In contrast, for females only, breadth of participation has been associated with more prosocial friends and decreased depressive symptoms. Given the possible differential impacts of OA involvement for males and females and the increased risk females are at for poor adjustment, we will examine whether gender moderates the relation between OA involvement and adjustment.

**Residential status.** Residential campus-based students may also be at greater risk for poor adjustment. While both campus-based and home-based students must face new academic and social environments, campus-based students are faced with the additional stress of adjusting to a new home environment and all the burdens that come with living independently. Campus-based students must also cope with leaving home and breaking with the readily available support of their family and friends. Fisher and Hood (1987) reported that residential campus-based students, especially those reporting homesickness, had higher levels of psychological disturbance than home-based students during their first year of college. Asaoka, Fukuda, and Yamazaki (2004) found that freshmen who were living with their families had a better psychological state during the transition to college than freshman living on campus. Moreover, campus-based students likely have more opportunities to become involved in and reap the benefits of organized activities. Given this, campus-based residential students may be another at-risk group that may benefit more and receive greater benefits from OA involvement than home-based students. We will explore this by looking at residential status as a moderating variable.
Adjustment and Organized Activity Involvement

Given that organized activity involvement is associated with positive outcomes, then knowing more about factors that predict organized activity involvement across the college transition is important. The majority of work on predictors of OA involvement focuses on demographic and family factors (i.e., Bohnert, Martin, & Garber, 2007; Fletcher, Elder, & Mekos, 2000; Huebner & Mancini, 2003; McHale, Crouter, & Tucker, 2001), but only a few studies have focused on the relevance of adjustment for subsequent OA involvement. Specifically, Posner and Vandell (1991) found that children who were less emotionally adjusted in third grade spent less time in organized, after-school activities in fifth grade. McHale et al. (2001) found similar results, that children with more self-reported depressive symptoms at age 10 were less involved in sports at age 12. When looking at adolescents, research has suggested that higher levels of both internalizing and externalizing symptoms prior to high school predicted lower levels of involvement in academic clubs (Bohnert & Garber, 2007) and that adolescents with higher levels of depressive symptoms are less likely to get involved in sports (Larson & Kleiber, 1993). In addition, research has indicated that higher levels of internalizing symptoms in eleventh grade significantly predicted lower levels of overall activity involvement in twelfth grade (Bohnert, Kane, & Garber, 2008). Finally, research has suggested that overall developmental success or adjustment in 9th/10th grade of high school, which includes fewer risk behaviors, greater well-being, and higher academic and interpersonal functioning, predicts greater breadth and intensity of OA involvement 20 months later. These studies suggest that better adjusted children and adolescents become
or stay more involved in adaptive activities. Given these findings, it would be expected that adjustment variables such as depressive symptoms, mood, and optimism may predict college OA involvement; intensity, breadth, and continuity patterns.
CHAPTER TWO

SPECIFIC AIMS AND HYPOTHESES

Specific Aim 1

This study examined the relation between multiple dimensions of college activity involvement and measures of adjustment among 1st year college students. Four indices for measuring activity involvement were used: intensity (i.e. total hours per week), breadth (i.e. number of activity categories), continuity (i.e. continued involvement in a high school activity), and identity relevance (i.e. percentage of identity associated with most important activity). We examined the relations of these dimensions to each of the adjustment measures (i.e., depressive symptoms, optimism, positive affect, and negative affect) after controlling for T1 adjustment. It was predicted that OA intensity, breadth, continuity, and identity relevance would be negatively associated with depressive symptoms and negative affect and positively associated with optimism and positive affect.

Specific Aim 2

This study also explored whether the degree of association between the OA dimensions and the adjustment variables was moderated by gender and residential status. It was predicted that the association between OA and adjustment would be strongest for females and campus-based students.
Specific Aim 3

This study examined whether multiple measures of adjustment at T1 (i.e., depressive symptoms, optimism, positive affect, and negative affect) were associated with intensity, breadth, and continuity of OA involvement in college. It was predicted that better T1 adjustment would be associated with more intensity, breadth, and continuity in OA involvement across the transition to college.
CHAPTER THREE

METHOD

Participants

Participants in this study include 135 (105 female, 29 male) 1st semester, 1st year college students enrolled at a large, Midwestern urban college. The mean age of the sample was 18.74 years (SD = 0.70). The ethnicity of the sample was 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 .7% Other. Students received credit in their Introduction to Psychology classes for participating in this study. All participants were invited to participate in the Time 2 data collection. Fifty-six percent (n = 75; 59 female, 16 male) of participants opted to participate in both Time 1 and 2. Only participants who participated at both Time 1 and Time 2 were included in analyses. Analysis of variance analyses (ANOVAs) indicated participants from Time 1 did not significantly differ from those who participated in Time 1 and Time 2 in terms of demographic variables, high school OA involvement, Time 1 depressive symptoms, Time 1 optimism levels, or Time 1 mood scores.

Procedure

Participants were recruited online through the Introduction to Psychology subject pool at the university. For each study being conducted at the university, a brief
description of the research is available online and students choose which studies they wish to participate in. In their first month of school, 1st year college students were invited to participate in this study. After reviewing and signing consent forms, participants were given a questionnaire packet of demographic information (including age, gender, residential status, and ethnicity) and other study measures to fill out. After completing study measures, participants were given a debriefing form which included contact information if they had questions regarding the study.

At the end of their first semester of college, which was approximately 2 months after the initial data collection, a subset of participants returned for the Time 2 study. They reviewed and signed a consent form and filled out the same set of questionnaires at this time point with the exception of the Extracurricular Activity Inventory. Participants were also given the option of participating in a 5 minute interview of which 58 people consented. This interview was conducted in a separate room and asked questions about their current participation in college organized activities. Upon completion, participants were given a debriefing form to explain the purpose of the study.

Measures

**Demographic information (T1).** Participants filled out demographic information including their age, gender, ethnicity, and residential status.

**Adjustment Measures**

**Center for Epidemiological Studies–depression scale (T1 and T2).** The Center for Epidemiological Studies- Depression Scale (CES-D) is a widely used self-report measure that assesses depressive symptoms occurring during the past month. It contains
21 statements which are scored on a scale of agreement from 0 (Never or Rarely) to 3 (Most or All of the Time). Statements include “I felt depressed”, “My sleep was restless”, “I felt that everything I did was an effort”, and “I felt hopeful about the future”. Responses are added together (with 4 statements being reverse-scored) for an overall composite score (Radloff, 1977). The CES-D demonstrated adequate internal consistency in our population at both Time 1 and Time 2, $\alpha = 0.79-.81$.

**Life orientation test (T1 and T2).** The Life Orientation Test (LOT) is a 12-item measure that assesses participants’ level of optimism. Each statement is scored on a 5-point Likert scale 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 Optimism composite score (Scheier & Carver, 1985). The internal consistency for the LOT in our sample was $\alpha = 0.68$ for Time 1 and $\alpha = 0.80$ for Time 2.

**Positive and negative affect schedule (T1 and T2).** The Positive and Negative Affect Schedule (PANAS) 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 each mood state in the past month. Mood states include “distressed”, “enthusiastic”, “ashamed” and “inspired”. Responses are added together to yield a Positive Affect and Negative Affect score (Watson, Clark, & Tellegen, 1988). Both the PANAS Positive Affect scale and Negative Affect scale demonstrated adequate internal
consistency for this sample at Time 1 and Time 2, with Cronbach’s Alphas ranging from 0.69-0.72.

**Organized Activity Measures**

**Extracurricular activities inventory (T1).** Participants filled out the Extracurricular Activities Inventory (EAI) to assess their level of participation in high school organized activities (for a copy of the EAI, see Appendix A). The EAI is divided into five activity categories (i.e., Religious/Service, Academic/Leadership, Performance/Fine Arts, Community/Vocational, and Sports). For each category, participants were asked to record up to three activities they had participated in, the average number of hours they participated per week in the activity for each grade (i.e., 9th, 10th, 11th, and 12th grade), and the number of months they participated per year. Information from this measure was only used to create the continuity variables.

**College organized activity participation (T2).** During the T2 interview, participants were asked to list the organized activities that they were currently involved in at college, how long they had been participating, and how many hours per week they participated. They were also asked to identify which of their college activities was most important to them, why it was important, and what percentage of their identity they associated with that activity. Activities were coded into 10 categories (i.e., Academic, Social, Athletic, Community, etc…). The intensity and breadth indices of participation were computed based on this measure. 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 that each person participated in.
The percentage of identity which participants associated with their most important activity was used as the measure of identity relevance. Information from this measure and the EAI was used in creating the continuity variables.

**T1-T2 OA continuity coding.** Initially, all categories of activities were collapsed into four general categories for both high school and college (i.e., Academic, Performance/Fine Arts, Sports, and Community/Social) (See Appendix F). Participants received a score of 1 (participation) or 0 (no participation) with regard to their involvement in each category during their senior year of high school and then during college. Participants who participated in at least one activity within each category at any point received a score of 1 for that category.

Next, we coded for continuity. Participants who did not participate in a given category in both high school and college (high school = 0, college = 0) or who participated in a given category at only one time point (high school = 1, college = 0; high school = 0, college = 1) received a score of 0 for that category. Participants who participated in a given category in both high school and college (high school = 1, college = 1) received a score of 1 for that category. After continuity coding, we used three different conceptualizations of continuity in determining whether it impacts adjustment. First, we looked at overall continuity (i.e., whether or not a person was continuously involved in anything). We did this by looking at all of a participant’s T1-T2 (0/1) category continuity codes. If a participant was continuously involved in any category (i.e., received any 1’s), they received a 1 for overall continuity. If a participant was not continuously involved in any categories, they received a 0 for overall continuity. We used
this categorical (0/1) overall continuity code as a predictor to determine whether continuity in anything yields better adjustment outcomes than no continuity. This continuity code was also used as an outcome variable (see Specific Aim 3) to determine whether T1 adjustment variables predict overall continuity of involvement. Second, we looked at the degree of continuity of involvement. We did so by summing up the number of T1-T2 “1” codes across the four categories (i.e., number of categories they were continuously involved in). This yielded an overall degree of continuity score ranging from 0-4. We used this continuous continuity score as a predictor to determine whether the degree of continuity has an impact on adjustment (for an example of the coding, see Appendix G). Last, similar to the Busseri et al. (2010) we also created 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 high school intensity levels are higher than their college levels and positive scores if their college intensity levels are higher than their high school levels. Larger numbers, positive or negative, will indicate greater discrepancies or changes in participation level in terms of average hours of involvement.
CHAPTER FOUR

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 all of the organized activity variables. The data were examined for outliers and skewness (Tabachnick & Fidell, 1996). All values, with the exception of T1 and T2 negative affect, OA intensity, and OA continuity discrepancy, fell within an acceptable range. A square root transformation was used on these variables to correct for their 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 square root transformation. For all subsequent analyses with the exception of descriptive analyses, the transformed variables were used.

Descriptive Analyses

Mean levels of all study variables are listed in Table 1. Participants’ mean level of depressive symptoms was 22.13 ($SD=10.30$) at Time 1 and 20.92 ($SD=10.64$) at Time 2, 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 (Husaini, 1980; Radloff, 1977). The average OA intensity for participants was 4.85 hours/week ($SD=5.80$), which is less than what was found for college students in Bohnert et al. (2007) (8.09 hours/week) and more than what Busseri et al. (2011) found for college students (1.77 hours/week). The average breadth of OA involvement was 1.61 activities ($SD=1.71$), which is similar to levels reported by Bohnert et al., (2007) (1.71 activities), but less than Busseri et al. (2011) (3.95 activities). Notably, 61.3% of participants remained continuously involved in at least one OA across the transition to college. Paired t-tests were used to examine whether there were significant changes over time in depressive symptoms, positive affect, negative affect, and optimism. There were no significant differences between participants’ T1 and T2 adjustment levels, suggesting that there were no changes in depressive symptoms, positive affect, negative affect, or optimism over the course of participants’ first semester of college.

As depicted in Figure 1, there were no significant gender differences on any of the adjustment or OA variables. However, when comparing home-based and campus-based participants, campus-based students reported significantly higher OA intensity, breadth, and degree of continuity, while home-based students reported significantly higher OA identity relevance. These groups did not significantly differ on any of the adjustment variables (see Figure 2).

Correlational analyses revealed a strong positive relation between T2 positive affect and OA intensity ($r = .31$), OA breadth ($r = .31$), OA overall continuity ($r = .24$), and OA degree of continuity ($r = .23$). T2 Optimism was significantly positively related
Table 1. Descriptives and Correlations Among Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender</td>
<td>0.05</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Residential status</td>
<td>0.10</td>
<td>−0.02</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Intensity</td>
<td>0.01</td>
<td>0.04</td>
<td>−0.28</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Breadth</td>
<td>−0.07</td>
<td>−0.11</td>
<td>−0.25</td>
<td>0.72**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Identity relevance</td>
<td>0.05</td>
<td>0.24</td>
<td>0.34</td>
<td>0.11</td>
<td>0.01</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Overall continuity</td>
<td>−0.08</td>
<td>−0.08</td>
<td>−0.30*</td>
<td>0.53**</td>
<td>0.61**</td>
<td>−0.06</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>8. Degree continuity</td>
<td>−0.12</td>
<td>−0.13</td>
<td>−0.32**</td>
<td>0.55**</td>
<td>0.78**</td>
<td>−0.12</td>
<td>0.80**</td>
<td>—</td>
</tr>
<tr>
<td>9. Continuity discrepancy</td>
<td>−0.03</td>
<td>0.01</td>
<td>−0.13</td>
<td>−0.30*</td>
<td>−0.21</td>
<td>−0.09</td>
<td>−0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>10. T1 Depressive Sxs</td>
<td>0.11</td>
<td>0.10</td>
<td>−0.10</td>
<td>0.15</td>
<td>−0.13</td>
<td>−0.07</td>
<td>−0.20</td>
<td>−0.28*</td>
</tr>
<tr>
<td>11. T1 positive affect</td>
<td>−0.09</td>
<td>−0.12</td>
<td>0.08</td>
<td>0.06</td>
<td>0.03</td>
<td>0.03</td>
<td>0.13</td>
<td>0.21</td>
</tr>
<tr>
<td>12. T1 negative affect</td>
<td>0.21</td>
<td>0.04</td>
<td>−0.07</td>
<td>−0.10</td>
<td>−0.15</td>
<td>−0.22</td>
<td>−0.09</td>
<td>−0.20</td>
</tr>
<tr>
<td>13. T1 optimism</td>
<td>0.15</td>
<td>−0.12</td>
<td>0.14</td>
<td>0.30**</td>
<td>0.19</td>
<td>0.10</td>
<td>0.21</td>
<td>0.29*</td>
</tr>
<tr>
<td>14. T2 Depressive Sxs</td>
<td>0.07</td>
<td>0.10</td>
<td>−0.08</td>
<td>−0.15</td>
<td>−0.15</td>
<td>0.08</td>
<td>−0.20</td>
<td>−0.28*</td>
</tr>
<tr>
<td>15. T2 positive affect</td>
<td>−0.03</td>
<td>−0.15</td>
<td>0.02</td>
<td>0.31**</td>
<td>0.31**</td>
<td>−0.01</td>
<td>0.24*</td>
<td>0.23*</td>
</tr>
<tr>
<td>16. T2 negative affect</td>
<td>0.21</td>
<td>0.08</td>
<td>−0.10</td>
<td>−0.19</td>
<td>−0.18</td>
<td>−0.01</td>
<td>0.01</td>
<td>−0.14</td>
</tr>
<tr>
<td>17. T2 optimism</td>
<td>−0.02</td>
<td>−0.06</td>
<td>0.12</td>
<td>0.26*</td>
<td>0.15</td>
<td>0.01</td>
<td>0.17</td>
<td>0.24*</td>
</tr>
</tbody>
</table>

<p>| M          | 18.87 | 0.79a | 0.28a | 4.85  | 1.61  | 42.58 | 0.61a | 0.95  |
| SD         | 8.15  | NA    | NA    | 5.80  | 1.51  | 28.47 | NA    | 0.94  |</p>
<table>
<thead>
<tr>
<th>Variables</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Residential status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Intensity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Breadth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Identity relevance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Overall continuity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Degree continuity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Continuity discrepancy</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. T1 Depressive Sxs</td>
<td>−0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. T1 positive affect</td>
<td>−0.04</td>
<td>−0.39**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. T1 negative affect</td>
<td>−0.02</td>
<td>0.49**</td>
<td>−0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. T1 optimism</td>
<td>0.14</td>
<td>−0.38**</td>
<td>0.30**</td>
<td>−0.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. T2 Depressive Sxs</td>
<td>−0.15</td>
<td>0.73**</td>
<td>−0.26*</td>
<td>0.42**</td>
<td>−0.34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. T2 positive affect</td>
<td>0.05</td>
<td>−0.27**</td>
<td>0.26*</td>
<td>−0.15</td>
<td>0.32**</td>
<td>−0.25*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. T2 negative affect</td>
<td>−0.09</td>
<td>0.40**</td>
<td>−0.08</td>
<td>0.48**</td>
<td>−0.04</td>
<td>0.39**</td>
<td>−0.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. T2 optimism</td>
<td>0.18</td>
<td>−0.36**</td>
<td>0.28*</td>
<td>−0.26*</td>
<td>0.71**</td>
<td>−0.53**</td>
<td>0.43**</td>
<td>−0.22</td>
<td></td>
</tr>
<tr>
<td>$SD$</td>
<td>11.94</td>
<td>10.30</td>
<td>6.27</td>
<td>5.84</td>
<td>2.68</td>
<td>10.64</td>
<td>7.19</td>
<td>6.65</td>
<td>3.07</td>
</tr>
</tbody>
</table>

*Note. Gender: 0 = male, 1 = female; Residential Status: 0 = campus-based, 1 = home-based; Overall Continuity: 0 = no continuous involvement, 1 = continuous involvement.

*a Percent (dichotomous variable).

*p < .05. **p < .01. ***p < .001.
Figure 1. Gender differences on OA and adjustment variables.

Figure 2. Residential status differences on OA and adjustment variables. *p < .05*, **p < .01**.
to OA intensity ($r = .26$) and OA degree of continuity ($r = .24$). Lastly, T2 depressive symptoms were negatively related to OA degree of continuity ($r = -.28$) (See Table 1).

**Organized Activity Involvement, Gender, Residential Status, and Adjustment**

To examine relations between multiple dimensions of organized activity involvement and adjustment, as well as whether gender and residential status moderated these relations, multiple regression was used (Baron & Kenny, 1986; Holmbeck, 1997, 2002). A separate regression analysis was run to examine relations between each OA variable and each T2 adjustment outcome. First, all OA variables were centered by subtracting their means and gender and residential status were dummy coded as (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 X gender and OA X residential status interaction terms were entered simultaneously in Step 4. When significant interactions were detected, post-hoc probing via tests of simple slopes was conducted. Conditional moderating variables were created, and regressions were run incorporating the main effect of the OA variable, the conditional variable, and the interaction between the two (Holmbeck, 2002). The interaction was then plotted by substituting high (1 SD above the mean) and low (1 SD below the mean) values of the OA variable through an interactive tool provided by Dawson & Richter (2006).

**Optimism.** Analyses revealed a significant main effect of OA intensity $B = 1.18$, $\beta = .23$, $t(76) = 2.01$, $p = .048$ on T2 optimism. This suggests that more intense activity involvement was associated with higher levels of optimism at the end of the first semester of college after controlling for initial levels of optimism.
Analyses also revealed a significant OA continuity discrepancy \( \times \) residential status interaction on optimism, \( B = -1.53, \beta = -.22, t(70) = -2.26, p = .028 \), suggesting that the relation between OA continuity discrepancy and optimism varied based on residential status. Simple slopes tests revealed that OA continuity discrepancy had a significant positive relation with optimism for campus-based participants, \( B = .95, \beta = .34, t(70) = 3.40, p = .001 \); however, for home-based participants OA continuity discrepancy had a significant negative relation with optimism, \( B = -.90, \beta = -.33, t(70) = -2.10, p = .041 \). As Figure 3 depicts, this suggests that greater maintenance or increases 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.

**Positive affect.** A main effect for OA continuity discrepancy \( B = 1.36, \beta = .27, t(59) = 2.15, p = .036 \) on T2 positive affect was also found. 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 controlling for levels of positive affect at the start of the first year. Similarly, trends emerged for relations between OA overall continuity \( B = 3.07, \beta = .21, t(74) = 1.84, p = .07 \) and OA degree of continuity \( B = 1.73, \beta = .22, t(68) = 1.86, p = .07 \) on T2 positive affect.
Regression analyses revealed a significant OA breadth X gender interaction on positive affect, $B = 2.85, \beta = .52, t(70) = 2.23, p = .03$. This suggests that the relation between OA breadth and positive affect depends on the gender of the participant. Post-hoc probing via tests of simple slopes was conducted to determine the nature of the significant OA breadth X gender interaction. Simple slopes tests revealed that OA breadth was only associated with positive affect for female participants, $B = 1.90, \beta = .398, t(70) = 3.29, p = .002$. As shown in Figure 4, females with high OA breadth reported significantly higher levels of positive affect than females with low OA breadth. For male participants, there was no relation between level of OA breadth and positive affect.
Analyses also revealed a significant OA intensity X residential status interaction on positive affect, $B = -3.21$, $\beta = -.282$, $t(70) = -2.12$, $p = .038$. This suggests that the relation between OA intensity and positive affect depends on whether the participant is home-based or campus-based. Simple slopes tests revealed that OA intensity was only associated with positive affect for campus-based participants, $B = 2.57$, $\beta = .483$, $t(70) = 3.84$, $p < .001$. As shown in Figure 5, campus-based students with high OA intensity reported significantly higher levels of positive affect than campus-based students with low OA intensity. For home-based students, there was no relation between level of OA intensity and positive affect.

**Depressive symptoms and negative affect.** All main and interaction effects examining depressive symptoms and negative affect as the outcome were not significant.
This suggests that college OA involvement is not significantly associated with depressive symptoms or negative affect at the end of the first semester of college.

Figure 5. Regression analyses depicting OA intensity × residential status interaction on positive affect. ***p < .001.

**Associations Between T1 Adjustment and T2 Organized Activity Involvement**

Multiple regressions were used to examine whether T1 adjustment levels were associated with college OA involvement during the first semester. A separate regression analysis was run for the set of T1 adjustment variables associated with each OA variable (i.e., intensity, breadth, overall continuity, degree of continuity, continuity discrepancy). T1 depressive symptoms, positive affect, negative affect, and optimism were all entered simultaneously, with the college OA variable as the outcome variable. Analyses revealed no significant relations between T1 adjustment and any of the T2 OA variables. This suggests that, in our sample, adjustment levels at the start of college were not associated with the intensity, breadth, or continuity patterns of OA involvement in college.
Figure 6. Regression and moderation models.
CHAPTER FIVE

DISCUSSION

The primary aim of this longitudinal study was to examine whether various dimensions of organized activity involvement were associated with better adjustment for emerging adults making the transition to college. Adjustment was assessed in terms of depressive symptoms, negative affect, positive affect and optimism. It was anticipated that higher levels of intensity, breadth, identity relevance, and continuity of OA involvement in college would be associated with better adjustment (i.e., lower depressive symptoms and negative affect and higher positive affect and optimism) at the end of the first semester of college.

Findings indicated that higher OA continuity discrepancy was associated with more positive affect and higher intensity of OA involvement was associated with more optimism. However, contrary to expectation none of the OA variables were associated with depressive symptoms or negative affect. Analyses suggested that organized activity involvement in first year college students was only associated with positive markers of adjustment. The promotion of these positive markers of adjustment is important as optimism has been associated with better adjustment in many situations (Aspinwall & Taylor, 1992) and positive affect is associated with higher quality of life, greater well-being, and lower levels of depression (Vranceanu et al., 2009). Beyond this, Fredrickson’s (2001) broaden-and-build theory of emotion suggests that positive
emotions fuel psychological resiliency and emotional well-being. Specifically, they suggest that people may improve their psychological well-being and physical health by cultivating experiences of positive emotions (Fredrickson, 2001). The results of this study suggest organized activities may be one context that is associated with experiences of positive emotions, which in turn may lead to psychological well-being. This falls in line with the work of Rose-Krasnor et al. (2006) that found a positive relation between intensity and optimism, as well as the work of Busseri et al. (2011) that found a relation between breadth and optimism. These studies, along with ours, 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 females and for campus-based students. Findings were generally consistent with this prediction. When looking at gender, we found that the relation between OA breadth and positive affect was only significant for females, suggesting that more varied involvement in college OAs may be particularly important for females during the transition to college. This falls in line with work in the adolescent OA literature that found for females only, breadth of participation was associated with more prosocial friends and decreased depressive symptoms (Eccles & Barber, 1999; Fredricks & Eccles, 2006). This suggests that females, both in adolescence and emerging adulthood, may benefit from greater breadth of activity involvement.
When examining residential status, our results suggested that OA intensity was significantly and 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; however, 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 maintaining or increasing the levels of time spent in activities from high school may be beneficial for first-year college students living on campus, but may actually be detrimental for home-based students. It may be that with the time constraints and commuting faced by home-based students, trying to make time on campus for OAs may actually increase stress levels and be detrimental to adjustment.

The notion that activity involvement may benefit some, particularly those at-risk for negative outcomes, more than others has been noted in previous research (Bohnert et al., 2007; Mahoney, 2000; Mahoney & Cairns, 1997). The results of our study fit with this notion, as research suggests that both females and campus-based students may be at greater risk for adjustment difficulties (Asaoka, Fukuda, and Yamazaki, 2004; Costa et al., 1987; Fisher and Hood, 1987; Fujita, Diener, & Sandvik, 1991; Gladstone & Koenig, 1994; McGrath et al., 1990). Our results build upon previous work by exploring two groups that may be more likely to experience adjustment difficulties during the transition to college. To our knowledge, our study is the first to assess residential status as a risk group within the context of OA involvement. For all transitioning students, but particularly females and campus-based students, activity involvement may provide them
with a structured and supportive context for exploring new interests and identities, building personal competencies, expanding support networks, and forging community connections (Bohnert et al., 2007; Pederson et al., 2005; Youniss et al., 1997). As campus-based students are faced with the stress of living independently, less readily available support networks, and needing to make new friends, OA is likely a context that facilitates these processes. For home-based students who still have the readily available support of family and friends and likely have time demands due to commuting, OA may not be as beneficial and in fact, the time commitment may actually increase stress, making involvement detrimental.

A final aim of our study was to examine whether adjustment levels at the start of college were associated with organized activity involvement in college. Contrary to expectations, levels of adjustment at the start of college were not associated with college OA intensity, breadth, or any of the dimensions of continuity. While previous studies with children and adolescents have found that adjustment levels predict subsequent activity involvement (Bohnert & Garber, 2007; Bohnert, Kane, & Garber, 2008; Larson & Kleiber, 1993; McHale et al., 2001; Posner and Vandell, 1991), our research suggests that perhaps adjustment is not as strongly related to patterns of activity involvement for emerging adults. The previous studies with children and adolescents have typically assessed OA involvement one to two years after assessing adjustment (Bohnert, Kane, & Garber, 2008; McHale et al., 2001; Posner & Vandell, 1991). Our study examined activity involvement only three months after assessing adjustment which may not be a sufficient time span to capture the relation. Additionally, previous work with adolescents
has found relations between adjustment and involvement in particular categories of OAs (Bohnert & Garber, 2007; Larson & Kleiber, 1993). Our study did not examine involvement in particular categories of involvement, but rather looked at broader indices of overall involvement. It may be that adjustment at the start of college is associated with involvement in particular categories of OAs (i.e., sports, academic, performance/fine arts) rather than overall activity involvement. Future studies should examine this possibility in addition to examining other factors that may play a role in who gets involved and stays involved in activities across the transition to college.

This study expands on the existing literature in several important ways. First, it adds to the small pool of studies examining the impact of OAs on adjustment in a college population. The findings are partially consistent with the results from the previous studies of OA involvement amongst first year college students. Similar to our study, Busseri et al. (2011) found that increases in intensity levels from high school to college (e.g., continuity discrepancy) was associated with adjustment during the first year of college, particularly positive markers of adjustment (Busseri et al., 2011). Bohnert et al. (2007) found that more intense involvement in college was associated with better adjustment for those at greater risk (with poorer social adaptation) prior to college. Comparably, our study suggested that OA may be more associated with adjustment outcomes for certain groups who may be at greater risk for poor adjustment (i.e., females and campus-based students). Our study also adds to the existing literature by examining multiple dimensions of activity involvement and both positive and negative markers of adjustment. Researchers are increasingly recognizing the value of distinguishing between different
dimensions of OA involvement (e.g., Bohnert et al., 2010). Much of the literature has been limited by a failure to consider activity involvement in this more complex way. While researchers are increasingly looking at both intensity and breadth of OA involvement (i.e., Bohnert et al., 2007; Busseri et al., 2011; Fredricks & Eccles, 2006), our study examined these indices in addition to other less well understood indices (i.e., identity relevance and continuity of involvement). The importance of assessing multiple indices of OA was highlighted in our findings. Similar to previous studies with this population, intensity and breadth were important dimensions of OA in relating to adjustment amongst first year college students; however, continuity discrepancy (i.e., the change in hours of intensity from high school to college) also demonstrated unique relations with adjustment outcomes. Identity relevance, a relatively new and unexplored dimension of OA involvement was not associated with adjustment. In addition, different indices of involvement were uniquely associated with adjustment for particular groups suggesting that different types of activity involvement may be particularly beneficial for certain individuals during the transition to college.

Limitations and Future Directions

Although this study attempted to address gaps in the current body of literature, there are several limitations. First, the size of the sample was relatively small and primarily Caucasian and female, which could raise concerns regarding the generalizability of these findings. Similarly, because a sizeable proportion of students who began the study did not complete the Time 2 survey (and thus were not included in this study), the present results may not generalize to all Time 1 participants or other first
year college students at other campuses. In addition, the time period examined in this longitudinal study may have limited our ability to capture the relations we were looking at. The first semester of college may not have been a sufficient time period to capture significant changes in adjustment. Likewise, one semester may not be enough time for first year college students to get involved in OA to the extent they plan to. Given this, future studies should consider assessing OA involvement at the end of the first year of college rather than just the first semester. Additionally, although self-report can provide accurate reports of adjustment indicators, the use of multiple information sources or multiple methods would be beneficial. Lastly, given the correlational nature of our study, conclusions regarding causality cannot be drawn.

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 may aid healthy adjustment is imperative. Our study suggests that activity involvement during the transitional first year is one potential avenue for promoting positive adjustment to college. It also highlights the importance of particular indices of involvement for females and campus-based students making this transition. Our findings extend a growing body of work demonstrating the beneficial effects of activity involvement as a context for healthy development during emerging adulthood.
APPENDIX A

EXTRACURRICULAR ACTIVITY INVENTORY
For each of the 5 categories, list all of the extracurricular activities (including sports, clubs, band, performance arts) you participated in during high school. Extracurricular activities include anything that is adult-supervised and structured, and includes activities conducted both at school and in the community.

**CATEGORY 1: RELIGIOUS/SERVICE ACTIVITIES** (for example: church youth groups, community service groups, provided tutoring, key club, SADD). CHECK ONE:

_____ I DID NOT participate in any religious or service activities during high school (skip to Category 2: Academic/Leadership activities)

**OR**

If you participated in at least 1 activity, please fill out the following:

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>10&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>11&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>12&lt;sup&gt;th&lt;/sup&gt; Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>10&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>11&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>12&lt;sup&gt;th&lt;/sup&gt; Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>10&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>11&lt;sup&gt;th&lt;/sup&gt; Grade</th>
<th>12&lt;sup&gt;th&lt;/sup&gt; Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CATEGORY 2: ACADEMIC/LEADERSHIP ACTIVITIES (for example: student government, yearbook, quiz bowl, debate, newspaper, chess, computer club).
CHECK ONE:

_____ I DID NOT participate in **any** academic or leadership activities during high school (skip to Category 3: Performance/Arts activities)

**OR**

If you participated in at least 1 activity, please fill out the following:

Activity Name: ___________________________

<table>
<thead>
<tr>
<th>Average Hours/Week</th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th>Average Hours/Week</th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th>Average Hours/Week</th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CATEGORY 3: PERFORMANCE/FINE ARTS ACTIVITIES (for example: dance, band, art club, chorus, drama). CHECK ONE:

_____ I DID NOT participate in any performance or fine arts activities during high school (skip to Category 4: Community/Vocational activities)

OR

If you participated in at least 1 activity, please fill out the following:

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CATEGORY 4: COMMUNITY ORGANIZATIONS/VOCATIONAL CLUBS (for example: boys/girls club, YMCA/YWCA, scouts, 4-H). CHECK ONE:

_____ I DID NOT participate in any community organizations or vocational clubs during high school (skip to Category 5: Sports)

OR

If you participated in at least 1 activity, please fill out the following:

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CATEGORY 5: SPORTS (for example: basketball, football, gymnastics, swimming, cheerleading). CHECK ONE:

______ I DID NOT participate in any sports during high school

OR

If you participated in at least 1 activity, please fill out the following:

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity Name: ___________________________

<table>
<thead>
<tr>
<th></th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Hours/Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Months/Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

T2 ACTIVITIES INTERVIEW SCRIPT
PRIOR TO STARTING, ASK PARTICIPANT IF THEY WISH TO TAKE PART IN THE INTERVIEW, START TIMER & DISCONTINUE INTERVIEW AFTER 20 MINUTES.

A. “First, I’d like you to tell me about any organizations, clubs, athletics, or organized activities you’ve gotten involved with since you began here at Loyola.”

<table>
<thead>
<tr>
<th>Activity</th>
<th># weeks</th>
<th>avg # hours/wk</th>
</tr>
</thead>
</table>

For all listed activities:

“How many weeks have you participated in this activity?”

“On avg, how many hours per week are you involved in this activity?”

“Now, I’d like to know of all the activities we’ve talked about, tell me which of these activities was the most important to you and why?”

CIRCLE, ACTIVITY LISTED AS MOST IMPORTANT

WHY?

_______________________________________________

_______________________________________________

“What percentage of your identity is based on that activity (0-100%)?”

_______ %
APPENDIX C

CENTER FOR EPIDEMIOLOGICAL STUDIES—DEPRESSION SCALE
Circle the number for each statement that best describes how often you have felt or behaved that way DURING THE PAST MONTH

0. Never or Rarely    1. Some or a Little    2. Occasionally    3. Most or All of Time

1. I was bothered by things that usually don’t bother me.
2. I did not feel like eating OR ate more than usual.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I had trouble keeping my mind on what I was doing.
5. I felt depressed.
6. I felt that everything I did was an effort.
7. I felt hopeful about the future.
8. I thought my life had been a failure.
9. I felt fearful or anxious.
10. My sleep was restless.
11. I was happy.
12. I talked less than usual.
13. I felt lonely.
14. People were unfriendly.
15. I enjoyed life.
16. I had crying spells.
17. I felt that people disliked me.
18. I could not get “going”.
19. I felt that I was just as good as other people.
20. I felt sad.
21. I felt mad.
APPENDIX D

LIFE ORIENTATION TEST
Please read each sentence and circle the answer that tells how much you agree with it. Be sure to only circle one answer for each sentence. Remember, there are no right or wrong answers. We just want to know what you think.

1. Totally Agree  
2. Agree Somewhat  
3. Neither Agree nor Disagree

4. Disagree Somewhat  
5. Totally Disagree

1. When things are uncertain, I usually expect the best.
2. It’s easy for me to relax.
3. If something can go wrong for me, it will.
4. I always look on the bright side of things.
5. I’m always optimistic about my future.
6. I enjoy my friends a lot.
7. It’s important for me to keep busy.
8. I hardly ever expect things to go my way.
9. Things never work out the way that I want them to.
10. I don’t get upset too easily.
11. I’m a believer in the idea that “every cloud has a silver lining”.
12. I rarely count on good things happening to me.
APPENDIX E

POSITIVE AND NEGATIVE AFFECT SCHEDULE
This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way DURING THE PAST MONTH. Use the following scale to record your answers:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>very slightly or not at all</td>
<td>a little</td>
<td>moderately</td>
<td>quite a bit</td>
<td>extremely</td>
</tr>
</tbody>
</table>

- _____ interested
- _____ irritable
- _____ distressed
- _____ alert
- _____ excited
- _____ ashamed
- _____ upset
- _____ inspired
- _____ strong
- _____ nervous
- _____ guilty
- _____ determined
- _____ scared
- _____ attentive
- _____ hostile
- _____ jittery
- _____ enthusiastic
- _____ active
- _____ proud
- _____ afraid
APPENDIX F

CATEGORIES OF ORGANIZED ACTIVITY INVOLVEMENT
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Domain</th>
<th>Academic</th>
<th>Performance / fine arts</th>
<th>Sports</th>
<th>Community / social</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 High school OA (EAI)</td>
<td>Academic / leadership</td>
<td>Performance / fine arts</td>
<td>Sports</td>
<td>Community / vocational</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Religious / service</td>
<td></td>
</tr>
<tr>
<td>T2 College OA (OA interview)</td>
<td>Academic Professional development</td>
<td>Performance / fine arts</td>
<td>Athletics</td>
<td>Religious</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leadership / political</td>
<td></td>
<td>Community</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Press / publications</td>
<td></td>
<td>Service</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Social</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G

EXAMPLES OF CONTINUITY CODING
<table>
<thead>
<tr>
<th></th>
<th>T1</th>
<th>T2</th>
<th>T1–T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Performance / fine arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sports</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Community / social</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Overall Continuity = 1  
Degree of Continuity = 1

<table>
<thead>
<tr>
<th></th>
<th>T1</th>
<th>T2</th>
<th>T1–T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Performance / fine arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sports</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Community / social</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Overall Continuity = 1  
Degree of Continuity = 3
REFERENCES


VITA

Nicole Arola is a doctoral student at Loyola University Chicago studying clinical psychology with a specialty in child, adolescent, and family issues. She received her B.A. in Psychology from the University of St. Thomas in 2010. During her time at St. Thomas, she participated in numerous projects as a research assistant culminating in various research presentations at regional and national conferences. She also received a summer research grant which allowed her to design and conduct an independent research project examining parental involvement, stress, and well-being in children's sport activities and how this impacts children's sport experiences. Since starting graduate school at Loyola, Nicole has been a member of Dr. Amy Bohnert's Activity Matters Lab. As part of this lab, Nicole has worked on multiple projects highlighting her varying interests. These include projects examining the impact of organized activity involvement on high functioning adolescents on the autism spectrum and on emerging adults transitioning to college, as well as exploring the impact of sports involvement on the adjustment of affluent adolescents. Her masters thesis examined the relation between multiple indices of organized activity involvement and adjustment amongst emerging adults transitioning to college. Work on these varying projects has resulted in numerous presentations at the Midwestern Psychological Association and Society for Research on Adolescence, in addition to a number of publications in preparation or under review.