



8-2019

## **Emerging Adult Development in the College Context: A Longitudinal Study of Role Balance and Academic Success in the Transition to College**

Jennifer Lynn Bishop  
*University of Tennessee*

Follow this and additional works at: [https://trace.tennessee.edu/utk\\_graddiss](https://trace.tennessee.edu/utk_graddiss)

---

### **Recommended Citation**

Bishop, Jennifer Lynn, "Emerging Adult Development in the College Context: A Longitudinal Study of Role Balance and Academic Success in the Transition to College." PhD diss., University of Tennessee, 2019.  
[https://trace.tennessee.edu/utk\\_graddiss/6771](https://trace.tennessee.edu/utk_graddiss/6771)

This Dissertation is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

To the Graduate Council:

I am submitting herewith a dissertation written by Jennifer Lynn Bishop entitled "Emerging Adult Development in the College Context: A Longitudinal Study of Role Balance and Academic Success in the Transition to College." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Deborah P. Welsh, Major Professor

We have read this dissertation and recommend its acceptance:

Todd M Moore, Jenny Macfie, Sally J. McMillan

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

**Emerging Adult Development in the College Context:  
A Longitudinal Study of Role Balance and Academic Success in the Transition to  
College**

A Dissertation Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Jennifer Lynn Bishop

August 2019

© 2019 by Jennifer Lynn Bishop  
All rights reserved.

## **DEDICATION**

To my partner,  
*Bradley Wade Bishop, Ph.D.*

and my children,  
*Anna, Mary Lee, and Charlotte Bishop*

## **ACKNOWLEDGEMENTS**

I would like to express my sincere gratitude to Dr. Deborah P. Welsh for serving as my research advisor and mentor during my tenure as a graduate student at the University of Tennessee. I would also like to thank Dr. John Lounsbury for his guidance in developing the Individual and Relational Role Balance Scale (IRRBS), which I have used to investigate a number of important questions related to role balance in emerging adulthood. Drs. Todd M. Moore, Jenny Macfie, and Sally J. McMillian have also provided invaluable research mentorship as members of my thesis and dissertation committees. Finally, I deeply appreciate the help and support of my lab mates in the Development of Adolescents and Young Adults (DAYA) Lab, Dr. Patricia N. E. Roberson, Jerika C. Norona-Flores, and Ashley M. Russell.

## **ABSTRACT**

During the transition to college, emerging adults face a number of developmental challenges. These two studies explore the developmental task of role balance, its relationship to other key variables (e.g., overall college adjustment, depressive symptoms), and its impact on first semester college achievement. Hierarchical linear regression and cross-lagged panel correlation analysis are employed.

## TABLE OF CONTENTS

INTRODUCTION .....	1
References .....	5
CHAPTER I: Exploring Role Balance as a Predictor of College Achievement Above and Beyond College Adjustment in the Transition to College .....	7
Abstract .....	8
Introduction .....	9
Adjustment to College.....	10
Role Balance .....	12
Current Study .....	13
Methods .....	14
Participants and Procedures .....	14
Measures .....	16
Analyses .....	18
Results .....	19
Discussion.....	22
Limitations .....	25
Implications.....	26
References.....	27
CHAPTER II: Exploring the Bi-Directional Effect of Role Balance and Depressive Symptoms on College Achievement in the Transition to College.....	32
Abstract .....	33
Introduction .....	34
Role Balance and Depressive Symptoms.....	38
Role Balance and Depressive Symptoms as Predictors of College Achievement .....	39
Current Study .....	41
Methods .....	42
Participants and Procedures .....	42
Measures .....	43



Analyses .....	44
Results .....	46
Discussion .....	50
Limitations .....	52
Implications .....	54
References .....	57
CONCLUSIONS.....	66
References .....	70
VITA.....	73

## LIST OF TABLES

Table 1. <i>Demographic characteristics of sample.</i> .....	15
Table 2. <i>Distribution of overall college adjustment, role balance, and first semester college grade point average (GPA).</i> .....	20
Table 3. <i>Bivariate correlations among Study 1 variables.</i> .....	21
Table 4. <i>Summary of hierarchal regression analysis predicting first semester college grade point average (GPA).</i> .....	21
Table 5. <i>Distribution of role balance, depressive symptoms, and first semester college grade point average (GPA).</i> .....	46
Table 6. <i>Bivariate correlations among Study 2 variables.</i> .....	48
Table 7. <i>Cross-lagged path analysis of Pell Grant status, role balance, depressive symptoms, and semester grade point average (GPA)...</i> .....	50

## LIST OF FIGURES

Figure 1. <i>Cross-lagged path analysis for role balance, depressive symptoms, and semester grade point average (GPA)</i> .....	49
---	----

## INTRODUCTION

The transition to college, which often coincides with the transition from adolescence to emerging adulthood (Arnett, 2000; 2004; 2016), has been identified a stressful period for a number of reasons. During this transition, emerging adults face a number of developmental challenges that have the potential to impact both psychological well-being and academic success. These challenges include adapting to both the academic and social demands of the college environment and adjusting to large-scale changes in relationships, responsibilities, and expectations (Conley, Kirsch, Dickson, & Byrant, 2014). While these challenges may strain personal resources and impact overall functioning during the college years (e.g., Billings & Moo, 1982), evidence has begun to suggest that adjustment problems early in emerging adulthood (e.g., during the transition to college) may also have the potential to negatively impact functioning later in development (e.g., Rao, Hammen, & Daley, 1999; Reinhertz, Giaconia, Hauf, Wasserman, & Silverman, 1999).

While not all emerging adults attend college, the college environment can provide an important context for studying emerging adult development given that college uniquely allows for sustained identity exploration, an important feature of emerging adulthood (Arnett, 2016). A better understanding of the factors that contribute to developmental success or failure in college is also necessary given that the percentage of American emerging adults enrolled in college is higher now than at any time in U.S. history (Arnett, 2016; NCES, 2014) and success in college has long been linked to longer-term occupational success, as well as to needs fulfillment and individual well-being outcomes across the lifespan (e.g., higher lifetime wages, physical and mental

health; Arnett & Schwab, 2012; Baum & Ma, 2007; Bishop, Roberson, Norona, & Welsh, 2018a). At present, the first year attrition rate for students entering college at a 4-year public institution is approximately 19% with up to 40% of students withdrawing from these institutions some time before completing an undergraduate degree (NCES, 2018).

Given both the unique developmental challenges introduced during the transition to college and the significance of college success as part of emerging adult development, this dissertation reports on two separate studies that investigate the relationship between one key developmental task associated with emerging adulthood, role balance, and college success. During emerging adulthood, as young people begin to simultaneously explore and establish both individual and relational role identities (Arnett, 2000; Bishop et al., 2018; Shulman & Connolly, 2013), they must work to balance their role commitments in order to maximize success and satisfaction across domains (Bishop, Welsh, Lounsbury, & Norona, 2016). Findings from studies in both adulthood and among emerging adults, suggest that the role balance construct is associated with a number of important psychosocial and performance outcomes across the lifespan (for review see Hammer & Demsky, 2014 and Bishop et al., 2016). As such, these studies examine role balance, along with other variables associated with academic achievement among college students, in order to add to the literature on emerging adult development in the college context.

The following chapters outline two studies, which explore role balance as a developmental process in emerging adulthood (Bishop, Roberson, Welsh & Norona, 2018). While both studies utilize a short-term longitudinal design and rely on a single set

of survey data collected across the participants' first semester of college, each uses unique quantitative analyses to address specific questions about how role balance relates to key psychosocial (e.g., depression) and performance (e.g., academic achievement) outcomes during this period of transition.

The first study (Chapter 1) examines role balance as a significant predictor of academic achievement (e.g., first semester GPA) above and beyond known correlates of GPA. Although a number of academic and non-academic factors have been found to predict overall college success, findings on the construct of college adjustment have continually illustrated the importance of adjustment to both the academic and the non-academic (e.g., social) demands of the college environment early in the transition period (for review see Credé & Niehorster, 2012). While the construct of role balance has also been tied to GPA (e.g., Marks & McDermid, 1996), no studies have considered whether relative successes or failures in balancing competing role demands *across* academic and non-academic domains contributes to achievement outcomes beyond domain-specific adjustment. In order to test the predictive contribution of role balance, the first study uses hierarchical regression to assess whether the addition of role balance to a model containing only significant demographic predictors and college adjustment better explains differences in academic performance (i.e., GPA) at the end of the first semester of college.

The second study (Chapter 2) addresses the lack of longitudinal studies examining the association between role balance and depressive symptoms among college students as they relate to academic outcomes. While there is robust cross-sectional evidence on the relationship between challenges to role balance (e.g., role conflict) and depression in

adulthood, and to a lesser extent among emerging adults, a directional, causal relationship has yet to be established. The second study uses a cross-lagged panel correlation (CLPC) analysis to explore the direction of the relationship between role balance and depression at two time points while controlling for both autocorrelation and synchronous correlation among variables. It also explores the influence of these variables on academic performance (i.e., semester GPA). Specifically, the models test whether depressive symptoms mediate the relationship between role balance and GPA or if role balance mediates the relationship between depressive symptoms and GPA. An understanding of the temporal precedence of role balance and depression (e.g., whether depressive symptomology interferes with the developmental task of role balance or role balance challenges contribute to depressive symptoms) has the potential to make a significant contribution to our understanding of the difficulties college students experience during the transition. The mediational analysis also represent an important preliminary step in exploring the mechanisms that influence academic functioning among emerging adults. A better understanding of these mechanisms could ultimately inform interventions that uniquely target either role balance difficulties or depressed mood during the transition in order to promote early college success.

Together, the two studies help clarify the association between role balance and academic success and add to our understanding of emerging adult development during the transition to college. Implications for theory and practice, as well as relevant limitations, are discussed in light of findings.

## References

- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *The American Psychologist, 55*, 469–480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.
- Arnett, J. J. (2016). College students as emerging adults: The developmental implications of the college context. *Emerging Adulthood, 4*, 219-222.
- Arnett, J. J., & Schwab, J. (2012). The Clark University poll of emerging adults: Thriving, struggling, and hopeful. *Worcester, MA: Clark University*.
- Baum, S., & Ma, J. (2007). Education pays. Princeton, NJ: College Board.
- Billings, A. G., & Moos, R. H. (1982). Stressful life events and symptoms: A longitudinal model. *Health Psychology, 1*, 99-117.
- Bishop, J. L., Roberson, P. N. E., Welsh, D. P., & Norona, J. C. (2018a). Does role balance influence the effect of personality on college success? A mediation model. *Emerging Adulthood, 6*, 137-148.
- Bishop, J. L., Roberson, P. N. E., Welsh, D. P., & Norona, J. C. (2018b). Adult attachment, role balance, and depressive symptoms in emerging adulthood. *Journal of Adult Development*. Available at <https://doi.org/10.1007/s1080>.
- Bishop, J. L., Welsh, D. P., Lounsbury, J. W., & Norona, J. C. (2016). The individual and relational role balance scale (IRRBS): A preliminary scale development and validation study. *College Student Journal, 50*, 531-550.
- Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the transition to college: Developmental trajectories and gender differences in



- psychological functioning, cognitive-affective strategies, and social well-being. *Emerging Adulthood*, 2, 195-210.
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the student adaptation to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review*, 24, 133-165.
- Hammer, L. B., & Demsky, C. A. (2014). Introduction to work-life balance in *Workplace well-being: How to build psychologically healthy workplaces*. (pp. 95-116): Wiley-Blackwell.
- Marks, S. R., & MacDermid, S. M. (1996). Multiple roles and the self: A theory of role balance. *Journal of Marriage and the Family*, 58, 417-432.
- National Center for Education Statistics (2014). The condition of education, 2014. Washington, DC: U.S. Department of Education. Retrieved from [www.nces.gov](http://www.nces.gov).
- National Center for Educational Statistics (2018). Undergraduate retention and graduation rates, 2018. Retrieved from [www.nces.gov](http://www.nces.gov).
- Rao U., Hammen C., Daley S. E. (1999). Continuity of depression during the transition to adulthood: A 5-year longitudinal study of young women. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 908–915.
- Reinherz H. Z., Giaconia R. M., Hauf A. M., Wasserman M. S., Silverman A. B. (1999). Major depression in the transition to adulthood: Risks and impairments. *Journal of Abnormal Psychology*, 108, 500–510.
- Shulman, S., & Connolly, J. (2013). The challenge of romantic relationships in emerging adulthood: Reconceptualization of the field. *Emerging Adulthood*, 1, 27–39.

**CHAPTER I:**

**Exploring Role Balance as a Predictor of College Achievement Above and Beyond**

**College Adjustment in the Transition to College**

## **Abstract**

The transition to college, which often coincides with the transition from adolescence to emerging adulthood, has been identified a stressful period for a number of reasons. During this transition, emerging adults face a number of developmental challenges that have the potential to impact both psychological well-being and academic success. Using a sample of first-semester undergraduate college students from a large public institution ( $N=273$ ), survey measures were administered over the first semester of college to examine the incremental predictive validity of overall college adjustment and perceived role balance on academic performance (e.g., semester GPA). Results of hierarchal linear regression analyses indicate that while overall college adjustment predicted semester GPA, role balance failed to add predictive validity early in these students' college careers. Implications for research and application are discussed.

## **Introduction**

The transition to college presents emerging adults with unique challenges including acclimating to both the academic and social aspects of the college environment and managing a number of new and competing role demands. While some emerging adults are able to successfully cope with transitional stressors, others report struggling to adjust (Dyson & Renk, 2006; Schulenberg & Zarrett 2005). This is problematic as difficulties in the adjustment to college have been shown to be predictive of both lower college achievement and attrition (for review see Credé & Niehorster, 2012).

Predicting achievement among college students has become increasingly important as the percentage of American emerging adults enrolled in college is higher now than at any time in U.S. history (Arnett, 2016; NCEs, 2014). Further, college success has been linked to longer-term occupational success, as well as to needs fulfillment and individual well-being outcomes across the lifespan (e.g., higher lifetime wages, physical and mental health; Arnett & Schwab, 2012; Bishop, Roberson, Norona, & Welsh, 2018; Baum & Ma, 2007). Given the significance of college success as part of emerging adult development and the relatively high risk for failure/attrition (only 60% graduation rate within 6 years for students enrolled at 4-year institutions; NCEs, 2018), it is important that we better understand the factors that contribute to positive academic performance among emerging adults in the college context.

Findings on college adjustment as a predictor of academic achievement for college students suggest that adjustment to both the academic and the non-academic (e.g., social) demands of the college environment are key to overall success (Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Kuh, Kinzie, Buckley, Bridges, &

Hayek, 2006). This fits with the two key developmental tasks of emerging adulthood: progress toward competence and satisfaction in the domains of work (i.e., career) and love (i.e., relationships; Arnett, 2000, 2004). While adjustment within each domain has been shown to be of value independently, the exploration and solidification of achievement-oriented and relational role identities are often simultaneous tasks (Ranta, Dietrich, & Salmela-Aro, 2014; Schulenberg & Schoon, 2012; Shulman & Connolly, 2013; van Dulmen, Claxton, Collins, & Simpson, 2013). As a result, emerging adults must work not only to adjust to different demands, but to balance their commitments across domains in a way that allows them to enjoy positive developmental success, including in the sphere of academic/career achievement. In this study, we seek to understand how the developmental task of role balance might help to predict college success above and beyond adjustment to the academic and social aspects of college in isolation.

### **Adjustment to College**

In the United States, overall adjustment to the college environment has been widely examined as a predictor of academic outcomes including academic performance (i.e., grades) and college retention (Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Kuh et al., 2006). The literature on the adjustment to college has primarily used a stress and coping framework (e.g., Lazarus & Folkman, 1984), focusing on the degree to which students are able to “quickly and effectively adapt to the various (new) challenges encountered” as they transition to college (Credé & Niehorster, 2012, p. 134). In addition, most research in this domain has relied on Baker and Siryk’s (1984) theoretical taxonomy which characterizes the adjustment to college as a multidimensional construct requiring

adaptation to numerous and varied changes in environmental demands (e.g., academic, social, institutional).

Early research on the adjustment to college focused more heavily on academic adjustment or the degree to which students had adapted to academic demands as reflected by their satisfaction with their course of study, their engagement with academic content, and/or their perception of adequacy with regard to academic effort (Baker & Siryk, 1984). Later work addressed the spillover effects of adjustment in other domains (e.g., social) in terms of their impact on achievement outcomes (e.g., Larose, Robertson, Roy, Legault, 1998). Not surprisingly, students who report struggling to adjust to changes in academic demands (e.g., higher expectations, reduced structure, novel tasks) have been found to perform more poorly at the college level than those who report being better academically adjusted, but there is evidence that adjustment in other, non-academic domains also impacts performance indirectly (Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994). For example, low social adjustment (i.e., the degree to which students have integrated themselves into the university community; Baker & Siryk, 1984) has been hypothesized to reduce available social support and/or interfere with motivation to academic tasks (Credé & Niehorster, 2012). In sum, both academic and non-academic adjustment seem to be relevant predictors of college success.

A 2012 meta-analysis by Credé & Niehorster on the relationship between adjustment to college and academic performance based on 50 independent samples ( $N = 9,258$ ), found a true score correlation of .29 between overall adjustment to college and overall grade point average (GPA). The relationship between academic adjustment and overall GPA was slightly stronger, with a substantially weaker relationship for social

adjustment. This meta-analysis also examined relationships between overall adjustment and adjustment in academic and social domains and Freshman GPA and found similar associations. The authors further tested the incremental predictive validity of adjustment beyond traditional predictors of college success (e.g., SAT scores, high school GPA) and found that overall adjustment increased the proportion of variance in college grades that could be explained by SAT and high school grades by more than 50%. This finding underscores the importance of adjustment in predicting academic performance at the college level.

### **Role Balance**

While there are strong findings on the adjustment to college across domains (e.g., academic, social) as a predictor of college success, there is some evidence from studies in both adulthood and among emerging adults that perceived balance *between* role commitments in these (or similar) domains may also contribute to performance outcomes (e.g., Allen, Herst, Bruck, & Sutton, 2000; Frone, Yardley, & Markel, 1997; Marks & McDermid, 1996). Broadly, role balance has been defined as an overall appraisal of harmony, equilibrium, and integration among life roles (Voydanoff, 2005). This definition of balance arises from a person-environment (P-E) fit perspective, in which individuals assess their effectiveness across roles against internal standards such as desires, values, or goals (Edwards & Rothbard, 1999; Hammer & Demsky, 2014).

During emerging adulthood, when young people begin to simultaneously explore and establish both individual and relational role identities (Arnett, 2000; Shulman & Connolly, 2013), they work to balance their more achievement-oriented, individual roles (e.g., as a student, employee) with their relational roles (e.g., as a friend, romantic

partner) in order to maximize success and satisfaction across domains (Bishop, Welsh, Lounsbury, & Norona, 2016). Findings from studies on work-family role balance in adulthood, as well as limited findings from studies of emerging adults, identify role balance as a significant predictor of occupational (e.g., work attendance, retention; Allen et al., 2000; Frone et al., 1997), and to a lesser extent, academic (e.g., grades; Marks & McDermid, 1996) performance outcomes.

In the literature on role balance in adulthood, role conflict, which has been examined as a challenge to role balance, has been found to be associated with both poor work and family role performance (e.g., absenteeism, tardiness, failure to meet responsibilities) and withdrawal (e.g., turnover in employment, divorce; Allen et al., 2000; Bishop et al., 2018; Frone et al., 1997). These findings are consistent with findings among emerging adult college students, which suggest that lower reported role balance is negatively related to GPA ( $r = -.26, p < .001$ ; Marks & McDermid, 1996). While the majority of studies on the role balance construct have relied on cross-sectional data, longitudinal tests of role interference as a predictor of negative performance outcomes (e.g., employment turnover) have supported a causal link (e.g., Kelloway, Gottlieb, & Barham, 1999).

### **Current Study**

Given the well-established predictive relationship between overall college adjustment and college achievement and findings on the relationship between role balance and both occupational and academic performance outcomes, this study examines the incremental predictive validity of overall college adjustment and perceived role balance on college students' academic performance. Arnett's theory of emerging



adulthood (2000) lends theoretical support to the importance of successful adaptation and development in both academic and social domains. This theory, which identifies identity explorations and role instability as distinguishing features of emerging adulthood, is supported by Erickson's (1968) "psychological moratorium" and Marcia's (1993) identity status "Moratorium" for role experimentation, as well Levinson's (1971) novice phase of development characterized by change and instability within and across roles during this period (Bishop et al., 2016). Given the fact that developmental progression in these domains often occurs simultaneously (Ranta, et al., 2014; Schulenberg & Schoon, 2012; Shulman & Connolly, 2013; van Dulmen, et al., 2013), there is reason to believe that successful balance *between* commitments within these domains might further contribute to performance outcomes. As such, this study hypothesize that greater perceived role balance will predict higher first semester college GPA above and beyond overall adjustment to college.

## **Methods**

### **Participants and Procedures**

A sample of 275 first semester undergraduate college students was recruited from introductory psychology courses at the University of Tennessee via SONA Systems, an online tool used to recruit research participants. After signing up to participate in the study, these students received detailed information about the study, including information on consent procedures and instructions for participation at two different time points across their first semester of college. See Table 1 for sample demographic characteristics.

Table 1. *Demographic characteristics of sample.*

	Sample distribution N (%)
Sex	
Male	58 (21.1)
Female	214 (77.8)
Age	
18	236 (86.1)
19	24 (8.8)
20	6 (2.2)
21	1 (0.4)
> 21	5 (1.8)
Race	
White/Caucasian	228 (83.2)
Black/African American	16 (5.8)
Hispanic/Latino/a	2 (0.7)
Asian/Asian American	23 (8.4)
Biracial/Multicultural	5 (1.8)
Other	2 (0.7)
Relationship Status	
Current romantic partner	101 (36.9)
No current romantic partner	166 (60.6)
Hours of Employment	
0-5	107 (38.9)
6-10	149 (53.9)
11-20	12 (4.3)
> 20	9 (3.3)
Self-Reported High School GPA	
<3.0	1 (0.4)
3.0-3.49	21 (8.5)
3.5-3.99	85 (31.4)
4.0	28 (10.3)
> 4.0	37 (13.7)
Self-Reported Advanced Placement Enrollment	
Enrolled	124 (72.1)
Not Enrolled	48 (27.9)
Parents' Highest Level of Education	
< High School Diploma/GED	5 (1.9)
High School Diploma/GED	38 (13.8)
Associate's Degree	22 (8.0)
Bachelor's Degree	91 (33.1)
Graduate or Professional Degree	90 (32.7)
Pell Grant Status	
Recipient	80 (29.1)
Non-Recipient	182 (66.2)

Note.  $N=275$

**Time 1.** Time 1 data was collected in-person in campus computer labs during the month of September. Research assistants reviewed informed consent forms with participants and participants completed several online survey measures in the lab as part of a larger study on the transition to college. These measures were administered via Qualtrics. Participants at Time 1 earned 1.5 in person SONA research credits, which could be used toward their course research requirement.

**Time 2.** All students who participated in the study at Time 1 were contacted by researchers via SONA in early November of the same year with instructions for participation at Time 2. Time 2 data was collected entirely online via Qualtrics during the latter half of November. Students received a direct link to complete the same survey measures they completed at Time 1. Participants at Time 2 earned an additional 1.5 online SONA credits.

While data on college adjustment and role balance was collected from the same participants in both September and November of the same year, the November data was used for these analysis as we believed it most likely to captured students' gross experience across their first semester of college (first wave data was likely collected before students began to encounter significant role demands or conflicts).

All procedures described above were approved by the University of Tennessee's Institutional Review Board.

## **Measures**

**Demographics.** Participants completed a demographic questionnaire developed by the researchers, which included items on demographic characteristics (e.g., age, gender, racial/ethnic background, relationship status, number of hours of employment,

self-reported high school GPA and Advanced Placement enrollment, parents' highest level of education, and Pell Grant status (as a proxy for family income)).

**Adjustment to College.** Participants were administered the Academic and Social Adjustment subscales of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984). The SACQ is a self-report scale designed to measure the degree to which the student has adjusted to college, with higher scores across the SACQ indicating higher levels of self-reported adjustment. Responses range from (0) very poorly to (5) very closely. Ten items measure academic adjustment (e.g., "I am quite satisfied with my academic situation at college") and ten items measure social adjustment (e.g., "I feel that I have enough social skills to get along well in the college setting"), with an overall adjustment score representing the sum of the 20 total subscale items. The full scale SACQ showed excellent reliability with this sample at Time 2 ( $\alpha = .91$ ).

**Role Balance.** Participants were administered the Individual and Relational Role Balance Scale (IRRBS; Bishop et al., 2016), a 17-item questionnaire rated on a 5-point Likert-style scale (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). Items on the IRRBS are designed to measure each individual's subjective appraisal of global accord among individual (e.g., as student, employee, organization member) and relational (e.g., as friend, family member, romantic partner) roles on the basis of time, involvement, and satisfaction across roles relative to internal standards (e.g., "All in all, I feel successful in balancing my individual roles and my relationships with others"). The full-scale IRRBS showed excellent reliability with this sample ( $\alpha = .90$ ) at Time 2.

**GPA.** For students who signed a release for researchers to access to their academic records, first semester GPA and enrollment status were retrieved with assistance of the Registrar's Office at the University of Tennessee following the end of the Fall grading term.

## **Analyses**

IBM SPSS Statistics 24 was used for all statistical analyses.

**Missing Data.** Missing data was accounted for using listwise deletion per the PROCESS macro in SPSS (Preacher & Hayes, 2008).

**Preliminary Analyses.** Independent samples t-tests and chi-squared tests were used to determine significant differences in missingness on the basis of age, gender, racial/ethnic background, relationship status, hours of employment, self-reported high school GPA and Advanced Placement enrollment, parents' highest level of education, and Pell Grant status for all study variables. Any significant differences are included in subsequent analyses as control variables to account for any variation in the outcome variable, semester GPA, explained by the missingness pattern.

**Assessment of Normalcy.** Descriptive statistics are reported for all study variables.

**Correlation of Variables.** Bivariate correlations of predictor and outcome variables were calculated and are reported.

**Hierarchical regression analysis.** Hierarchical linear regression was used to assess whether role balance predicted GPA at the end of the first semester of college above and beyond overall college adjustment. After accounting for relevant demographic variables (Step 1), overall college adjustment was entered in Step 2 and role balance was entered in

Step 3, with first semester GPA as the outcome variable. Hierarchical regression allowed for an analysis of the effect of role balance after controlling for overall adjustment by calculating the change in the adjusted R-squared after each variable was added to the model. This tested the incremental predictive validity of role balance for first semester GPA.

An *F*-test ( $p < .05$ ) was used to assess whether each independent variable, overall college adjustment and role balance, was associated with the dependent variable, first semester GPA. Again, *R*-squared was reported and used to determine how much variance in the dependent variable could be accounted by each independent variable. A *t* test was used to determine the significance of each predictor and beta coefficients were used to determine the magnitude of association for each independent variable. The assumptions of multiple regression, linearity and multicollinearity, were assessed through the examination of relevant scatter plots and bivariate correlations.

## **Results**

A series of independent samples *t*-tests and chi-squared tests found that no demographic variables were significantly related to the missingness pattern of semester GPA.

All study variables, with the exception of semester GPA, were found to be normally distributed (see Table 2). Semester GPA ranged from 0.00 (indicating drop out) to 4.00  $M = 3.36$ ,  $SD = 0.63$ ) with a skewedness of  $-1.76$  ( $SE = 0.17$ ) and kurtosis of  $4.70$  ( $SE = 0.34$ ). The skewed nature of this data ( $> +/- 1.00$ ) raised concerns about a possible misestimation of the standard error resulting in an inflated *p*-value. Semester GPA was recoded with a more normal distribution (modal semester GPA of 4.00 was removed) and there was no change in the results of the regression model. Given that the results with the

two GPA variables had a similar  $p$  value, the original estimation of standard error appeared to be accurate. Therefore, we used the full range of the GPA values for the analyses.

Table 2. *Distribution of overall college adjustment, role balance, and first semester college grade point average (GPA).*

	Mean (SD)	Range	Skewness (S.E.)	Kurtosis (S.E.)
Overall College Adjustment	3.56 (0.64)	1.00-5.00	-0.40 (0.12)	1.17 (0.39)
Role Balance	3.36 (0.66)	1.88-5.00	0.07 (0.19)	-0.32 (0.39)
Semester GPA	3.34 (0.63)	0.00-4.00	-1.76 (0.17)	4.70 (0.34)

Bivariate correlations of variables (Table 3) indicated a moderate, positive association between overall college adjustment and role balance ( $r = .44, p < .05$ ). Both adjustment and role balance were also significantly associated with semester GPA ( $r = .32$  and  $.19, p < .05$  respectively). Given that the associations among predictor variables was  $< .77$  there were no concerns regarding multicollinearity (Allison, 2012). Although Pell Grant status was not associated with patterns of missingness in semester GPA, it was included as control variable in the hierarchal regression given its moderate, yet significant association with semester GPA ( $r = -.21, p < .01$ , where Pell Grant recipients had lower semester GPAs than their non-Pell peers) and support in the literature for family income as a predictor of college success (Jury et al., 2017; Hoxby & Turner, 2015).

Table 3. *Bivariate correlations among Study 1 variables.*

	Pell Grant Status	Overall College Adjustment	Role Balance
Pell Grant Status			
Overall College Adjustment	-.24**		
Role Balance	-.13	.44**	
Semester GPA	-.21**	.32**	.19*

Note. \* $p < .05$ , \*\* $p < .01$

Overall regression analyses (Table 4) indicate that the model containing Pell Grant status, overall college adjustment, and role balance did not explain a significant proportion of the variance in semester GPA,  $R^2 = 0.12$ ,  $F(3, 218) = 5.47$ ,  $p > .05$  and the predictive ability of role balance above and beyond overall college adjustment was not significant  $\beta = 0.02$ ,  $t(204) = 0.24$ ,  $p > .05$ . The model that included only Pell Grant status and overall college adjustment best explained the variance in semester GPA,  $R^2 = 0.12$ ,  $F(2, 219) = 8.24$ ,  $p < .01$ .

Table 4. *Summary of hierarchal regression analysis predicting first semester college grade point average (GPA).*

Variable	B	SE(B)	$\beta$	$\Delta R^2$
Step 1				
(Constant)	2.57	0.44		
Pell Grant Status	0.19	0.09	0.18*	0.03*
Step 2				
(Constant)	1.96	0.46		
Pell Grant Status	0.12	0.09	0.11*	
Overall College Adjustment	0.26	0.08	0.31**	0.09**
Step 3				
(Constant)	1.93	0.48		
Pell Grant Status	0.12	0.09	0.11*	
Overall College Adjustment	0.26	0.08	0.30**	
Role Balance	0.02	0.08	0.02	0.00

Note. \* $p < .05$ , \*\* $p < .01$



## Discussion

This study posited that because role balance has been broadly linked to performance outcomes (e.g., work attendance, retention, college grades) in adulthood (Allen et al., 2000; Frone et al., 1997), and to a lesser extent among emerging adults (e.g., Marks & McDermid 1996), it would be a relevant factor in predicting college achievement in the transition to college. Further, given that the exploration and establishment of role identities in individual (e.g., academics) and relational (e.g., friendships, romantic partnerships) domains occurs simultaneously during this period (Shulman & Connelly, 2013), role balance was hypothesized to predict college achievement (i.e., semester GPA) above and beyond overall adjustment to college. While both overall college adjustment and role balance were significantly associated with academic performance at the end of the first semester of study with this sample, role balance failed to add predictive validity beyond overall adjustment.

Broadly, findings from this study support the literature on college adjustment, which suggests that difficulties in the adjustment to college are predictive of lower college achievement (Credé & Niehorster, 2012). The results were also consistent with previous studies that have found that adjustment to both academic and non-academic (e.g., social) demands in the college environment are relevant to overall success (Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Kuh et al., 2006). With this sample, however, perceived balance between role commitments in these domains did not uniquely contribute to performance outcomes. Below, we outline several possible explanations for the fact that the model containing role balance did not explain a significant proportion of the variance in GPA.

First, while the association between college adjustment and role balance was only moderately strong ( $r = .44, p < .01$ ) suggesting that the variables clearly represent different constructs, the degree of overlap may have reduced the significance of the unique contribution of role balance. In simulated studies of multicollinearity, findings have suggested that even low correlations ( $r = .25$ ) can diminish the parameter estimates of the predictor variables (Vatcheva, Lee, McCormick & Rahbar, 2016). Though this conclusion is plausible, it is similarly plausible that role balance is not uniquely linked to GPA among first semester college students.

Second, the skewedness of the semester GPA data suggested limited variance in early academic achievement among participants. This may be associated with a number of contextual factors unique to the sample. For example, all participants were first semester freshman at the state's flagship university, meaning they had already demonstrated some level of academic success in order to meet admission standards. This may have introduced bias in terms of a selection effect, as students transitioning to community college in the region or from a community college to this four-year institution were not included in the sample. In addition, the institution at which this data was collected offers a comprehensive program aimed at easing the transition to college. This First Year Studies Program ([www.fys.utk.edu](http://www.fys.utk.edu)) requires that freshmen students live on campus and enroll in zero-credit pass/fail courses that provide an introduction to campus resources. Students are also provided with access to peer mentors and transition coaches. This programming may serve as a protective factor with regard to early academic achievement so that the effects of role balance difficulties may be delayed until later in the students' academic careers when they begin to balance more rigorous, major-specific

coursework, adjust to life off-campus, and have more autonomy and responsibility with regard to role demands.

Third, the literature on college achievement suggests that a number of individual level variables (e.g., proportion of economically disadvantaged students in high school of origin, proximity of permanent address to campus; Gilpatric & Schuar, 2013) that were not captured in this study may influence early success in the transition to college. Even some of the individual variables that were captured, may not have begun to influence outcomes in the way predicted in the literature (Vatcheva et al., 2016). For example, the number of hours students work for income is likely to impact both balance and achievement, but at the time of our study, only about 7 percent of our sample was working more than 10 hours. Many of these students may have been looking for work or looking to increase hours, which might have influenced the relationship among variables of interest in this study had data been collected later in the transition.

Finally, in addition to the fact that this longitudinal study captured only the first semester of college and there may have been a more delayed impact of role balance on college achievement, the use of semester GPA as an outcome variable is relatively narrow. While academic achievement is of critical importance to broader college success, students fail to persist at college for a variety of non-academic reasons. As such, role balance may ultimately have a larger impact on retention or graduation than on early GPA. Subsequent waves of data collection will explore the effect of role balance on enrollment status over time.

## **Limitations**

Results of this study should be interpreted in light of several limitations. First, the sample was limited to undergraduate college students at a single university (see discussion of contextual factors unique to this institution as they relate to the current study). While college students are a population of interest in the study of emerging adulthood, college students are not representative of all emerging adults. Nevertheless, because attending college often provides for an extended period of role exploration and may present unique challenges to role balance, a college student sample is appropriate to this study's research question (Bishop et al., 2018). This sample of college students also included a large percentage of female, European American emerging adults with 77.8% of respondents identifying as female and 83.2% as Caucasian. As a result, replication of this study with a more diverse sample of emerging adults across college contexts is recommended. In particular, as it has already been noted, exploring the impact of adjustment and role balance on the academic performance of transfer students and students transitioning to other types of institutions may be particularly relevant.

Further, the fact that this longitudinal study encompassed a relatively short period of time (i.e. one semester), changes in the relationship among variables over the longer term were not explored. For example, measuring role balance at multiple time points during the period of transition to college/emerging adulthood may provide evidence of individual differences in the development of effective strategies for more successful balance over time (Bishop et al., 2018). Also, collecting additional data on retention and graduation as students progress through college may make findings more robust and may add utility with regard to intervention.

## **Implications**

The exploration of role balance as a developmental task in emerging adulthood and the application of the role balance construct to the college context is relatively new. Given the clear relationship between balance and the adjustment to college in the transition period, there is a need to further tease out how the two constructs fit together and how they ultimately impact college achievement over time. As these relationships become more clear, findings may inform intervention in the transition period. The importance of this line of research is underscored by both the increase in the proportion of American emerging adults attending college (Arnett, 2016; NCES, 2014) and the established links between college success and longer-term occupational and well-being outcomes across the lifespan (Arnett & Schwab, 2012; Baum & Ma, 2007).

While this study represents an important first step in the longitudinal exploration of role balance as it relates to emerging adult development and college achievement, additional support is needed to draw conclusions about a causal relationship between role balance and broader college success, including persistence and graduation. Future studies should also attend to the impact of environmental stressors (e.g. finances) and mental health (e.g., depression) on both role balance and performance outcomes.

## References

- Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.
- Allison, P. (2012, September 10) When can you safely ignore multicollinearity? *Statistical Horizons*. Retrieved from <https://statisticalhorizons.com/multicollinearity>.
- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *The American Psychologist, 55*, 469–480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.
- Arnett, J. J. (2016). College students as emerging adults: The developmental implications of the college context. *Emerging Adulthood, 4*, 219-222.
- Arnett, J. J., & Schwab, J. (2012). *The Clark University poll of emerging adults: Thriving, struggling, and hopeful*. Worcester, MA: Clark University.
- Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179-189.
- Baum, S., & Ma, J. (2007). *Education pays*. Princeton, NJ: College Board.
- Bishop, J. L., Roberson, P. N. E., Welsh, D. P., & Norona, J. C. (2018). Does role balance influence the effect of personality on college success? A mediation model. *Emerging Adulthood, 6*, 137-148.

- Bishop, J. L., Welsh, D. P., Lounsbury, J. W., & Norona, J. C. (2016). The individual and relational role balance scale (IRRBS): A preliminary scale development and validation study. *College Student Journal, 50*, 531-550.
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the student adaptation to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review, 24*, 133-165.
- Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology, 62*, 1231–1244.
- Edwards, J. R., & Rothbard, N. P. (1999). Work and family stress and well-being: An examination of person-environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes, 77*, 85-129.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior, 50*, 145-167.
- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72*, 281-288.
- Gilpatric & Schaur (2013). An analysis and forecasting model of student retention at the University of Tennessee, Knoxville. Retrieved from <https://provost.utk.edu>.

- Hammer, L. B., & Demsky, C. A. (2014). Introduction to work-life balance in *Workplace well-being: How to build psychologically healthy workplaces*. (pp. 95-116): Wiley-Blackwell.
- Hoxby, C. M., & Turner, S. (2015). What high-achieving low-income students know about college. *American Economic Review*, *105*, 514-517.
- Jury, M., Smeding, A., Stephens, N. M., Nelson, J. E., Aelenei, C., & Darnon, C. (2017). The experience of low- SES students in higher education: Psychological barriers to success and interventions to reduce social class inequality. *Journal of Social Issues*, *73*, 23-41.
- Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: a longitudinal investigation. *Journal of Occupational Health Psychology*, *4*, 337-346.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature commissioned report for the national symposium on postsecondary student success: Spearheading a dialog on student success. Washington, DC: National Postsecondary Education Cooperative.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2011). *Piecing together the student success puzzle: research, propositions, and recommendations: ASHE Higher Education Report* (Vol. 116). John Wiley & Sons.



- Larose, S., Robertson, D. U., Roy, R., & Legault, F. (1998). Nonintellectual learning factors as determinants for success in college. *Research in Higher Education, 39*, 275-297.
- Marks, S. R., & MacDermid, S. M. (1996). Multiple roles and the self: A theory of role balance. *Journal of Marriage and the Family, 58*, 417-432.
- National Center for Education Statistics. (2014). The condition of education, 2014. Washington, DC: U.S. Department of Education. Retrieved from [www.nces.gov](http://www.nces.gov).
- National Center for Educational Statistics (2018). Undergraduate retention and graduation rates, 2018. Retrieved from [www.nces.gov](http://www.nces.gov).
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, 36*, 717-731.
- Roberson, P. N., Fish, J. N., Olmstead, S. B., & Fincham, F. D. (2015). College adjustment, relationship satisfaction, and conflict management: A Cross-Lag Assessment of Developmental “Spillover”. *Emerging adulthood, 3*, 244-254.
- Schulenberg, J. E., & Schoon, I. (2012). The transition to adulthood across time and space: overview of special section. *Longitudinal and Life Course Studies, 3*, 164-172.
- Schulenberg, J. E., & Zarrett, N. R. (2005). Mental health during emerging adulthood: Continuity and discontinuity in courses, causes, and functions. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 135–172). Washington, DC: American Psychological Association.
- Shulman, S., & Connolly, J. (2013). The challenge of romantic relationships in emerging adulthood: Reconceptualization of the field. *Emerging Adulthood, 1*, 27–39.

- van Dulmen, M. H. M., Claxton, S. E., Collins, W. A., & Simpson, J. A. (2013). Work and love among emerging adults: Current status and future directions. *Emerging Adulthood, 2*, 56-62.
- Vatcheva, K. P., Lee, M., McCormick, J. B., & Rahbar, M. H. (2016). Multicollinearity in Regression Analyses Conducted in Epidemiologic Studies. *Epidemiology (Sunnyvale, Calif.)*, *6*, 227-236.
- Voydanoff, P. (2005). Toward a conceptualization of perceived work- family fit and balance: a demands and resources approach. *Journal of Marriage and Family*, *67*, 822-836.

## **CHAPTER II:**

### **Exploring the Bi-Directional Effect of Role Balance and Depressive Symptoms on College Achievement in the Transition to College**

## **Abstract**

For many emerging adults, the transition to college is both stressful and disruptive, as college students must adapt to a new environment, as well as balance new academic and social role demands. In this study, we attempt to clarify the causal relationship between role balance and depressive symptoms among college students during the first semester of college and to explore the mechanism(s) by which these two unique, but related challenges – difficulty in balancing new and competing role demands and psychological distress (i.e., depressive symptoms) – impact academic achievement during the transition to college. Using a sample of first-semester undergraduate college students from a large public institution ( $N=275$ ), survey measures were administered across the first semester of college. Cross-lagged panel correlation (CLPC) analyses were then used to explore the direction of the relationship between role balance and depressive symptoms during this time period and their impact on college achievement (i.e., semester GPA). Results failed to support a causal, directional relationship between role balance, depressive symptoms, and college performance in the transition to college. While depressive symptoms did precede both role balance difficulties and poorer academic performance overall, depressive symptoms did not impact achievement through role balance. Implications for research and application are discussed.

## Introduction

For many emerging adults, the transition to college is both stressful and disruptive, as college students must adapt to a new environment, as well as balance new academic and social role demands (Brougham, Zail, Mendoza, & Miller, 2009; Conley, Kirsch, Dickson, & Bryant, 2014; Dyson & Renk, 2006; Lee, Dickson, Conley, & Holmbeck, 2014). While school transitions earlier in development (e.g., primary to secondary school) have been shown to impact psychosocial adjustment and well-being (e.g., Martinez, Aricak, Graves, Peter-Myszak, & Nellis, 2011; Ruldolph, Lambert, Clark, & Kulakowsky, 2001), the transition to college may be particularly challenging as it typically coincides with a period of broader life change (i.e., the transition from adolescence to emerging adulthood; Arnett, 2000, 2004, 2016). Stress during this transitional period has been linked to both the initiation and exacerbation of depressive symptoms among college students, which have been found to negatively impact students' overall quality of life in college, as well as into adulthood (Kessler et al, 2006; Lee et al., 2014; Rapaport, Clary, Fayyad, & Endicott, 2005; Rutter & Sroufe, 2000; Samela-Aro, Aunola, & Nurmi, 2008).

While there is clear evidence that the first year of college is particularly distressing for college students (Bayram & Bilgel, 2008; Sher, Wood, Gotham, 1996; Towbes & Cohen, 1996) and that college-attending emerging adults experience clinical levels of distress (e.g., depression, anxiety) at a higher rate than other youth or adult samples (Bayram & Bilgel, 2008), the relationship between the negotiation of key developmental tasks (e.g., identity explorations, role negotiations, independent decision making; Arnett, 2000, 2004; Shulman & Connolly, 2013) during the transition to college

and psychological symptoms has not been fully explored. This is particularly important given that as many as a third of all college students (31.6%; American College Health Association, 2012) report depressive symptoms that are severe enough interfere with their function in either academic or social contexts (Rapaport et al., 2005). In addition, evidence suggests that psychosocial challenges during this transitional period may predict difficulties (e.g., the recurrence of depression; Lee et al., 2014) later in life (see Rao et al., 1995; Roa, Hammen & Daley, 1999; Reinherz, Giaconia, Hauf, Wasserman, & Silverman, 1999). Thus, the transition to college constitutes a critical context for examining developmental trajectories of both psychosocial adjustment and psychological well-being (Conley et al., 2014).

A review of developmental theory suggests that difficulties in meeting developmental milestones and in achieving environmental mastery can negatively impact well-being in childhood and adolescence (see identity status model; Meeus, Iedema, Helsen, & Vollebergh, 1999; theoretical model of well-being, Ryff, Keyes, & Geen, 1991). It is also the case, however, that depressed children and adolescents have tended to show impairments in both cognitive and social domains (Kovacs & Goldston, 1991) and that untreated depression can result in failures of developmental attainment over time (Cicchetti & Toth, 1998). These negative effects of depression on development have even persisted beyond general symptom recovery (Kovacs & Goldston, 1991). Together, these findings support a negative and bidirectional relationship between slow, incomplete, or delayed developmental progress and depressive symptoms. If role balance is conceived of as a developmental task as part of identity development in emerging adulthood (Arnett, 2000, 2004; Shulman & Connolly, 2013), we might expect challenges in role balance,

particularly in terms of self-efficacy regarding role negotiations (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999) to increase distress in the emerging adult college context. Depressive symptoms might also reduce or limit developmental progress in balancing roles. In either case, the literature from childhood and adolescence also support a negative longitudinal effect on performance (e.g., academic achievement, social aptitude; Kovacs & Goldston, 1991).

With regard to the literature on role balance (e.g., a perception of harmony, equilibrium, and integration among life roles; Voydanoff, 2005) and depression specifically, robust cross-sectional findings from both adulthood (see review Hammer & Demsky, 2014) and, to a lesser extent emerging adulthood (Bishop, Welsh, Lounsbury, & Norona, 2016; Bishop, et al, 2018a; Gröpel & Kuhl, 2009; Leneghan & Sengupta, 2007; Lopez & Fons-Scheyd, 2008; Marks & MacDermid; 1996), suggest that difficulties in balancing commitments across important individual and relational life roles may be associated with increased depressive symptoms. It is unclear, however, whether challenges in balancing role commitments actually contribute to depressive symptomology. It is possible that depressive symptoms instead reduce an individual's ability to successfully meet role demands or that other factors contribute to both role balance difficulties and reports of clinical distress.

The transition to college can present emerging adults with unique developmental challenges that impact not only psychological well-being, but academic success (Conley, Kirsch, Dickson, & Byrant, 2014). Changes associated with the transition to college, including changes in relationships, responsibilities, and expectations, may be associated with psychosocial adjustment difficulties, which can strain personal resources and

negatively impact overall functioning (Billings & Moos, 1982). Increasingly, evidence has begun to suggest that these difficulties may also contribute to adjustment problems beyond the college years and have the potential to negatively impact functioning across the lifespan (e.g., Rao, Hammen, & Daley, 1999; Reinhertz, Giaconia, Hauf, Wasserman, & Silverman, 1999).

The college environment provides an important context for studying emerging adult development as the college experience is in many ways designed to allow for identity exploration, an important feature of emerging adulthood (Arnett, 2016). Better understanding of the factors that contribute to developmental success or failure in college is also necessary given the increasing number of U.S. students enrolling in higher education (NCES, 2014) and the greater emphasis now placed on the attainment of a college degree as a “key to success” (Thurber & Walton, 2012).

For these reasons, in this study, we attempt to clarify the causal relationship between role balance and depressive symptoms among college students during the first semester of college and to explore the mechanism(s) by which these two unique, but related challenges – difficulty in balancing new and competing role demands and psychological distress (i.e., depressive symptoms) – impact academic achievement during the transition to college. While extant findings of role balance and depressive symptoms as predictors of college GPA identify both as relevant to academic performance, findings from this short-term longitudinal study may help to further explain how the temporal progression of these challenges undermines early success. Findings from this study may also help to inform future studies on the relationship between role balance and depressive symptomology and other psychosocial and performance outcomes of interest for



emerging adult college students, as well as have implications for interventions with this population.

### **Role Balance and Depressive Symptoms**

The literature on the association between role balance and psychosocial outcomes in adulthood has focused primarily on outcomes related to imbalance, with a heavy focus on the negative consequences of role conflict. High work-family conflict, for example, has been found to be associated with mood, anxiety, and substance use disorders (Allen et al., 2000; Frone, 2000; Hammer & Demsky, 2014; LaMontague & Keegel, 2010). With regard to role balance and depression specifically, cross-sectional studies examining role conflict and depression have found significant evidence that increased role conflict is related to higher reported depression (Frone, Russell, & Cooper, 1992; Frone, Russell, & Barnes, 1996; Googins & Burden, 1987; Greenglass, Pantony, & Burke, 1988; Klitzman, House, Isael, & Mero, 1990; MacEwen & Barling, 1994; Netemeyer, Boles, & McMurrian, 1996; Reifman, Biernat, & Lang, 1991; Thomas & Ganster, 1995). In a meta-analysis of 11 independent samples, for example, Allen and colleagues (2000) reported a weighted mean correlation of .32 between work-family conflict and depression.

Although less research has been conducted on the relationship between role balance and psychosocial outcomes in emerging adulthood, the few studies to address role balance using a college student sample have found similar outcomes to studies in adulthood (Bishop et al., 2016). Marks & MacDermid (1996), for instance, found that students reporting lower role balance also reported significantly more depressive symptoms than their more role-balanced peers. Leneghan & Sengupta (2007) and Gröpel & Kuhl (2009) also reported an association between challenges to role balance and lower

reported subjective well-being among college students. Finally, Lopez & Fons-Scheyd (2008) found that both role imbalance and insecure adult attachment (i.e., anxious, avoidant or dismissive orientations to close relationships) significantly predicted college student depression scores. Findings from recent studies by the authors (Bishop et al., 2016; Bishop et al., 2018b) further support a link between role imbalance and depression among emerging adults in the college context.

It is important to note that nearly all reported findings on role balance and depression have relied on cross-sectional data. In fact, to date, the only published findings on balance constructs and depression over time found no predictive relationship between work-family conflict and depression in adulthood (Frone, Russell, & Cooper, 1997). This underscores the value and need for longitudinal tests of role balance as a predictor of depression, as well as other of psychosocial outcomes found to be significant using cross-sectional designs (Allen et al., 2000).

### **Role Balance and Depressive Symptoms as Predictors of College Achievement**

Broadly, difficulties with role balance have been linked to both negative occupational and academic performance outcomes (Allen, Herst, Bruck, & Sutton, 2000; Frone, Yardley, & Markel, 1997; Marks & McDermid, 1996). In the literature on role balance in adulthood, for example, role conflict has been found to be associated with both poor work role performance (e.g., absenteeism, tardiness, failure to meet responsibilities) and withdrawal (e.g., turnover in employment; Allen et al., 2000; Frone et al., 1997). These findings are consistent with findings among emerging adult college students, which suggest that lower reported role balance is negatively related to GPA ( $r = -.26, p < .001$ ; Marks & McDermid, 1996).

While the majority of studies on the role balance construct have relied on cross-sectional data, longitudinal tests of role interference as a predictor of negative performance outcomes (e.g., employment turnover) have supported a causal link (e.g., Kelloway, Gottlieb, & Barham, 1999). The study outlined in Chapter I further tested role balance as a predictor of first semester academic achievement (i.e., GPA) above and beyond the adjustment to college, but resulted in null findings with this sample.

In terms of the relationship between depressive symptoms and performance, just as studies in adulthood have linked depressive symptomology to impairment in occupational function (e.g., Latham & Robertson, 2010), overall depression scores, as well as unique symptoms of depression, have been linked to poor college performance (e.g., lower GPA, exam grades). In general, students reporting depressive symptomology been found to have lower GPAs than their non-depressed peers (Fazio & Palm, 1998; Hysenbegas, Hass, & Rowland, 2005; Pritchard & Wilson, 2003; Shields, 2001). The negative effect of poor emotional health, including symptoms of depression, on college performance has also been supported longitudinally (e.g., Pritchard & Wilson, 2007), with depression found to be significant predictor of both lower exam performance (Andrews & Wilding, 2004) and lower GPA (Eisenberg, Golberstein, & Hunt, 2009). Of note, Eisenberg and colleagues (2009) reported that depression was found to predict lower GPA even when controlling for other, co-morbid mental health disorders (e.g., anxiety, eating disorders), prior academic performance, and other relevant co-variates. Further, some symptoms of depression (i.e., anhedonia, psychomotor retardation or agitation, suicidal ideation) have been shown to be stronger predictors than others (i.e., negative affect; Eisenberg et al., 2009; De Luca, Franklin, Yuequi, Johnson, &

Brownson, 2016), suggesting that certain symptoms may contribute more to impairment in academic functioning among college students.

### **Current Study**

Given the established relationship between role balance difficulties and depressive symptoms in cross-sectional studies of adults and emerging adults and the body of evidence linking both role balance and depressive symptoms to college achievement (i.e., GPA), this study addresses the following research question:

- What is the directional, causal relationship between role balance, depressive symptoms, and college achievement during the first semester of college?

While cross-sectional findings support a relationship among variables, the lack of longitudinal findings on directional causality make it difficult to generate a priori hypotheses. Therefore, we look to the developmental literature regarding both the negative effect of developmental challenges on well-being (Meeus et al., 1999; Ryff, Keys, & Geen, 1991) and the negative impact of depressive symptoms on developmental tasks in childhood and adolescence (Cicchetti & Toth, 1998; Kovacs & Goldston, 1991) to make predictions. With this college sample, we expect a bidirectional influence of role balance and depressive system on semester GPA over time, with higher reported role balance and lower reported depressive symptoms predicting higher achievement.

To test this prediction and address the research question, mediational path analyses of longitudinal data were used to examine indirect effects in order to inform our understanding of the mechanisms by which role balance and depressive symptoms contribute to college achievement. Four different models were tested in order to fully explore potential mechanisms in the transition to college. Consideration of these models

provided evidence regarding a temporal, causal relationship among the variables during this phase of development.

## **Methods**

### **Participants and Procedures**

A sample of 275 first semester undergraduate college students was recruited from introductory psychology courses at the University of Tennessee via SONA Systems, an online tool used to recruit research participants. After signing up to participate in the study, these students received detailed information about the study, including information on consent procedures and instructions for participation at two different time points across their first semester of college. See Table 1 for sample demographic characteristics.

**Time 1.** Time 1 data was collected in-person in campus computer labs during the month of September. Research assistants reviewed informed consent forms with participants and participants completed several online survey measures in the lab as part of a larger study on the transition to college. These measures were administered via Qualtrics. Participants at Time 1 earned 1.5 in person SONA research credits, which could be used toward their course research requirement.

**Time 2.** All students who participated in the study at Time 1 were contacted by researchers via SONA in early November of the same year with instructions for participation at Time 2. Time 2 data was collected entirely online via Qualtrics during the latter half of November. Students received a direct link to complete the same survey measures they completed at Time 1. Participants at Time 2 earned an additional 1.5 online SONA credits.

All procedures described above were approved by the University of Tennessee's Institutional Review Board.

## **Measures**

**Demographics.** Participants completed a demographic questionnaire developed by the researchers, which included items on demographic characteristics (e.g., age, gender, racial/ethnic background, relationship status, number of hours of employment, self-reported high school GPA and Advanced Placement enrollment, parents' highest level of education, and Pell Grant status (as a proxy for family income)).

**Role Balance.** Participants were administered the Individual and Relational Role Balance Scale (IRRBS; Bishop et al., 2016), a 17-item questionnaire rated on a 5-point Likert-style scale (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). Items on the IRRBS are designed to measure each individual's subjective appraisal of global accord among individual (e.g., as student, employee, organization member) and relational (e.g., as friend, family member, romantic partner) roles on the basis of time, involvement, and satisfaction across roles relative to internal standards (e.g., "All in all, I feel successful in balancing my individual roles and my relationships with others"). The full-scale IRRBS showed excellent reliability with this sample at both time points ( $\alpha = .87-.90$ ).

**Depressive Symptoms.** Participants were administered the Patient Health Questionnaire (PHQ; Spitzer, Kroenke & Williams, 1999). The PHQ is a 66-item self-administered screening and diagnostic tool for five common mental health disorders. Questions assess frequency of symptoms of selected mental health disorders based on Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) criteria. For the

purposes of this study, only the module on depression was used. The depression module is rated on a 4-point scale of symptom frequency from Not at All to Nearly Every Day (e.g., “Trouble falling or staying asleep, or sleeping too much.”). The depression module of the PHQ showed excellent reliability with this sample at both time points ( $\alpha = .84-.85$ ).

**Semester GPA.** For students who signed a release for researcher access to their academic records, first semester GPA and enrollment status were retrieved with assistance of the Registrar’s Office at the University of Tennessee following the end of the Fall grading term.

### **Analyses**

Mplus 7.2 (Muthén & Muthén, 1998-2012) was used for all statistical analyses.

**Preliminary Analyses.** First, missingness patterns (0 = not missing, 1 = missing) were examined using a series of independent samples t-tests and chi-squared tests to determine whether any demographic variables (e.g., age, gender, racial/ethnic background, relationship status, number of hours of employment, self-reported high school GPA and Advanced Placement enrollment, parents’ highest level of education, and Pell Grant status) were related to patterns of missingness among study variables. For any significant associations, demographic variables were included in all models to reduce bias in parameter estimation using full information maximum likelihood (FIML). To confirm that FIML was the most appropriate method, Little’s missing completely at random (MCAR) test was used.

**Assessment of Normalcy and Model Fit.** Descriptive statistics, including means (SD), median, skewness (SE), and kurtosis (SE), are reported for all study variables. For outcome variables not normally distributed, maximum likelihood with robust standard

errors (MLR) was used as the estimator. MLR is robust to non-normality and non-independence of observations (Asparouhov, 2005).

To assess the quality of the model fit, chi-square tests were examined. Where a non-significant  $p$  value failed to reject the null hypothesis, the model was hypothesized to be equal to the data.

**Correlation of Variables.** Bivariate correlations of predictor and outcome variables were calculated and are reported.

**Cross-lagged panel correlation (CLPC) analysis.** To examine the research question, cross-lagged panel correlation (CLPC) was used to explore the direction of the relationship between role balance and depressive symptoms over the first semester of college and to assess their impact on college achievement (i.e., semester GPA). The CLPC analysis simultaneously compared the correlations between role balance and depressive symptoms at Time 1 and Time 2 (synchronous correlations), the correlations between role balance at both time points and depressive symptoms at both time points separately (autocorrelations), and the correlations between role balance and depressive symptoms across time (cross-lagged correlations). Assessing these associations simultaneously provided preliminary evidence of the causal direction of the relationship between variables (Locasio, 1982; Markus, 1979; Mayer & Carroll, 1987). Finishing the statistical model, semester GPA (Time 3) was regressed onto Time 2 role balance and depressive symptoms while controlling for Pell Grant status. For these models, the null hypothesis was that a third unmeasured variable caused one or more of the observed significant relationships (Kenny, 1975, 1979).



To assess model fit for the CLPC, a chi-squared test, a standardized root mean square residual (SRMR), a comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square of error approximation (RMSEA) were evaluated. A model was determined to be a good fit for the data if the chi-square was small and non-significant, the SRMR value is less than 0.10, the CFI and TLI values are greater than 0.95, and the RMSEA is less than 0.05 (Kline, 2011).

### Results

Missingness patterns were examined using a series of independent samples *t*-tests and chi-squared tests to determine whether any demographic variables were related to patterns of missingness among study variables. No demographic variables were found to be associated with missingness in role balance, depressive symptoms, or semester GPA.

See Table 5 for descriptive statistics, including means (SD), median, skewness (SE), and kurtosis (SE) for all study variables. Maximum likelihood with robust standard errors (MLR) was used as the estimator given the skewedness ( $> +/- 1$ ) of the data for both depressive symptoms and semester GPA.

Table 5. *Distribution of role balance, depressive symptoms, and first semester college grade point average (GPA).*

	Mean (SD)	Range	Skewness (S.E.)	Kurtosis (S.E.)
Role Balance T1	3.28 (0.59)	1.38-5.00	-0.25 (.15)	0.12 (0.29)
Role Balance T2	3.36 (0.66)	1.88-5.00	0.07 (0.19)	-0.32 (0.39)
Dep Symptoms T1	1.54 (0.49)	1.00-4.00	1.84 (0.15)	4.79 (0.29)
Dep Symptoms T2	1.55 (0.49)	1.00-3.89	1.81 (0.19)	4.89 (0.38)
Semester GPA T3	3.34 (0.63)	0.00-4.00	-1.76 (0.17)	4.70 (0.34)

To assess the quality of the model fit, chi-square tests were examined and model fit was acceptable:  $\chi^2(6) = 2.13$ ,  $p = 0.91$ ; CFI = 1.00; TLI = 1.03 ; SRMR = 0.03; RMSEA = 0.00 [90% C.I. = 0.00 – 0.03].

Correlation analyses were conducted to examine the relationship among variables. Role Balance at Time 1 was significantly and positively related to Role Balance at Time 2 ( $r = .56$ ,  $p < .01$ ), as well as significantly and negatively related to Depressive Symptoms at Times 1 ( $r = -.49$ ,  $p < .01$ ) and 2 ( $r = -.27$ ,  $p < .01$ ). Role Balance at Time 2 was significantly and negatively related to Depressive Symptoms at Times 1 ( $r = -.43$ ,  $p < .01$ ) and 2 ( $r = -.48$ ,  $p < .01$ ) and significantly and positively related to semester GPA at Time 3 ( $r = .19$ ,  $p < .05$ ). Depressive Symptoms at Times 1 and 2 were significantly and negatively related to Semester GPA at Time 3 ( $r = -.12$  and  $-.30$ ,  $p < .01$  respectively). Although Pell Grant status was not associated with patterns of missingness in semester GPA, it was included in all models to reduce bias in parameter estimation using full information maximum likelihood (FIML) given its moderate, yet significant association with semester GPA ( $r = -.21$ ,  $p < .01$ , where Pell Grant recipients had lower semester GPAs than their non-Pell peers) and support in the literature for family income as a predictor of college success (Jury, Smedling, Stephens, Nelson, Aelenei, & Damon, 2017; Hoxby & Turner, 2015). See Table 6 for full bivariate correlation results.

Table 6. *Bivariate correlations among Study 2 variables.*

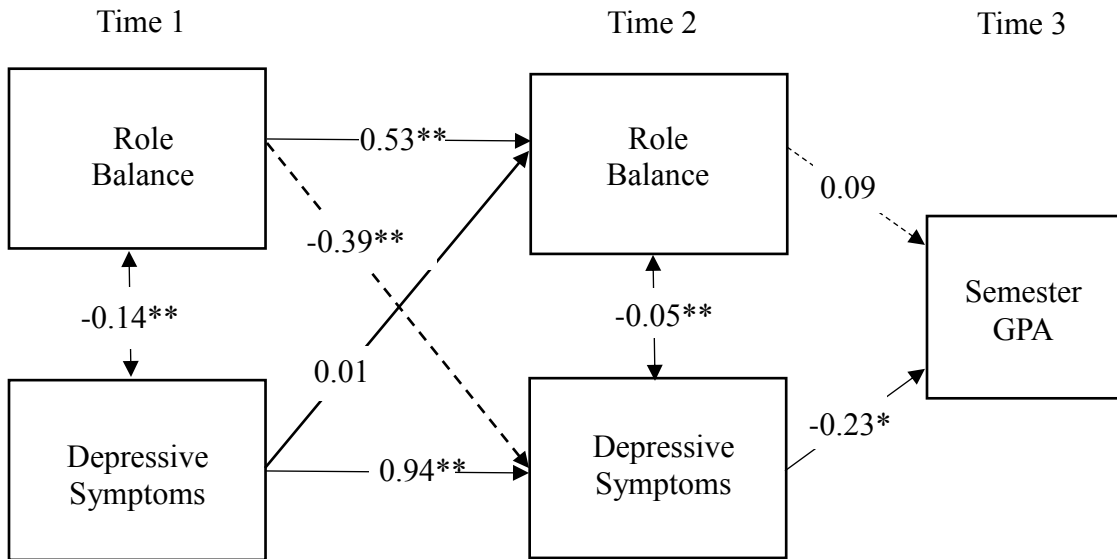
	Pell Grant Status	Role Balance Time 1	Role Balance Time 2	Dep Symp Time 1	Dep Symp Time 2
Pell Grant Status					
Role Balance T1	.04				
Role Balance T2	.13	.56**			
Dep Symp T1	-.08	-.49**	-.43**		
Dep Symp T2	-.12	-.27**	-.48**	.77**	
Semester GPA T3	.21**	.12	.19*	-.12**	-.30**

Note. \* $p < .05$ , \*\* $p < .01$

Finally, a CLPC was used to examine the relationship between role balance, depression, and semester GPA over time. Four indirect paths from the Time 1 variables to the Time 3 variable with Time 2 variables as mediators were tested. Of the paths tested, only one, Depressive Symptoms Time 1 → Depressive Symptoms Time 2 → Semester GPA was significant ( $B = -0.21, p < .05$ ), suggesting that chronic depressive symptomology has a significant negative effect on academic achievement during the transition to college. The null effects associated with the other paths indicate that while depressive symptoms were associated with both role balance difficulties and college performance, role balance did not significantly contribute to the effect of depression of semester GPA.

Despite these findings, several direct paths were significant, indicating important directional and temporal relationships among variables. For example, Role Balance and Depressive Symptoms showed a small but significant negative synchronous correlation at both times points ( $B = -0.21 (0.10), p < .05$ ). Role Balance also showed a moderate significant autocorrelation over time, but the autocorrelation between Depressive Symptoms at Time 1 and Time 2 was especially strong ( $B = 0.94, p < .01$ ). With regard

to cross-lagged correlations, Depressive Symptoms at Time 1 predicted lower Role Balance at Time 2 ( $B = -0.39, p < .01$ ), but low Role Balance at Time 1 did not predict more severe Depressive Symptoms at Time 2. See Figure 1 and Table 7 for full model results.



*Note.*  $*p < .05$ ,  $**p < .01$ . These parameters include Pell Grant Status as a control variable, but controls were not included in the figure to ease interpretation.

Figure 1. *Cross-lagged path analysis for role balance, depressive symptoms, and semester grade point average (GPA).*

Table 7. *Cross-lagged path analysis of Pell Grant status, role balance, depressive symptoms, and semester grade point average (GPA).*

	B (S.E.)	$\beta$	P-Value
Pell Status T1→Sem GPA T3	-0.22 (0.08)	-0.18	0.01
Role Balance T2→Sem GPA T3	0.09 (0.09)	0.10	0.35
Depress Symp T2→Sem GPA T3	-0.23 (0.11)	-0.20	0.04
Depress Symp T1→Depress Symp T2	0.94 (0.07)	0.83	0.00
Role Balance T1→Depress Symp T2	0.01 (0.05)	0.01	0.79
Depress Symp T1→Role Balance T2	-0.39 (0.11)	-0.28	0.00
Role Balance T→Role Balance T2	0.53 (0.08)	0.46	0.00
Role Balance T1→Depress Symp T1	-0.14 (0.02)	-0.49	0.00
Role Balance T2→Depress Symp T2	-0.05 (0.01)	-0.33	0.00
Role Balance T1→Role Balance T2→Sem GPA T3	0.05 (0.05)	0.04	0.35
Role Balance T1→Dep Symp T2→Sem GPA T3	-0.00 (0.01)	-0.00	0.79
Dep Symp T1→Dep SympT2→Sem GPA T3	-0.21 (0.10)	-0.17	0.04
Dep SympT1→Role Balance T2 →SEM GPA T3	-0.03 (0.04)	-0.03	0.36

### Discussion

Findings from this study failed to support a causal, directional relationship between role balance, depressive symptoms, and college performance in the transition to college. While depressive symptoms did precede both role balance difficulties and poor academic performance overall, depressive symptoms did not impact achievement through role balance. Nevertheless, there are several important findings from this study that may help to guide future studies on role balance in the emerging adult college context.

First, the autocorrelations among study variables suggest that while depressive symptoms were relatively persistent over time with this sample, role balance was much more volatile. It may be the case that role balance is highly context dependent particularly for emerging adults experiencing rapid changes in role commitments and demands. This may help to explain others' difficulties in replicating cross-sectional

findings on role balance, including the association between role balance and depressive symptoms, using longitudinal designs (Frone, Russell, & Cooper).

Second, the small but consistent concurrent negative relationship between role balance and depressive symptoms supports previous cross-sectional findings on the relationship between balance difficulties and reports of distress, including mood, anxiety, substance use disorders, in both adulthood and among emerging adults (Allen et al., 2000, Frone, 2000; Hammer & Demsky, 2014; LaMontague & Keegel, 2010). The fact that depressive symptoms at Time 1 predicted role balance difficulties at Time 2, but not vice versa, also adds to our understanding of the temporal relationship among these variables. The fact that depressive symptoms may precede both role balance and performance difficulties may be particularly relevant with regard to intervention.

Third, the significance of the Depressive Symptoms Time 1 → Depressive Symptoms Time 2 → Semester GPA Time 3 pathway supports findings on the effects of depression on college functioning. At least for some students who endorsed depressive symptoms, the symptoms appear to have been severe enough to interfere with function in the academic context (Rapaport et al., 2005). We would expect that these symptoms might also interfere in other contexts (e.g., social), contributing to further negative effects on overall college success and persistence.

Finally, we posit two possible explanations for the null findings on the indirect, cross-lagged analyses of role balance and depressive symptoms as predictors of semester GPA. One is that imbalance, particularly in favor of independent, achievement-oriented roles (e.g., academics) may be somewhat adaptive early in the transition to college even for those students experiencing depressive symptoms, so that difficulties with balance

themselves do not directly explain the relationship between depression and achievement (Bishop et al., 2018b). If this is the case, role balance difficulties might be expected to more significantly contribute to distress or negatively impact performance later in development when individual achievement is no longer prioritized above increased intimacy and relational functioning (Mayseless & Keren, 2010). Alternatively, it may be that depression negatively impacts both role balance and performance, but that role balance has a later or more significant impact on broader college success and function (e.g., environmental fit, social engagement) than on early achievement. Measures of persistence and completion (i.e., enrollment, graduation status) could be explored as alternatives to GPA with subsequent waves of data collection. This type of analysis would be supported by extant findings on college attrition, which suggest that students leave college for a host of academic and non-academic reasons (e.g., Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994).

### **Limitations**

Results of this study should be interpreted in light of several limitations. First, the sample was limited to undergraduate college students at a single university. While college students are a population of interest in the study of emerging adulthood, college students are not representative of all emerging adults. Nevertheless, because attending college often provides for an extended period of role exploration and may present unique challenges to role balance, a college student sample is appropriate to this study's research question (Bishop et al., 2018a). This sample of college students also included a large percentage of female, European American emerging adults with 77.8% of respondents

identifying as female and 83.2% as Caucasian. As a result, replication of this study with a more diverse sample of emerging adults across college contexts is recommended.

Second, the skewedness of the semester GPA data suggested limited variance in early academic achievement among participants. This may be associated with a number of contextual factors unique to the sample. For example, all participants for were first semester freshman at the state's flagship university, meaning they had already demonstrated some level of academic success in order to meet admission standards. This may have introduced bias in terms of a selection effect, as students transitioning to community college in the region or from a community college to this four-year institution were not included in the sample. In addition, the institution at which this data was collected offers a comprehensive program aimed at easing the transition to college. This First Year Studies Program ([www.fys.utk.edu](http://www.fys.utk.edu)) requires that freshmen students live on campus and enroll in zero-credit pass/fail courses that provide an introduction to campus resources. Students are also provided with access to peer mentors and transition coaches. This programming may serve a protective factor with regard to early academic achievement so that the effects of role balance difficulties on depressive symptoms and/or achievement may be delayed until later in the students' academic career when they begin to balance more rigorous, major-specific coursework, adjust to life off-campus, and have more autonomy and responsibility with regard to role demands.

Third, the literature on college achievement suggests that a number of individual level variables (e.g., proportion of economically disadvantaged students in high school of origin, proximity of permanent address to campus; Gilpatric & Schuar, 2013) that were not captured in this study may influence early success in the transition to college. Even



some of the individual variables that were captured, may not have begun to influence outcomes in the way predicted in the literature (Vatcheva, Lee, McCormick, & Rahbar, 2016). For example, the number of hours students work for income is likely to impact both balance and achievement, but at the time of our study, only about 7 percent of our sample was working more than 10 hours. Many of these students may have been looking for work or looking to increase hours, which might have influenced the relationship among variables of interest in this study had data been collected later in the transition.

Finally, given the fact that this longitudinal study encompassed a relatively short period of time (i.e., one semester), changes in the relationship among variables over the longer term were not explored. For example, measuring role balance at multiple time points during the period of transition to college/emerging adulthood may provide evidence of individual differences in the development of effective strategies for more successful balance over time (Bishop et al., 2018b). In addition to the fact that this study captured only the first semester of college and there may have been more delayed impact of role balance on college achievement, the use of semester GPA as an outcome variable is relatively narrow. While academic achievement is of critical importance to broader college success, students fail to persist at college for a variety of non-academic reasons (e.g., Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994). As such, role balance may ultimately have a larger impact on retention or graduation than on early academic performance. Collecting additional data on enrollment status as students progress through college may make findings more robust and may add utility with regard to intervention.

### **Implications**

Given the limited longitudinal findings on the relationship between role balance, depressive symptoms, and academic achievement in the emerging adult college context,

this study was in many ways exploratory. Nevertheless, the results provide some useful directions for future exploration. To begin with, it is clear that we do not fully understand the well-supported concurrent relationship between role balance difficulties and depression (Allen et al., 2000, Frone, 2000; Hammer & Demsky, 2014; LaMontague & Keegel, 2010). What is clear, however, is that depressive symptoms seem to have persistent and negative impact on both developmental tasks (e.g., role balance as part of identity development) and academic achievement in the college context. This finding reinforces the need for early, developmentally appropriate intervention for students experiencing depressive symptoms as they transition to college. It also provides support for more robust screening procedures aimed at identifying students who enter college with significant symptoms of depression, as these students appear to be particularly at-risk for disruptions in function that could ultimately impact broader college success (Rapaport et al., 2005).

Further, given the null findings with regard to role balance as a mechanism through which depression negatively effects GPA, there is a need to explore the relationship between role balance and depression as it relates to emerging adult successes or failures in other important domains (e.g., close relationships; see Bishop et al., 2018b). Coupled with more robust findings on the longer-term impacts of role balance on overall academic achievement, including persistence and graduation, this data would serve to better inform our understanding of the complex ways this developmental task relates to psychosocial function among emerging adult college students.

Investigations of the causal mechanisms associated with college success continue to be of critical importance as the proportion of US emerging adults enrolled in

postsecondary education has grown (NCES, 2014) and a greater emphasis has been placed on the attainment of a college degree for long-term occupational success (Thurber & Walton, 2012). With specific regard to depression among college students, evidence suggests that psychosocial challenges during the transition to college may predict difficulties (e.g., the recurrence of depression) and impair function across the lifespan (e.g., Lee et al., 2014; Rao et al., 1995; Rao, Hammen & Daley, 1999; Reinherz et al., 1999). This reinforces this transition period as a critical context for exploring developmental trajectories associated with overall performance and well-being.

## References

- Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.
- American College Health Association. (2012). American College Health Association—National College Health Assessment II: Reference group executive summary Spring 2012. Hanover, MD: American College Health Association.
- Andrews, B., & Wilding, J. M. (2004). The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology, 95*, 509-521.
- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *The American Psychologist, 55*, 469–480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.
- Arnett, J. J. (2016). College students as emerging adults: The developmental implications of the college context. *Emerging Adulthood, 4*, 219-222.
- Asparouhov, T. (2005). Sampling weights in latent variable modeling. *Structural Equation Modeling: A Multidisciplinary Journal, 12*, 411-434.
- Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology, 76*, 258-269.
- Bayram N. & Bilgel N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology, 43*, 667–672.

- Billings, A. G., & Moos, R. H. (1982). Stressful life events and symptoms: A longitudinal model. *Health Psychology, 1*, 99-117.
- Bishop, J. L., Roberson, P. N. E., Welsh, D. P., & Norona, J. C. (2018a). Does role balance influence the effect of personality on college success? A mediation model. *Emerging Adulthood, 6*, 137-148.
- Bishop, J. L., Roberson, P. N. E., Welsh, D. P., & Norona, J. C. (2018b). Adult attachment, role balance, and depressive symptoms in emerging adulthood. *Journal of Adult Development*. Available at <https://doi.org/10.1007/s1080>.
- Bishop, J. L., Welsh, D. P., Lounsbury, J. W., & Norona, J. C. (2016). The individual and relational role balance scale (IRRBS): A preliminary scale development and validation study. *College Student Journal, 50*, 531-550.
- Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current Psychology, 28*, 85-97.
- Cicchetti, D., Toth, S., Fowler, Raymond D., & Hetherington, E. Mavis. (1998). The development of depression in children and adolescents. *American Psychologist, 53*, 221-241.
- Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the transition to college: Developmental trajectories and gender differences in psychological functioning, cognitive-affective strategies, and social well-being. *Emerging Adulthood, 2*, 195-210.
- Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The BE Journal of Economic Analysis & Policy, 9*, 534-542.

- De Luca, S. M., Franklin, C., Yueqi, Y., Johnson, S., & Brownson, C. (2016). The relationship between suicide ideation, behavioral health, and college academic performance. *Community mental health journal, 52*, 534-540.
- Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology, 62*, 1231–1244.
- Fazio, N. M., & Palm, L. J. (1998). Attributional style, depression, and grade point averages of college students. *Psychological Reports, 83*, 159-162.
- Frone, M. R. (2000). Work–family conflict and employee psychiatric disorders: The national comorbidity survey. *Journal of Applied Psychology, 85*, 888-895.
- Frone, M. R., Russell, M., & Barnes, G. M. (1996). Work–family conflict, gender, and health-related outcomes: A study of employed parents in two community samples. *Journal of Occupational Health Psychology, 1*, 57-69.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77*, 65-78.
- Frone, M. R., Russell, M., & Cooper, M. L. (1997). Relation of work-family conflict to health outcomes: A four-year longitudinal study of employed parents. *Journal of Occupational and Organizational Psychology, 70*, 325-335.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior, 50*, 145-167.
- Gilpatric & Schaur (2013). An analysis and forecasting model of student retention at the University of Tennessee, Knoxville. Retrieved from <https://provost.utk.edu>.

- Googins, B., & Burden, D. (1987). Vulnerability of working parents: Balancing work and home roles. *Social Work, 32*, 295-299.
- Greenglass, E. R., Pantony, K. L., & Burke, R. J. (1988). A gender-role perspective on role conflict, work stress, and social support. *Journal of Social Behavior and Personality, 3*, 317-328.
- Gröpel, P., & Kuhl, J. (2009). Work–life balance and subjective well- being: The mediating role of need fulfilment. *British Journal of Psychology, 100*, 365-375.
- Hammer, L. B., & Demsky, C. A. (2014). Introduction to work-life balance in *Workplace well-being: How to build psychologically healthy workplaces*. (pp. 95-116): Wiley-Blackwell.
- House, J. S. (2014) *Americans' Changing Lives: Waves I, II, III, IV, and V, 1986, 1989, 1994, 2002, and 2011*. Inter-university consortium for political and social research: Ann Arbor, MI.
- Hoxby, C. M., & Turner, S. (2015). What high-achieving low-income students know about college. *American Economic Review, 105*, 514-517.
- Hysenbegas, A., Hass, S. L., & Rowland, C. R. (2005). The impact of depression on the academic productivity of university students. *Journal of Mental Health Policy and Economics, 8*, 145.
- Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: a longitudinal investigation. *Journal of Occupational Health Psychology, 4*, 337-346.
- Jury, M., Smeding, A., Stephens, N. M., Nelson, J. E., Aelenei, C., & Darnon, C. (2017). The experience of low- SES students in higher education: Psychological barriers

- to success and interventions to reduce social- class inequality. *Journal of Social Issues*, 73, 23-41.
- Kenny, D. A. (1975). A quasi-experimental approach to assessing treatment effects in the nonequivalent control group design. *Psychological Bulletin*, 82, 345-362.
- Kenny, D. A. (1979). *Correlation and causality*. New York, NY: Wiley.
- Kessler, R. C., Akiskal, H. S., Ames, M., Birnbaum, H., Greenberg, P., Hirschfeld, R. et al. (2006). The prevalence and effects of mood disorders on work performance in a nationally representative sample of US workers. *American Journal of Psychiatry*, 163, 1561–1568.
- Kline, R. B. (2011). *Principles and practices of structural equation modeling* (3rd ed.). New York, NY: The Guilford Press.
- Klitzman, S., House, J. S., Israel, B. A., & Mero, R. P. (1990). Work stress, nonwork stress, and health. *Journal of Behavioral Medicine*, 13, 221-243.
- Kovacs, M., & Goldston, D. (1991). Cognitive and social cognitive development of depressed children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 30, 388-392.
- LaMontagne, A., & Keegel, T. (2010). What organisational/employer level interventions are effective for preventing and treating occupational stress. *A rapid review for the Institute for Safety Compensation & Recovery Research (ISCRR)*, 1210-1022.
- Lee, C., Dickson, D. A., Conley, C. S., & Holmbeck, G. N. (2014). A closer look at self-esteem, perceived social support, and coping strategy: a prospective study of depressive symptomatology across the transition to college. *Journal of Social and Clinical Psychology*, 33, 560-585.



- Lenaghan, J. A., & Sengupta, K. (2007). Role conflict, role balance and affect: A model of well-being of the working student. *Journal of Behavioral and Applied Management, 9*, 88-100.
- Locascio, J. J. (1982). The cross-lagged correlation technique: *Reconsideration in terms of exploratory utility, assumption specification and robustness. Educational and Psychological Measurement, 42*, 1023-1036.
- Lopez, F. G., & Fons-Scheyd, A. (2008). Role balance and depression among college students: The moderating influence of adult attachment orientations. *Journal of College Counseling, 11*, 133-146.
- MacEwen, K. E., & Barling, J. (1994). Daily consequences of work interference with family and family interference with work. *Work and Stress, 8*, 244-254
- Markus, G. B. (1979). *Analyzing panel data*. New York, NY: Sage.
- Marks, S. R., & MacDermid, S. M. (1996). Multiple roles and the self: A theory of role balance. *Journal of Marriage and the Family, 58*, 417-432.
- Martínez R. S., Aricak O. T., Graves M. N., Peters-Myszak J., Nellis L. (2011). Changes in perceived social support and socioemotional adjustment across the elementary to junior high school transition. *Journal of Youth and Adolescence, 40*, 519–530.
- Mayer, K. U., & Carroll, G. R. (1987). Jobs and classes: Structural constraints on career mobility. *European Sociological Review, 3*, 14-38.
- Mayseless, O., & Keren, E. (2014). Finding a meaningful life as a developmental task in emerging adulthood: The domains of love and work across cultures. *Emerging Adulthood, 2*, 63-73.

- Meeus, W., Iedema, J., Helsen, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. *Developmental Review, 19*, 419-461.
- Muthén, L.K. and Muthén, B.O. (1998-2012). *Mplus User's Guide*. Seventh Edition. Los Angeles, CA: Muthén & Muthén.
- National Center for Education Statistics. (2014). The condition of education, 2014. Washington, DC: U.S. Department of Education. Retrieved from [www.nces.gov](http://www.nces.gov).
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflicts and work-family conflict scales. *Journal of Applied Psychology, 81*, 400-410.
- Pritchard, M. E., & Wilson, G. S. (2003). Using emotional and social factors to predict student success. *Journal of college student development, 44*, 18-28.
- Pritchard M. E., Wilson G. S. (2007). Predicting academic success in undergraduates (Psychology Faculty Publications and Presentations, Paper 10). Retrieved from [http://scholarworks.boisestate.edu/psych\\_facpubs/](http://scholarworks.boisestate.edu/psych_facpubs/)
- Rapaport, M. H., Clary, C., Fayyad, R., & Endicott, J. (2005). Quality-of-life impairment in depressive and anxiety disorders. *The American Journal, 162*, 1171– 1178.
- Rao U., Hammen C., Daley S. E. (1999). Continuity of depression during the transition to adulthood: A 5-year longitudinal study of young women. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*, 908–915.
- Rao U., Ryan N. D., Birmaher B., Dahl R. E., Williamson D. E., Kaufman J., Nelson B. (1995). Unipolar depression in adolescents: Clinical outcome in adulthood.

- Journal of the American Academy of Child & Adolescent Psychiatry*, 34, 566–578.
- Reifman, A., Biernat, M., & Lang, E. L. (1991). Stress, social support, and health in married professional women with small children. *Psychology of Women Quarterly*, 15, 431-45.
- Reinherz H. Z., Giaconia R. M., Hauf A. M., Wasserman M. S., Silverman A. B. (1999). Major depression in the transition to adulthood: Risks and impairments. *Journal of Abnormal Psychology*, 108, 500–510.
- Rudolph K. D., Lambert S. F., Clark A. G., Kurlakowsky K. D. (2001). Negotiating the transition to middle school: The role of self-regulatory processes. *Child Development*, 72, 929–946.
- Rutter M., Sroufe L. A. (2000). Developmental psychopathology: Concepts and challenges. *Development and Psychopathology*, 12, 265–296.
- Ryff, C., Keyes, C., & Geen, Russell. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727.
- Salmela-Aro, K., Aunola, K., & Nurmi, J. (2008). Trajectories of depressive symptoms during emerging adulthood: Antecedents and consequences. *European Journal of Developmental Psychology*, 5, 439–465.
- Sher K. J., Wood P. K., Gotham H. J. (1996). The course of psychological distress in college: A prospective high-risk study. *Journal of College Student Development*, 37, 42–51.

- Shields, N. (2001). Stress, active coping, and academic performance among persisting and nonpersisting college students. *Journal of Applied Biobehavioral Research*, 6, 65-81.
- Shulman, S., & Connolly, J. (2013). The challenge of romantic relationships in emerging adulthood: Reconceptualization of the field. *Emerging Adulthood*, 1, 27–39.
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Journal of the American Medical Association*, 282, 1737-1744.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6-15.
- Thurber, C. A., & Walton, E. A. (2012). Homesickness and adjustment in university students. *Journal of American College Health*, 60, 415-419.
- Towbes L. C., Cohen L. H. (1996). Chronic stress in the lives of college students: Scale development and prospective prediction of distress. *Journal of Youth & Adolescence*, 25, 199–217.
- Vatcheva, K. P., Lee, M., McCormick, J. B., & Rahbar, M. H. (2016). Multicollinearity in Regression Analyses Conducted in Epidemiologic Studies. *Epidemiology (Sunnyvale, Calif.)*, 6, 227-236.
- Voydanoff, P. (2005). Toward a conceptualization of perceived work- family fit and balance: a demands and resources approach. *Journal of Marriage and Family*, 67, 822-836.

## CONCLUSIONS

Using two different analytic techniques, the studies presented here address several important questions about one key developmental task associated with emerging adulthood, role balance, and college success in the transition to college. Generally, the results of these studies suggest that 1) while role balance may be directly related to academic achievement early in the transition to college, it does not necessarily add predictive validity beyond overall adjustment to college and 2) while role balance may be negatively associated with depressive symptoms (with depressive symptoms actually predicting difficulties with role balance), role balance does not seem to be the mechanism through which depression influences poorer college performance.

In Study 1, we explored whether role balance might predict academic performance (e.g., semester GPA) in the transition to college above and beyond overall adjustment to academic and social demands. Our hypothesis was informed by the theory of emerging adulthood (Arnett, 2000), which suggests that during this developmental period young people begin to simultaneously explore and establish both individual and relational role identities (Shulman & Connolly, 2013) and must work to balance their role commitments in order to maximize success and satisfaction (Bishop et al., 2016). Based on robust cross-sectional findings on the association between role balance and performance outcomes in both adulthood and among emerging adults (e.g., Allen et al., 2000; Frone, Yardley, & Markel, 1997; Marks & McDermid, 1996), we posited that perceived balance *between* individual and relational role commitments would provide additional predictive validity beyond the established relationship between overall adjustment and GPA (see Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Kuh,

Kinzie, Buckley, Bridges, & Hayek, 2006). With our sample, however, the hierarchal regression model containing role balance failed to reach significance. At least during the early transition to college, role balance does not seem to influence academic achievement beyond adjustment.

In Study 2, we investigated the directional, causal relationship between role balance, depressive symptoms, and college achievement during the first semester of college. Based both on extant findings on the negative, concurrent relationship between role balance and depressive symptoms and on evidence that both variables predict academic performance (Allen et al., 2000; Fazio & Palm, 1998; Frone, Yardley, & Markel, 1997; Hysenbegas, Hass, & Rowland, 2005; Marks & McDermid, 1996; Pritchard & Wilson, 2003; Shields, 2001), we hypothesized that role balance and depressive systems might interact to influence academic achievement in the transition to college. Given a lack of longitudinal support for mediation, we used the developmental literature on the bidirectional relationship between developmental challenges (i.e., impairments in cognitive and social domains) and depressive symptoms (Cicchetti & Toth, 1998; Kovacs & Goldston, 1991; Meeus, Iedema, Helsen, & Vollebergh, 1999; Ryff, Keyes, & Geen, 1991) to inform our hypothesis that role balance and depressive symptoms would have a bidirectional impact on semester GPA. Results of our cross-lagged panel analyses revealed that while depressive symptoms predicted both role balance difficulties and poor academic performance, depression did not seem to affect achievement though role balance as predicted. Despite these null findings, several significant direct relationships helped to inform our understanding of the context dependent nature of the role balance construct, the consistent, concurrent relationship

between role balance difficulties and depressive symptoms, and the negative impact of persistent depressive symptoms over time on performance outcomes in the college context.

Across both studies, well-supported statistical methods were used that were appropriate to our research questions and to the longitudinal nature of the data. The methods employed allowed us to examine both incremental predictive validity and the relationship among variables over time while controlling for the auto- and synchronous correlation of variables. While there were some unique features of the sample, which was collected at only one postsecondary institution, the undergraduate college context was appropriate to our research questions regarding the transition to college and we believe the findings should be relatively generalizable. Of course, the studies should be replicated, with an emphasis on replication with more diverse samples. Subsequent waves of data collected with this sample should also be analyzed with longer-term effects on college success reported over time.

In conclusion, the studies presented here represent some initial steps in the longitudinal exploration of role balance as it relates to emerging adult development and college achievement. While additional support is needed to draw conclusions about a causal, temporal relationship between role balance and other indicators of broad college success, including those that directly impact persistence and graduation, our findings, including the null effects, make a significant contribution to the literature. Perhaps of greatest interest, the results of Study 2 illustrate that depressive symptoms can negatively impact both developmental progress and performance during this period and that persistent depression is associated with particularly negative performance outcomes over

time. This reinforces the need for early screening and intervention for at-risk emerging adult college students.



## References

- Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.
- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *The American Psychologist, 55*, 469–480.
- Bishop, J. L., Welsh, D. P., Lounsbury, J. W., & Norona, J. C. (2016). The individual and relational role balance scale (IRRBS): A preliminary scale development and validation study. *College Student Journal, 50*, 531-550.
- Cicchetti, D., Toth, S., Fowler, Raymond D., & Hetherington, E. Mavis. (1998). The development of depression in children and adolescents. *American Psychologist, 53*, 221-241.
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the student adaptation to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review, 24*, 133-165.
- Fazio, N. M., & Palm, L. J. (1998). Attributional style, depression, and grade point averages of college students. *Psychological Reports, 83*, 159-162.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior, 50*, 145-167.

- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72*, 281-288.
- Hysenbegas, A., Hass, S. L., & Rowland, C. R. (2005). The impact of depression on the academic productivity of university students. *Journal of Mental Health Policy and Economics, 8*, 145.
- Kovacs, M., & Goldston, D. (1991). Cognitive and social cognitive development of depressed children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 30*, 388-392.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature commissioned report for the national symposium on postsecondary student success: Spearheading a dialog on student success. Washington, DC: National Postsecondary Education Cooperative.
- Marks, S. R., & MacDermid, S. M. (1996). Multiple roles and the self: A theory of role balance. *Journal of Marriage and the Family, 58*, 417-432.
- Meeus, W., Iedema, J., Helsen, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. *Developmental Review, 19*, 419-461.
- Pritchard, M. E., & Wilson, G. S. (2003). Using emotional and social factors to predict student success. *Journal of college student development, 44*, 18-28.
- Ryff, C., Keyes, C., & Geen, Russell. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719-727.

Shields, N. (2001). Stress, active coping, and academic performance among persisting and nonpersisting college students. *Journal of Applied Biobehavioral Research*, 6, 65-81.

Shulman, S., & Connolly, J. (2013). The challenge of romantic relationships in emerging adulthood: Reconceptualization of the field. *Emerging Adulthood*, 1, 27–39.

## VITA

Jennifer L. Bishop was born and raised in Central Florida. She earned a Bachelor of Arts degree in Political Science and a Bachelor of Sciences degree in Public Relations from the University of Florida. She also earned a Masters of Arts degree in Social Science Education from the University of South Florida. In 2014, she began her doctoral training in Clinical Psychology at the University of Tennessee. Her research interests include identity development, role balance, and psychological well-being among emerging adults in the transition to college.