Applying Sexual Script Theory to Hooking Up: A Latent Profile Analysis of Predictors and Outcomes of Class Membership

Mitchell R. Rhodes
Utah State University

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APPLYING SEXUAL SCRIPT THEORY TO HOOKING UP: A LATENT PROFILE ANALYSIS OF PREDICTORS AND OUTCOMES OF CLASS MEMBERSHIP

by

Mitchell R. Rhodes

A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

In

Human Development and Family Studies

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2020
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ABSTRACT

Applying Sexual Script Theory to Hooking Up: A Latent Profile Analysis of Predictors and Outcomes of Class Membership

by

Mitchell R. Rhodes, Doctor of Philosophy
Utah State University, 2020

Major Professors: Joshua R. Novak, Ph.D.
Troy E. Beckert, Ph.D.
Department: Human Development and Family Studies

Extant literature indicates that between 40-75% of emerging adults engage in hooking up behaviors (i.e., sexual activity outside the context of a romantic relationship). Researchers have reported that a wide range of demographic and psychological predictors impact hooking up and have further reported mixed results of psychological outcomes of depressive symptoms, anxiety symptoms, and self-esteem. Furthermore, current literature on hooking up behaviors focuses primarily on emerging adults in a university setting. Sexual Script Theory provides a unique lens through which researchers can explore the influence of cultural scripts (i.e., cultural beliefs), interpersonal scripts (i.e., application of cultural scripts and personal experiences), and intrapsychic scripts (i.e., personality traits, plans and strategies for follow through with interpersonal and cultural scripts). Latent profile analysis (LPA) provides a way for hooking up research to take a person-centered approach to understanding casual sex among emerging adults. This study aimed to
explore profiles of intrapsychic scripts (ego identity status, motivation for hooking up, and autonomy). Data for this study, using Amazon’s mTurk, were collected from 1,142 (males \( n = 591 \), females \( n = 551 \)) individuals with a mean age of approximately 22 years. Participants reported being white, heterosexual, with at least some higher education. It was found that the emerging adults in this study could be grouped into three (3) distinct groups based upon their personality traits and their motivations for hooking up. The first group in this study did not have any distinctive traits across the grouping variables. The second group was in an active state of ideological exploration, independent individuals, who were motivated to hook up because they described it as fun and it made them feel good. The final group was committed to their ideological beliefs and consciously thought about decisions they needed to make. Profile membership was predicted by cultural (i.e., demographic variables), and interpersonal (i.e., sexual behavior, attachment to parents and peers) scripts. Finally, latent profiles were then used to predict psychological outcomes of depressive symptoms, anxiety symptoms, stress, and self-esteem. Finally, discussion of the findings and their implications for clinical and educational work were discussed in detail.
Applying Sexual Script Theory to Hooking Up: A Latent Profile Analysis of Predictors and Outcomes of Class Membership

Mitchell R. Rhodes

The purpose of this study was to explore relationship between individuals’ characteristics, experiences, personality traits, and thought processes in the contexts of casual sexual behaviors. According the principles of Sexual Script Theory, personality traits and personal thought are creations of cultural beliefs and individual experiences. A sample of 1,142 emerging adults between the ages of 18-24 who had a hooking up experience (i.e., sexual activity outside of romantic relationships).

It was found that the emerging adults in this study could be grouped into three (3) distinct groups based upon their personality traits and their motivations for hooking up. The first group in this study did not have any distinctive traits across the grouping variables. The second group was in an active state of ideological exploration, independent individuals, who were motivated to hook up because they described it as fun and it made them feel good. The final group was committed to their ideological beliefs and consciously thought about decisions they needed to make.

Membership in each group was predicted by demographic variables, hooking up experiences, and relationships with both parents and peers. Individuals who thought hooking up was good experience and were highly attached to their parents and peers were more likely to belong to the second group. Members of the third group were more likely
to believe that hooking up was a negative experience and were less likely to be attached
to their parents.

Finally, this study explored the mental health factors of stress, anxiety symptoms,
depressive symptoms, and self-esteem as outcomes of hooking up. Both of the
comparison groups reported mixed emotional outcomes of hooking up. These findings
underscore and support previous research that individuals who hook up report mixed
outcomes.
ACKNOWLEDGMENTS

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Mitchell R. Rhodes
DEDICATION

To my Father, sister, and Grandmother, my three biggest cheerleaders when they were on earth and now from heaven.

Steven Ray Rhodes March 2, 1953 – February 7, 2014
Dorothy Lorraine Yeldell Rhodes April 29, 1930 – September 24, 2016
Reba Michelle Rhodes Sabin May 13, 1986 – February 16, 2020

“We can be grateful to know that we can see and be with them again, when we too, like these pioneers, go on our appointed journey and join them in a new and everlasting gathering.”

~ Steven Ray Rhodes
CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>PUBLIC ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>vii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xii</td>
</tr>
</tbody>
</table>

CHAPTER

I. INTRODUCTION .................................................................................................................. 1
   Interpersonal and Cultural Sexual Scripts ........................................................ 4
   Intrapsychic Scripts ......................................................................................... 5
   Outcomes of Intrapsychic Profiles .................................................................. 7
   Summary ............................................................................................................. 9

II. LITERATURE REVIEW ...................................................................................................... 11
   Hooking Up ........................................................................................................ 12
   Theoretical Orientation: Sexual Script Theory and Hooking Up .................... 14
   Applying Sexual Script Theory to Hook Ups .................................................. 20
   Interpersonal Scripts and Hooking Up .......................................................... 26
   Intrapsychic Scripts and Hooking Up ............................................................. 34
   Outcomes of Hooking Up: Psychological Factors ............................................. 49
   The Present Study ............................................................................................ 54

III. RESEARCH METHODS ..................................................................................................... 58
   Procedure ........................................................................................................... 58
   Participants ...................................................................................................... 60
   Measurement ...................................................................................................... 63
   Outcome Measures ............................................................................................ 73
   Analytic Plan ..................................................................................................... 76
### RESULTS

- Latent Profile Analysis .......................... 90
- Script Interactions .............................. 98

### DISCUSSION

- Profiles of Intrapsychic Sexual Scripts with Predictors and Outcomes ....... 100
- Interpersonal Scripts, Cultural Scripts, and Profiles of Intrapsychic Scripts: Nonsignificant Predictors ........................................ 112
- Limitations and Strengths .......................................................... 114
- Future Directions ................................................................. 118
- Conclusion ........................................................................... 120

### REFERENCES

- REFERENCES ........................................................................ 123

### APPENDICES

- APPENDICES .......................................................................... 140

- Appendix A: Additional Tables ........................................... 141
- Appendix B: Questionnaire ................................................. 147
- Appendix C: IRB Approval .................................................. 198

### CURRICULUM VITAE

- CURRICULUM VITAE ................................................................ 201
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Demographic Variables: Descriptive Statistics for Age, Relationship Status,</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Sexual Orientation, and Ethnicity</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Demographic Variables: Descriptive Statistics for Education Level and</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Region in the U.S.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Demographic Variables: Descriptive Statistics for Religiosity, Spirituality,</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>and Religious Denomination</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Demographic Variables: Descriptive Statistics for Intrapsychic Variables</td>
<td>79</td>
</tr>
<tr>
<td>5.</td>
<td>Demographic Variables: Descriptive Statistics for Interpersonal and</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Outcome Variables</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Demographic Variables: Descriptive Statistics for Participants Hook Up Ages</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>and Sexual Behaviors</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Demographic Variables: Descriptive Statistics for Participants Hook Up</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Partners, Influence of Alcohol and Hook up Intentions and Sexual Behavior</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Demographic Variables: Descriptive Statistics for Participants Hook Up</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Frequency, Desired Hook Up Frequency, Pleasurable Hook Up, and Orgasm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>During Last Hook Up</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Demographic Variables: Descriptive Statistics for Participants Overall</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Opinions of Hooking up as a Positive or Negative Experience</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Model Fit Indices for Latent Profile Analysis</td>
<td>90</td>
</tr>
<tr>
<td>A1.</td>
<td>Correlations Between Demographic Variables, Interpersonal Scripts, and</td>
<td>142</td>
</tr>
<tr>
<td></td>
<td>Cultural Scripts</td>
<td></td>
</tr>
<tr>
<td>A2.</td>
<td>Correlations Between Demographic Variables and Hook Up Motives</td>
<td>143</td>
</tr>
<tr>
<td>A3.</td>
<td>Correlations Between Demographic Variables and Identity Status</td>
<td>143</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>A4. Correlations Between Demographic Variables and Attachment to Parents and Peers</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>A5. Correlations between Demographic Variables and Psychological Outcome Variables</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>A6. Correlations Between Intrapsychic Scripts of Hooking Up Motives, Identity Status, and Autonomy</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>A7. Assumption of Normality Statistics for Hook Up Motives, Identity Status, Autonomy, Attachment, and Psychological Outcome Variables</td>
<td>146</td>
<td></td>
</tr>
</tbody>
</table>


LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Latent profile analysis model: Profile and intrapsychic script indicators (Step 1)</td>
<td>56</td>
</tr>
<tr>
<td>2. Latent profile analysis model: Cultural and interpersonal profile predictors (Step 2)</td>
<td>56</td>
</tr>
<tr>
<td>3. Latent profile analysis model: profile outcomes (Step 3)</td>
<td>57</td>
</tr>
<tr>
<td>4. Latent profiles that emerged from the data for intrapsychic sexual scripts</td>
<td>93</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Over the last decade, casual sexual behaviors (i.e., hooking up) have increased in popularity among emerging adults and late adolescents. Hooking up is a behavior that is generally defined as sexual activity, ranging from kissing to intercourse, that occurs outside the context of romantic relationships (Owen & Fincham, 2011). Researchers have indicated that anywhere between 40% and 75% of university students reported hooking up over the previous year (e.g., Helm, Gondra, & McBride, 2015; Owen, Rhoades, Stanley, & Fincham, 2010). Extant literature on hooking up focuses primarily on definitions (e.g., Wentland & Reissing, 2011), demographic and psychological predictors of hooking up—including age, gender, and depression (e.g., Brimeyer & Smith, 2012; Owen et al., 2010), and psychological outcomes of hooking up, such as decreased well-being, increased depressive symptoms and self-esteem (e.g., Owen & Fincham, 2011; Vrangalova, 2015a, 2015b). Unfortunately, this body of literature has generated mixed and often contradictory results. Despite being a prominent behavior among emerging adults, there is little consensus about how or why hooking up is a positive or negative experience.

Sexual Script Theory (Simon & Gagnon, 1986; Wiederman, 2015) offers a unique lens through which scholars might interpret and conceptualize casual sexual behaviors and make sense of the conflicting and inconsistent findings. Script theory posits that behavior is a socially scripted performance based on the interactions between cultural beliefs (i.e., cultural scripts), interpersonal scripts (i.e., adapted cultural scripts and
personal experiences), and intrapsychic scripts (i.e., personality traits, and plans and strategies for following through with interpersonal and cultural scripts; Simon & Gagnon, 1986; Wiederman, 2015). As an amalgamation of cultural and interpersonal scripts, intrapsychic scripts are predicted by cultural scenarios and narratives and interactions between people, a proposition that has been substantiated through other theories (see Sociohistorical theory, Vygotsky, 1929, 1978). Sexual scripts assist in finding meaning for internal beliefs, organizing and sequencing sexual behaviors, understanding new experiences, and setting sexual limits (Gagnon & Simon, 1973). In hooking up experiences, sexual scripts may play an important role in understanding casual sexual behaviors at an individual level and on a more global cultural level. Whereas previous research has only investigated a single or limited aspect of hooking up (micro-level), utilizing sexual script theory provides a comprehensive framework (macro-level) that may better shed light on why outcomes are either positive or negative for an individual. In this way, researchers will be better able to understand and identify how these three factors interact on an individual level to influence the outcome of the hooking up experience.

First, sexual cultural scripts assist in understanding several contextual factors including, how accepted hooking up is, what behaviors may be acceptable outside of romantic relationships, and the length of time that should pass before engaging in casual sex with a partner. Interpersonal scripts further aid in understanding why emerging adults do what they do during a hook up through the melding of personal experiences and cultural context. When the personal experiences and the cultural environments are able to
be meshed together smoothly, emerging adults may be able to report more positive outcomes. Yet, when culture and individual experiences are unable to match up, the individual may be unlikely to report positive emotional reactions to hooking up. Finally, intrapsychic scripts emphasize fantasies, memories, and self-evaluations of abilities while applying cultural and interpersonal scripts (Wiederman, 2015). As an internal thought process, understanding how one is as a sexual being is important in understanding sexual desires. Additionally, reliving previous experiences and evaluating one’s abilities as a sexual partner likely increases sexual self-confidence for emerging adults.

As intrapsychic scripts are creations of both cultural and interpersonal sexual scripts, the primary focus of this study will be to predict profiles of intrapsychic scripts through interpersonal and cultural sexual scripts. Interpersonal scripts in this study will include sexual behaviors that occur during hook up (i.e., kissing to intercourse), as well as hook up frequency, hook up intentions, attachment to parents and peers, and possible cultural sexual scripts assessed through demographic variables (i.e., age, religiosity, etc.). Intrapsychic scripts in this study will include identity status, cognitive and emotional autonomy, and hook up motivations. As intrapsychic variables, identity, autonomy, and motivation provide implications for how emerging adults see themselves in light of past experiences and perceived cultural norms. As internal thought processes, knowing who one is, their ability to think and feel independently, and what motivates them to participate in casual sex will assist in understanding positive or negative outcomes of hook up experiences.
Interpersonal and Cultural Sexual Scripts

For emerging adults, many cultural sexual scripts, specifically demographic variables, have been associated with increased (or decreased) likelihood of experiencing a hook up. Researchers have indicated that age, religiosity, gender, and alcohol and substance use all play a role in hooking up behaviors (e.g., Olmstead, Roberson, Pasley, & Fincham, 2015; Owen et al., 2010). Cultural scripts dictate at what age it is appropriate to participate in sexual behavior, whether or not substance use (illicit and otherwise) is accepted during sexual encounters, whether or not religion impacts behavior, and how gender impacts behavior.

In studies of hooking up, researchers have reported that participants describe a number of behaviors that occurred during hook ups including kissing, manual genital stimulation, oral sex, and vaginal and anal intercourse (e.g., Helm et al., 2015; Wesche, Lefkowitz, & Vasilenko, 2017). Further, researchers have reported associations between hooking up and personality traits, psychological factors (i.e., anxiety symptoms, depressive symptoms, etc.), and love styles (e.g., Paul, McManus, & Hayes, 2000). Despite contradictory findings of psychological outcomes of hooking up and understanding the associations between demographic and psychological factors associated with the likelihood of hooking up, little is known about how sexual behaviors (i.e., oral sex, intercourse, etc.) are associated with the same psychological factors.

As an interpersonal script, attachment to parents and peers, developed through warmth, trust, and responsiveness in infancy, have lifelong impacts on individual’s relationships (Ainsworth, 1989; Bowlby, 1969). During adolescence, attachments to
parents and peers are both important to the adolescent’s health outcomes—their psychological and academic adjustment—and are important influences for sexual behaviors (Armsden & Greenberg, 1987; Wilkinson, 2004). Extant literature has connected attachment styles to the likelihood that emerging adults will have a hook up experience, primarily indicating that individuals who do not have a secure attachment and did not experience high warmth and responsiveness during infancy are more likely to participate in hooking up during late adolescence (e.g., Owen et al., 2010). By understanding that personal experiences with hooking up and attachment to parents and peers, we are better prepared to further help educate adolescents and emerging adults concerning casual sexual behaviors. Currently, little research exists that focuses on how such interpersonal scripts predict intrapsychic scripts of hook up motivations, identity status, and autonomy.

**Intrapsychic Scripts**

Hook up motivations represent an intrapsychic drive to participate in sexual behavior. Motives of casual sexual behavior have been conceptualized as both goal directed and driven by internal and external purposes (Impett & Peplau, 2003; Impett, Peplau, & Gable, 2005). Motives of sexual behavior range from internal purposes of feeling sexually desirable, sexual gratifications, and external purposes of conformity to peers, and excitement (Cooper, Shapiro, & Powers, 1998; Fielder & Carey, 2010; Garcia & Reiber, 2008; Regan & Dreyer, 1999; Snyder & Cantor, 1998). Researchers have indicated that motives of sexual behavior are similar for men and women (Snapp, Lento,
Ryu, & Rosen, 2014). Further, internal motives for sexual behavior have been linked to positive psychological outcomes following a hook up (Owen, Quirk, & Fincham, 2014).

Erikson’s (1950/1963) theory of psychosocial development provides developmental intrapsychic scripts of knowing who the emerging adult is as a person and as a sexual being. Psychosocial development theory posits that personality develops through predetermined steps and through societal influences (Erikson, 1950/1963). During late adolescence, important developmental steps of identity and autonomy may be important for hooking up behaviors by providing the emerging adult with a sense of self and the ability to form his or her own thoughts and feelings surrounding casual sex. Identity, or a sense of knowing who one is, develops through a process of exploring and committing to one’s sexual identity, ideological beliefs, and occupational aspirations (Erikson, 1950/1963). Identity has been categorized into four different statuses: achievement (committed after crises), foreclosure (committed without a crisis), diffusion (currently in an identity crisis), and moratorium (absence of commitment and exploration; Marcia, 1980). Researchers have reported that identity statuses are predictive of increased casual sexual activity when exploration of ideology and a lack of commitment were related to increased hook up behaviors (Schwartz et al., 2011). Though these associations indicate increased likelihood of sexual activity for some identity statuses, the results from previous research has no indication about how various sexual behaviors that occur during a hook up are related to identity status.

For emerging adults, the ability to act, feel, and think independently, also known as autonomy (Beckert, 2016), is a psychosocial factor that is likely influential in the
decision-making process in participating in hook up behaviors for emerging adults. As a construct, autonomy is significant for emerging adult’s independence across multiple dimensions including cognition, emotion, and behavior (Noom, Deković, & Meeus, 2001). Development of autonomy should be well rounded to the point that adolescents develop independence emotionally, behaviorally, and cognitively (Steinberg, 2002). Researchers have yet to report associations between autonomy and hooking up, however, increased independence in thinking and in emotions should theoretically be related to increased (or decreased) likelihood of participating in casual sex. Through the formation of their own opinions and feelings, emerging adults will be able to decide what is right for them in terms of behavior, which could translate into how acceptable casual sex is for them and what sexual behaviors they would like to engage in.

**Outcomes of Intrapsychic Profiles**

The intrapsychic (i.e., identity, autonomy, and hook up motivations), the interpersonal (i.e., hook up behaviors, attachment), and the emerging adult age group specifically have significant links to psychological outcomes of depressive symptoms, anxiety symptoms, stress, and self-esteem. According to the American Psychological Association (APA, 2016) and the Centers for Disease Control and Prevention (CDC, 2011), the millennial generation (i.e., emerging adults) is experiencing increased frequency of psychological disorders than previous generations that are linked to decreased ability to complete everyday tasks. Approximately 30% of emerging adults attending college experience severe depressive symptoms (American College Health
Association, 2009), while 41.6% of emerging adults report their greatest mental health concern being anxiety (Mistler, Reetz, Krylowicz, & Barr, 2012), and further, emerging adults report higher rates of stress compared to previous generations (APA, 2016).

Previous studies have linked increased rates of depressive symptoms and anxiety symptoms as an outcome of hooking up behaviors (e.g., Bersamin et al., 2014; Owen & Fincham, 2011), yet to date there is little evidence connecting depressive symptoms and anxiety symptoms outcomes when exploring differences in motivation, identity, and autonomy. Furthermore, to date no studies have been identified that link stress to hooking up as either a predictor or an outcome. Psychological factors of anxiety symptoms, depressive symptoms, and stress are important to studying hooking up behaviors for two primary reasons. First, as emerging adults experience hooking up and psychological distress in increasing rates, it seems warranted to explore how hooking up is motivated by distress and how distress serves as an outcome of hook up motivations. Second, by understanding the outcomes of intrapsychic scripts, researchers can help inform education advocating for positive outcomes following hook up experiences for emerging adults.

Despite the possible negative ramifications of hooking up for depressive symptoms and anxiety symptoms, mixed results from extant literature indicate that self-esteem may be a positive outcome of hooking up (e.g., Vrangalova, 2015a). As an individual’s self-evaluation of his or her abilities, self-esteem is both global and domain specific (Rosenberg, 1965). As a time of significant growth in individual capabilities, emerging adulthood represents a time of both positive and negative development of self-
esteem (Erol & Orth, 2011). On average, men report more positive self-evaluations of their abilities than women (Sprecher, Brooks, & Avogo, 2013). For many emerging adults, hooking up is predictive of increased levels of self-esteem (Vrangalova, 2015a).

Summary

Researchers have reported many important associations between psychological and social factors that influence and are influenced by hooking up. As researchers have indicated, each year 40% to 75% of emerging adults report having a hook up experience. During hook ups, depressive symptoms and anxiety symptoms have been identified both as predictors and outcomes of hooking up experiences. Additionally, increased commitment to occupation and ideology are related to increased hooking up behaviors. Further, attachment styles associated with decreased warmth, trust, and responsiveness have also been correlated with increased hooking up behaviors. Despite the knowledge and understanding gained from previous research, little has been done to examine patterns of individual characteristics that impact hooking up experiences and outcomes. As intrapsychic scripts are created or predicted by interpersonal and cultural scripts, researchers of hooking up behaviors should consider the behavioral, cultural, and psychological implications of sexual scripts (Gagnon & Simon, 1973). In addition to applying sexual script theory to understanding the outcomes of hooking up, other unique profiles (sub-populations or groups) may exist within adolescents who hook up, as each individual may experience different confluations of sexual scripts (i.e., not all factors influence in the same manner across individuals). To this end, the purpose of this dissertation is to seek to elucidate patterns or profiles of intrapsychic scripts (i.e., identity,
autonomy, and hook up motivations) that are predicted by cultural and interpersonal
sexual scripts. Furthermore, these profiles will be used to predict psychological outcomes
of hooking up experiences (i.e., depressive symptoms, anxiety symptoms, stress, and
lower self-esteem). By establishing both profiles and macro-level factors (cultural,
interpersonal, and intrapsychic scripts) of hook up experiences, researchers and scholars
will be able to better tailor education and prevention programs to adolescents and
emerging adults who seek to engage in hooking up experiences so as to minimize or
buffer potential negative mental and emotional consequences of hooking up.
CHAPTER II
LITERATURE REVIEW

For emerging adults and adolescents across the U.S., casual sexual behaviors have become normative. In previous generations, there were set rules with clearly defined steps in which prescribed standards dictated stages of dating and appropriate timing for sexual behavior, specifically within the context of marriage. After the drastic cultural shifts of the sexual revolution in the 1960s, the restrictions of sexual behavior began to relax and sexual norms shifted to be more accepting of promiscuity (Earle, et al., 2007). In recent decades, researchers have reported that anywhere from 40% to 75% of emerging adults’ report having a hooking up (casual sex) experience each year (e.g., Helm et al., 2015; Owen et al., 2010). Hooking up is related to many positive and negative physical and emotional outcomes for emerging adults including relief of sexual tension, increased psychological well-being, and both increased and decreased depressive symptoms and anxiety symptoms, and increased loneliness (e.g., Owen & Fincham, 2011; Owen et al., 2010; Vrangalova, 2015a, 2015b). In this chapter, I will review literature regarding the definitions, predictors, correlates, and motivations for hooking up. I will then summarize literature concerning the relationship between hooking up and psychosocial developmental factors. Finally, I will present the literature related to the outcomes of depressive symptoms, anxiety symptoms, stress, and self-esteem as they relate to hooking up behaviors.
Hooking Up

Definitions of Hooking Up

While hooking up is widely accepted as a term for casual sexual behaviors, a variety of definitions abound and it has been operationally defined in many different ways. For many emerging adults, hooking up as a phrase is deliberately vague, leaving it difficult for researchers to fully define and capture the concept (Kalish & Kimmel, 2011). In Epstein, Calzo, Smiler, and Ward’s (2009) qualitative study of 19 emerging adult males, participants defined hooking up in broad strokes, as two people becoming physically intimate. These participants indicated that hooking up was indicative of having no romantic relationship between the two individuals nor requiring any future relationship (Epstein et al., 2009). Others have opted to operationalize hooking up behaviors as one-time sexual encounters that include a range of behaviors from kissing to intercourse where there are no expectations of future physical encounters or committed relationships (Owen & Fincham, 2011). Additional definitions of casual sex (see Wentland & Reissing, 2011, 2014) include one-night stands (sex between strangers), booty call (sex between two acquaintances, where one contacts the other with intention of having sex), “fuck” buddies (acquaintances who have sex when they hang out regularly), and friends with benefits (two individuals with an existing friendship who have sex regularly). For the purpose of this dissertation, hooking up will be operationally defined as any sexual encounter ranging from kissing to penetrative intercourse between two consenting individuals outside the context of a committed relationship.
Specific Behaviors that Occur during Hook Ups

While understanding the predictors that indicate whether or not an individual will participate in casual sexual behaviors is important, it is just as important to understand what specific behaviors occur during hook ups and what outcomes are predicted by those behaviors. Limited research focuses on the sexual behaviors that occur during casual sexual encounters for emerging adults. Researchers have reported that participants in hooking up report a variety of sexual behaviors including kissing, digital stimulation, oral sex, and vaginal or anal intercourse (Helm et al., 2015; Reiber & Garcia, 2010; Wesche et al., 2017). In a study using evolutionary theory to understand contemporary sexual attitudes and behaviors, Reiber and Garcia explored behavioral evolutionary perspectives for both men and women and posited that men would be more comfortable with, and participate in, more sexual behaviors. As the authors predicted, men were more comfortable in participating in sexual behaviors such as touching above and below the waist, performing and receiving oral sex, and intercourse than their female counterparts (Reiber & Garcia, 2010). Additionally, with the exception of performing oral sex, men reported participating in all the behaviors more than the females in the study (Reiber & Garcia, 2010).

In a study of 521 emerging adults at a Christian university, Helm et al. (2015) explored variation in casual sexual behaviors that occur for the entire sample, by gender, and by ethnicity. Approximately 40% of their highly religious sample reported that they had hooked up. The majority of the participants (95.2%) reported they had kissed, 64.7% reported breast stimulation, 52.9% reported genital stimulation. The sample also reported
minimal participation in more physically invasive hook ups with 38.4% reporting oral
sex, 5.9% reporting anal sex, and 25.7% reporting vaginal intercourse. Statistically
significant differences were reported between men and women for kissing, oral sex, and
vaginal sex, with men more likely to report oral or vaginal intercourse and women more
likely to report kissing. The researchers reported that with the exception of vaginal
intercourse, Asian and Pacific Islanders in their sample were least likely to report kissing,
breast and genital stimulation, and oral and anal sex (Helm et al., 2015). Additionally,
Latino participants were most likely report participating in all behaviors except vaginal
intercourse (Helm et al., 2015). Asian and Pacific Islanders reported the most incidences
of vaginal sex during a hook up (35.7%), followed by White non-Hispanics (30.2%),
African Americans (23.8%), and Latinos (19.4%; Helm et al., 2015). Although extant
literature provides important insights for describing hooking up and the behaviors that
occur for emerging adults, researchers have yet to explore how these behaviors relate to
psychological outcomes. By conceptualizing sexual behavior in categories of broad
cultural norms, personal experiences, and both conscious and subconscious thought
processes, sexual script theory provides researchers with the opportunity to explore the
impact that individuals’ sexual experiences have on thoughts and psychological
outcomes.

Theoretical Orientation: Sexual Script Theory and Hooking Up

In their sexual script theory, Gagnon and Simon (1973) posited that all social
behavior is a socially scripted performance. Individual interpretation of reality, or social
constructionism, is central to sexual script theory (DeLamater & Hyde, 1998). Sexual scripts, in accordance with social constructionism, originate from shared beliefs within a particular social group (DeLamater & Hyde, 1998). According to Gagnon and Simon, “scripts are involved in learning the meaning of internal states, organizing the sequencing of specifically sexual acts, decoding novel situations, setting the limits on sexual responses and linking meanings from nonsexual aspects of life to specifically sexual experience” (p.17). Scripts are further conceptualized as the mental representations constructed at the individual level and then used to understand their own experiences and the experiences of others (Wiederman, 2015). Metaphorically, scripts conceptualize behavior within social life and provide syntax that guide behaviors (Simon & Gagnon, 1984). Scripts assist in providing context for the roles that are “played” within social and sexual situations (Simon & Gagnon, 1986). Sexual scripts are comprised of sexual cultural, interpersonal, and intrapsychic scripts (Wiederman, 2015). Sexual script theory is useful in understanding and describing sexual behaviors that occur during a hook up as it defines sexual behavior from a global, dyadic, and individual psychological perspectives. The following section outlines cultural, interpersonal, and intrapsychic scripts and how each relates to hooking up behaviors among emerging adults.

**Sexual Cultural Scripts**

Although more abstract than interpersonal and intrapsychic scripts, sexual cultural scripts are the global perspectives, expectations, and norms that provide the contexts of roles, and the institutional arrangements and symbols that encompass life (Simon & Gagnon, 1986; Wiederman, 2015). In many ways, sexual cultural scripts are built through
mass media, government, law, education, and religion as they portray cultural scenarios and sexual norms (Gagnon, 1990; Simon, 1996; Wiederman, 2015). Individuals learn sexual norms through behaviors that are illegal, stigmatized, warned against and those that are instructed, envied, and encouraged (Wiederman, 2015). Despite the importance of sexual cultural scripts, cultural scripts do not equate to sexual behaviors, rather they provide “the general cast of characters (roles) and the relationship among them” and do not provide direction to guide actual interpersonal behavior (Wiederman, 2015, p. 7).

Although this study will not specifically focus on sexual cultural scripts, sexual cultural scripts lay the foundation and create scenarios for hooking up behaviors to occur (Wiederman, 2015). Such scenarios include the norms of behavior including what behaviors occur, with whom behaviors occur, and timing of sexual behavior. For emerging adults in the U.S., the current cultural scripts promote casual sex (Owen et al., 2010; Sutton & Simons, 2015). Sexual cultural scripts surrounding hook ups include behaviors (i.e., kissing to intercourse; Reiber & Garcia, 2010), age at which sexual behaviors are appropriate, and timing of knowing partners (i.e., stranger, acquaintance, friends, etc.; Olmstead et al., 2015). Although cultural sexual scripts will not be explicitly the focus of this study, cultural scripts will be exhibited through the acceptance of promiscuous behaviors within the U.S. culture, particularly among the emerging adult and late adolescent generation. Despite using behaviors as a proxy for sexual cultural scripts and acknowledging the general acceptance of promiscuity among the emerging adult population in the U.S., this study does not presuppose the emerging adult population, and all the participants in the study, follow or adhere to cultural norms.
**Interpersonal Scripts**

Interpersonal sexual scripts rely heavily on the roles and conditions created by cultural scripts and further include the individual’s adaptation of these cultural scenarios in any situation (Wiederman, 2015). When an actor (i.e., the individuals participating in any social interaction) adapts the general guidelines that he or she learned from his or her previous experiences within the culture, his or her interpersonal script is created (Simon & Gagnon, 1986; Wiederman, 2015). At the interpersonal level, sexual scripts provide shared conventions that allow for two or more actors to interact with mutual dependence (Gagnon & Simon, 1973; Wiederman, 2015). When two actors have similar scripts, the interactions often play out with relative congruence, yet there are differences between individuals and as circumstances and scenarios differ, each actor must modify and improvise their scripts (Wiederman, 2015).

When emerging adults participate in any casual sexual behavior, they are adapting both their cultural understanding of sexuality and their own history in order to participate in these behaviors, creating their interpersonal script (Wiederman, 2015). Emerging adults learn such cultural scripts through a variety of sources including parents and peers. When emerging adults are emotionally close to their parents or peers, they may adhere to the same or similar views of sexual behavior as their parents or peers. Yet, when the individual is able to think and feel independently, he or she might further be able to smoothly adapt and find agreement between his or her experiences and culture.

Additionally, interpersonal scripts are seen in the outcomes of hooking up. For example, when two sexual individuals begin a hooking up encounter and their sexual
scripts are similar, both partners might report more positive outcomes. Conversely, when two consenting emerging adults participate in hooking up and their sexual scripts do not align, those actors may be likely to report more negative emotional reactions to hooking up. In addition to the behaviors that take place during a hook up, the inability to adapt cultural understanding and past experience may cause stress, anxiety symptoms, or depressive symptoms. In this study, interpersonal scripts will be exhibited through exploring how attachment to parents and peers, and individual hook up experiences and behaviors predict profiles of intrapsychic sexual scripts.

Although cultural and interpersonal scripts share similarities in terms of focus on behavior, the two concepts differ with cultural scripts primary focus on cultural and behavioral norms and interpersonal scripts emphasizing individual’s enactment and application of culture into their own behavior. As these concepts share similarities, behavioral norms and behavior warranted an explanation of their differences. Cultural and behavioral norms encompass what a specific society, geographic region, religion, or generation see as acceptable sexual behavior. In other words, behavioral norms speak to what individuals are taught are approved sexual behaviors. Conversely, behavior speaks towards what sexual behaviors the individual actually participates in. Behavioral and cultural norms influence behavior through lessons taught.

**Intrapsychic Scripts**

Intrapsychic scripting entails specific plans and strategies for carrying out interpersonal scripts (Simon & Gagnon, 1986; Wiederman, 2015). Simon and Gagnon (1984) stated that “intrapsychic scripting creates fantasy in the rich sense of that word:
the symbolic reorganization of reality in ways to more fully realize the actors many-
layered and sometimes multi-voiced wishes” (p. 54). Intrapsychic sexual scripts include
fantasies, mental rehearsals, memories, personality factors, and the opportunity for the
actor to play out and resolve disparities between their interpersonal scripts and the
context of cultural scenarios that they are presented with (Simon & Gagnon, 1986;
Macgruder, 1993; Wiederman, 2015). As representations of the particulars of each actor’s
sexuality, intrapsychic scripts further include both subconscious and conscious thought
processes that influence and are influenced by sexual behavior including identify, sexual
and hook up motivations, and autonomy (Wiederman, 2015). Intrapsychic scripts are the
internalized creations of and predicted by both cultural and interpersonal scripts (see

For hooking up behaviors, intrapsychic scripts occur internally for emerging
adults as a thought processes about themselves as sexual beings. Fantasies, self-
evaluations, and reliving previous hooking up experiences all may be influential in
building intrapsychic scripts for emerging adults. In order to fully build an intrapsychic
script for hooking up, emerging adults should have some sort of sense of self (i.e.,
identity) as an individual and as a sexual being. Further, this study explored how both
cognitive and emotional autonomy (i.e., thinking and feeling independently) influence
emerging adults’ behaviors as they decide what casual sexual behaviors are acceptable
for them to participate in. Intrapsychic scripts will further be assessed in this study
through hook up motivations and how individuals are motivated to participate in hook up
behaviors and that thought helps researchers to understand different hook up behaviors.
Intrapsychic scripts of identity, autonomy, and motivations will comprise latent profiles to help create a person-centered approach to exploring differences in hooking up behaviors.

Additionally, intrapsychic scripts, through reliving memories, fantasizing, and appraising one’s sexual abilities may lead to increased sexual self-esteem for many, while others may feel depressed about their sexual capabilities, cause anxiety, or stress for participating in future casual encounters. The primary focus of these psychological factors in this person-centered approach to studying hooking up will be as outcomes of intrapsychic profiles created by identity, autonomy, and hook up motivation.

Applying Sexual Script Theory to Hook Ups

Sexual Cultural Scripts: Predictors of Hooking Up

**Demographic predictors.** Throughout the existing literature, researchers have focused on demographic variables as a proxy for cultural scripts. Researchers focusing on hook up behaviors have found many predictors that influence emerging adults’ likelihood to hook up including personality and demographic characteristics (e.g., Owen et al., 2010; Paul et al., 2000), alcohol use (e.g., Olmsted et al., 2015), individual well-being (e.g. Owen et al., 2010), and individual attitudes (Olmstead et al., 2015). In a study involving 832 male and female college students, Owen et al. reported that men and women were not significantly different in their likelihood to participate in hook up behaviors. Furthermore, the researchers indicated that both men and women from more affluent families were more likely to hook up (Owen et al., 2010). Brimeyer and Smith
(2012) found that emerging adults who were in their last years of college were more likely to hook up than their freshman and sophomore counterparts. This finding is not surprising as older emerging adults are more likely to participate in sexual behaviors than younger emerging adults (Owen et al., 2010). Additionally, researchers have related that high religious involvement, through church attendance and affiliation, decreased the likelihood of emerging adults participating in hook up behaviors (Brimeyer & Smith, 2012; Burdette, Ellison, Hill, & Glenn, 2009; Owen et al., 2010). Using a national sample of college women, Burdette et al. reported that both religious affiliation and church attendance significantly reduced the odds of participation in casual sexual relationships. Likewise, Brimeyer and Smith found that church attendance, during both high school and college, reduced the chances of hooking up (Brimeyer & Smith, 2012).

**Gender.** Since researchers have begun to study hooking up behaviors among emerging adults, they have reported interests in gender differences in hooking up prevalence, predictors, and outcomes. Researchers have reported various rates of hooking up for both males and females. In a university sample, Bradshaw, Kahn, and Saville (2010) reported that men and women reported nearly double the number of hook ups than first dates. In their study, men reported having an average of 3.11 first dates compared to 5.71 hook ups per year and women reported an average of 2.31 first dates versus 4.34 hook ups (Bradshaw et al., 2010). Owen and Fincham (2011) reported that 76.1% of men and 60.1% of women in their study reported having had a hook up over the previous 12 months. In another study, 67.8% of men and 52.8% of women reported either having a penetrative or non-penetrative hook up over the course of a semester of college (Owen et
al., 2011). Using a sample of 832 of college students, Owen et al. (2010) reported approximately 49.1% women and 45.3% of men had reported a hook up over the previous year. A common theme throughout these studies revealed that despite minimal differences in percentages of hookups between men and women, these differences did not differ statistically.

Researchers have reported that there were limited differences in predictors of hooking up for men and women. In a sample that was over two-thirds (69.5%) females, Owen et al. (2010) planned to explore predictors of hooking up and reactions to hooking up. For both men and women, increased parental income was correlated with participants having had a hook up in the previous year. Additionally, it was reported that for men and women, increased alcohol use and positive attitudes about hooking up were associated having had a hook up over the last year (Owen et al., 2010).

Owen et al. (2010) study and other researchers reported that there are minimal differences between genders in terms of hooking up outcomes. Owen and Fincham (2011) reported that men and women report more positive emotional reactions to hooking up than negative reactions. Owen et al. (2010) reported that men in their study had higher rates of psychological well-being than women following hook up experiences. Although both men and women reported similar rates of depressive symptoms, anxiety symptoms, physical symptoms, and self-esteem as an outcome of hooking up, men reported lower rates of depressive symptoms, anxiety symptoms, physical health symptoms, and higher rates of self-esteem when hooking up was internally motivated (Vrangalova, 2015a). Such findings indicate that although men and women did not differ greatly in their
hooking up behaviors, men reported higher rates of psychological well-being and self-esteem than their female counterparts (Vrangalova, 2015b). Current literature on gender differences in hook up behaviors indicate that there are minimal differences in terms of predictors and outcomes of hooking up, however, little is known concerning how gender impacts intrapsychic sexual scripts. Gender is important to understanding how men and women think about and develop scripts that are both influenced by and influential in casual sexual behaviors. As such, gender is an important covariate for hooking up behaviors.

**Contextual factors.** Contextual and behavioral factors have also been extensively researched as predictors of hook up behaviors. One of the most researched predictors of hooking up is alcohol consumption. In a landmark study of hooking up in college involving 452 emerging adults who had hooked up, LaBrie, Hummer, Ghiadarov, Lac, and Kenney (2014) reported that almost all (about 90%) of males and females in their study and their hook up partners had been drinking prior to their hook up. Owen et al. (2010) indicated that those in their study that consumed more alcohol were three times more likely to have had hooked up. Olmstead et al. (2015) found that for men in their sample, precollege binge drinking was significantly correlated with increased number of hook up partners, increased likelihood of penetrative hook ups, and increased reports of unplanned and unprotected sex while at college. Manthos, Owen, and Fincham (2014) reported that increased alcohol use predicted more permissive sexual behaviors and more casual sexual behaviors. Lewis, Granato, Blayney, Lostutter, and Kilmer (2012) found that both men and women who had more drinks during the week and used alcohol during
a hook up predicted oral and vaginal intercourse. LaBrie et al. reported that as alcohol consumption increased prior to a hook up experience, the probability of more physically intimate (i.e., touching below the waist, giving or receiving oral sex, or vaginal or anal intercourse) behaviors will occur also increased. The researchers further indicated that when more sexually invasive behaviors occurred, men and women reported that they consumed more alcoholic drinks than those who had less invasive hook ups (LaBrie et al., 2014).

Researchers have further indicated that individual previous experiences and history with hook up partners also played an important role in predicting hook up behaviors. Olmstead et al. (2015) found that college freshman who had penetrative sex prior to college were more likely to report hook up behaviors during their first year of college. In their study, those who had hooking up experiences before college were also more likely to report hooking up during their first year of college, furthermore, those who had a penetrative hook up prior to college had four times greater probability of having penetrative hook ups during their first semester of college (Olmstead et al., 2015). In a study of relationships to hook up partners, Manning, Giordano, and Longmore (2006) found that more 46.6% men and 49.4% women report that they hooked up with a friend over a stranger (7.3%, 4.7%), acquaintance (21.9%, 24.9%), or an ex-boyfriend or girlfriend (15.5%, 12.0%). Lewis et al. (2012) explored how the relationship with a hook up partner impacted sexual behaviors during a hook up and reported that individuals who hook up with a stranger, acquaintance, or friend were statistically significantly less likely to have intercourse than those who reported hooking up with their ex-boyfriend or
When looking at where college students meet hook up partners, Kuperberg and Padgett (2015) reported that the sex of the individual and their partner mattered. Men and women attending college had greater odds of meeting a hook up partner in the dorms, bars, or parties than using the internet or other public places (Kuperberg & Padgett, 2015). Holman and Sillars (2012) further argued that it wasn’t just the location at which individuals meet a hook up partner, but whether their social network was present or not was also important factor in hook up behaviors. For participants in this study, those who were at a party with their friends were more likely to report having had a hook up (Holman & Sillars, 2012).

Throughout this section, the focus has been on the cultural and sexual scripts that are associated with or predictive of increased (or decreased) likelihood of participating in casual sex. Cultural scripts that have been introduced in this section include demographic variables such as age, family income, gendered differences, and contextual factors such as drinking and relationship to hook up partner (i.e., friends, exes, etc.). The results from these studies indicated that older emerging adults, men, and those from more affluent families were more likely to report hooking up experiences. Additionally, when increased alcohol consumption occurred, men and women were more likely to engage in more hooking up behaviors and were also more likely to engage in more sexually invasive behaviors. Finally, researchers further indicated that men and women were more likely to report casual sex with friends than any other relationship type. Cultural scripts provide important context that inform what behaviors, ages, gendered differences, and in what
social contexts are acceptable for casual sexual behaviors and further predict fantasies, and motivations of casual sexual (Gagnon & Simon, 1973). Based on the above review, the present study seeks to assess demographic factors as covariates of latent profiles including age, gender, attachment, and drug and alcohol use in order to predict class membership.

**Interpersonal Scripts and Hooking Up**

**Attachment**

Attachment is commonly defined as the feelings of emotional closeness to an attachment figure, typically parents or other significant individuals, has lifelong implications for individuals (Bowlby, 1969). As a theory of infancy, traditional forms of measurement were developed to assess infant attachment to their primary caregiver, specifically their mothers (Gullone & Robinson, 2005). Attachment during infancy impacts lifelong relationships with mothers, fathers, sexual partners, friends, and close family members (i.e., siblings, grandparents, etc.; Ainsworth, 1989). The most common observational measure of attachment, the “strange situation,” demonstrates patterns of behavior that can classify the infant into secure or insecure attachment styles (Ainsworth, Blehar, Waters, & Wall, 1978). Using Ainsworth et al.’s methods, established and stable patterns of behavior have been consistent across family and caretaking conditions (Fraley, 2002; Hamilton, 2002; Lewis, Feiring, & Rosenthal, 2000).

**Parent and peer attachment.** Decisions to participate in hooking up do not occur in a vacuum, rather they are influenced by those that emerging adults are close to (i.e.,
parents and peers). Through these important relationships, the opinions and values of others are often internalized to create intrapsychic scripts. Bowlby (1969) posited that infants have an innate system to attach to their primary caregiver, creating an attachment relationship. This attachment relationship represents a type of social relationship that involves a connection between infant and caregiver, often characterized by emotion regulation for the infant (Bowlby, 1969). Patterns of trust, warmth, and responsiveness, established during infancy with one significant individual, has important effects on psychological adjustment across the lifespan (MacDonald, 1992), and has been linked to resiliency during adversity (Cicchetti & Garmezy, 1993; O’Connell-Higgins, 1994). During adolescence, despite the growing importance of peers (Armsden & Greenberg, 1987; Goosens, Marcoen, van Hees, & van de Woestijne, 1998) parental connectedness continues to play a significant role in the child’s health and adjustment (Wilkinson, 2004). Higher attachment to parents and peers has been linked to positive psychological outcomes for late adolescents and emerging adults (Nada Raja, McGee, & Stanton, 1992). During adolescence, both parent and peer attachment serve similar functions in assisting in the development of positive adjustment (Laible, Carlo, & Raffaelli, 2000). Higher attachment figures, either parents or peers, impact adolescent and emerging adult behaviors including sexual, risk-taking, and adjustment to the first year of college.

**Attachment and first year of college.** Positive adjustment to the first year of college, a construct that is related to positive parent and peer relationships, is related to positive hooking up outcomes (Strokoff, Owen, & Fincham, 2015). Much of the extant literature of the first year of college in relation to attachment emphasize the benefits of
attachment on the social, academic, and psychological adjustment of emerging adults. At the beginning of their first year of college, higher parental attachment was the strongest predictor of academic help-seeking and academic adjustment in their first semester (Holt, 2014). Higher parent attachment was negatively correlated with increased psychological symptomology for university freshman, both male and female (Kenny & Donaldson, 1991). During the first year of college, a time that can cause high levels of loneliness for emerging adults, secure attachment to parents predicted lower rates of loneliness during college (Wiseman, Mayseless, & Sharabany, 2006). Stewart and Podbury (2003) reported that secure attachment was positively associated with increased psychological well-being during the first year of college. Furthermore, secure attachment to parents was also associated with decreased social anxiety among ethnically diverse female college freshman (Parade, Leerkes, & Blankson, 2010).

In a study of how maternal and paternal attachment and the impact of peer mentoring determines adolescent adjustment to his or her first year of college, Soucy and Larose (2000) reported several findings that indicate positive relationships with parents greatly impact positive college experiences. Using a sample of 158 adolescents entering college in the provenance of Quebec Canada, Soucy and Larose found that secure attachment to parents was predictive of social adjustment to college. However, positive peer mentors were more important in predicting emotional and academic adjustment to college, thus providing evidence of the importance of peers in adjusting to the first year of college (Soucy & Larose, 2000). In addition to the importance of peer relationships in adjusting to college, other scholars have highlighted that secure attachment to parents
was associated with, and predictive of, developing positive peer relationships (Parade et al., 2010).

Additional support for the role of peers in adjustment to the first year of college have been found and indicated that higher peer attachment, mediated through social support, was associated with increased self-esteem, decreased stress, and positive academic adjustment (Friedlander, Reid, Shupak, & Cribbie, 2007). In a study comparing attachment to college versus high school friendships, researchers found that new friendship attachments negatively predicted emotional and personal adjustment during the first year of college, demonstrating that long term peer attachments may be a protective factor for college adjustment (Swenson, Nordstrom, & Hiester, 2008). For Caucasian and Hispanic female college freshman, higher peer attachment, via peer social support, was predictive of adjustment to college, an association that was not found for Caucasian and Hispanic males (Toews & Yazedijan, 2007). In a longitudinal study of the first year of college, Goguen, Hiester, and Nordstrom (2010) reported that increased peer attachment through trust was predictive of increased academic achievement both during their first and second semesters of college. Despite being tangentially related to the purpose of this dissertation, understanding the relationship between attachment to parents and peers and adjustment to college life assists in understanding the association between attachment and hooking up. Strokoff et al. (2015) found that adjustment to the first year of college was an important indicator for positive hooking up experience. As attachment to parents and peers is indicative of positive adjustment to college life, it can be posited that attachment to both parents and peers is related to positive hooking up experiences.
**Attachment and risk-taking.** Attachment to both parents and peers has been linked to health, behavioral, and sexual risk-taking throughout adolescence. In a study of 803 teenage inner-city minorities, Smith (1997) intended to establish patterns of sexual activity for emerging adolescents, early sexual activity and sexual risk-taking, and to explore the contexts that are linked with early sexual activity (i.e., sex before the age of 15). The researcher reported that parental attachment negatively predicted early sexual activity for both boys and girls, indicating that attachment was a protective factor against early sexual activity (Smith, 1997). The association between higher parental attachment styles and lower rates of sexual risk-taking was further supported by Kahn, Holmes, Farley, and Kim-Spoon (2015). In a longitudinal study of 219 adolescents and their parents, the researchers sought to understand the influence of parent-child relationship quality on sexual risk-taking decision making and self-control (Kahn et al., 2015). Higher parental attachment via positive communication and trust was negatively associated with, and predictive of early sexual debut and intercourse without a condom (Kahn et al., 2015). These studies provide evidence for the association between parental attachment and decreased sexual risk-taking, however they fail to explore how attachment is associated with specific sexual casual sexual behaviors and if attachment is associated with less sexually invasive hook ups.

In addition to sexual risk-taking, attachment has further been associated with risk-taking in the form of substance use and abuse. Lower rates of parental attachment predicted increased binge drinking for adolescents (Wells, Horwood, & Fergusson, 2004). Parents who were not emotionally close to their adolescents (i.e., avoidant or
anxious attachment) predicted less knowledge of adolescent substance use and predicted increased adolescent substance use (J. D. Jones, Ehrlich, Lejuez, & Cassidy, 2015). In a longitudinal study of 139 first-semester adolescent college students that focused on the association between attachment to parents and adolescent drinking behavior, secure attachment with one’s mother negatively related to both current and future alcohol use (LaBrie & Sessoms, 2012). Further associated with parental attachment was increased law abidance (i.e., less delinquency) and decreased tobacco use during early adolescence (Christopherson & Conner, 2012). As a protective factor against behavioral risk-taking, parental attachment may further assist in understanding the differences in intrapsychic scripts of sexual behavior by elaborating on how attachment impacts motivations, identity, and autonomy.

For adolescents, researchers have linked increased attachment to peers to increased risk-taking behaviors and decreased attachment to parents (Wade & Brannigan, 1998). Using a sample of 88 undergraduate students, Crimmins and Seigried-Spellar (2014) focused on the impact of peer attachment in predicting risky online behaviors and sexual risk-taking for their emerging adult sample. They reported that ambivalent peer attachment (i.e., conforming to peer’s beliefs) was associated with increased sexual risk-taking, and risky online behavior such as speaking to strangers and increased or excessive pornography use (Crimmins & Seigfried-Spellar, 2014). When studying 290 adolescents aged 13 to 19 years, Youngblade and Curry (2006) longitudinally explored interpersonal relationships impact on risky and health promoting behavior for adolescents. When adolescents are attached to peers that are a negative influence for behavior, adolescents
are more likely to participate in risk taking behaviors over time (Youngblade & Curry, 2006). In a sample of 167 inner city adolescent males, those with “connected” attachment to peers were less likely to report risk-taking behaviors (Wampler & Downs, 2010). For both young boys and girls and for older adolescents, increased trust attachment with peers was associated with increased alcohol consumption (McKay, Sumnall, Goudi, Field, & Cole, 2011). Through these studies, researchers have provided evidence that attachment to peers is important for participating in risk-taking behaviors and may further assist in understanding sexual behaviors that occur during a hook up.

**Attachment and hooking up.** The current literature exploring attachment and hooking up behavior focuses primarily on attachment styles, specifically avoidant and anxious styles (established in infancy and expressed during emerging adulthood), and their influence on emerging adult behavior. Paul et al. (2000) found that individual differences in attachment styles also increased the likelihood of hooking up and hooking up differences based on gender. If emerging adults had a secure or avoidant attachment style, the researchers found that they were significantly more likely to report hooking up (Paul et al., 2000). Using 339 emerging adults who were predominately Caucasian, Manthos et al. (2014) aimed to identify groups of dating behaviors using latent class analysis and reported two distinct groups in dating behaviors, conventional/romantic and permissive/purposeful. The permissive group was significantly more likely to have had hooking up experiences than the conventional group. The researchers further found that those with an anxious attachment style were less likely to report hooking up behaviors than those with avoidant attachment styles (Manthos et al., 2014). Examining
demographic and psychosocial correlates of hooking up among college students, Owen et al. (2010) focused on differences in hooking up based on ethnicity, alcohol use, psychological well-being, attitudes, attachment using an ethnically diverse (40% minority status) sample of 832 university students who were predominately female, with a mean age of 20 years (SD = 2.85 years). For both men and women in this study, avoidant and anxious attachment styles were negatively correlated with hook up frequency, a finding that has been substantiated in additional studies (e.g., Garneau, Olmstead, Pasley, & Fincham, 2013; Owen et al., 2010).

In addition to the correlational studies of attachment and hooking up, others have reported that attachment style predicted participation in hook up culture (i.e., acceptance of and growing belief that hooking up is normative). In a study of risk factors for sexual assault, Sutton and Simons (2015) reported that avoidant attachment predicted increased participation in hooking up. Controlling for ethnicity, class standing, drinking behaviors, and family structure, it was reported that avoidant attachment style predicted an increased number of hook up partners (Garneau et al., 2013). Although these findings indicate that avoidantly attached individuals were more likely to hook up, anxious attachment still predicted, though minimally, hooking up behaviors (Garneau et al., 2013; Sutton & Simons, 2015). Conversely, researchers have stated that securely attached individuals are less likely to hook up (Stinson, 2010), and more likely to be in stable relationships (Tracy, Shaver, Albino, & Cooper, 2003). Despite the extant literature that links hooking up to emerging adults’ attachment style, researchers have yet to explore how attachment assists in predicting intrapsychic sexual scripts and further predicting positive and
negative outcomes of hooking up through intrapsychic sexual scripts.

**Intrapsychic Scripts and Hooking Up**

In addition to fantasies and strategies for sex, intrapsychic sexual scripts include a variety of traits and thought processes that have been associated with hooking up in previous studies including attitudes, sexual schema, and personality (Simon & Gagnon, 1984). Unsurprisingly, individuals with more positive views of hooking up are nearly twice as likely to hook up, have more hook up partners, greater frequency of penetrative hook ups, and to take sexual risks (i.e., unprotected sex, sex under the influence) than those who have less favorable opinions of casual sex (Olmstead et al., 2015; Owen et al., 2010). In addition to attitudes, researchers have categorized individuals based on their beliefs about approaching sexual behavior including loving/warm (i.e., viewing oneself with high levels of affection, romance, and a sexual being), direct/outspoken (i.e., straightforward view), and reserved/conservative (i.e., high levels of self-consciousness; Hill, 2007). Researchers identified that those with warm or direct sexual self-schemas were more likely to report hooking up experiences (Manthos et al., 2014). Finally, previous literature has also linked personality to hooking up behaviors. Unsurprising results indicate that those who are extroverted are more likely to have planned hook ups and have more partners (Olmstead et al., 2015). Paul et al. (2000) reported that individuals with highly impulsive personalities were statistically more likely to hook up. The findings from the above studies indicate that intrapsychic variables of personality, sexual schema, and attitudes assist in understanding and predicting hook up behaviors.
Extant literature has indicated that intrapsychic variables predict behavior (see Gagnon & Simon, 1973), however as behavior (interpersonal scripts) assist in creating intrapsychic scripts, researchers should explore the inverse relationships, predicting intrapsychic scripts from interpersonal scripts.

**Motivations for Hooking Up**

As an influential intrapsychic script, motives of sexual behavior have often been conceptualized as goal directed and driven by internal (e.g., pleasure, sexual release) and external (e.g., social rewards) purposes (Impett & Peplau, 2003; Impett et al., 2005). Researchers have indicated that motives are important predictors of sexual behavior to the point that individuals make decisions to engage in sexual behaviors in order to complete desired needs and/or avoid negative outcomes (Cooper et al., 1998; Snyder & Cantor, 1998). Emerging adults engage in hooking up for a variety of reasons including the need to feel sexually desirable (Fielder & Carey, 2010), for gratification (Fielder & Carey, 2010; Garcia & Reiber, 2008), conformity to peer beliefs and behaviors (Regan & Dreyer, 1999), and for excitement and fulfilment of interpersonal connections without the requirement for commitment (Fielder & Carey, 2010).

By adapting sexual motives to reflect the context of a hook up rather than a relationship, Snapp et al. (2014) explored how individual motivations influenced hook up behaviors. Using five subcategories of sexual motivations (i.e., intimacy, enhancement, self-affirmation, coping, and peer pressure), they found that both men and women reported similar motivations for a hook up, however men were more likely to say that their motives were for personal enhancement or due to peer pressure (Snapp et al., 2014).
Using a sample of 512 university students, Uecker, Pearce, and Andercheck (2015) reported four groups of motivation assisted in describing behavior during hook-ups. The first class, the “uninhibited” were motivated primarily by thrill seeking in terms of sexuality and fun/excitement. The “utilitarians,” the second class, were motivated by fun and due to a lack of availability within the dating scene and increased hopes for a relationship. Their third group, the “uninspireds” reported not being motivated by any of the predictors in this study. Finally, the “unreflectives,” were distinguishable by knowing what did not motivate them to hook up. These findings of the latent class model by Uecker et al., indicate that there are distinguishable differences in the thought process that drive hooking up for emerging adults.

By understanding emerging adults’ motivations for hooking up, researchers are better able to elucidate on the positive and negative outcomes of hooking up. Based on the sex motives questionnaire (Cooper et al., 1998), researchers indicated that both participation in hook-ups and the outcomes associated with casual sex were correlated with sexual motives (Owen et al., 2014). Using a sample of 400 female college students, Owen et al. found that intimacy, self-affirmation, and partner approval motivations for hooking up were positively correlated with having sexual intercourse during a hook up. Additionally, the sexual motive of enhancement was negatively linked to intercourse during a hook up for women. For their sample, partner approval and self-affirmation were associated with increased depressive symptoms after experiencing a hook up. Furthermore, the sexual motive of self-affirmation was associated with increased levels of loneliness post vaginal sex hook ups (Owen et al., 2014).
In a longitudinal study, Vrangalova (2015a) explored the impact of autonomous motivation (i.e., motivation emanating within the individual) and non-autonomous motivation (i.e. experiencing pressures, external controls that influence, or no intentions for hooking up) on emotional outcomes of experiencing a hook up over an academic year. Using a university-wide sample of 528 males and females, Vranglova (2015a) surveyed participants at three time points, the beginning of the school year, mid-year, and at the end of the year. The target outcome variables included depressive symptoms, anxiety symptoms, self-esteem, and physical symptoms (i.e., health outcomes). Autonomous motivations for hooking up were linked to more positive outcomes including decreased depressive symptoms, anxiety symptoms, and health outcomes following hook ups. Further, it was reported that those who had autonomous hook ups reported decreased depressive symptoms and anxiety symptoms compared to those who did not report hooking up over the academic year. Further, those who had non-autonomous hook ups reported increased anxiety symptoms, depressive symptoms, and physical symptomology. Finally, participants in this study who had autonomously motivated hook ups had the highest levels of reported self-esteem compared to those who had not had a hook up and those who had a non-autonomously motivated hook up (Vranglova, 2015a).

Identity and Identity Status

As a theory of personality development, Erikson (1950/1963) posited that “the human personality in principle develops according to steps predetermined in the growing person’s readiness to be toward, to be aware of, and to interact with, a widening social
radius” (Erikson, 1950/1963, p. 270). Additionally, Erikson theorized that society influences development to meet these predetermined steps and to “safeguard” and “encourage” the appropriate steps of development (Erikson, 1950/1963, p. 270). With its background in Freudian thought, Erikson’s theory of psychosocial development (1950/1963) elaborates and expands on the four psychodynamic stages and the necessary tasks that must be dealt with at each age. Adolescence represents the crux of development, as Erikson said, “in the social jungle of human existence there is no feeling of being alive without a sense of identity” (Erikson, 1968, p. 130). During adolescence, the child enters into the crisis of ego identity versus role confusion that helps her/him develop the virtue of fidelity (Erikson, 1950/1963).

Marcia (1980) argued that identity is “an internal, self-construct, dynamic organization of drives, abilities, beliefs, and individual history” (p. 159). Originally categorized by Erikson (1950/1963) as identity-achievement and identity-diffusion, Marcia (1966, 1980) expanded the construct of identity status to include identity achievement (committed after crises), foreclosure (committed without crisis), diffusion (currently in an identity crisis), and moratorium (absence of commitment and exploration). Identity develops through a process of commitment to one’s own beliefs while enduring crises. Identity crises allow for exploration across different realms of identity development (Marcia, 1980). It is through the presence or absence of crises (decision-making periods) and the extent to which the individual is personally invested or committed to the two areas of occupation and ideology that identity develops (Marcia, 1980). As a precursor to intimacy (Constantinople, 1969; Erikson, 1950/1963; Orlofsky,
Marcia, & Lesser, 1973), identity has been linked to many aspects of sexuality including sexual debut and sexual activity (e.g., Beyers & Seiffge-Krenke, 2010; Zimmer-Gembeck & Petherick, 2006), sexual identity development (e.g., Archer & Grey, 2009; Grotevant, 1992; Konik & Steward, 2004), and sexual risk-taking (i.e., unprotected sex, multiple sexual partners, casual sex, etc.) behaviors (Hernandez & Diclemente, 1992; Schwartz et al., 2011).

The most popular, of the many identity status measurement instrument, is the Extended Objective Measure of Ego Identity Status II (EOM-EIS-II; Bennion & Adams, 1986). The EOM-EIS-II explores identity status across four ideological and four interpersonal content areas (Bennion & Adams, 1986). Over all the content areas, items assess the endorsement of each of the identity statuses, evaluating exploration and commitment to each area (Adams, 1998). Evidence of reliability and validity for scores on the EOM-EIS-II has been established across multiple studies (Bennion & Adams, 1986; R. M. Jones & Streitmatter, 1987). The EOM-EIS-II has been used to explore identity across a variety of constructs and cultures that impact adolescents and emerging adults (Schwartz, Adamson, Ferror-Wreder, Dillon, & Berman, 2006). The EOM-EIS-II has been modified by Akers, Jones, and Coyl (1998) to be more space sufficient in survey research and produces the same results.

**First year of college and identity.** As the opportunity for many firsts (e.g., first time away from home, out of immediate influence of parents), the first year of college represents a significant time for development of identity for emerging adults. Additionally, during the first year of college emerging adults live in coed dorms with
many prospective mates of the opposite sex and represents the first time with complete unsupervised interactions with peers. These firsts for emerging adults represent opportunity for growth in ideology, occupation, and independence and increase the probabilities of participating in hooking up behaviors. During the first year of college, identity formation has been associated with many developmental, social, and relational outcomes.

In a longitudinal study of identity development, A. S. Waterman and Waterman (1971) reported that there was a significant shift in identity status from fall to spring semesters of the first year of college in terms of occupation and ideological values, with the biggest shift occurring with participants identifying as diffused. Of the 92 participants, 16 moved out of identity diffusion in the realm of occupational values (A. S. Waterman & Waterman, 1971). They found that the greatest amount of change occurred with participants shifting into the moratorium classification. Identity status has been related to psychosocial resources (i.e., Eriksonian virtues; Adams, Berzonsky, & Keating, 2006). Identity achievement positively predicted psychosocial resources, while diffusion, foreclosure, and moratorium statuses all negatively predicted psychosocial resources (Adams et al., 2006). Additionally, researchers have indicated that identity is linked to positive adjustment in the first year of college (Holmbeck & Wandrei, 1993), and was related to positive emotional outcomes (Meeus, 1996).

Risk-taking and identity status. Risk-taking, an area of research that has received significant attention in the adolescent literature, includes casual sexual behaviors as a sexual risk-taking behavior. Researchers have connected behavioral, health, and
sexual risk-taking behaviors to identity status. Hernandez and Diclemente (1992) reported that being in moratorium was predicted by increased number of sexual partners and decreased intentions of condom use. In their landmark study of identity and prosocial behaviors, Schwartz et al. (2011) reported many behavioral, health, and sexual risk-taking related to identity status for emerging adults. Participants who were categorized as diffused were more likely to report having sex under the influence of drugs or alcohol, report having anal sex, and report more sexual partners. In comparison, those labeled as identity achieved reported the lower rates of sex under the influence of drugs or alcohol and decreased number of partners. Those who identified as foreclosed were less likely to have anal sex in comparison to all other identity status groups. Additionally, diffused participants reported being the most likely to have unprotected sex, followed by identity achievement, foreclosure, and moratorium, respectively (Schwartz et al., 2011).

When examining identity development as a protective factor against risk-taking behaviors and peer pressure, Dumas, Ellis, and Wolfe (2012) reported several important implications for commitment and exploration of values and beliefs. Using a sample of 1,070 evenly distributed male and female high school students with a mean age of 15 years, the researchers aimed to explore risk-taking factors associated with deviant behavior and substance use. The researchers reported that participants who were more committed to ideological and interpersonal beliefs were less likely to use illegal substances and participate in deviant behavior (Dumas et al., 2012). Additionally, adolescents who were more committed to their values were less impacted by peer pressure to participate in deviant behaviors and to use drugs or alcohol (Dumas et al.,
Noticeably absent from this study, however, was any connection to adolescent sexual risk-taking, an important component to consider when trying to understand the relationship between identity and risk-taking behaviors.

When considering identity status classification and risk-taking, researchers have used Marcia’s four statuses to explore deviant and risky behaviors. R. M. Jones and Hartmann (1988) reported that individuals who were achieved were less likely to use drugs and alcohol. Bukobza (2009) reported that adolescents who were classified in moratorium were more likely to report higher levels of rebelliousness and risk-taking. Additionally, foreclosed individuals were less likely to endorse and participate in rebellious and risk-taking behavior (Bukobza, 2009). Finally, individuals who were achieved were more likely to report past rebelliousness (Bukobza, 2009). In a study of alcohol consumption, researchers found that diffused adolescents reported the most alcohol consumption, followed by foreclosed, with achieved and moratorium individuals consuming the least amount of alcohol annually (Bishop, Macy-Lewis, Schnekloth, Puswella, & Strussel, 1997). Although the findings from the above studies are tangential to the purpose of this study, risk-taking studies are important to understanding hook up behaviors for several reasons. First, as a casual sexual behavior, hooking up is considered a sexual risk-taking behavior. Second, for many emerging adults hooking up behaviors co-occur with risk-taking behaviors such as unprotected sex and alcohol and illicit drug use (see LaBrie et al., 2014; Olmstead et al., 2015; Schwartz et al., 2011).

**Identity status and hooking up.** Although no studies have been identified that specifically focus on the relationship of ego-identity status and hooking up behaviors,
researchers have focused on the relationship between identity status and positive and negative psychosocial functioning, including proclivity for participating in casual sex. Schwartz et al. (2011) focused on patterns of identity development using positive and negative behaviors among university-attending emerging adults using a sample of over 9,000 university students across multiple universities around the U.S. The participants in the Schwartz et al. study had a mean age of 19 years and were predominately female (73%). Over half of the participants were in their first or second year at the university. Over one-third (38%) of the sample reported belonging to an ethnic minority. Approximately one-third (29.8%) of the sample were unable to be categorized within an identity status and were thus labeled “undifferentiated.” Nearly one-fifth (17.3%) of the sample were categorized as achieved, 13.6% of the sample identified as being in moratorium, 13.4% were foreclosed, and the remaining 25.9% were categorized as diffused. Those participants who identified as diffused reported the highest rates of engaging in casual sex (30.8%). Those who were categorized as in moratorium reported the second highest rate of participation in casual sex (14%). Identity achieved and foreclosed individuals reported the lowest rates of participation of casual sex with 7.2% and 5.9% engaging in casual sex respectively. Such findings indicate that those who are in a committed status, both with and without exploration, were least likely to hook up compared to those who were in an exploration status. Understanding the important implications of Schwartz et al. study assists in understanding how identity status is related to increased rates of hooking up, however it falls short of the goals of the present study in two important ways. First, the current study aims to take a person-centered
approach to intrapsychic sexual scripts by creating classes of individuals based on identity, autonomy, and motivation. Second, this study aims to establish a predictive relationship between hooking up behaviors and identity.

**Cognitive and Emotional Autonomy**

As important as identity is to understanding behavior, an inability to think and feel independently from others would likely increase negative outcomes of hooking up. Autonomy, a psychosocial construct that some scholars view as a task that can rival identity in its importance during development, is often described as the adolescents “ability to act, feel, and think independently” (Beckert, 2016, p. 1). There are a variety of approaches that have conceptually defined adolescent autonomy ranging from separation and individuation, detachment, maturity, and decision-making and independence (Noom et al., 2001). From an Eriksonian perspective, adolescent autonomy includes a drive for individuation and individuality and can further be characterized as self-regulation (Beckert, 2016; Erikson, 1950/1963; Mahler, Pine, & Berman, 1975). Autonomy is important across multiple dimensions including cognitive (i.e., the ability to think for oneself), affective (i.e., regulating one’s emotions independently), and regulatory (i.e., ability to regulate one’s behavior; Noom et al., 2001). Development of autonomy should be well rounded and impact the adolescents cognitive, behavioral, and emotional abilities (Steinberg, 2002; Van Petegem, Beyers, Vansteekiste, & Soenens, 2012). Adolescent autonomy has been measured in research in a variety of ways from comprehensive measures, to domain specific measures focusing on behavior, cognitive, or emotional individuation. Early measurement of autonomy focused on the balance of dependency
and independence and on global, behavioral (i.e., the ability to act for oneself), emotional
(i.e., emotional or social independence), and cognitive autonomy (i.e., ability to think for
oneself; Beckert, 2016; Bekker, 1993; Flammer, 1991; Hammer, 1984). The focus of this
dissertation will be to explore the relationship between hooking up and cognitive and
emotional autonomy. Independence of thoughts and feelings are likely important to
hooking up as individuals are able to consider the consequences of their actions and the
emotional capacity to work through their emotions independently. By including
autonomy as a factor for this latent profile analysis, I will be able to explore how
interpersonal scripts of hooking up are related to thinking and feeling independently.

Autonomy and first year of college. For adolescents, the first year of college
signifies many firsts in the road to thinking, feeling, and behaving on their own. For most
college freshman, it is their first experience away from their parents and their first time
living on their own, thus giving them the opportunity for growth and to gain the
necessary experience to apply higher-ordered thinking to their lives. In a longitudinal
qualitative study, Ding (2017) reported that all the participants in his study spoke of the
noticeable growth in their independence. Many studies have indicated that increased
autonomy at the beginning of the first year of college is linked to social, emotional, and
academic adjustment (e.g., Conti, 2000). Further, researchers have indicated that at the
beginning of the first year of college, increased independence and a healthy separation
from parents were associated with more positive adjustment to college including
increased self-esteem and social support, and decreased depressive symptoms and anxiety
symptoms (Holmbeck & Wandrei, 1993). Further support for the positive relationship
between autonomy and college adjustment was reported by Wintre and Yaffe (2000) where increased self-reliance was related to increased self-esteem, decreased stress and depressive symptoms, as well as a sense of identity. Strage and Brandt (1999) and Santiago-Rivera, Gard, and Bernstein (1999) reported increased autonomy was associated with better academic performance and confidence as a student. Despite these positive associations to college adjustment, first time university students who possess autonomous traits still report feelings of depressive symptoms and homesickness during their first semester (Beck, Taylor, & Robins, 2003). As an intrapsychic script, cognitive and emotional autonomy provide insight for the decision to participate in hooking up behaviors. Furthermore, thinking and feeling independently may likely be linked to decreased negative outcomes (i.e., depressive symptoms, anxiety symptoms, stress) and increased self-esteem through the process of deciding how to feel, and working through the consequences of one’s actions.

**Autonomy and risk-taking.** To date, no studies have been identified that connect either emotional or cognitive autonomy to hooking up behaviors, however, autonomy has been connected to risk-taking. Throughout adolescence, cognitive functioning significantly changes and emerging adults are able to better think abstractly and perform higher-ordered operations (Irwin, Igra, Eyre, & Millstein, 1997). Despite these increased cognitive abilities, adolescents are less capable of applying such skills to decisions based upon limited experience, often leading to increased risk-taking behaviors (Irwin et al., 1997). In a study of the longitudinal effects of demographic, personality, behavior, and environmental factors that influence adolescent risk-taking, Moilanen (2015) reported
many important factors early in adolescence, including autonomy, that influenced later sexual risk-taking behaviors. According to Moilanen, participants who reported higher levels of autonomy in early adolescence later reported higher levels of sexual risk-taking. While studying motivations for risk-taking behaviors, Hardy, Dollahite, Johnson, and Christensen (2015) reported that higher cognitive autonomous motivations (i.e., free of influence from parents and peers) were related to increased health risk-behaviors (i.e., substance use, etc.) and behavioral risk-behaviors (i.e., sexual risk-taking) among adolescents. For younger adolescents, increased behavioral autonomy, achieved through less parental monitoring, was predictive of increased sexual risk-taking at younger ages (Huebner & Howell, 2003). Adolescents who exhibited risk-taking behaviors at earlier ages were less likely to report emotional autonomy at the beginning of high school (Garber & Little, 2001). Michael and Yakhnich (2017) demonstrated that increased autonomy from parents was indirectly associated to increased sexual risk-taking behaviors through parents’ and peers’ liberal attitudes, meaning that sexual risk-taking increased when adolescents were granted higher levels of generalized autonomy and when parents and peers had more liberal views of sexual behaviors.

In addition to the relationship between autonomy and sexual risk-taking, autonomy has been further linked to adolescent substance use. Researchers have indicated that decreased parental monitoring and increased generalized autonomy was linked to increased adolescent delinquency and illegal behavior (Little & Steinberg, 2006). In a study of peer pressure to use substances (e.g., alcohol, tobacco, marijuana, etc.), researchers reported that when adolescents with parents who were not supportive of
autonomous behaviors, thoughts, and emotions, were more susceptible to peer pressure of substance use (Allen, Chango, Szwedo, Schad, & Marston, 2012; Cooper et al., 1998). In comparing parental and adolescent agreement on behavioral and cognitive autonomy, Pérez, Cumsille, and Martínez (2016), reported that increased levels of parental and adolescent agreement on cognitive domains of autonomy was associated with decreased substance use and delinquent behavior. In a study of adolescent autonomy in inner-cities, the undermining of adolescent autonomy by parents predicted increased drug use (Samuolis, Hogue, Dauber, & Liddle, 2005). Increased autonomy was indirectly related to increased delinquency and substance use through increased conflict with parents (Dijkstra et al., 2015). As researchers have reported, autonomy has been linked to risk-taking behaviors, however by excluding autonomy from hooking up studies, researchers are unable to differentiate between the influence of peers and parents and individual resolve to participate in casual sexual behaviors.

Psychosocial researchers focusing on identity status and autonomy have found important associations with hooking up behaviors, risk-taking behaviors, and the first year of college. The research reviewed in this section have many implications for this study. First, identity statuses that are categorized by increased exploration has been associated with increased probability of participating in hooking up. Additionally, motivations for hooking up are related to positive and negative outcomes. Finally, autonomy, though yet to be studied in hooking up research, has been linked to increased risk-taking and positive adjustment to college. Despite researchers’ reports of significant associations between risk-taking and first year of college, limited research has explored
the relationships between psychosocial factors and hooking up. This study aims to connect identity, autonomy, and hook up motivations by creating data-derived profiles of intrapsychic sexual scripts that elucidate how various individuals think about casual sex is impacted by personal experiences.

**Outcomes of Hooking Up: Psychological Factors**

Current literature on hooking up represents mixed evidence on the emotional outcomes for emerging adults. Among the contradictory outcome variables, researchers have indicated that emerging adults report feeling increased depressive symptoms, anxiety symptoms, and self-esteem (Owen & Fincham, 2011; Vrangalova, 2015a, 2015b). By understanding the differences in intrapsychic scripts of sexual behavior, researchers are able to elucidate the differences in positive and negative outcomes based on the individuals thought processes surrounding sexuality.

Emerging adults are experiencing psychological disorders at increasing rates compared to previous generations (APA, 2016). Emerging adults who experience stress, depressive symptoms, and anxiety symptoms are often incapable in fulfilling everyday functions including school/work, household, and relationship responsibilities (American College Health Association, 2009; APA, 2016; CDC, 2011). Despite the growing number emerging adults who experience of psychological distress, self-esteem may be a buffer for psychological distress. Researchers have reported correlational relationships between psychological factors and participation in hooking up and have further indicated that psychological factors are outcomes associated with hooking up and will be treated as
outcomes in the present study. As psychological factors are important for understanding increased prevalence of hooking up, depressive symptoms, anxiety symptoms, stress, and self-esteem will be defined, explored for the prevalence in young adulthood, and the relationship to hooking up.

**Depressive Symptoms**

According to the CDC (2016), depression is both a serious mental illness and an important public health issue. Symptoms of depression manifest themselves differently depending on the individual and are often comprised of persistent sadness and occasional irritability, particularly with children (CDC, 2016). Depressive symptoms are associated with problematic personal and social problems including many healthcare, academic, employment problems, and early mortality rates (CDC, 2016). Depressive symptoms are correlated with significant increased risk of suicide and heart disease (CDC, 2016).

Between 2009-2012, 7.6% of Americans 12 or older reported moderate to severe depressive symptoms (Pratt & Brody, 2014). Approximately 7% of adults aged 18-39 reported having experienced moderate depressive symptoms (Pratt & Brody, 2014).

Among the emerging adult group specifically, roughly 30% of college students reported having felt depressive symptoms to the point that they were unable to function in every day live in the previous year (American College Health Association, 2009).

Depressive symptoms have been associated with hooking up both as a predictor and an outcome. Reported depressive symptoms prior to hooking up was predictive of negative emotional outcomes after hooking up (Owen & Fincham, 2011). Using cluster analysis of positive and negative outcomes of hooking up, Strokoff et al. (2015) reported
two positive groups (happy hopefuls and content realists) and two negative groups (used and confused, and disappointed and disengaged) in terms of reactions to hooking up. The used and confused, and the disappointed and disengaged groups reported high means of depressive symptoms following hooking up experiences (Strokoff et al., 2015). Those who have had penetrative hook ups reported having greater probabilities of reporting depressive symptoms than those who had never had a hook up (Manthos et al., 2014; Owen et al., 2011). In a longitudinal study of 483 female college students, Fielder, Walsh, Carey, and Carey (2014) sought to explore the relationships between hook up behaviors and depressive symptoms, sexual victimization, and sexually transmitted infections. They found that both hooking up rates and depressive symptoms increased for their participants at each time point and were positively correlated throughout the school year (Fielder et al., 2014). Because depressive symptoms are so prevalent among emerging adults, and depressive symptoms and hooking up are highly associated, studies of casual sexual behaviors should continue to consider depressive symptoms as an outcome of hooking up behaviors.

Anxiety symptoms

Anxiety is often characterized by excessive, unprovoked, or unrealistic worry that can be around everyday events or domain specific such as objects (i.e., phobias) or rituals (i.e., compulsions; CDC, 2011). Social anxiety, one of the most impactful anxieties for decreasing or inhibiting sexual behaviors, is characterized by fear of interacting with others (CDC, 2011). In a national study of university students, anxiety was the most common concern for emerging adults with 41.6% of students reporting being concerned
about anxiety (Mistler et al., 2012). In a nationally representative study, Eisenberg, Gollus, Golberstein, and Hefner (2007) reported that university aged females reported the greatest chances of experiencing anxiety symptoms with 11.5% of the females reporting issues with anxiety.

Although there are fewer studies that associate anxiety symptoms and hooking up, researchers have identified anxiety symptoms as an outcome of hooking up. In a study of the association between casual sex and psychological outcomes, Bersamin et al. (2014) reported that casual sex was negatively associated with psychological well-being and was positively associated with psychological distress. Those who had casual sex further reported increased anxiety symptoms, an association that was mediated by psychological distress (Bersamin et al., 2014). Vrangalova (2015a) reported that the association between anxiety symptoms and hooking up relies on emerging adults’ motivation for casual sex. When positive motivations (i.e., internal motivation), anxiety levels decrease for both men and women, however, anxiety symptoms increase when negative motivations are present (i.e., external motivation; Vrangalova, 2015a). As the most common psychological concern for emerging adults, anxiety is an important psychological factor for studies of emerging adults. Additionally, anxiety has been associated with hooking up as an outcome and should be considered in future studies of hooking up.

**Stress**

Stress is the brain’s and the body’s physical and psychological response to any demand ranging from work and school to social events (National Institute of Mental...
Health [NIMH], 2017). Every type of demand can cause an individual stress (NIMH, 2017). Increased stress affects long-term health outcomes including suppressed immune, reproductive, and digestive symptoms (NIMH, 2017). High stress levels are related to increased mental health symptoms including anxiety and depression (APA, 2016). Stress levels are highest among females and younger generations (APA, 2016). Additionally, emerging adults reported the highest levels of stress in comparison to older generations (APA, 2016). For emerging adults, it has been reported that daily hassles and social stressors were the most common causes of stress (Brougham, Zail, Mendoza, & Miller, 2009). Despite the negative influence and the high prevalence of stress during emerging adulthood, to date no studies have explored the impact of stress on hooking up behaviors for emerging adults.

**Self-Esteem**

Self-esteem, an individual’s self-evaluation, has been extensively studied (Baumeister, Campbell, Krueger, & Vohs, 2003; Pierce & Gardner, 2004; Rosenberg, 1965). Self-esteem is generally characterized as a hierarchal construct in which high and low levels self-evaluation that are commonly existing in global or domain specific areas (Pierce & Gardner, 2004; Simpson & Boyle, 1975). Emerging adulthood represents a time of significant growth in both abilities and evaluations of their abilities across different ethnicities and across genders (Erol & Orth, 2011). On average, men report higher levels of self-esteem, indicating more positive self-evaluations of their abilities (Spreecher et al., 2013). Positive evaluations of one’s abilities in terms of sexual behaviors indicate greater confidence in finding sexual partners, and performing sexually.
In several studies, researchers have linked self-esteem with casual sex. Paul et al. (2000) reported increased levels of self-esteem was positively linked to hook up behaviors. For women who had hooked up in the first semester of college without having penetrative sex reported higher levels of self-esteem during their second semester compared to those who had a hook up with penetrative intercourse (Paul et al., 2000). Vrangalova (2015b) found that for emerging adults reported higher levels of self-esteem when they had a hook up that was either a one-night stand or a long-term nonromantic sexual relationship. In another study, Vrangalova (2015a) found that hooking up predicted higher self-esteem when autonomous motivations were employed. Self-esteem and casual sexual behaviors should further be examined to continue to explore how self-esteem is impacted by sexual behaviors during a hook up.

The Present Study

Over the last decade, researchers exploring sexuality in emerging adulthood have turned their focus to casual sexual behaviors and the impact of demographic and psychological predictors and outcomes (e.g., Owen et al., 2010). However, there is less consensus as to how or why outcomes have yielded mixed results—hooking up has been associated with both positive and negative outcomes (e.g., Owen & Fincahm, 2011; Vrangalova, 2015a). Sexual script theory posits that sexual behavior is the result of scripted behavior that is influenced through culture, interpersonal interactions, and intrapsychic thought (Simon & Gagnon, 1986). Despite occurring during a time of significant cognitive and individual development, research has not clarified the specific
mechanisms of what leads to positive or negative outcomes, nor has research used a person-centered approach that identifies unique profiles of individuals and goes beyond using the population mean. This is important because researchers will be better able to understand positive and negative psychological outcomes for emerging adults, informing future research and education in reducing psychological harm.

As such, using a latent profile analysis, the purpose of this study is to identify how sexual cultural scripts (important demographic variables) and interpersonal scripts (attachment and hook up experiences) are predictive of class membership (made up of the intrapsychic script indicators of hook up motivation, identity, and cognitive and emotional autonomy), and thus identify how these are associated with psychological outcomes (depressive symptoms, anxiety symptoms, stress, and self-esteem). See Figures 1-3 for a hypothesized model.

Toward this purpose, the following research questions guided this study.

1. How many unique profiles of intrapsychic scripts (i.e., hook up motivations, identity, and autonomy) emerge from this sample?

2. How is group membership or profile predicted by interpersonal sexual scripts (i.e., hook up behaviors, attachment to parents and peers) and sexual cultural scripts (demographic variables, such as age, gender, sexual orientation, education)?

3. Finally, how are the unique intrapsychic latent profiles associated with the psychological outcomes of depressive symptoms, anxiety symptoms, stress, and self-esteem?
Figure 1. Latent profile analysis model: Profile and intrapsychic script indicators (Step 1).

Figure 2. Latent profile analysis model: Cultural and interpersonal profile predictors (Step 2).
Figure 3. Latent profile analysis model: profile outcomes (Step 3).
CHAPTER III

RESEARCH METHODS

Procedure

Recruitment and Sample

The target population for this study were participants between the ages of 18 to 24 who had a previous hook up experience. According to Arnett (2006), emerging adulthood is the period of life beginning at 18 and ending in the mid-20’s, in order to sufficiently target this age group, the sample was therefore limited to individuals 18 to 24. The goal was to gather a large and diverse sample of individuals who had casual sexual experiences. To do this, I used Amazon's Mechanical Turk (MTurk). Buhrmester, Kwang, and Gosling (2011) indicate that recruitment for studies through MTurk provide more demographically diverse samples than both university and other internet-based samples. MTurk allows researchers to post their survey from which the cadre of "turkers" can choose to complete if eligible, by meeting the inclusion criteria such as being an emerging adult between the ages of 18 and 24, who had a previous hook up experience, who lived in the U.S., who identified with their biological sex, who had an HIT (Human Intelligence Task) rating of 80, and had completed a minimum of 500 HITs and giving their consent to participate in the study. Overall, I anticipated 1,142 people would participate in this study (571 men and 571 women). In total, there were 3,354 Turkers who attempted to participate in the study.

Participants who were qualified and interested in the study had the opportunity to
click on the internet address for the survey, hosted by Amazon's Mechanical Turk, which then routed them to a survey on Qualtrics.com. The survey contained a general overview of the study (i.e., letter of information or signed informed consent) and the survey itself. After reading the letter of information and providing consent, participants completed a demographics questionnaire and measures of sexual behavior (i.e., hooking up), hook up motivations, attachment to parents and peers, psychosocial factors (i.e., autonomy, identity), and measures of psychological health (depressive symptoms, anxiety symptoms, stress, and self-esteem).

**Incentive**

Participants received $1.25 for participating in the study, which was in line with MTurk standards for the length of the survey (Behrend, Sharek, & Sinar, 2011). Participants took on average 24 minutes to complete their HIT assignment on MTurk.

**Quality Control**

Previous researchers have found that while MTurk can provide quick and inexpensive data, the downside is that the data can be low quality (Buhrmester et al., 2011; Paolacci, Chandler, & Ipeirotis, 2010). To combat this, researchers have identified ways to assure quality data, such as including several Instructional Manipulation Checks (IMCs), “Captcha” or “reverse Turing test” questions, and including questions that have verifiable answers, (“What is 2 +2?”; Mason & Suri, 2012). I embedded several quality-control items in my longer questionnaire to confirm that participants attend to the survey (e.g., “Select ‘disagree’ as the answer to this question). I also included a “captcha” phrase
to reduce the possibility of completion by bots. To prevent duplicated responses, I blocked repeated Internet Protocol Addresses and MTurk worker identification.

Debriefing Procedures

Given the sensitive nature of the study, careful consideration was considered concerning possible scores/reactions to the measures detailed below. All respondents were given resources about sexual assault, dating violence, rape, etc., as well as national hotlines and resources for therapy and self-help.

Participants

There were 3,354 HITs from MTurk, however 2,212 individuals did not fit the requirements of the study, failed the attention check questions, or did not complete the survey for inclusion. Therefore, this study included a total sample size of 1,142 participants (n = 591 male, n = 551 female). Male and female participants in this sample both reported a mean age of approximately 22 years (male M = 22.47, female M = 22.43). The participants in this study were from across the U.S., with a slight majority coming from the Eastern U.S. (21.2% Northeast, 26.7% Southeast). The majority of the participants identified as single (71.4% male, 65.9% female) over dating exclusively or non-exclusively (see Table 1). Over four-fifths (84.8%) of the male participants in this study reported being heterosexual, while nearly three-quarters (71.5%) of the female participants reported being heterosexual. The largest proportion (65.8% of males, 70.8% of females) of participants identified as Caucasian, followed by 11.3% and 11.1% as African American, 10.0% and 6.7% as Hispanic or Latino/a, and 8.0% and 5.8% as
Table 1

Demographic Variables: Descriptive Statistics for Age, Relationship Status, Sexual Orientation, and Ethnicity (N = 1,142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th>Female (N = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Gender</td>
<td>51.7</td>
<td>48.3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>22.47</td>
</tr>
<tr>
<td>18</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>19</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>20</td>
<td>7.3</td>
<td>9.4</td>
</tr>
<tr>
<td>21</td>
<td>12.2</td>
<td>11.6</td>
</tr>
<tr>
<td>22</td>
<td>18.4</td>
<td>18.1</td>
</tr>
<tr>
<td>23</td>
<td>24.7</td>
<td>26.0</td>
</tr>
<tr>
<td>24</td>
<td>32.7</td>
<td>30.7</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>71.4</td>
<td>65.9</td>
</tr>
<tr>
<td>Dating nonexclusively</td>
<td>15.4</td>
<td>18.5</td>
</tr>
<tr>
<td>Dating exclusively</td>
<td>12.7</td>
<td>15.2</td>
</tr>
<tr>
<td>Divorced</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>84.8</td>
<td>71.5</td>
</tr>
<tr>
<td>Gay</td>
<td>5.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Lesbian</td>
<td>0.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Bisexual</td>
<td>8.3</td>
<td>22.1</td>
</tr>
<tr>
<td>Questioning</td>
<td>.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Ethnic background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>11.3</td>
<td>11.1</td>
</tr>
<tr>
<td>Asian-American</td>
<td>8.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Caucasian</td>
<td>65.8</td>
<td>70.8</td>
</tr>
<tr>
<td>Hispanic or Latino/a</td>
<td>10.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Native American/ Alaskan Native</td>
<td>1.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Polynesian/Pacific Islander</td>
<td>.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Mixed</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.5</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note. Percentages may not add up to 100 due to rounding.
Asian-American, respectively. The majority of the sample stated they had attended some college (32.3% males, 37.0% females) or received a bachelor’s degree (43.0% males, 38.7% females), with 48.7% of males and 51.9% of females currently enrolled in college (see Table 2). Both the men and women in this study identified as being slightly religious ($M = 2.05$, $SD = 1.20$ men, $M = 2.07$, $SD = 1.12$ women) and slightly spiritual ($M = 2.31$, $SD = 1.24$ men, $M = 2.56$, $SD = 1.51$ women; see Table 3). Over one-third (41.0%) of the men and nearly one-third (31.9) of the women in this study identified as either atheist or agnostic, with Non-Denominational Christians (19.5% men, 23.6% women) and Catholics (20.6% men, 19.8% women) assisting in creating the majority.

Table 2

*Demographic Variables: Descriptive Statistics for Education Level and Region in the U.S. (N = 1,142)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>% male (N = 591)</th>
<th>% female (N = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>0.5</td>
<td>.2</td>
</tr>
<tr>
<td>High school diploma</td>
<td>8.8</td>
<td>8.2</td>
</tr>
<tr>
<td>Some college</td>
<td>32.3</td>
<td>37.0</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>9.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>43.0</td>
<td>38.7</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>5.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Technical degree</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Region in the U.S.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>20.1</td>
<td>22.3</td>
</tr>
<tr>
<td>Southeast</td>
<td>26.1</td>
<td>27.4</td>
</tr>
<tr>
<td>Southwest</td>
<td>13.4</td>
<td>11.3</td>
</tr>
<tr>
<td>Northwest</td>
<td>6.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Midwest</td>
<td>19.0</td>
<td>21.6</td>
</tr>
<tr>
<td>West</td>
<td>14.6</td>
<td>12.0</td>
</tr>
</tbody>
</table>

*Note.* Percentages may not add up to 100 due to rounding.
Table 3

Demographic Variables: Descriptive Statistics for Religiosity, Spirituality, and Religious Denomination (N = 1,142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th>Female (N = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Religiosity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>46.4</td>
<td>2.05</td>
</tr>
<tr>
<td>Slightly</td>
<td>20.1</td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
<td>18.6</td>
<td></td>
</tr>
<tr>
<td>Very</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>Extremely</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>Spirituality</td>
<td></td>
<td>2.31</td>
</tr>
<tr>
<td>Not at all</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>Slightly</td>
<td>22.0</td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
<td>24.5</td>
<td></td>
</tr>
<tr>
<td>Very</td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td>Extremely</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Religious denomination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-denominational Christian</td>
<td>19.5</td>
<td></td>
</tr>
<tr>
<td>Baptist</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Lutheran</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>20.6</td>
<td></td>
</tr>
<tr>
<td>LDS (Mormon)</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Atheist/Agnostic</td>
<td>41.0</td>
<td></td>
</tr>
<tr>
<td>Jewish</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Buddhist</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4.7</td>
<td></td>
</tr>
</tbody>
</table>

Note. Percentages may not add up to 100 due to rounding.

Measurement

The survey for the present study was constructed from a variety of previously established measures addressing psychosocial development, psychological outcomes, and
hooking up behaviors. Additionally, items were included to address specific hookup behaviors. Through this approach, data collection provided a snapshot of casual sexual behaviors, as well as emerging adult development. Data collected included dichotomous responses, and Likert-type scales. The survey also included measures of psychosocial development such as ego identity status, cognitive and emotional autonomy, as well as parent and peer attachment. Additionally, psychological measures of depressive symptoms, anxiety symptoms, stress, and self-esteem were included in the survey. Finally, the survey included motivations for hooking up and the young adult’s casual sexual behaviors. Each established measure and behavioral measures are discussed in detail in the following sections.

Sexual Cultural Scripts

Demographic covariates. Similar to previous studies, the current study included eight demographic variables and were used to predict the profiles of intrapsychic scripts as proxy for cultural scripts. First, participants reported their age with responses ranging from 18 to 24, as these were the targeted ages for this study. Participants also reported their biological sex (gender) with responses including male, female, transgender, and prefer not to answer, with those who identified as transgender and who prefer not to answer were excluded from this study due to the inability to compare these groups. Responses for gender were then dummy coded (1 = male, 2 = female) for data analyses. Additionally, participants reported their sexual orientation including gay, lesbian, heterosexual, bisexual, and questioning. Based upon previous studies, ethnic differences also exist in hooking up behaviors, thus participants reported their ethnic background
including Caucasian, Latino/a, African American, Asian American, Native American/Alaskan Native, Pacific Islander, mixed race, and other with the opportunity for write in responses. As this sample was not specifically gathered from a university sample, education level was also included, with responses of some high school, high school diploma, some college, associate’s degree, bachelor’s degree, graduate degree, and technical degree or certificate. Participants were also asked to report the region in the U.S. they lived ranging from the Northeast, Southeast, Southwest, Midwest, Northwest, or the West. The eighth and final demographic variable included in this study assessed participants religiosity and spirituality. Three questions were included to assess religiosity including rating their religiosity and spirituality on a five-point scale from not-at-all to extremely spiritual or religious. Additionally, participants reported their religious affiliation.

**Hookup behaviors.** This survey included thirteen items that focused on actual hookup behaviors of the participants. Participants were asked about their *last hookup* including timing, sexual behaviors, substance use, and orgasm/pleasure. Respondents were asked two items concerning their age when had their first experience and most recent experience with hooking up, with responses ranging from “12 or Younger” to “24.” Participants were asked “during your average hookup, which sexual behaviors do you engage in?” responses for sexual behaviors will include passionate kissing, heavy petting, mutual masturbation, oral sex, vaginal intercourse, and anal intercourse. Participants were asked about the influence of alcohol during their last hook up through two items including “were you under the influence of alcohol during your last hook up”
with responses ranging from “not under the influence” to “I was wasted,” and a second item “approximately how many alcoholic drinks had you had during your last hook up” with responses ranging from “none” to “13 or more.” Participants were also asked concerning the influence of illicit drugs during their last hook up with dichotomous responses. Along with the influence of drugs and alcohol, participants were asked to what extent they had intended to hook up with a 7-point Likert scale ranging from “strongly disagree” to “strongly agree.” Participants were further asked what their relationship was with their last hookup partner including: strangers, acquaintances, friends, co-workers, friends with benefits or fuck buddies, and ex-boyfriend/ex-girlfriend.

Participants were also asked about the frequency that they hook up and their desired frequency of hook ups with responses ranging from “rarely” to “daily.” Participants were also asked to what extent they agree that their last hook up was pleasurable, with responses ranging from “strongly disagree” to “strongly agree.” Along with pleasurable experiences, participants were asked, “during you last hook up, did you experience an orgasm,” with responses dichotomously recorded. Participants were further asked about their opinions of hooking up. Participants were asked “overall, hooking up is an experience that I feel positively about” twice, with the second item negatively worded, response being provided on a 5-point Likert scale ranging from “strongly agree” to “strongly disagree.”

Interpersonal Scripts

Parent and peer attachment. The online survey included the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987). The IPPA has been modified
and adapted to fit age restraints (Gullone & Robinson, 2005) and to fit limited time (Nada Raja, McGee, & Stanton, 1991). The IPPA explores attachment through Bowlby’s theoretical inferences, specifically on “the nature of feelings towards attachment figures” (Armsden & Greenburg, 1987, p. 5). The original IPPA is a 53-item that explores attachment through three subscales including communication, trust, and alienation (Armsden & Greenburg, 1987). Nada Raja et al. (1991) shortened each subscale on the parent and peer to 24-items, totaling 12-items for peer attachment (“I like to get my friends point of view on things I am concerned about,” “my friends are concerned about my well-being”) and 12-items for parent attachment (e.g., “my parents respect my feelings,” “my parents accept me as I am”). Included items were those with the highest inter-item correlation (Nada Raja et al., 1991). Researchers have reported good internal consistency for both the parent attachment scale ($\alpha = .82$) and the peer attachment scale ($\alpha = .80$). The IPPA subscales were found to be reliable for the participants’ scores in the present study with Cronbach’s alpha for the parent subscale of .89 and for the peer subscale of .85.

**Intrapsychic Scripts**

**Hookup motivation.** An important aspect of hooking up is the participants’ motivation to hookup, which was assessed in this study by the Hookup Motives Questionnaire (HMQ; Kenney, Lac, Hummer, & LaBrie, 2014). Based on the Sex Motives Questionnaire (Cooper et al., 1998), the HMQ is a 19-item scale assessing motivations for hooking up using five subscales including social-sexual, social-relationship seeking, enhancement, coping, and conformity motives. The social-sexual
subscale consists of four items including “hooking up provides me with sexual benefits without a committed relationship.” The social-sexual subscale was found to have good reliability for this sample \((a = .77)\). The three-item social-relationship seeking subscale includes items such as “I hook up because it can help me decide if I want something more serious with my hookup partner.” Cronbach’s alpha indicated good reliability for the social-relationship seeking subscale \((a = .84)\). The enhancement motives subscale includes four items including “I hook up because it’s fun.” The enhancement motives subscale was also found to be reliable for the participants in this study \((a = .86)\). The fourth subscale, coping motives, includes four items including “I hook up because it makes me feel good when I’m not feeling good about myself.” The HMQ was also found to be reliable for the subjects in this study, the Cronbach’s alpha for the coping motives was .84. The final subscale, conformity motives, is a four-item scale including “I hook up because it helps me fit in.” Responses for the HMQ are provided on 5-point Likert scale ranging from “almost never/never” to “almost always/always.” The confirmatory motives subscale was also reliable for the subjects in this study \((a = .92)\). Each subscale is summed, with higher scores indicating greater motivation for hooking up.

Kenny et al. (2014) further provided evidence of good psychometric properties for the HMQ. It was reported that Cronbach’s alpha coefficient for the HMQ ranged from .80 to .92 across several samples, similar alpha ranges reported above. Discriminant construct validity was established for the HMQ by correlating the HMQ with measures of depressive symptoms, anxiety symptoms, and stress. Each subscale was minimally correlated with each of the divergent measures ranging from -.01 to .35.
**Ego identity status.** To explore participants’ identity status, the modified Extended Measure of Ego Identity Status (EOM-EIS; Akers et al., 1998) was used in this study. Based on Marcia’s (1966) classifications of identity status (i.e., achievement, moratorium, foreclosure, and diffusion), the modified EOM-EIS is a 40-item scale that explores identity status within the content areas of occupation, philosophical lifestyle, friendship, and dating. The four identity statuses are established though four subscales of identity achieved, moratorium, diffused, and foreclosed, each subscale containing 10-items. Identity achievement includes items such as “even if my parents disapprove, I could be a friend to a person if I thought she/he was basically good.” An example item from the moratorium subscale includes “I’m not so sure about what I want for my education, but I am actively exploring different choices.” Identity diffusion includes items such as, “There’s no single ‘life-style’ that appeals to me more than another.” Finally, identity foreclosure includes items like “My rules or standards about dating have remained the same since I first started going out and I don’t anticipate that they will change.”

Responses for the EOM-EIS are recorded using a 6-point Likert-type scale ranging from 1 (strongly agree) to 6 (strongly disagree). Responses in this study were then averaged to establish mean scores. Once in the model, individuals were grouped based upon similar characteristics and individuals with similar mean scores were grouped together, with higher mean scores suggesting appropriate classification.

The modified EOM-EIS has well established internal consistency scores through various studies. Akers et al. (1998) reported that the modified version of the EOM-EIS has similar Chronbach’s alpha coefficients to the original EOM-EIS with achievement
alpha $a = .74$, moratorium $a = .71$, foreclosure $a = .79$, and diffusion $a = .78$. Additional studies have produced similar alphas for the modified EOM-EIS (e.g., Lee & Beckert, 2012; Lee, Beckert, & Goodrich, 2010). The modified EOM-EIS was reliable in this study with Cronbach’s alpha coefficients of .77 for achievement, .73 for moratorium, .87 for foreclosure, and .79 for diffusion. The modified EOM-EIS was correlated with the behaviors, attitudes, and intentions measure (BAIMs) and results indicate that the two measures were correlated positively and negatively as expected through previous studies and theoretical expectations, thus providing evidence of construct validity (Akers et al., 1998).

**Cognitive autonomy.** To assess cognitive autonomy, the survey included the Cognitive Autonomy and Self-Evaluation Inventory (CASE; Beckert, 2007). The CASE inventory is a 27-item scale that explores adolescent cognitive autonomy beyond the construct of decision-making and self-determination (Beckert, 2007). The CASE inventory contains five subscales including evaluative thinking (8-items), voicing opinions (5-items), making decisions (6-items), self-assessing (3-items), and comparative validation (5-items). Responses are provided on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Subscales are summed separately where higher scores on subscales indicate increased cognitive autonomy (Beckert, 2007; Lee & Beckert, 2012).

Researchers from previous studies have reported good internal consistency alphas for all five subscales and the total scale. Evaluative thinking has reported Cronbach’s alpha ranging from .86-.87 (Beckert, 2007; Lee & Beckert, 2012). The evaluative
thinking subscale includes items such as “I think about the consequences of my decisions,” and “I like to evaluate my daily actions” (Beckert, 2007). The evaluative thinking subscale was found to be reliable for this study ($\alpha = .87$). With items such as “when I disagree with others I share my views” and “I feel that my opinions are valuable enough to share,” the voicing opinions subscale has reported alpha coefficients ranging from .63-.80, with reliability being substantiated in this study ($\alpha = .73$; Beckert, 2007; Lee & Beckert, 2012). Additionally, one item in the voicing opinions is negatively worded and is therefore reverse coded. The decision-making subscale has six items including “I can tell that my way of thinking has improved with age” and “I am good at evaluating my feelings.” Previous studies have reported Cronbach’s alpha coefficients ranging from .76-.77 (Beckert, 2007; Lee & Beckert, 2012). The decision-making subscale was found to be reliable in this study with Cronbach’s alpha of .73. The three item self-assessing subscale includes items similar to “I am good at identifying my own strengths” and has reported alpha coefficients ranging from .73-.82, with reliability in this study of .80 (Beckert, 2007; Lee & Beckert, 2012). The final subscale, comparative validation, includes five items that are all negatively worded and thus require reverse coding including “I need family members to approve my decisions.” The comparative validation subscale has reported alphas ranging from .64-.68 (Beckert, 2007; Lee & Beckert, 2012). The comparative validation had an alpha of .75 for the subjects in this study. Overall, the CASE inventory had an alpha of .87 for this study, similar to previous studies (Beckert, 2007; Margalit & Ben-Ari, 2014).

Beyond reports of internal consistency, the CASE inventory has a demonstrated
utility in a broad spectrum of research and cultural backgrounds. Beckert (2007) provided evidence of the usefulness of the CASE inventory across ages. Additionally, researchers have provided evidence of the consistency of the measure across cultures (Lee & Beckert, 2012; Lee et al., 2010). Margalit and Ben-Ari (2014) provided evidence of the utility of the measure in an intervention study. To date, there is limited evidence of concurrent validity due to the lack of similar measures (Beckert, 2007, 2016).

**Emotional autonomy.** To assess emotional autonomy, I included the emotional autonomy subscale from the Adolescent Autonomy Questionnaire (Noom et al., 2001). The adolescent autonomy questionnaire includes three subscales which are attitudinal, emotional, and functional autonomy (Noom et al., 2001). The emotional autonomy subscale has five items that are scored on a 5-point Likert-scale from 1 “not at all like me” to 5 “just like me.” Scores are summed and higher scores indicate greater amounts of emotional autonomy. An example item includes “I often disagree with others, even if I’m not sure” and “I often change my mind after listening to others.” Previous studies have reported adequate internal consistency scores with Cronbach’s alpha for emotional autonomy at .60 (Noom et al., 2001). The emotional autonomy subscale in this study had similar, yet smaller Cronbach’s alpha ($\alpha = .50$). Additionally, researchers have reported evidence of convergent construct validity by correlating the subscales with other measures of adolescent independence.
Outcome Measures

Depressive Symptoms

The Center for Epidemiologic Studies Depression Scale Revised (CES-D-R-10; Haroz, Ybarra, & Eaton, 2014) was included in the survey for this study. The CES-D-R is a short form, self-evaluative measure of individual depressive symptoms consisting of 10-items written for adolescents. Individuals respond to each item evaluating their feelings over the previous week. The CESDR includes items such as “my sleep was restless” and “I lost interest in my usual activities.” Responses are recorded on a 4-point Likert-type scale ranging from “rarely or none of the time (less than 1 day)” to “most or all of the time (5-7 days).”

The CESDR has been used in a variety of research and clinical settings and has well established psychometric properties. Haroz et al. (2014) established good internal consistency with Cronbach’s alpha ranging from .90 to .91. The CESDR had adequate reliability scores for this sample with Cronbach’s alpha of .77. Furthermore, discriminant construct validity was established by correlating the CESDR with measures of substance use, and self-esteem.

Generalized Anxiety

To explore participant anxiety symptoms, the survey included the Generalized Anxiety Disorder 7 (GAD-7; Spitzer, Kroenke, Williams, & Lowe, 2006). The GAD-7 is a 7-item measure in which participants are asked to consider symptoms over the previous two weeks. The GAD-7 includes statements such as “Not being able to stop or control
worrying” and “trouble relaxing.” Responses are recorded on a 4-point Likert-type scale ranging from “not at all” to “nearly every day.” Scores are summed and yield anxiety scores from minimal (0-4), mild (5-9), moderate (10-14), and severe (15-21) anxiety.

The GAD-7 has been used in a variety of clinical and research studies with good psychometrics. Internal consistency for the GAD-7 was established through test-retest interclass correlation of .83 (Spitzer et al., 2006). Additionally, internal consistency was demonstrated through Cronbach’s alpha coefficient of .92 (Spitzer et al., 2006). Similar reliability coefficients were found for this study (α = .93). Convergent construct validity for the GAD-7 was established through correlations with the Beck Anxiety Inventory (r = .72), and the anxiety subscale of the Symptom Checklist-90 (r = .74; Spitzer et al., 2006).

**Stress**

To measure participants' perceptions of their stress levels, I included the Perceived Stress Scale (PSS; Cohen, 1994). The PSS is a 10-item measure in which participants are asked to assess their stress symptoms. Each participant is asked to consider how often they experienced each symptom over the last month, rating each item on a 5-point Likert-type scale from “never” to “very often.” Items include “in the last month, how often have you felt nervous and ‘stressed’?” and “in the last month, how often have you been able to control irritations in your life?.” Of the 10 items, four require reverse coding. The PSS is summed for each participant, with higher scores indicating increased perceived stress for participants. Cohen, Kamarck, and Mermelstien (1983) reported good internal consistency for the PSS ranging from .84 to .86. The PSS had an adequate reliability score for this study, with Cronbach’s alpha of .58. Although it is not a definitive answer,
the disparity between previous studies coefficients and this study could be speculated to be a byproduct of participant fatigue. Furthermore, the authors correlated the PSS with the number and impact of life events with correlations ranging from .20 to .39 and .24 to .49 respectively, providing evidence that as life events increase in number and impact, so does the stress level. Further adding to the concurrent validity, the authors found that perceived stress was correlated with social anxiety.

**Self-Esteem**

To address participant self-esteem, I included the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The RSES is a 10-item scale that is scored on a 4-point Likert-scale from “strongly agree” to “strongly disagree.” Four of the ten items are negatively worded and thus require being reverse coded. Items include “on the whole, I am satisfied with myself,” and “I feel that I’m a person of worth.” Participant scores are summed with higher scores indicating increased self-esteem. Sinclair et al. (2010) aimed to establish reliability and validity for the RSES among diverse populations within the U.S. and reported good internal consistency scores with Cronbach’s alpha ranging from .84 to .93. Cronbach’s alpha for this study fell within previously established ranges with the alpha coefficient of .90. Additionally, the authors reported both convergent construct validity by correlating the RSES with measures of self-competence and self-liking with correlations ranging from .48 to .84 (Sinclair et al., 2010). The authors also provided evidence of discriminant construct validity by correlating the RSES with the Social Relationships Scale with correlations ranging from .01 to .76 across diverse demographic backgrounds (Sinclair et al., 2010).
Analytic Plan

In this study, I aimed to use a person-center approach to identify groups of intrapsychic sexual scripts. Using this person-centered approach allows researchers to detect patterns of individuals and further predict such patterns through covariates (Bauer & Shanahan, 2007). To accomplish the goals of this study, latent profile analysis (LPA) was conducted using MPlus 7.0 (Muthén & Muthén, 2012) to identify profiles of intrapsychic sexual scripts, specifically hook up motivations, identity status, and cognitive and emotional autonomy. In accordance with the protocol for this approach, I ran successive LPAs where classes were iteratively added to the model one-by-one to identify which solution best fit the data (see Nylund, Asparouhov, & Muthén, 2007). Model fit was interpreted through the lowest Akaike’s Information Criterion (AIC; Akaike, 1974) and Bayesian Information Criterion (BIC; Schwarz, 1978), the log-likelihood, entropy values, the Lo-Mendell-Rubin likelihood ratio test (LRT; Lo, Mendell, & Rubin, 2001), and the bootstrap ratio test (BLRT), as suggested by Nylund et al. (2007). Lower scores of log-likelihood, AIC, and BIC indicated the best fitting model. In estimating the best fitting number of classes, LRT and BLRT were used to indicate if each estimated model is better than the previous model with \( k-1 \) classes. A statistically significant LRT (and BLRT) value indicates that the model with \( k \) classes is the better fit (Lo et al., 2001). Entropy values greater than 0.8 demonstrate sufficient distinction between classes with higher values signifying better delineation (Celeux & Soromenho, 1996). Finally, theoretical relevance and the rule of parsimony were also used to help identify the best class solution for the data.
After identifying the best fitting unconditional model, step 2 involved adding covariates to the analyses and re-running the LPA to examine which variables significantly predict class membership. A multivariate logistic regression within the LPA were simultaneously regressed with the best fitting latent class solution (using latent posterior probabilities) identified in step 1 on all the covariate predictors (cultural and interpersonal scripts, including, age, gender, attachment, etc.). The class with the least amount of variation for the intrapsychic sexual script variables was identified as the reference class and odds ratios for each covariate predictor were interpreted accordingly (i.e., the odds of being in class x compared to the reference class). After predicting class membership, outcome variables were regressed onto class to assess how membership predicted psychological outcomes of hooking up. Finally, posthoc tests were run to analyze the interaction between the interpersonal/cultural scripts, the intrapsychic scripts, and the outcome variables.
Prior to addressing the research questions, a summary of the descriptive characteristics of the participants relevant intrapsychic scripts (hook up motivation, identity status, and autonomy), interpersonal scripts (parent and peer attachment), and the outcome (stress, depressive symptoms, anxiety symptoms, and self-esteem) is warranted. As a requisite for participating in this study, all 1,142 participants had previously participated in casual sexual experiences.

When examining the intrapsychic variables, the participants in this study reported similar means across all variables of interest (see Table 4). For both males and females, the reason they reported most for hooking up was Enhancement motivation ($M = 15.73$, $SD = 3.52$ and $M = 15.50$, $SD = 3.88$, respectively). Females reported their second highest motivation for hooking up as Coping ($M = 11.43$, $SD = 4.52$). Males in this study reported their second highest motivation for hooking up as Social-Sexual ($M = 12.18$, $SD = 3.83$). As indicated by the purpose and definition of casual sex, the participants in this study reported as their lowest mean scores Social Relationship seeking (males $M = 7.71$, $SD = 3.07$; females $M = 7.09$, $SD = 3.16$). Although participants from all four identity statuses in this study reported similar means, females reported slightly higher means for both diffused ($M = 4.10$, $SD = 0.83$) and foreclosed ($M = 4.12$, $SD = 1.16$) identity statuses compared to their male counterparts ($M = 3.81$, $SD = 0.82$ for diffused and $M = 3.84$, $SD = 1.14$ for foreclosed). The group who reported the lowest mean scores from this sample were those who were identified as having an achieved identity status ($M = 3.75$, $SD = 1.17$).
### Table 4

**Demographic Variables: Descriptive Statistics for Intrapsychic Variables**

(N = 1,142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th></th>
<th>Female (N = 551)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Hook-up motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-sexual</td>
<td>12.18</td>
<td>3.83</td>
<td>11.16</td>
<td>3.82</td>
</tr>
<tr>
<td>Social-relationship seeking</td>
<td>7.71</td>
<td>3.07</td>
<td>7.09</td>
<td>3.16</td>
</tr>
<tr>
<td>Enhancement</td>
<td>15.73</td>
<td>3.52</td>
<td>15.50</td>
<td>3.88</td>
</tr>
<tr>
<td>Coping</td>
<td>11.69</td>
<td>4.09</td>
<td>11.43</td>
<td>4.52</td>
</tr>
<tr>
<td>Conformity</td>
<td>8.09</td>
<td>4.52</td>
<td>6.52</td>
<td>3.87</td>
</tr>
<tr>
<td>Identity status</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreclosure</td>
<td>3.84</td>
<td>1.14</td>
<td>4.12</td>
<td>1.16</td>
</tr>
<tr>
<td>Diffused</td>
<td>3.81</td>
<td>0.82</td>
<td>4.10</td>
<td>0.83</td>
</tr>
<tr>
<td>Moratorium</td>
<td>3.43</td>
<td>0.80</td>
<td>3.45</td>
<td>0.75</td>
</tr>
<tr>
<td>Achieved</td>
<td>2.87</td>
<td>0.72</td>
<td>2.81</td>
<td>0.71</td>
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<tr>
<td>Autonomy</td>
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<td></td>
</tr>
<tr>
<td>Evaluative thinking</td>
<td>28.92</td>
<td>5.36</td>
<td>29.52</td>
<td>5.31</td>
</tr>
<tr>
<td>Voicing opinions</td>
<td>17.11</td>
<td>3.13</td>
<td>17.29</td>
<td>3.38</td>
</tr>
<tr>
<td>Decision making</td>
<td>22.46</td>
<td>3.87</td>
<td>22.78</td>
<td>3.38</td>
</tr>
<tr>
<td>Self-assessing</td>
<td>10.76</td>
<td>2.28</td>
<td>10.43</td>
<td>2.37</td>
</tr>
<tr>
<td>Comparative validation</td>
<td>16.66</td>
<td>3.84</td>
<td>17.16</td>
<td>3.51</td>
</tr>
<tr>
<td>Emotional</td>
<td>15.21</td>
<td>2.62</td>
<td>15.23</td>
<td>2.41</td>
</tr>
</tbody>
</table>

*Note. Identity status scores represent means for subscales; hook up motivation and autonomy are summed scores. Higher scores indicate increased motivation, belonging to identity status, or increased autonomy.*

2.87, SD = 0.72 males, M = 2.81 females, SD = 0.71). Males and females in this sample reported the highest autonomy means for evaluative thinking (M = 28.92, SD = 5.36 and M = 29.52, SD = 5.31, respectively). Participants in this study reported the lowest means for self-assessing subscale for the autonomy scale (M = 10.76, SD = 2.28 males, M = 10.43, SD = 2.37 females).

For the remaining interpersonal scripts and outcome variables, participants in this study reported similar means for attachment, stress, depressive symptoms, anxiety
symptoms, and self-esteem (see Table 5). The sample in this study reported higher means for peer attachment ($M = 42.19$, $SD = 7.29$ males, $M = 43.73$, $SD = 7.87$ females) in comparison to parental attachment ($M = 41.48$, $SD = 8.13$, $M = 39.79$, $SD = 10.01$, respectively). Male participants in this study reported the highest mean for stress ($M = 30.63$, $SD = 5.06$). Furthermore, males reported lowest mean scores for anxiety symptoms ($M = 12.78$, $SD = 5.38$). Like their male counterparts, the females in this sample reported higher levels of stress ($M = 31.93$, $SD = 4.42$) and lower levels of anxiety symptoms ($M = 14.23$, $SD = 5.92$).

Table 5

**Demographic Variables: Descriptive Statistics for Interpersonal and Outcome Variables (N = 1142)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male ($N = 591$)</th>
<th>Female ($N = 551$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Attachment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td>41.48</td>
<td>8.13</td>
</tr>
<tr>
<td>Peers</td>
<td>42.19</td>
<td>7.29</td>
</tr>
<tr>
<td>Stress</td>
<td>30.63</td>
<td>5.06</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>20.39</td>
<td>5.57</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>12.78</td>
<td>5.38</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>23.57</td>
<td>3.41</td>
</tr>
</tbody>
</table>

The majority of both sexes in this study had their first hook up experiences in their teenage years. By age 16, 41.4% of females and 40.0 % of males had already had their first hook up experience (see Table 6). When describing their most recent hook ups, participants reported on average their most recent hook up occurred at 21 for both males and females. When it came to what behaviors occurred during participants’ average hook ups, 84.8% of males in this study reported passionate kissing, 54.7% reported heavy
Table 6

Demographic Variables: Descriptive Statistics for Participants Hook Up Ages and Sexual Behaviors (N = 1142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th></th>
<th></th>
<th>Female (N = 551)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of first hook up</td>
<td>%  M   SD</td>
<td>%  M   SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 or younger</td>
<td>0.0  17.83 2.88</td>
<td>0.0  17.66 2.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>10.7</td>
<td>10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>12.9</td>
<td>15.1</td>
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<td>16</td>
<td>16.4</td>
<td>16.3</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>10.8</td>
<td>14.0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>18</td>
<td>15.9</td>
<td>14.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>8.1</td>
<td>8.5</td>
<td></td>
<td></td>
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<tr>
<td>20</td>
<td>8.0</td>
<td>6.2</td>
<td></td>
<td></td>
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<tr>
<td>21</td>
<td>3.4</td>
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</tr>
<tr>
<td>22</td>
<td>1.9</td>
<td>2.0</td>
<td></td>
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<tr>
<td>23</td>
<td>5.1</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>6.8</td>
<td>7.1</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Age of last hook up</td>
<td>%  M   SD</td>
<td>%  M   SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 or younger</td>
<td>0.0  21.70 2.06</td>
<td>0.0  21.58 2.06</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>0.3</td>
<td>0.5</td>
<td></td>
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<tr>
<td>15</td>
<td>1.0</td>
<td>1.1</td>
<td></td>
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<tr>
<td>16</td>
<td>1.4</td>
<td>0.2</td>
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<tr>
<td>17</td>
<td>1.2</td>
<td>1.3</td>
<td></td>
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<tr>
<td>19</td>
<td>5.2</td>
<td>8.0</td>
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<td>20</td>
<td>10.3</td>
<td>13.1</td>
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<tr>
<td>23</td>
<td>20.6</td>
<td>21.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>20.5</td>
<td>18.9</td>
<td></td>
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</tbody>
</table>

Sexual behaviors during hook ups

<table>
<thead>
<tr>
<th></th>
<th>Male (N = 591)</th>
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<th></th>
<th>Female (N = 551)</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passionate kissing</td>
<td>84.8</td>
<td>91.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy petting</td>
<td>54.7</td>
<td>57.5</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mutual masturbation</td>
<td>34.3</td>
<td>27.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral sex</td>
<td>70.6</td>
<td>63.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaginal intercourse</td>
<td>68.7</td>
<td>71.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anal intercourse</td>
<td>11.0</td>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Note. Percentages may not add up to 100 due to rounding.
petting, 34.3% mutual masturbation, 70.6% reported oral sex, 68.7% reported vaginal intercourse, and 11.0% reported anal intercourse. The majority, 91.5% of the females in this study reported passionate kissing during their most recent hook up, 57.5% reported heavy petting, 27.4% reported mutual masturbation, 63.9% reported oral sex, 71.3% reported vaginal intercourse, and 5.3% reported participating in anal intercourse during an average hook up. When reporting with whom they hooked up with, the majority of the participants stated they had hooked up with a stranger (20.1% of males, 13.1% of females), acquaintance (27.6% males and females respectively), a friend (26.2% of males, 26.9% of females), or a friend with benefits or a “fuck buddy” (10.0% of males, or 18.0% of females; see Table 7).

Participants reported that hooking up was a behavior that they intended to participate in (Males: $M=5.19$, $SD=1.51$, Females: $M=5.20$, $SD=1.61$), with minimal influence of alcohol with 67.7% of males and 73.5% of females partaking of 0-3 alcoholic drinks. Additionally, the majority of participants (82.9% of males, 88.6% of females) were not under the influence of illicit drugs. On average, both males and females in this study hooked up several times a year but would like to be hooking up on a monthly basis (see Table 8). On average, males ($M=5.82$, $SD=1.20$) and females ($M=5.67$, $SD=1.33$) reported hooking up being pleasurable with more males (78.5%) reporting having an orgasm during their most recent hook up than females (54.1%). Participants in this study also reported that hooking up is overall more positive (Males: $M=5.37$, $SD=1.39$, Females: $M=5.04$, $SD=1.51$) than negative (Males: $M=2.92$, $SD=1.73$, Females: $M=3.02$, $SD=1.69$; see Table 9).
Table 7

Demographic Variables: Descriptive Statistics for Participants Hook Up Partners, Influence of Alcohol and Hook up Intentions and Sexual Behaviors (N = 1,142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th>Female (N = 551)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Hook up partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stranger</td>
<td>20.1</td>
<td>13.1</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>27.6</td>
<td>27.6</td>
</tr>
<tr>
<td>Friend</td>
<td>26.2</td>
<td></td>
</tr>
<tr>
<td>Co-worker</td>
<td>7.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Ex-boyfriend</td>
<td>0.7</td>
<td>9.3</td>
</tr>
<tr>
<td>Ex-girlfriend</td>
<td>7.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Friend with benefits/fuck buddy</td>
<td>10.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Other</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Influence of alcohol during last hook up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was buzzed</td>
<td>28.1</td>
<td>32.8</td>
</tr>
<tr>
<td>I was drunk</td>
<td>14.9</td>
<td>13.8</td>
</tr>
<tr>
<td>I was wasted</td>
<td>6.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Not under the influence</td>
<td>48.9</td>
<td>47.9</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Number of drinks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>43.5</td>
<td>42.3</td>
</tr>
<tr>
<td>1-3</td>
<td>24.2</td>
<td>31.2</td>
</tr>
<tr>
<td>4-6</td>
<td>21.3</td>
<td>18.0</td>
</tr>
<tr>
<td>7-9</td>
<td>6.9</td>
<td>5.8</td>
</tr>
<tr>
<td>10-12</td>
<td>3.4</td>
<td>1.6</td>
</tr>
<tr>
<td>13 or more</td>
<td>0.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Influence of illicit drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14.4</td>
<td>9.8</td>
</tr>
<tr>
<td>No</td>
<td>82.9</td>
<td>88.6</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Hook up intention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stronlgy disagree</td>
<td>2.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>8.1</td>
<td>7.6</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>11.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>22.0</td>
<td>23.4</td>
</tr>
<tr>
<td>Agree</td>
<td>31.3</td>
<td>29.4</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>19.3</td>
<td>22.3</td>
</tr>
</tbody>
</table>

Note. Percentages may not add up to 100 due to rounding.
Table 8

Demographic Variables: Descriptive Statistics for Participants Hook Up Frequency, Desired Hook Up Frequency, Pleasurable Hook Up, and Orgasm During Last Hook Up (N = 1,142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th>Female (N = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Hook up frequency</td>
<td>3.08</td>
<td>1.62</td>
</tr>
<tr>
<td>Rarely</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>Once or twice a year</td>
<td>14.7</td>
<td></td>
</tr>
<tr>
<td>Several times a year</td>
<td>22.3</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>Bi-weekly</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Weekly</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Desired hook up frequency</td>
<td>3.70</td>
<td>2.01</td>
</tr>
<tr>
<td>Rarely</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Once or twice a year</td>
<td>14.4</td>
<td></td>
</tr>
<tr>
<td>Several times a year</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>23.2</td>
<td></td>
</tr>
<tr>
<td>Bi-weekly</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>Weekly</td>
<td>24.7</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>12.9</td>
<td></td>
</tr>
<tr>
<td>Pleasurable last hook up</td>
<td>5.82</td>
<td>1.20</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>16.8</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>39.9</td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>31.1</td>
<td></td>
</tr>
<tr>
<td>Orgasm during last hook up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78.5</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>18.4</td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>2.7</td>
<td></td>
</tr>
</tbody>
</table>

Note: Percentages may not add up to 100 due to rounding.
Table 9

*Demographic Variables: Descriptive Statistics for Participants Overall Opinions of Hooking up as a Positive or Negative Experience (N = 1,142)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (N = 591)</th>
<th>Female (N = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% M SD</td>
<td>% M SD</td>
</tr>
<tr>
<td>Overall positive experience</td>
<td>5.37 1.39</td>
<td>5.04 1.51</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2.2 2.7</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>3.6 5.4</td>
<td></td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>5.1 7.6</td>
<td></td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>9.1 14.2</td>
<td></td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>20.0 22.0</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>43.1 33.4</td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>16.4 13.8</td>
<td></td>
</tr>
<tr>
<td>Overall negative experience</td>
<td>2.92 1.73</td>
<td>3.02 1.69</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>22.0 18.1</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>32.3 32.3</td>
<td></td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>12.5 14.0</td>
<td></td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>11.2 14.9</td>
<td></td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>11.3 8.9</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>5.6 8.0</td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.4 3.4</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Percentages may not add up to 100 due to rounding.

Prior to answering the research questions for this study, correlational analyses were run to explore the relationships between all the variables of interest. Table A1 (found in Appendix A) focuses primarily on the relationships between cultural and interpersonal scripts (i.e., demographic and hooking up variables). Although there are many interesting relationships reported in this table, it is of note that as intentions for hooking up increased, participants opinion that hooking up is overall positive increased as well for both males ($r = .38, p < .01$) and females ($r = .45, p < .01$). It is also of note that for intentions for both men ($r = .40, p < .01$) and women ($r = .41, p < .01$) were related to increased likelihood of reporting hooking up being pleasurable.
Tables A2, A3, A4, and A5 (found in appendix A) focus on the relationships between demographic variables, intrapsychic script variables, and outcome variables. For females in this study, only spirituality and religiosity had statistically significant correlational relationships with hook up motivations (see Table A2). Meanwhile, males hook up motivations had significant relationships with age, spirituality, and religiosity. Table A3 provides statistical relationships between demographic variables and identity status. It is of note, for both males and females that demographic variables of age, education, spirituality and religiosity were all significantly related (both positively and negatively) to identity status. For males, demographic variables were not statistically significantly related to either parent or peer attachment (see Table A4). However, for the females included in this study, both spirituality ($r = .12, p < .01$) and religiosity ($r = .12, p < .01$) were significantly positively related to parental attachment. Furthermore, as religiosity increased, levels of peer attachment decreased ($r = -.09, p < .05$). Finally, demographic variables were significantly related to all psychological outcomes for males and were not statistically significantly correlated for females (see Table A5). In Table A6 (located in Appendix A) all intrapsychic variables were correlated.

In addition to correlational analyses, independent samples $t$ tests were run to compare males to females on all the variables of interest. The males and females in this sample were statistically significantly different across sexual cultural, interpersonal, and intrapsychic sexual scripts. In terms of cultural scripts, males and females in this study statistically significantly differed in their reported sexual orientation $t(1140) = 6.69, p < .001$. Furthermore, males and females were statistically significantly different in their
reported spirituality, \( t(1136) = 3.61, p < .001 \). Males and females did not differ on the remaining demographic values in this study. Participants in this study also differed in their reported experiences with hooking up including a pleasurable experience, \( t(1129) = 2.02, p < .001 \), and reported orgasm during their last hook up, \( t(1135) = 7.89, p < .001 \). Males and females also differed in the reported behaviors during their most recent hook up including passionate kissing, \( t(1140) = 3.49, p < .001 \); mutual masturbation, \( t(1140) = 254, p < .001 \); oral sex, \( t(1140) = 2.41, p < .05 \); and anal intercourse, \( t(1140) = 3.54, p < .001 \). Males and females also reported a statistically significant difference in their overall positive view of hooking up, \( t(1132) = 3.84, p < .001 \). Finally, males and females in this sample were found to differ in their attachment to parents, \( t(1140) = 2.89, p < .01 \), and peer attachment, \( t(1140) = 3.42, p < .001 \).

In addition to the differences found with interpersonal and cultural predictors, there were statistically significant differences reported in the intrapsychic variables. First, males and females mean scores significantly differed for both foreclosed, \( t(1140) = 4.10, p < .001 \), and diffused, \( t(1140) = 6.05, p < .001 \), identity statuses. Additionally, there was a statistically significant difference for males and females for the social sexual motivation for casual sex, \( t(1140) = 2.01, p < .05 \). The final statistically significant difference for males and females intrapsychic scripts was the voicing opinions subscale of autonomy, \( t(1140) = 2.48, p < .05 \).

Males and females in this study also had statistical differences for three of the psychological outcome variables. First, males and females differed in their reported stress, \( t(1140) = 4.462, p < .001 \). There was a reported difference in depressive symptoms
for the participants in this study, $t(1140) = 3.22, p < .001$. Finally, males and females were statistically significantly different in their reported anxiety symptoms, $t(1140) = 4.35, p < .001$.

To best answer the research questions for this study, I used a person-centered approach to identify groups of intrapsychic sexual scripts. Using a person-centered approach allows researchers to detect patterns of individuals and further predict such patterns through covariates (Bauer & Shanahan, 2007). To accomplish the goals of this study, latent profile analysis (LPA) was conducted using MPlus 7.0 (Muthén & Muthén, 2012) to identify profiles of intrapsychic sexual scripts, specifically hook up motivations, identity status, and cognitive and emotional autonomy. In accordance with the protocol for this approach, I ran successive LPAs where classes were iteratively added to the model one-by-one to identify which solution best fit the data (see Nylund, Asparouhov, & Muthén, 2007). Model fit was interpreted through the lowest Akaike’s Information Criterion (AIC; Akaike, 1974) and Bayesian Information Criterion (BIC; Schwarz, 1978), the log-likelihood, entropy values, the Lo-Mendell-Rubin likelihood ratio test (LRT; Lo et al., 2001), and the bootstrap ratio test (BLRT), as suggested by Nylund et al. (2007). Lower scores of log-likelihood, AIC, and BIC indicated the best fitting model. In estimating the best fitting number of classes, LRT and BLRT were used to indicate if each estimated model was better than the previous model with $k$-1 classes. A statistically significant LRT (and BLRT) value indicates that the model with $k$ classes is the better fit (Lo et al., 2001). Entropy values greater than 0.8 demonstrate sufficient distinction between classes with higher values signifying better delineation (Celeux & Soromenho,
Finally, theoretical relevance and the rule of parsimony were also used to help identify the best class solution for the data.

After identifying the best fitting unconditional model, step 2 involved adding covariates to the analyses and re-running the LPA to examine which variables significantly predict class membership. A multivariate logistic regression within the LPA were simultaneously regressed with the best fitting latent class solution (using latent posterior probabilities) identified in step 1 on all the covariate predictors (cultural and interpersonal scripts, including, age, gender, attachment, etc.). The class with the least amount of variation in the intrapsychic script variables was specified as the reference class and odds ratios for each covariate predictor were interpreted accordingly (i.e., the odds of being in class x compared to the reference class). After predicting class membership, outcome variables were regressed onto class to assess how membership predicted psychological outcomes of hooking up. Finally, posthoc tests were run to analyze the interaction between the interpersonal/cultural scripts, the intrapsychic scripts, and the outcome variables.

In order to ensure that the variables of interest in this study did not violate, the assumptions of LPA were first explored. Latent profile analysis has three assumptions; first, variables are measured continuously, second, they are measured independently, and third, the variables are distributed normally. As required by LPA, all variables of interest are measured continuously. Additionally, the data did not violate the assumption of independence. Finally, in order to test if the data was normally distributed, variables of interest were checked for normality using tests of skewness and kurtosis. The data did not
violate the assumption of normality (see Table A7 in Appendix A).

**Latent Profile Analysis**

In order to answer question 1, a latent profile analysis with 2-, 3-, 4-, and 5- class solutions were run. Model fit indices for each solution can be found in Table 10. Model fit for the 5- class solution is not reported as this model could not converge. In initial steps of performing the LPA, the model could not converge with all indicator variables, thus each variable was introduced into the model one at a time in order to test and understand the error that occurred. Despite being a reliable subscale, the self-assessing subscale of autonomy would not fit into the model, and was therefore withheld from the remaining analyses. Upon examination of Lo-Mendell-Rubin Likelihood Ratio Test (LMR), the 3- class solution was significantly better than the 2- class solution \( p < .001 \), and the 4- class solution was not statistically significant \( p > .05 \). Additionally, the Bootstrapped Likelihood Ratio Test (BLRT) indicated that the 3- class solution was

**Table 10**

*Model Fit Indices for Latent Profile Analysis (N = 1,142)*

<table>
<thead>
<tr>
<th>Model fit indicators</th>
<th>2- Class</th>
<th>3- Class</th>
<th>4- Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
<td>41949.61</td>
<td>40559.25</td>
<td>40302.39</td>
</tr>
<tr>
<td>BIC</td>
<td>42277.24</td>
<td>41043.15</td>
<td>40705.79</td>
</tr>
<tr>
<td>Loglikelihood</td>
<td>-20909.80</td>
<td>-20183.63</td>
<td>-19905.82</td>
</tr>
<tr>
<td>Entropy</td>
<td>.87</td>
<td>.89</td>
<td>.85</td>
</tr>
<tr>
<td>LMR</td>
<td>2442.80***</td>
<td>1445.95***</td>
<td>553.08</td>
</tr>
<tr>
<td>BLRT</td>
<td>2453.99***</td>
<td>1452.35***</td>
<td>555.62***</td>
</tr>
</tbody>
</table>

\( N \) for Each Class

- C1 = 475
- C2 = 667
- C3 = 272
- C4 = 191

\*\*\* \( p < .001 \).
significantly better fit to the data than the 2-class solution ($p < .001$), and the 4-class solution was significantly better than the 3-class solution ($p < .001$). Entropy values for the 3-class solution (.89) were higher than the 2-class solution (.87), and the 4-class solution (.85). AIC and BIC fit indices were larger for the 2-class and 3-class solutions than the 4-class solution. When considering all the model fit indices as a whole, the statistical indicators in these model fit indices indicated that the 3-class solution was the best fit for the data.

The three profiles that were found in the LPA can be found in Figure 4. Each profile was named in relation to the class indicator variables of identity status, hook up motivation, and autonomy and are named: The Unidentified Minimally Motivated Dependents (profile 1), The Diffused Highly Personally Motivated Independents (profile 2), and The Foreclosed Personally Motivated Conscious Decision Makers (profile 3; see Figure 4). Of the 1,142 participants, The Unidentified Minimally Motivated Dependents was comprised of 306 (26.8%) participants, The Diffused Highly Personally Motivated Independents consisted of 564 (49.4%) participants, and The Foreclosed Personally Motivated Conscious Decision Makers included 272 (23.8%) participants. Each class, including class make up, predictors, and outcomes is further explored below. Intrapsychic script means for each profile can be found in Table 11.

**Unidentified Minimally Motivated Dependents**

The Unidentified Minimally Motivated Dependents (UMMD) class ($n = 306$, 26.8%), participants reported the lowest mean scores for foreclosed ($M = 3.46$, $SD = .06$), diffused ($M = 3.48$, $SD = .04$), moratorium ($M = 3.32$, $SD = .03$), and achieved ($M = 3.26$, $SD = .02$).
Table 11

*Intrapsychic Sexual Scripts and Psychological Outcomes: Descriptive Statistics of Latent Profiles (N = 1.142)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Overall (N = 1.142)</th>
<th>UMMD (n = 306)</th>
<th>DHPMI (n = 564)</th>
<th>FPMCDM (n = 272)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>Range</td>
<td>M</td>
</tr>
<tr>
<td>Identity status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreclosure</td>
<td>3.98</td>
<td>1.35</td>
<td>1 - 6</td>
<td>3.46</td>
</tr>
<tr>
<td>Diffusion</td>
<td>3.96</td>
<td>0.71</td>
<td>1 - 6</td>
<td>3.48</td>
</tr>
<tr>
<td>Moratorium</td>
<td>3.44</td>
<td>0.60</td>
<td>1 - 6</td>
<td>3.32</td>
</tr>
<tr>
<td>Achieved</td>
<td>2.85</td>
<td>0.51</td>
<td>1 - 6</td>
<td>3.26</td>
</tr>
<tr>
<td>Hook up motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social sexual</td>
<td>2.92</td>
<td>0.93</td>
<td>1 - 5</td>
<td>2.98</td>
</tr>
<tr>
<td>Social relationship seeking</td>
<td>2.47</td>
<td>1.09</td>
<td>1 - 5</td>
<td>2.78</td>
</tr>
<tr>
<td>Enhancement</td>
<td>3.90</td>
<td>0.85</td>
<td>1 - 5</td>
<td>3.42</td>
</tr>
<tr>
<td>Coping</td>
<td>2.89</td>
<td>1.15</td>
<td>1 - 5</td>
<td>2.98</td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluative thinking</td>
<td>3.65</td>
<td>0.45</td>
<td>1 - 5</td>
<td>3.12</td>
</tr>
<tr>
<td>Voicing opinions</td>
<td>3.44</td>
<td>0.42</td>
<td>1 - 5</td>
<td>3.06</td>
</tr>
<tr>
<td>Decision making</td>
<td>3.77</td>
<td>0.37</td>
<td>1 - 5</td>
<td>3.22</td>
</tr>
<tr>
<td>Comparative validation</td>
<td>3.37</td>
<td>0.55</td>
<td>1 - 5</td>
<td>3.07</td>
</tr>
<tr>
<td>Emotional</td>
<td>3.18</td>
<td>0.33</td>
<td>1 - 5</td>
<td>2.95</td>
</tr>
<tr>
<td>Psychological outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>2.76</td>
<td>0.26</td>
<td>1 - 5</td>
<td>2.75</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>2.09</td>
<td>0.29</td>
<td>1 - 3</td>
<td>2.13</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>1.93</td>
<td>0.66</td>
<td>1 - 4</td>
<td>1.99</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>2.10</td>
<td>0.41</td>
<td>1 - 4</td>
<td>2.31</td>
</tr>
</tbody>
</table>

*Note.* Percentages of the sample by class. UMMD 26.8%; DHPMI 49.4%; FPMCDM n = 272, 23.8%.

$SD = .03$) identity statuses. Without significant differences between each identity status, the UMMD class was unable to be classified in a specific identity status. While as a group, the UMMD class was not classified, it does not denote individual’s identity status. Additionally, for the individuals in this class, there was minimal variation across each identity status. They also had the lowest mean scores for the hook up motivations in
Note. Diamond solid line is profile 1 – the unidentified minimally motivated dependents, square dashed line is profile 2 – the diffused highly personally motivated independents, and triangle dotted-dashed line is profile 3 – the foreclosed personally motivated conscious decision makers.

Figure 4. Latent profiles that emerged from the data for intrapsychic sexual scripts.

comparison to the other classes. Like the identity statuses, hook up motivation did not vary significantly across the different types of motivation (Social Sexual $M = 2.98$, $SD = .06$; Social Relational $M = 2.78$, $SD = .07$; Coping $M = 2.99$, $SD = .07$), with the exception of enhancement ($M = 3.42$, $SD = .07$) motivation. Finally, they were also classified as having the lowest mean scores for autonomy (Evaluative Thinking $M = 3.12$, $SD = .03$; Voicing Opinions $M = 3.06$, $SD = .03$; Decision Making $M = 3.22$, $SD = .04$; Comparative Validation $M = 3.07$, $SD = .04$; Emotional $M = 2.95$, $SD = 2.95$, $SD = .03$), with minimal variation. Because of the limited variation in the UMMD class, it will be further discussed as the comparison group for the latent profile analysis for both the class predictors and the psychological outcome variables, which will assist in answering the
second and third questions.

**Diffused Highly Personally Motivated Independents**

The second class, The Diffused Highly Personally Motivated Independents (DHPMI; \( n = 564, 49.4\% \)), were characterized by high mean scores in foreclosure (\( M = 4.18, SD = .05 \)) and the highest mean scores in the diffused (\( M = 4.31, SD = .04 \)) identity statuses. The second class also had the lowest mean score for the achievement (\( M = 2.58, SD = .03 \)) identity status, indicating that the classification in the diffused identity status is more accurate for this class. The individuals in this class had comparable means to the other classes for moratorium (\( M = 3.71, SD = .04 \)) identity status. The DHPMI’s also had the highest mean score in personal enhancement (\( M = 4.14, SD = .04 \)) as their motivation for hooking up, meaning they choose to participate in hooking up because it is an enjoyable experience. The second class also had the lowest mean scores in the social relationship seeking (\( M = 2.34, SD = .05 \)) and coping (\( M = 2.62, SD = .05 \)) motivations in comparison to the other profiles, indicating that these individuals were less likely than their counterparts in the other two classes to seek casual sex for building relationships, and as a way to cope with their own problems. Social sexual (\( M = 2.89, SD = .05 \)) had similar, if not slightly lower means, in comparison to the other classes, meaning they were not more or less likely than their peers to seek casual sex as a way to help them decipher where they want their relationship to go with their hook up partner. They also had the highest mean scores for each of the autonomy variables when compared to the other classes. Among these highly autonomous individuals, making decisions (\( M = 4.06, SD = .02 \)) had the highest mean, followed by evaluative thinking (\( M = 3.89, SD = .03 \)),
voicing opinions \((M = 3.71, SD = .03)\), comparative validation \((M = 3.57, SD = .03)\), and emotional autonomy \((M = 3.44, SD = .03)\).

**Sexual cultural and interpersonal scripts.** To address the second research question in this study, the predicting variables, sexual cultural scripts and interpersonal scripts were split into three separate categories; general demographics (cultural), sexual behaviors during hook ups, and parent and peer relationships (interpersonal). Of the eight cultural script variables (i.e., age, gender, relationship status, sexual orientation, education, religiosity, and substance use), three predictors were statistically significant; gender, sexual orientation, and use of illicit drugs. Females were less likely than males to belong to the DHPMI class than the UMMD class \((b = -.55, p < .05, OR = 1.24)\). Furthermore, individuals who did not identify as heterosexual were less likely to be classified in the DHPMI class over the UMMD class \((b = -.24, p < .05, OR = .32)\). Individuals who were under the influence of illicit drugs during their last hook up experience were more likely to be a part of the DHPMI class compared to the comparison group \((b = 1.14, p < .001, OR = 8.14)\).

Of the 14 interpersonal scripts concerning sexual behaviors during their last hook up, one predictor was statistically significant. Participants who thought that hooking up was overall a negative experience were less likely to be classified in the DHPMI class in comparison to the reference group \((b = -.19, p < .05, OR = .23)\).

Both parent and peer attachment were statistically significant for the DHPMI class. For every unit increase in parent attachment, participants had 5.76-fold increase in odds in belonging to the Diffused Highly Personally Motivated Individuals class.
compared to the Unidentified Minimally Motivated Dependents class ($b = 1.21, p < .001$). Similarly, those who were more attached to their peers were 2.61 times more likely to belong to the DHPMI class in comparison to the reference group.

**Psychological outcomes of hooking up.** In answering the third question, classes were then used to predict psychological outcomes. Members who were part of the Diffused Highly Personally Motivated Individuals class were less likely to experience stress ($\beta = -.87, p < .001, OR = .41$), anxiety symptoms ($\beta = -1.65, p < .001, OR = .192$), and had higher levels of self-esteem ($\beta = -1.35, p < .001, OR = .26$).

**Foreclosed Personally Motivated Conscious Decision Makers**

The final profile, The Foreclosed Personally Motivated Conscious Decision Makers (FPMCDM; $n = 272, 23.8\%$), had the highest mean score for the foreclosed identity status ($M = 4.12, SD = .09$), and second highest mean score in the diffused identity status ($M = 3.75, SD = .07$), however unlike the second profile, no other mean score of the other identity statuses had similar means (moratorium $M = 3.04, SD = .05$; achieved $M = 2.94, SD = .05$). Participants in the FPMCDM class had low mean scores for social sexual ($M = 2.92, SD = .07$), and social relationship seeking motivations ($M = 2.61, SD = .08$). Like the first two profiles, The Foreclosed Personally Motivated Conscious Decision Makers had the highest mean score in the personal enhancement motivation ($M = 3.96, SD = .07$). The third profile has the highest mean score for the coping motivation ($M = 3.34, SD = .08$) when compared to the other profiles. The participants that were classified in this profile also had high mean scores in the evaluative
thinking ($M = 3.75, SD = .06$) and decision making ($M = 3.80, SD = .05$). The third profile also had similar means for both voicing opinions ($M = 3.29, SD = .05$) and comparative validation ($M = 3.31, SD = .06$). The third class also had the lowest mean score for emotional autonomy ($M = 2.90, SD = .04$), indicating greater dependence on others for emotional support.

**Sexual cultural and interpersonal scripts.** In order to answer the second question, sexual cultural and interpersonal scripts variables were used to predict class membership. Only sexual orientation was statistically significant for the demographic cultural sexual scripts ($b = .33, p < .001, OR = .49$), indicating that those who identified as heterosexual were more likely to identify with this class.

Three of the sexual behavior interpersonal scripts were statistically significant including hook up intention, overall positive experiences with hooking up, and heavy petting. For every unit increase in hook up intentions, there was a 26.5% decrease in likelihood in being classified in the FPMCDM class ($b = .21, p < .01$). Those who identified hooking up as an overall positive experience were also less likely to identify with the third class ($b = -.24, p < .05, OR = .31$). Finally, those whose last hook up included heavy petting had a 1.49-fold increase in belonging to the FPMCDM class than the reference class ($b = .59, p < .01$).

Both attachment variables were also significant predictors of membership for the Foreclosed Personally Motivated Conscious Decision Makers class. Individuals who reported higher parental attachment were less likely to belong to the FPMCDM class ($b = -.79, p < .01$). However, higher attachment to peers had a 2.42-fold increased likelihood
of belonging to the FPMCDM class than the UMMD class \((b = .71, p < .001)\).

**Psychological outcomes of hooking up.** Finally, in order to answer the third question, it was found that participants in the Foreclosed Personally Motivated Conscious Decision Makers class had greater odds of experiencing stress \((\beta = 2.09, p < .001, OR = 8.09)\), depressive symptoms \((\beta = 1.36, p < .001, OR = 3.89)\), anxiety symptoms \((\beta = 1.92, p < .001, OR = 6.80)\), and were more likely to experience higher self-esteem \((\beta = 1.12, p < .001, OR = 3.07)\).

**Script Interactions**

As implied by sexual script theory, cultural and interpersonal scripts work together to create intrapsychic sexual scripts, and theoretically influence psychological outcomes. Because of this theoretical implication, several 3-way interaction models were run to test the interaction between sexual scripts and psychological outcomes. Different models were tested for the classes with variables selected based upon highest means, statistically significant predictors, and outcomes. These variables included gender, sexual orientation, use of illicit drugs, hooking up being either a positive or negative experience, hook up intentions, heavy petting occurring during last hook up, and parent and peer attachment, as well as all psychological outcome variables were statistically significant, all were included in the interaction analyses. Interaction models were not tested for the reference class. Despite running dozens of models exploring interaction effects between the sexual scripts and the outcome variables, no model was statistically significant.
CHAPTER V
DISCUSSION

As a beginning effort to bridge the gap between positive and negative psychological outcomes for emerging adults after hooking up, this study is the first to take a person-centered approach to identify specific profiles related to mental and emotional outcomes of casual sex. This study applied sexual script theory and used intrapsychic sexual scripts for group membership identification, interpersonal sexual scripts, and cultural scripts as predictors of group membership, and psychological outcomes (both positive and negative) of group membership. Through latent profile analysis, three distinct profiles were identified: The UMMD, DHPMI, and FPMCDM.

This study was conducted with the goal of answering three research questions. First, how many unique profiles of intrapsychic scripts (i.e., hook up motivations, identity, and autonomy) would emerge from the data collected from a diverse group of emerging adults who hook up? Second, how is group membership predicted by both interpersonal sexual scripts (i.e., hook up behaviors, attachment to parents and peers) and sexual cultural scripts (i.e., demographic variables)? And finally, how are the unique intrapsychic latent profiles associated with psychological outcomes of depressive symptoms, anxiety symptoms, stress, and self-esteem? In this chapter I will discuss the characteristics and nuances of each profile separately while also highlighting the associated predictors and outcomes for each group.
Profiles of Intrapsychic Sexual Scripts with Predictors and Outcomes

Unidentified Minimally Motivated Dependents

The first class, UMMD, comprised nearly 27% of the sample and had minimal to no mean score differences between the four identity statuses, hook up motivation, and autonomy. When studying ego identity status, previous researchers have indicated that anywhere between 11% to 66% of participants were unable to be clearly classified into one of the four identity statuses, rather they were either considered in “transition” or “low profile” status (R. M. Jones, Akers, & White, 1994). The findings of this study are consistent with this trend with 26% of the participants who were not clearly classified in one identity status.

The culturally acceptable time for many of the developmental transitions in a young person’s life have been pushed back from adolescence to emerging adulthood in the U.S. It makes sense that many of these emerging adults were unclassifiable and would be in transition from one status to another. Despite the option to force individuals into an identity status as suggested by R. M. Jones et al. (1994), allowing for individuals to remain unclassified may more accurately reflect the populations’ actual identity development processes and corresponding societal expectations.

Like ego identity status, the UMMD class also had no distinctive motivation for hooking up in comparison to the other profiles. This class name may be a bit misleading as these individuals are not unmotivated for hooking up. Rather, their mean scores for social-sexual, social-relationship, personal enhancement, and coping, varied between 2.7 and 3.4, with a minor spike with personal enhancement but no clearly identifiable
motivational factor. It is imperative to note that minimally motivated is only relative to the other classes in this study and the individuals in this class were not unmotivated for sexual behavior.

The current cohort of emerging adults, sometimes referred to as the millennial generation (i.e., individuals born between 1979-2000), have been described as a generation that thrives on instant gratification (Chaudhuri & Ghosh, 2012). This characteristic might define the UMMD class because, unlike the other classes of participants in this study, who were somewhat motivated by personal enhancement, these participants may have thrived on the gratification aspect of hooking up. This class is most in accord with findings from Kenney et al. (2014) with only minimal motivation by each of the hook up motivations (i.e., social sexual, social relationship seeking, enhancement, and coping).

Unlike the other two classes, the UMMD class relied more heavily on others across all five measures of autonomy. For individuals in the UMMD class, means for evaluative thinking, voicing opinions, decision making, comparative validation, and emotional autonomy all hovered around 3.0, representing self-reflective scores considerably lower than the other classes in this study. These lower autonomy scores for the UMMD class might relate back to their unidentified identity status previously discussed. As individuals who appear to have no clear connection to either commitment or active exploration, they may rely more heavily on others to assist them through decisions, forming opinions, and understanding their emotions.

In addition to being characterized as a generation reliant on instant gratification,
the millennial cohort has also been described as dependent on the approval and opinions of others (Chaurdhuri & Ghosh, 2012). Due to their reliance on opinions and feedback of others, it is reasonable that the participants in this study would have some level of dependence on parents and peers. In this case, the UMMD class participant is likely greatly influenced by their peers to participate in hooking up behaviors.

Because the UMMD class was the reference group for analyses, predictors and outcomes for this class will not be discussed. Rather, the predictors and outcomes discussed in the remaining two classes will be discussed in relation to the UMMD profile.

**Diffused Highly Personally Motivated Independents**

**Class description.** The DHPMI class included nearly 50% of the sample and had the highest mean scores for the diffused identity status, the highest mean scores for personal enhancement, and the highest mean scores for all autonomy indicators. Such mean scores allow for a general classification of individuals in this class as independent, diffused, and motivated for casual sex by personal gain. According to Marcia (1966, 1980), individuals who are classified as diffused are neither actively exploring nor have they committed to an identity.

As the largest class in this study, including almost half of the sample, the DHPMI class provides support for previous research. Schwartz et al. (2011) reported from their study that diffused individuals in their sample were more likely to participate in casual sex. Although all the participants in current study participated in casual sex, the finding that a greater proportion of them were classified as diffused helps lend support for the relationship between being diffused and increased sexual risk-taking through hooking up.
The DHPMI class distinguished itself by having their highest mean scores for enhancement motivation and relatively low mean scores for all the remaining hook up motivations. Diffused ego identity status and generational values may help explain class membership. Even though participants in this class were not in a state of exploration (Marcia, 1966; 1980), participation in and motivation for casual sex seems to mark the beginnings of some form of exploration. Additionally, as discussed in the previous section, the current cohort of emerging adults, as a whole, places high value on instant gratification (Chaurdhuri & Ghosh, 2012). This class had high mean values in enhancement motivation, making it is clear that the individuals in the DHPMI class were highly motivated by personal gratification, without any consideration toward identity development.

Interestingly, of all three classes, the DHPMI class had the highest mean values for evaluative thinking, voicing opinions, decision making, comparative validation, and emotional autonomy. In comparison to the other two classes, it seems the DHPMI class has developed many of the necessary skills to become more independent from external influences. As part of the predominantly diffused ego identity status, this autonomy may buffer the pending societal drive to initiate exploration and commitment to an identity.

Predictors. In this study, class membership was predicted by cultural and interpersonal sexual scripts. In other words, I used certain demographic variables as proxies, that were highlighted as statistically significant findings in previous studies (i.e., Owen et al., 2012; Vrangalova, 2015a, 2015b), that speak toward cultural norms, and further used sexual behaviors during hook ups, and parent and peer relationships which
focus on interpersonal scripts to predict to which class a participant might belong.

For the DHPMI class, there were several statistically significant variables that indicated greater odds of class membership over the reference (UMMD) class. For example, male participants were more likely than female participants to belong to the DHPMI class rather than the UMMD class, a finding that is supported by previous research. In terms of ego identity status, previous researchers have reported that male adolescents were more likely to be classified as diffused than females (Adams & Shea, 1979; Markstrom-Adams & Adams, 1995). Due to the relationship between diffusion and being male, the greater odds of males belonging to the DHPMI class is an unsurprising finding.

In addition to gender being a significant predictor of belonging to the DHPMI class over the reference class, heterosexual participants had greater odds of membership in this class. Though this is an interesting finding, the high concentration of heterosexual participants in the study requires moderation in interpretation. Finally, as part of their identity development, these diffused individuals were also much more likely to use illicit drugs during their most recent hook up experience compared to the reference class. Once again, this finding makes intuitive sense. When individuals are not actively exploring nor committing to an identity in love, work, and ideology, personal gratification and unrestraint accompany potential risk-taking behaviors.

Among the 14 interpersonal scripts focusing on hooking up behaviors, only the participants overall view of hooking up was positively related and statistically significant. In this study, individuals who thought hooking up was an overall negative experience
were less likely to be classified in the DHPMI class than in the comparison UMMD class. Individuals who are not actively in a state of exploration and not committed to an identity, or those in diffusion, may report more positive, self-gratifying, overall outcomes. The remaining 13 sexual behaviors and experiences were not statistically significant predictors of class membership for the DHPMI class. It is curious to note that in the case of the DHPMI class, behavior was not a significant predictor of class membership, rather it was the experiences that were influential. As identity exploration was not yet a part of these individuals’ development, further research is needed to identify the role that these sexual experiences may play in their future sexual identity development.

The final interpersonal script predictors that were included in this study, parent and peer attachment, were both highly significant predictors for belonging to the Diffused Highly Personally Motivated Individual class over the Unidentified Minimally Motivated Dependent class. Emerging adults who were more attached to their parents were over five times more likely to belong the DHPMI than the UMMD class. Furthermore, individuals who were more attached to peers were more than twice as likely to belong to the DHPMI class over the UMMD class. These findings are interesting when considering these highly autonomous participants who were not foreclosed—blindly accepting parental views on love, work, and ideology. Findings suggest that despite being highly autonomous and highly diffused, members of the DHPMI class greatly valued the opinions of both their parents and their peers and felt accepted by both groups as well. Researchers have previously reported that adolescents who were more attached to their parents reported
healthy developmental outcomes (Moretti & Peled, 2004). The common outgrowth of this attachment might be to assume that through support and valued parental and peer relationships, adolescents and emerging adults would be able to go through stages of identity crisis and exploration in order to develop experiences necessary to understand their personal beliefs. In this study, however, cultural norms of not committing to an identity early may have allowed these emerging adults in the DHPMI class to feel more accepted by their parents and peers without feeling compelled toward exploration, allowing for delayed identity development.

**Outcomes.** In this study, psychological outcome variables were selected based upon previous hooking up and emerging adult literature, with an emphasis on stress, anxiety symptoms, depressive symptoms, and self-esteem. Extant literature indicates that emerging adults experience higher amounts of stress than previous generations (APA, 2016). Despite this significant finding, researchers studying hooking up behaviors had not yet included stress in any studies about emerging adult casual sex. In the current study, the DHPMI class was less likely to experience stress in comparison to the reference UMMD class. Previous researchers have indicated that sexual behavior is predictive of decreased stress levels in the days that follow (Burleson, Trevathan, & Todd, 2007). Hooking up behaviors as predictors of class membership for the participants in the DHPMI class, appear to be an outlet to relieve stress for the diffused emerging adults in this study. While nothing more can be speculated from this study, future studies could continue to explore how stress is related to hooking up behaviors and the role hooking up might play in stress reduction.
Researchers have reported conflicting psychological outcomes of hooking up, with both increased and decreased anxiety symptoms, depressive symptoms, and self-esteem (e.g., Bersamin et al., 2014; Owen & Fincham, 2011; Paul et al., 2000; Strokoff et al., 2015; Vrangalova, 2015a). The findings of this study, and specifically for this class have similar results. In this sample, participants in the DHPMI class were less likely to experience anxiety symptoms than the UMMD class, a finding that is contrary to extant literature (see Bersamin et al., 2014). The members of the DHPMI class also reported lower self-esteem, a finding that was also contradictory to previous studies (see Paul et al., 2000; Vrangalova, 2015a, 2015b). These discrepant findings may reflect the more nuanced approach of a person-centered analysis. Further replication research using a person-centered approach would be needed to validate these differences.

For the DHPMI class, positive outcomes following hooking up, mediated through class membership, were also likely related to the positive predicting variables of an overall positive opinion of hooking up and high attachment to parents and peers. For example, in general, individuals who report negative experiences, would also likely report negative outcomes. Furthermore, greater attachment to parents and peers, along with increased feelings of acceptance, could also be indicative of positive outcomes associated with hooking up as they would not feel judged or shamed by significant friends and family. It is noteworthy that the DHPMI class reported lower levels of stress and anxiety symptoms, but also lower levels of self-esteem, which may indicate that hooking up behaviors is indicative of individuals in this class experiencing both positive and negative outcomes simultaneously.
Foreclosed Personally Motivated Conscious Decision Makers

**Class description.** The Foreclosed Personally Motivated Conscious Decision Maker (FPMCDM) class had high mean scores in the foreclosure identity status and included nearly 24% of the sample. These individuals also tended to have high scores for enhancement motivation. They also had the highest scores for coping motivations, evaluative thinking, and decision making. Foreclosure identity status is classified by commitment to personal beliefs without previous exploration (Marcia, 1966, 1980). In their study of identity status and casual sex, Schwartz et al. (2011) reported that individuals categorized as foreclosed were the least likely to participate in casual sexual behaviors. Keeping in mind that in this study all participants had hooking up experiences in the past as a requisite for participating in the study, the FPMCDM class, nonetheless, had the fewest participants, providing limited support to Schwartz et al. (2011) that foreclosed individuals were less likely to participate in hooking up behaviors.

The FPMCDM class reported high mean scores for hooking up motivations of enhancement and coping. Similar to the DHPMI class, the finding that class members reported highest mean scores for enhancement motivation may be related to the characteristics of the emerging adult’s generation of craving instant gratification (Chaudhuri & Ghosh, 2012). The FPMCDM class also had the highest mean score for coping hook up motivation. The correlational results from this study indicated neither a significant positive nor a significant negative relationship between coping motivation and foreclosed identity status. Interestingly, however, previous studies have indicated that foreclosure identity status behavior (i.e., commitment without exploration) was
negatively associated with poor coping strategies (Luyckx, Klimstra, Duriez, Schwartz, & Vanhalst, 2012). Further research is needed to gain more understanding of the relationship between foreclosed identity status and coping motivation for casual sex.

While the mean scores for comparative validation, voicing opinions, and emotional autonomy were comparable to the other two classes, the FPMCDM class distinguished itself by its reported high autonomy mean scores for evaluative thinking and decision-making. The members of the FPMCDM class were more likely to evaluate the consequences of both their actions and their decisions while also recognizing the growth of their decision-making process. Contrary to previous literature that reported that foreclosed individuals were more likely to be impulsive in their decision-making style (Waterman & Waterman, 1974), findings from this study suggest that the individuals in this class were more deliberate about their decision-making. These incongruent results may be related to the cohort differences previously discussed—reflecting a more millennial viewpoint—or may be related to other qualities of this class apart from their foreclosed status.

**Predictors.** For the FPMCDM class, only one cultural script significantly predicted class membership. Like the DHPMI class, members of the FPMCDM class were more likely to identify as heterosexual than those in the Unidentified Minimally Motivated Dependents reference class. Despite using a more diverse sample than previous studies, the current study is limited in the number of individuals who identified as sexual minorities. The finding that heterosexuality was a significant predictor of membership for the FPMCDM class may be an artifact of the discrepancy between the
number of individuals who identify with other sexual orientations in this study.

For the FPMCDM class, three interpersonal scripts, based upon sexual behavior, were statistically significant predictors of class membership. Individuals who fully intended to hook up at the occasion of their last hook up were nearly 27% less likely to belong to this class, a finding that may be a byproduct of the decreased likelihood of foreclosed individuals participating in casual sexual behaviors (Schwartz et al., 2011). It is significant to note that the individuals in the FPMCDM class, who were less likely to intend to hook up, also reported increased negative psychological outcomes, a finding that supports previous research (i.e., Vrangalova, 2015a). This relationship will be discussed further with the outcome variables.

In addition to decreased likelihood of intending to hook up, membership of the was also negatively predicted by an overall positive experience with hooking up, indicating that the members of the FPMCDM class were more likely to report overall negative experiences than the members of the UMMD reference class. This relationship may be related to the decreased reported intention to hook up, as those who hook up without that intention may be unhappy with the sexual experience.

The finding that heavy petting statistically significantly predicted class membership for the FPMCDM class is also interesting. In comparison to the other sexual behaviors included in this study, heaving petting is a relatively minimally intimate behavior. For this sample, and the FPMCDM class in particular, heaving petting may be a sexual behavior that may be a trigger that stimulate intrapsychic thought processes and increasing motivation for hooking up, increasing autonomy, and is influential for
achieving identity status. This finding may further indicate that sexual behaviors that are not penetrative influence intrapsychic sexual thought processes.

Attachment to both parents and peers were significant predictors for the FPMCDM class. Unlike the second class, individuals with higher attachment to parents were less likely to belong to the FPMCDM class than the reference class. This finding is interesting and differs from previous findings that indicate that foreclosed adolescents were more likely to report higher parental attachment (Matos, Barbosa, de Almeida, & Costa, 1999). Perhaps this finding indicates a deviation from parental values, however this speculative notion cannot be deciphered from these data. Individuals who were more attached to their peers were more than twice as likely to belong to the FPMCDM class than the UMMD class. It is unsurprising that peers were influential for emerging adults in this study as they have been reported as influential to development across settings (Wilkinson, 2004).

**Outcomes.** All four outcome variables (stress, depressive symptoms, anxiety symptoms, and self-esteem) were statistically significant for the FPMCDM class. These individuals had greater odds of reporting increased stress, depressive symptoms, and anxiety symptoms. Such results provide additional support that hooking up experiences, mediated through profile membership, can be related to increased negative psychological outcomes (Bersamin et al., 2014; Mistler et al., 2012; Owen & Fincham, 2011). The reported negative outcomes may also be related to predictors of class membership, specifically hook up intentions and overall negative experiences. As membership for the FPMCDM class was negatively predicted by hook up intentions and positive experience
(i.e., negative overall view of hooking up), there is a reasonable connection to negative psychological outcomes through profile membership.

Along with the reported negative outcomes of hooking up for the FPMCDM class, these individuals also were more likely to report higher self-esteem scores in comparison to the UMMD class, providing support for previous research (i.e., Paul et al., 2000; Vrangalova, 2015a). Despite the negative reported outcomes, higher reported self-esteem for the FPMCDM class may be related to external factors that were not part of this study. Such mixed results further lend support for the continuance of person-centered data analysis, which might aid researchers in understand the hooking up experience as a whole.

**Interpersonal Scripts, Cultural Scripts, and Profiles of Intrapsychic Scripts: Nonsignificant Predictors**

Despite the highlighted important relationships of cultural and interpersonal scripts relationships reported in previous research, several of the cultural script variables failed to reach statistical significance in this study including age, education, religiosity and spirituality, denomination, and age of first hook up experience. A brief explanation of this discrepancy is warranted.

In previous studies, increases in age and education were significant predictors of having more hooking up experiences (i.e., Owen et al., 2010; Stinson, 2010). Such findings may have been a result of sampling methodologies employed by researchers, focusing primarily on undergraduate students. Additionally, previous studies have had
samples that differed from the current study with younger participants and samples that were actively enrolled in college courses. As previous studies included individuals who had not had a hooking up experience, the relationship between age and hooking up may is likely related to the lack of sexual experience of younger emerging adults.

Additionally, researchers have reported that increased religiosity is related to decreased casual sexual behaviors (Brimeyer & Smith, 2012; Burdette et al., 2009). As religious individuals are less likely to participate in hooking up behaviors, religiosity perhaps was not a significant predictor of class membership as all participants in this study had a hooking up experience in the past. In this study, participants reported that they were moderately religious and spiritual, indicating that the cohort of individuals in this study were less religious those included in previous research.

Another potential explanation for not finding the same importance related to cultural scripts might lie in the how the variables were measured. In the current study, most variables focused on the samples’ most recent hooking up experiences. With the exception of a limited number of cultural and interpersonal scripts, the majority of these scripts failed to reach statistical significance in this study. Although this finding may be indicative of this sample, sexual behaviors during hook ups may not be an influential predictor of intrapsychic thought processes and may be symptomatic of the more cyclical nature of sexual script theory.

The correlational results in this study indicate that for this sample, the variables measured as proxies for sexual scripts were not statistically significantly related as they had been in previous studies. These results may be indicative of this particular samples’
characteristics or the complexity of sexual script theory. The low correlation indicators and the minimal significance may provide evidence that for this sample, the cultural proxies may not be as influential in influencing interpersonal and intrapsychic scripts as they had in previous studies. An alternative explanation for the lower correlation scores for these variables may be more indicative of the complexities of sexual script theory. Although sexual script theory provides theoretical basis to help guide behavior and provide understanding of sexual behavior, cultural, interpersonal, and intrapsychic scripts are not easily conceptualized. Perhaps, future studies should therefore consider alternative measurement for sexual scripts that may capture the complexities of the concepts.

Because cultural (i.e., demographic variables) and interpersonal (i.e., sexual behaviors) have been found to be influential in previous studies and despite the lack of statistical significance of these variables in this study, cultural and interpersonal variables should continue to be included in future studies of hooking up.

**Limitations and Strengths**

Several shortcomings in this study require discussion. First, these data were cross-sectional; thus, it is impossible to establish temporal ordering to the model. The conclusions made in this study are more appropriately evaluated as outcomes of class membership of this sample rather than generalizable to other populations. Future research would benefit from employing longitudinal methods to assess these variables across time. Additionally, this study is limited by the linear nature of the analysis as sexual script
theory may be better analyzed through a more circular or temporal type of analysis such as autoregressive models to help understand the temporal ordering of whether the intrapsychic, interpersonal, or cultural scripts influence the others more. Future studies should continue to consider sexual script theory as the basis to understanding hooking up behaviors and explore the impact of each script on the others. Furthermore, this study was the first to include multiple aspects of psychosocial development, future studies should also continue to explore the influence of developmental theories on hooking up behaviors.

Sexual cultural scripts in this study were addressed using demographic variables as proxy for overall cultural and behavioral norms of sexual behavior. As a limitation of this study, measuring demographics as proxy for culture does not speak to the complexities of culture, nor does it sufficiently encompass culture. Future studies should consider exploring cultural scripts focusing on cultural identity and cultural sexual identity. Additionally, future studies should explore the development of a sexual-culture identity measure that would assist in clarifying the influence of culture.

While using the technology of Mechanical Turk provides an accessible and cost-effective tool for data collection, the researcher acknowledges that there are significant differences from the general population based upon the selection of the sample. According to Casey, Chandler, Levine, Proctor, and Strolovitch (2017), reported that composition of an MTurk sample varies significantly based upon the time of day and the serial position (i.e., whether they are earlier or later in data collection) and are associated with variations in demographic composition and therefore samples cannot be presumed to
be identical across studies and reduce the ability of replication. Some of the differences between samples collected via MTurk in comparison to other sampling methods include higher negative affect and lower social engagement (McCredie & Morey, 2018). Additionally, a small portion of the population participants as Mechanical Turk workers. Turkers tend to be younger, white, lower income individuals with higher education (Hitlin, 2016). Such differences therefore may present selection issues for the present study; however, such issues do not outweigh the benefits of sampling using MTurk.

Despite the more diverse sample obtained in this study, the study is limited by convenience sampling. There are likely differences based upon those who are Turkers (participants in online surveying for money) and those who are not. This limitation is no different than previous and future studies, as it would be unreasonable to complete a study on hooking up using a random sample. Furthermore, despite being more diverse than previous studies that relied on university samples, the sample for this study is more homogenous than the general population. In this study, a greater proportion of the participants identified as white/Caucasian which does not reflect the general population of the U.S. Future studies should attempt to recruit samples that more closely resemble the general population of emerging adults.

The sample is further limited by the pool of professional Turkers that are not representative of the general population of emerging adults. For example, according to recent Centers for Disease Control and Prevention studies, 3.4% of American adults identify as a sexual orientation other than heterosexual (Ward, Dahlhamer, Galinsky, & Joestl, 2014). The participants in this study who identified as bisexual, gay, lesbian, or
other represented approximately 22% of the sample. Discrepancies in the Turker population in comparison to the general population provides evidence that Turkers are a unique subset of the population that has important differences the general population. With the over representation of sexual minorities, the data and results from this study would not be able to be extrapolated to the general population of American emerging adults. Future studies should therefore explore demographic differences between Turkers and the general population and how they impact study outcomes.

An additional limitation of this study was the requirement that participants to have had a previous hook up experience. This requirement may have created an artificial outlook of hooking up that might not reflect the populations’ behaviors. Additionally, without having a sample that is more reflective of the populations’ hook up behaviors, it was not possible to compare differences between emerging adults who choose to hook up and those who do not. Future studies using a person-centered approach to studying hooking up could take a more inclusive approach to allow participants to report their experiences that may be more reflective of the population and would allow for participants to compare individual characteristic differences between emerging adults who do and do not choose to have casual sex.

Despite quality control measures taken in this study, there may be some concern about the quality data, as indicated by decreased Cronbach’s alpha scores. While this is not a problem unique to this study, future studies using mTurk should continue to explore additional ways to ensure quality data.

Despite these limitations, the strengths of this study help move the research of
casual sex for emerging adults forward. This is one of the first studies to approach casual sex with a person-centered approach to help identify traits of individuals who experience positive and negative psychological outcomes. Additionally, this is the first study to include multiple aspects psychosocial developmental in relation to hooking up behaviors and psychological outcomes.

While the sample may have been obtained conveniently, the cross-sectional data in this study were collected outside the university setting, helping to enhance the knowledge of the emerging adult experience, not just the university experience of casual sex. Previous studies generally focus primarily on student populations specifically (e.g. Parade et al., 2010, Owen et al., 2014). By including both students and non-students, this study allowed for a more diverse sample to help draw a broader picture of hooking up among the emerging adult population. Unique to this study, one third of the sample had already completed college and the sample came from across the U.S. rather than a concentrated area associated with an individual university. Furthermore, unlike previous studies that often rely on female participants, this sample was equally distributed by gender. Finally, by using MTurk to collect data from this sample, this study was able to collect data from a more ethnically diverse sample than previous studies.

Future Directions

As sexual script theory posits, intrapsychic scripts are amalgamations of both cultural and interpersonal scripts, this study was constructed in a manner that aligned with its premises. Therefore, the analysis constructed a latent profile analysis of
intrapsychic scripts and predicted group membership using proxies for cultural scripts and interpersonal scripts. Future research from this data would be constructed to test the principles of sexual script theory by creating profiles on multiple levels to fully understand the complexities of sexual behavior. First, analyses would be constructed using interpersonal scripts to see how individuals would be grouped by behaviors. In this analysis, interpersonal scripts would be predicted by cultural scripts and intrapsychic scripts would be used as outcomes to explore how cultural proxies predict behavior, as posited by sexual script theory and then further explore intrapsychic scripts as the outcome variables of the latent profile analysis. Through testing the variables in the data in this manner would allow to explore the efficacy of the theory in a person-centered model. Finally, intrapsychic variables would be also used as a predictor of interpersonal sexual scripts to explore if culture and participants own personality traits and evaluations of themselves are more predictive of sexual behavior and class membership. Such analyses would allow for the exploration of how sexual script theory may inform sexual education.

In addition to exploring additional models of latent profile analyses, in future studies, I will explore casual sexual behaviors searching for the characteristics of behavior and personality that lead to healthier outcomes. In order to fully inform this line of questioning, longitudinal data will be collected to track psychological wellbeing and casual sexual behavior over time. Using latent class growth analysis, the data would be analyzed to identify groups of individuals to estimate trajectories over time. By creating classes of psychological wellbeing predicted by sexual behavior, there would be greater
evidence for what informs healthy outcomes following casual sexual behavior.

**Conclusion**

Previous research on hooking up behaviors have reported mixed results of positive and negative outcomes following casual sex (Bradshaw et al., 2010; Owen & Fincham, 2011; Vrangalova, 2015a, 2015b). Additionally, researchers have been limited in the use of theory in their investigations. This study was an attempt to incorporate sexual script theory and psychosocial theory of development to help understand hooking up at a deeper level. Furthermore, this study moved away from a mean-centered approach to a person-centered approach to help understand individual characteristics that influence hooking up. Finally, this study helped add to the literature of psychological outcomes connected to hooking up.

In this study, three distinct profiles of intrapsychic sexual scripts were identified with significant relationships between cultural and interpersonal scripts, intrapsychic profile membership, and psychological outcomes. Class membership for the Diffused Highly Personally Motivated Independents and the Foreclosed Personally Motivated Conscious Decision Makers classes were predicted by proxies of cultural scripts and interpersonal scripts and compared to the Unidentified Minimally Motivated Dependents class. In this study, gender, illicit drug use, negative hooking up experiences, and attachment to parent and peers increased the odds of belonging to the DHPMI class. Additionally, sexual orientation proved to decreased class membership for the DHPMI class. Members of the DHPMI class experienced less stress and anxiety symptoms and
were more likely to report higher self-esteem. There were increased odds of belonging to the FPMCDM class for heterosexuals, participating in heavy petting during last hook up experience, and higher levels of peer attachment. However, odds of belonging to the FPMCDM class decreased compared to the UMMD class for those who intended to hook up, reported positive hooking up experiences, or reported higher levels of attachment to parents. The FPMCDM class experienced higher levels of stress, anxiety symptoms, depression symptoms, and higher self-esteem.

The results of this study supported extant literature that hooking up is related to mixed results for the outcomes related to casual sex. For each of the profiles identified in the data, there were both positive and negative psychological outcomes emerged in the data. Therefore, the results indicated that there is not a “healthier” group that emerged from the data. Mixed results from this study and similar studies have many implications that apply to behavior and culture. First, mixed results from the present study and existing literature may imply that hooking up is not the risky behavior that people have thought in the past. Second, mixed results may further imply the need for the longitudinal data to fully parse out the connections between casual sexual behavior, culture, personality traits, and psychological outcomes. A final implication of the mixed results may have more implications of the importance of external factors impacting individuals sexual and psychological health.

The results from this study highlight the need to continue focusing on a person-centered approach to help identify outcomes of hooking up. With the inclusion of both sexual script theory and elements of psychosocial development, it is the hope that future
studies will continue to provide insight on how individual development and script theory interact with casual sexual behaviors to influence outcomes. As a steppingstone in this direction, results from this study can assist in educating and treating individuals who participate in casual sex and experience negative outcomes.
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Appendix A

Additional Tables
Table A1

**Correlations Between Demographic Variables, Interpersonal Scripts, and Cultural Scripts (N = 1,142)**

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*Note.* Males above the diagonal, Females below the diagonal.

* *p < .05.

** **p < .01.
Table A2

*Correlations Between Demographic Variables and Hook Up Motives (N = 1,142)*

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Note. Males above the diagonal, Females below the diagonal.
* p < .05.
** p < .01.

Table A3

*Correlations Between Demographic Variables and Identity Status (N = 1,142)*

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Note. Males above the diagonal, Females below the diagonal.
* p < .05.
** p < .01.
Table A4

*Correlations Between Demographic Variables and Attachment to Parents and Peers (N = 1,142)*

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*Note.* Males above the diagonal, Females below the diagonal.

* *p < .05.

** *p < .01.

Table A5

*Correlations between Demographic Variables and Psychological Outcome Variables (N = 1,142)*

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</table>

*Note.* Males above the diagonal, Females below the diagonal.

* *p < .05.

** *p < .01.
Table A6

Correlations Between Intrapsychic Scripts of Hooking Up Motives, Identity Status, and Autonomy (N = 1,142)

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<td>.09*</td>
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<td>-.11*</td>
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<td>---</td>
</tr>
</tbody>
</table>

Note: Males above the diagonal, Females below the diagonal.
* p < .05
** p < .01
Table A7

Assumption of Normality Statistics for Hook Up Motives, Identity Status, Autonomy, Attachment, and Psychological Outcome Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
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<th>SD</th>
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</table>
Appendix B

Questionnaire
Q1

**Applying Sexual Script Theory to Hooking Up (Approved by USU IRB on 5-2-18)**

**Introduction**

You are invited to participate in a research study conducted by Josh Novak, an Assistant Professor, Troy Beckert, a Professor, and Mitchell Rhodes, a PhD student in the Human Development and Family Studies Department at Utah State University. The purpose of this research is to explore how conscious and subconscious thought is impacted by casual sexual behaviors and to further explore how thought processes predict psychological outcomes of hooking up. You have been asked to take part in this research study because you are **between the age of 18 and 24, you identify assigned sex, are not in a current romantic relationship, have had a casual sexual experience, can speak/write proficiently in English, are located in the US, have an HIT approval rate greater than 80, and have at least 100 HITs approved.**

**Procedures**

If you agree to participate and meet the conditions above, you will complete the online assessment packet consisting of a demographics survey, past hook up experiences and several other assessments that ask about your attachment to parents and peers, motivation for sexual behavior, psychosocial identity, status, and your cognitive and emotional autonomy. You will be asked about your psychological outcomes of depression, stress, anxiety, and self-esteem. Because it is online, you can choose where and when you complete the survey. We are interested in **your** thoughts, feelings, and experiences, so please choose a location and time so that your responses can be private from other people. The survey should take approximately 40 minutes to complete. We anticipate that approximately 1,142 people (571 male, 571 female) will participate in this study. Please note that there are questions in the survey that may not be related to what we are assessing; these may be prompts where we tell you to pick a specific response to a statement or reply to a factual question. These help us ensure the integrity of our data. If you answer them incorrectly, we will determine you have not successfully met our quality control criteria, and you will not be compensated.

**Risks and Benefits**

The risks of participating are no more likely or serious than those you encounter in everyday activities. Potential risks or discomforts include recalling possibly sensitive details of past intimate experiences, and possibly recalling sexual assault. Should you experience any distress while completing the survey, you are encouraged to explore the services offered through the National Sexual Assault Hotline and to explore local services pertaining to sexual assault and mental health. Participation in this study may increase your awareness of how hooking up has impacted you, either positively or negatively. This study will help the researchers learn more about the cognitive processes that impact casual sexual behavior and the psychological outcomes. The findings from this research may help inform and shape future educational programs and interventions concerning casual sexual behaviors. **Confidentiality**

Due to using mTurk through Amazon, there is increased risk for loss of anonymity and confidentiality. That being said, your responses
are collected through the online survey platform Qualtrics where your data will be kept confidential. We do not ask for names nor specific identifying information in the first survey. We do ask for demographic information such as gender and age. Information is securely stored in a restricted-access folder on Qualtrics’ server and later in a restricted-access folder on Box.com, an encrypted, cloud-based storage system. Any data reports or analyses will consist of aggregated information. No identities will be collected or revealed at any time. It is unlikely, but possible, that others (Utah State University or state or federal officials) may require us to share information to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so. We work to ensure confidentiality to the degree permitted by technology. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. Participation involves risks similar to a person's everyday internet use. Additionally, should you choose to email the requester, you understand that your name mTurkr worker ID, and email address will be seen by the requester and could be theoretically linked with your responses—and you do so at your own risk. In order to maximize confidentiality, contacting the researchers may best be done outside of mTurk Turk interface via the emails below. **Voluntary Participation and Compensation** Your participation in this research is completely voluntary. If you agree to participate now and change your mind midway through the survey, you may exit the survey at any time. No other compensation will be given for your participation. **Payment** For your participation in this research study, you will receive $1.25. You may only participate once. Compensation will only occur if you meet eligibility criteria, give your informed consent, complete at least 95% of the survey items, satisfy our quality-control items within the survey, and enter in the general mTurk code following completion of the survey.

- [ ] I Agree (1)
- [ ] I Disagree (2)

Q218 Please download a copy of the Consent form for your records [here](#)

**End of Block: Letter of Informed Consent**

**Start of Block: Demographics**

Q2 Please confirm that you are not a robot

Q3 How serious are you in completing all of the questions in this survey? It is important that we have data that is accurate and completed. We will drop data for those who finish
less than 75% of the questions.

Please indicate your level of seriousness in finishing all questions in the survey.

- **Very Serious (1)**
- **Somewhat Serious (2)**
- **Not at all Serious (3)**

```SQL
Skip To: End of Survey If How serious are you in completing all of the questions in this survey? It is important that we ha... = Not at all Serious
```

**Q4** What is your current age?

- **Under 18 (1)** ... **25+ (9)**

```SQL
Skip To: End of Survey If What is your current age? = Under 18
Skip To: End of Survey If What is your current age? = 25+
```

**Q5** My gender identity is

- **Male (1)**
- **Female (2)**
- **Trans (3)**
- **Other (Specify) (4) ____________________________________________________________**
- **Prefer Not to Answer (5)**

```SQL
Skip To: End of Survey If My gender identity is = Trans
Skip To: End of Survey If My gender identity is = Other (Specify)
Skip To: End of Survey If My gender identity is = Prefer Not to Answer
```

**Q6** I am currently

- **Single (1)**
- **Dating non-exclusively (seeing multiple people) (2)**
- **Dating exclusively (only seeing my partner) (3)**
- **Engaged (4)**
Q7
Hooking up is defined as any sexual behavior, ranging from passionate kissing to intercourse, outside of a committed relationship.

Have you ever had a hooking up experience?

- Yes (1)
- No (2)
Q8 Thank you for participating in this survey. You have met the criteria to move forward. Please carefully read and thoughtfully respond to the questions.

Q9 Sexual Orientation

- Heterosexual (1)
- Gay (2)
- Lesbian (3)
- Bisexual (4)
- Questioning (5)
- Other (6)
- Prefer not to answer (7)

Q10 Ethnic Background

- African-American (1)
- Asian-American (2)
- Caucasian (3)
- Hispanic/Latino/a (4)
- Native-American/Alaskan Native (5)
- Polynesian/Pacific Islander (6)
- Mixed (7)
- Other (8) ________________________________

Q11 What is your educational level?

- Some high school (1)
- High school diploma (2)
Q216 Are you currently in college?
  ○ Yes (1)
  ○ No (2)

Q217 Approximately how many years of education do you have?
________________________________________________________________

Q12 Region in the U.S.
  ○ Northeast (1)
  ○ Southeast (2)
  ○ Southwest (3)
  ○ Midwest (4)
  ○ Northwest (5)
  ○ West (6)

Q13 How spiritual are you?
  ○ Not at all (1)
  ○ Slightly (2)
  ○ Somewhat (3)
Q14 How Religious are you?
- Not at all (1)
- Slightly (2)
- Somewhat (3)
- Very (4)
- Extremely (5)

Q15 What (if any) is your religious affiliation?
- Non-Denominational Christian (1)
- Baptist (2)
- Lutheran (3)
- Catholic (4)
- LDS (Mormon) (5)
- Atheist (6)
- Agnostic (7)
- Muslim (8)
- Hindu (9)
- Buddhist (10)
- Other (please specify) (11)
Q16 Age of FIRST Hook Up Experience (ANY sexually arousing behavior - passionate kissing/making out, heavy petting, oral sex, vaginal intercourse, anal intercourse, mutual masturbation - which occurred with someone outside of a committed relationship):

\[12 \text{ or younger } (1) \ldots 24 (13)\]

Q17 Age of LAST Hook Up Experience (ANY sexually arousing behavior - passionate kissing/making out, heavy petting, oral sex, vaginal intercourse, anal intercourse, mutual masturbation - which occurred with someone outside of a committed relationship):

\[12 \text{ or younger } (1) \ldots 24 (13)\]

Q18 Describe your relationship with your last hook up partner

- Stranger (1)
- Acquaintance (2)
- Friend (3)
- Co-Worker (4)
- Ex-Boyfriend (5)
- Ex-Girlfriend (6)
- Friends with Benefits/Fuck Buddy (7)
- Other (8) \underline{\text{__________________________________________________________}}

Q19 Were you under the influence of alcohol during your last hook up?

- Yes, I was buzzed (1)
- Yes, I was drunk (2)
- Yes, I was wasted (3)
- No, I was not (4)
- Prefer not to answer (5)
Q21 Approximately how many alcoholic drinks did you have during/prior to your last hook up?

- None (1)
- 1-3 (2)
- 4-6 (3)
- 7-9 (4)
- 10-12 (5)
- 13+ (6)

Q20 Were you under the influence of illicit drugs during your last hook up?

- Yes (1)
- No (2)
- Prefer Not to Answer (3)

Q22 How frequently do you hook up?

- Rarely (1)
- Once or Twice a Year (2)
- Several Times a Year (3)
- Monthly (4)
- Bi-Weekly (5)
- Weekly (6)
- Daily (7)

Q23 How frequently do you want to hook up?

- Daily (1)
Q24 During/prior to my last hook up, I fully intended to hook up.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q25 My last hook up was pleasurable

- Strongly Disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q26 During my last hook up, I had an orgasm
   ○ Yes (1)
   ○ No (2)
   ○ Prefer Not to Answer (3)

Q27 Overall, I feel positively about hooking up experiences
   ○ Strongly Disagree (1)
   ○ Disagree (2)
   ○ Somewhat disagree (3)
   ○ Neither agree nor disagree (4)
   ○ Somewhat agree (5)
   ○ Agree (6)
   ○ Strongly agree (7)

Q28 Overall, I feel negatively about hooking up experiences
   ○ Strongly Disagree (1)
   ○ Disagree (2)
   ○ Somewhat disagree (3)
   ○ Neither agree nor disagree (4)
   ○ Somewhat agree (5)
   ○ Agree (6)
   ○ Strongly agree (7)
Q29 Please select all the behaviors that occurred during your last hook up

- Passionate Kissing (1)
- Heavy Petting (2)
- Mutual Masturbation (3)
- Oral Sex (4)
- Vaginal Intercourse (5)
- Anal Intercourse (6)

Q30 $2 + 2 =$

- 2 (1)
- 3 (2)
- 4 (3)
- 5 (4)

Skip To: End of Survey if $2 + 2 = = 2$
Skip To: End of Survey if $2 + 2 = = 3$
Skip To: End of Survey if $2 + 2 = = 5$

End of Block: Hook Up Experiences

Start of Block: Hook Up Motives

Q31 Following is a list of reasons college students give for hooking up. Thinking of all the times you have hooked up, how often would you say that you hook up for each of the following reasons? There are no right or wrong answers; we just want to know what you think personally.

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Never (1)</th>
<th>Sometimes (2)</th>
<th>About half the time (3)</th>
<th>Most of the time (4)</th>
<th>Always (5)</th>
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<tr>
<td>I hook up because it allows me to avoid being tied down to one person. (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooking up provides me with &quot;friends with benefits.&quot; (2)</td>
<td>Never (1)</td>
<td>Sometimes (2)</td>
<td>About half the time (3)</td>
<td>Most of the time (4)</td>
<td>Always (5)</td>
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<tr>
<td>Hooking up provides me with sexual benefits without a committed relationship. (3)</td>
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<tr>
<td>Hooking up enables me to have multiple partners. (4)</td>
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<td>I hook up because hooking up is a way to find a relationship. (5)</td>
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<td>I hook up because it is a first step to forming a committed relationship. (6)</td>
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<td>I hook up because it can help me decide if I want something more serious with my hook up partner. (7)</td>
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<td>I hook up because it's fun. (8)</td>
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<tr>
<td>I hook up because it's sexually pleasurable. (9)</td>
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<td>I hook up because I'm attracted to the person. (10)</td>
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<td>I hook up because it's exciting. (11)</td>
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<td>I hook up because it makes me feel good when I'm not feeling good about myself. (12)</td>
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<tr>
<td>I hook up because it makes me feel attractive. (13)</td>
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<tr>
<td>I hook up because it cheers me up when I'm in a bad mood. (14)</td>
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<td>I hook up because it helps me feel less lonely. (15)</td>
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<tr>
<td>I hook up because I feel pressure from my friends to hook up. (16)</td>
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<tr>
<td>I hook up because my friends will tease me if I don't. (17)</td>
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</tbody>
</table>
Q32 Each of the following statements reflect personal feelings held by some people in this society. We are interested in how much you agree with each statement. Because these statements reflect personal feelings and attitudes, there are no right and wrong answers. The BEST response to each of the following statements is your PERSONAL OPINION. We have tried to cover many points of view. You may find yourself agreeing with some of the statements and disagreeing with others. Regardless of how you feel, you can be sure that many others feel the same as you do.

Q33 My parents know what's best for me in terms of how to choose friends.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q34 I haven't thought much about what I look for in a date-I just go out to have a good time.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
Q35 My own views on a good life-style were taught to me by my parents and I don't see any reasons to question what they taught me.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q36 My parents had it decided a long time ago what I should go into for employment and I'm following their plan.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q37 My education is not something I really spend much time thinking about.

- Strongly Agree (1)
- Moderately Agree (2)
Q38 I guess I just kind of enjoy life in general, I don't spend much time thinking about it.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q39 Even if my parents disapprove, I could be a friend to a person if I thought she/he was basically good.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q40 I believe my parents probably know what is best for my future education.

- Strongly Agree (1)
- Moderately Agree (2)
Q41 When I'm on a date, I don't like to have particular plans.

Q42 I just can't decide what to do for an occupation. There are so many that have possibilities.

Q43 After a lot of self-examination, I have established a very definite view on what my own life-style will be.
Q44 I'm really not interested in finding the "right career," any job will do. I just seem to go with what is available.

Q45 I know my parents don't approve of some of my friends, but I haven't decided what to do about it yet.

Q46 Some of my friends are very different from each other, I'm trying to figure out exactly where I fit in.
Q47 I couldn't be friends with someone my parents' disapprove of.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q48 My parents' views on life are good enough for me, I don't need anything else.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q49 I'm not sure about what I want for my education, but I am now actively exploring different choices.
Q50 I can be flexible in my dating standards, but for me to really change my standards, it must be something I really believe in.

Q51 I've had many different kinds of friends, and now I have a clear idea of what I look for in a friendship.
Q52 I've done a lot of thinking about my education, and I've got a specific plan laid out.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

End of Block: Identity Status pt. 1

Start of Block: Identity Status pt. 2

Q53 Each of the following statements reflect personal feelings held by some people in this society. We are interested in how much you agree with each statement. Because these statements reflect personal feelings and attitudes, there are no right and wrong answers. The BEST response to each of the following statements is your PERSONAL OPINION. We have tried to cover many points of view. You may find yourself agreeing with some of the statements and disagreeing with others. Regardless of how you feel, you can be sure that many others feel the same as you do.

Q54 I don't have any close friends- I just don't like to hang around with the crowd and have a good time.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q55 The standards or "unwritten rules" I follow about dating are still in the process of developing - they can still change.
Q56 I would never date anyone my parents disapprove of.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q57 I've never had any real close friends - it takes too much energy to keep a friendship going.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q58 Sometimes I wonder if the way people date is the best for me.
Q59 After considerable thought, I've developed my own individual viewpoint of what is for me an ideal "life-style" and I don't believe anyone will be likely to change my views.

○ Strongly Agree (1)
○ Moderately Agree (2)
○ Agree Somewhat (3)
○ Disagree Somewhat (4)
○ Moderately Disagree (5)
○ Strongly Disagree (6)

Q60 School is just something I'm supposed to do, not much more.

○ Strongly Agree (1)
○ Moderately Agree (2)
○ Agree Somewhat (3)
○ Disagree Somewhat (4)
○ Moderately Disagree (5)
○ Strongly Disagree (6)
Q61 I haven't chosen the job or occupation I really want to get into. I'll just work at whatever is available unless something better comes along.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q62 My rules or standards about dating have remained the same since I first started going out and I don't anticipate that they will change.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q63 In finding an acceptable view-point about life itself, I often exchange ideas with friends and family.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)
Q64 It took a lot of effort to decide, and I now have definite intentions about my education.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q65 There's no single "life-style" that appeals to me more than another.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q66 It took me a while to figure it out, but now I really know what I want for a career.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)
Q67 I'm still trying to decide how capable I am as a person and what jobs will be right for me.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q68 There are so many subjects to learn about in school. I'm trying out as many as possible so I can make a better decision about my future education.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q69 I might have thought about a lot of different jobs but there's never really been any question since my parents said what they wanted.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)
Q70 I'm looking for an acceptable perspective for my own "life-style" view, but I haven't found it yet.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q71 My parents have taught me the most important goals about my education, I've seen no reason to doubt them.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q72 It took me a long time to decide, but now I know for sure what direction to move in for a career.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
Q73 I've dated different types of people and I now know exactly what my own "unwritten rules" for dating are.

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Q74 Select Strongly Disagree to this question

- Strongly Agree (1)
- Moderately Agree (2)
- Agree Somewhat (3)
- Disagree Somewhat (4)
- Moderately Disagree (5)
- Strongly Disagree (6)

Skip To: End of Survey if Select Strongly Disagree to this question = Strongly Agree
Skip To: End of Survey if Select Strongly Disagree to this question = Moderately Agree
Skip To: End of Survey if Select Strongly Disagree to this question = Agree Somewhat
Skip To: End of Survey if Select Strongly Disagree to this question = Disagree Somewhat
Skip To: End of Survey if Select Strongly Disagree to this question = Moderately Disagree

End of Block: Identity Status pt. 2

Start of Block: Cognitive Autonomy pt. 1

Q75 For each item, select the answer that best illustrates your thoughts today. Answer all of the questions by clearly circling one of the five response choices.
Q76 If I have something to add to a class discussion I speak up.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q77 I think about the consequences of my decisions.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q78 I look at every situation from other people’s perspectives before making my own judgments.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q79 When I disagree with others I share my views.

- Never (1)
- Rarely (2)
Q80 I need family members to approve my decisions.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q81 I think of all possible risks before acting on a situation.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q82 I like to evaluate my daily actions.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)
Q83 I consider alternatives before making decisions.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q84 I stand up for what I think is right regardless of the situation.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q85 I think about how my actions will affect others.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q86 I think about how my actions will affect me in the long run.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
Q87 I like to evaluate my thoughts.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q88 I feel that my opinions are valuable enough to share.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q89 I need my views to match those of my parents.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)
Q90 For each item, select the answer that best illustrates your thoughts today. Answer all of the questions by clearly circling one of the five response choices.

Q91 I am good at identifying my own strengths.
- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q92 It is important to me that my friends approve of my decisions.
- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q93 There are consequences to my decisions.
- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)
Q94 I can tell that my way of thinking has improved with age.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q95 At school I keep my opinions to myself.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q96 I think more about the future today than I did when I was younger.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
   - Most of the time (4)
   - Always (5)

Q97 I am best at identifying my abilities.
   - Never (1)
   - Rarely (2)
   - Sometimes (3)
Q98 My decision making ability has improved with age.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q99 I need my views to match those of my friends.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q100 I am good at evaluating my feelings.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)
Q101 I am better at decision making than my friends.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q102 I care about what others think of me.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q103 I am the best judge of my talents.

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

Q104 Select Agree to this question

- Agree (1)
- Somewhat Agree (2)
- Neither Agree or Disagree (3)
Q105 For each item, select the answer that best illustrates your thoughts today. Answer all of the questions by clearly circling one of the five response choices.

Q106 When I act against the will of others, I usually get nervous.

- Not at all like me (1)
- Not like me (2)
- Neutral (3)
- Like me (4)
- Just like me (5)

Q107 I have a strong tendency to comply with the wishes of others.

- Not at all like me (1)
- Not like me (2)
- Neutral (3)
- Like me (4)
- Just like me (5)

Q108 When I disagree with others, I tell them.

- Not at all like me (1)
Q109 I often disagree with others, even if I'm not sure.
- Not at all like me (1)
- Not like me (2)
- Neutral (3)
- Like me (4)
- Just like me (5)

Q110 I often change my mind after listening to others.
- Not at all like me (1)
- Not like me (2)
- Neutral (3)
- Like me (4)
- Just like me (5)

End of Block: Emotional Autonomy

Start of Block: Parent Attachment

Q111

This questionnaire asks about your relationships with important people in your life; your parents and your close friends. Please read the directions to each part carefully.
Q112 My parents respect my feelings.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q113 I wish I had different parents.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q114 My parents accept me as I am.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q115 My parents sense when I'm upset about something.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
Q116 My parents sense when I'm upset about something.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q117 Talking over my problems with my parents makes me feel ashamed or foolish.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q118 I get upset easily at home.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)
Q119 My parents have their own problems, so I don't bother them with mine.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q120 My parents help me to understand myself better.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q121 I tell my parents about my problems and troubles.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q122 I feel angry with my parents.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
Q123 I don't get much attention at home.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q124 My parents encourage me to talk about my difficulties.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

End of Block: Parent Attachment

Start of Block: Peer Attachment

Q125 This questionnaire asks about your relationships with important people in your life; your parents and your close friends. Please read the directions to each part carefully.

Q126 I like to get my friends point of view on things I'm concerned about.
- Never True (1)
- Rarely True (2)
- Sometimes True (3)
Q127 Talking over my problems with my friends makes me feel ashamed or foolish.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q128 I wish I had different friends.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q129 My friends encourage me to talk about my difficulties.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)
Q130 I feel alone or apart when I am with my friends.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q131 My friends listen to what I have to say.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q132 I feel my friends are good friends.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q133 When I am angry about something, my friends try to be understanding.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
Q134 My friends are concerned about my well-being.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q135 I get upset a lot more than my friends know about.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q136 It seems as if my friends are irritated with me for no reason.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)
Q137 I tell my friends about my problems and troubles.

- Never True (1)
- Rarely True (2)
- Sometimes True (3)
- True Most of the Time (4)
- Always True (5)

Q138 $4 - 2 =$

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)

Skip To: End of Survey if $4 - 2 = 1$
Skip To: End of Survey if $4 - 2 = 3$
Skip To: End of Survey if $4 - 2 = 4$
End of Block: Peer Attachment

Start of Block: Stress

Q139 The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by selecting how often you felt or thought a certain way.

<table>
<thead>
<tr>
<th>How often have you been upset because of something that happened unexpectedly? (1)</th>
<th>Never (1)</th>
<th>Almost Never (2)</th>
<th>Sometimes (3)</th>
<th>Fairly Often (4)</th>
<th>Very Often (5)</th>
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<tr>
<td>How often have you felt that you were unable to control the important things in your life? (2)</td>
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<tr>
<td>How often have you felt nervous and “stressed”? (3)</td>
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</table>
### Stress

<table>
<thead>
<tr>
<th>Question</th>
<th>Never (1)</th>
<th>Almost Never (2)</th>
<th>Sometimes (3)</th>
<th>Fairly Often (4)</th>
<th>Very Often (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often have you felt confident about your ability to handle your</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>personal problems? (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you felt that things were going your way? (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you found that you could not cope with all the things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>that you had to do? (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you been able to control irritations in your life? (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you felt that you were on top of things? (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you been angered because of things that were outside</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of your control? (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often have you felt difficulties were piling up so high that you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>could not overcome them? (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Depression

Q140 Below is a list of some of the ways you may have felt or behaved.

Please indicate how often you have felt this way during the past week by selecting the appropriate box for each question.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rarely or None of the Time (Less than 1 Day) (1)</th>
<th>Some or a Little of the Time (1-2 Days) (2)</th>
<th>Occasionally or a Moderate Amount of the Time (3-4 Days) (3)</th>
<th>All of the Time (5-7 Days) (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was bothered by things that usually don't bother me. (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had trouble keeping my mind on what I was doing. (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rarely or None of the Time (Less than 1 Day) (1)</td>
<td>Some or a Little of the Time (1-2 Days) (2)</td>
<td>Occasionally or a Moderate Amount of the Time (3-4 Days) (3)</td>
<td>All of the Time (5-7 Days) (4)</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>I felt depressed. (3)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I felt that everything I did was an effort. (4)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I felt hopeful about the future. (5)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I felt fearful. (6)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My sleep was restless. (7)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was happy. (8)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I felt lonely. (9)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I could not &quot;get going.&quot; (10)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

End of Block: Depression

Start of Block: Anxiety

Q141 Over the last 2 weeks, how often have you been bothered by the following problems?

<table>
<thead>
<tr>
<th></th>
<th>Not at all (1)</th>
<th>Several Days (2)</th>
<th>More than Half the Days (3)</th>
<th>Nearly Every day (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling nervous, anxious or on edge (1)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Not being able to stop or control worrying (2)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Worrying too much about different things (3)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Not at all (1)</td>
<td>Several Days (2)</td>
<td>More than Half the Days (3)</td>
<td>Nearly Every day (4)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-----------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Trouble relaxing (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being so restless that it is hard to sit still (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becoming easily annoyed or irritable (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling afraid as if something awful might happen (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**End of Block: Anxiety**

**Start of Block: Self-Esteem**

**Q142**

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree (1)</th>
<th>Agree (2)</th>
<th>Disagree (3)</th>
<th>Strongly Disagree (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the whole, I am satisfied with myself. (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At times I think I am no god at all. (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that I have a number of good qualities. (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am able to do things as well as most other people. (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel I do not have much to be proud of. (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I certainly feel useless at times. (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that I'm a person of worth, at least on an equal plane with others. (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### End of Block: Self-Esteem

### Start of Block: Debriefing Material

Q143 We recognize that with the sensitive material of this survey, some negative emotions, memories, or past traumas with sexual assault abuse may have been brought to the surface. If following this survey, you experience negative emotional outcomes, there are many national services that can assist you:

**RAINN (Rape, Abuse & Incest National Network)**  
https://www.rainn.org or 800-656-4673(HOPE)

**Suicide Prevention Hotline**  
https://suicidepreventionlifeline.org or 800-273-8255

**NAMI (National Alliance on Mental Illness) Helpline**  
https://www.nami.org/Find-Support or 800-950-NAMI (6264)

**SAMHSA Treatment Referral Helpline**  
1-877SAMHSASA7 (1-877-726-4727)

---

<table>
<thead>
<tr>
<th>Strongly Agree (1)</th>
<th>Agree (2)</th>
<th>Disagree (3)</th>
<th>Strongly Disagree (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wish I could have more respect for myself. (8)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>All in all, I'm inclined to feel that I'm a failure. (9)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I take a positive attitude toward myself. (10)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix C

IRB Approval
FROM: Melanie Domenech Rodriguez, IRB Chair
       Nicole Vouvalis, IRB Administrator

To: Joshua Novak, Troy Beckert, Mitchell Rhodes

Date: May 01, 2018

Protocol #: 9299

Title: Applying Sexual Script Theory To Hooking Up: A Latent Profile Analysis Of Predictors And Outcomes Of Class Membership

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2:

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects: and (b) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be
randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email to irb@usu.edu.

The IRB wishes you success with your research.
2212 N. Cobblefield St.
Ellensburg, WA 98926
509.929.1062
MitchellRhodes@hotmail.com

Education

Ph.D. Human Development and Family Studies
May 2020
Dissertation: Applying Sexual Script Theory to Hooking Up: A Latent Profile Analysis of Predictors and Outcomes of Class Membership
Committee: Josh R. Novak, Ph.D. Co-Chair; Troy E. Beckert, Ph.D. Co-Chair; Kay Bradford, Ph.D.; Elizabeth B. Fauth, Ph.D.; Jeffrey Dew, Ph.D.

M.S. Family Studies, Central Washington University
August 2012
Research Project: Hooking Up: An Investigation of the Perceived Positive and Negative Outcomes
Committee: Duane A. Dowd, Ph.D., Chair; Robert Perkins, Ph.D.; Ashley M. LeFever, M.S.

B.A. Family and Consumer Studies, Central Washington University
August 2011

Professional Experience

Graduate Instructor Utah State University
Logan, UT
August 2016 – Present

Department of Family, Consumer, and Human Development. FCHD 2400: Marriage and Family Relationships, Fall 2016 (138 Students), Spring 2017 (107 Students).
Designed and taught two semesters of an undergraduate Marriage and Family Relationships course, which fulfilled a general education requirement and had many non-majors enrolled. In designing the course, I determined which subjects were to be taught, developed my own syllabi, and developed my own assignments. During these semesters, I also designed and maintained the course webpage via Canvas (classroom management portal) by uploading course content, maintaining contact with students, overseeing and posting grades for student assignments. Additionally, I mentored other graduate students in grading and lecturing.

Research Assistant  
Utah State University  
Logan, UT  
August 2015 – Present

Department of Family, Consumer, and Human Development, SUNBEAM Project. Ann B. Austin, PhD.

Assist in the data entry and management of a longitudinal, child development focused research project with data from teachers, parents, and children. Developed and implemented a coding and data entry system for rural and urban populations. Oversaw undergraduate students in entering data. Wrote and maintained a comprehensive codebook for approximately 30 measures for children, parents, and education providers.

Teaching Assistant  
Utah State University  
Logan, UT  
August 2014 – Present


Department of Family, Consumer, and Human Development. FCHD 2400, Marriage and Family Relationships. Jeff Dew, PhD. Three semesters. Assisted in classroom management for over 80 students a semester. Ran discussion groups and exam review sessions. Graded papers and provided feedback to each student. Provided guest lectures.

Department of Family, Consumer, and Human Development. FCHD 3130, Research Methods, Randy Jones, PhD. One semester. Assisted in classroom management for approximately 50 students. Assisted students with semester long projects. Provided feedback to students on their work.
Graded papers and provided extensive feedback on research methodology. Provided guest lectures.

Department of Family, Consumer, and Human Development. FCHD 3210, Families and Cultural Diversity, Ryan Seedall, PhD. One semester. Grant Bartholomew, M.S. One semester. Ran student discussion groups. Developed exam questions based on course content. Assisted in classroom management for approximately 35 students a semester. Graded student work and provided feedback. Provided guest lectures.

Housing Coordinator
EnTrust Community Services
Ellensburg, WA
June 2011 – July 2014

Developed and maintained a homelessness housing assistance program through grants funded through Washington State. Provided clients with financial assistance, education, and advocacy to assist them in obtaining sufficient housing for their families. Oversaw the monies allocated for housing assistance. Mentored undergraduate and graduate student interns in working in non-profit social services. Provided company representation for homelessness advocacy at the community and state level. Assisted in writing grants to obtain funds to continue housing programs.

Teaching Assistant
Central Washington University
Ellensburg, WA
January 2012 – June 2012

Department of Family and Consumer Sciences. FS 234, Contemporary Family Issues, Duane Dowd, PhD. Assisted in developing and implementing new course for traditional delivery that fulfilled an undergraduate general education and writing requirement. Wrote exams and quizzes under the direction of faculty. Graded papers and provided extensive feedback. Provided guest lecture and debates with faculty and students.

Research

Research Interests

Sexual Behaviors among Young Adults
Casual Sexual Behaviors
Religion and Sexual Behavior
Dyadic Sexual Satisfaction
Publications


Manuscripts Under Review:


Manuscripts in Preparation:


**Rhodes, M. R. & Whiteman, S.** *Parenting styles and adolescent sexual behaviors: Trajectories of protective factors for sexual debut.*

Research Presentations and Posters

National Conferences


November 2016  **Rhodes, M. R.,** Crapo, J. S., Miller, J. A., Bradford, K., & Higginbotham, B. *Couple-level disclosure patterns and their...*
association with relationship satisfaction and need for change: A dyadic latent analysis.
National Council on Family Relations Annual Conference. Minneapolis, Minnesota.


**Regional and Local Conferences**


**Research Experience**

*In Progress*

- SUNBEAM Project  
  Utah State University  
  2015 – Present

- Hooking Up and Communication  
  Utah State University  
  2016 – Present

- Hooking Up and LDS Culture  
  Utah State University  
  2016 – Present

- Religiosity and Sexual Esteem  
  Utah State University  
  2016 – Present

- Parenting and Adolescent Sexuality  
  Utah State University  
  2016 – Present

*Completed*

- Hooking Up and Religion  
  Central Washington University  
  2012

- Hooking Up and Emotional Outcomes  
  Central Washington University  
  2012

- Sexual Behaviors and Technology  
  Central Washington University  
  2011

**Non-Funded Grants**

Teaching

Teaching Interests

Human Sexuality
Family and Cultural Diversity
Research Methods
Family Studies

Teaching Experience

Utah State University

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCHD 2100</td>
<td>Family Resource Management</td>
<td>Fall '17**</td>
</tr>
<tr>
<td>FCHD 2400</td>
<td>Marriage and Family Relationships</td>
<td>Fall '15, '16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring '15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'16, '17</td>
</tr>
<tr>
<td>FCHD 3130</td>
<td>Research Methods</td>
<td>Fall '14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring, '18</td>
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<tr>
<td>FCHD 3210</td>
<td>Families and Cultural Diversity</td>
<td>Fall '14</td>
</tr>
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<td></td>
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<td>Spring '15</td>
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</tbody>
</table>

Central Washington University

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS 234</td>
<td>Contemporary Family Issues</td>
<td>Winter '12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring '12</td>
</tr>
</tbody>
</table>

Bold and Italics: Severed as instructor of record

** Online course

Invited and Guest Lectures


Rhodes, M. R. Sampling Procedures given February 2018, FCHD 3130, Research Methods. Diana Meter, Instructor


Rhodes, M. R. Cohabitation given October 2015, FCHD 2400, Marriage and Family Relationships. Jeffrey Dew, Instructor

Rhodes, M. R. Disabilities and Family Life given April 2015, FCHD 3210, Families and Cultural Diversity. Grant Bartholomew, Instructor


Rhodes, M. R. Surveys, Observations, and Interviews given September 2014, FCHD 3130, Research Methods. Randy Jones, Instructor

Program & Curriculum Development

Housing Assistance Program. EnTrust Community Services, Housing Authority of Kittitas County, & Alcohol and Drug Dependency Services – Lead a team in developing a collaborative housing, employment, and education program for homeless and at risk individuals and families, targeting males with chemical dependency. Program aided participants in securing housing, employment, and education. Services were provided to over 150 individuals over one fiscal year. The program was implemented during the 2013-2014 fiscal year.

Homelessness Assistance Program. EnTrust Community Services & Housing Authority of Kittitas County – Lead a collaborative team in developing a housing program for homeless and at risk individuals and families in Kittitas County, WA. The program aided in securing permanent and emergency housing options. During the first year, nearly 200 participants were assisted. The program was developed and implemented during the 2012-2013 fiscal year.
Housing and Essential Needs Program. *EnTrust Community Services* – Developed a program that assisted homeless or at risk disabled individuals. The assistance program provided utility and rental assistance in addition to basic living necessities such as personal care items and household cleaning supplies. Program implementation occurred over two consecutive fiscal years of 2011-2012 and 2012-2013.

### Professional Development

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society for Research on Adolescence Biannual Conference</td>
<td>April 2018</td>
</tr>
<tr>
<td>Minneapolis, MN</td>
<td></td>
</tr>
<tr>
<td>Utah Council on Family Relations Annual Conference</td>
<td>March 2018</td>
</tr>
<tr>
<td>Provo, UT</td>
<td></td>
</tr>
<tr>
<td>Graduate Instructors Forum</td>
<td>Fall 2015 – Spring 2017</td>
</tr>
<tr>
<td>Utah State University, Logan, UT</td>
<td></td>
</tr>
<tr>
<td>National Council on Family Relations Annual Conference</td>
<td>November 2016</td>
</tr>
<tr>
<td>Minneapolis, MN</td>
<td></td>
</tr>
<tr>
<td>College Teaching Course</td>
<td>Fall 2016</td>
</tr>
<tr>
<td>Utah State University, Logan, UT</td>
<td></td>
</tr>
<tr>
<td>Grant Writing Workshop</td>
<td>Spring 2016</td>
</tr>
<tr>
<td>Utah State University, Logan, UT</td>
<td></td>
</tr>
</tbody>
</table>

Bi-weekly meeting with all graduate instructors within the department of Family, Consumer, Human Development. Through the mentorship of Troy Beckert, PhD, student instructors worked through student issues and received training and instruction. In the five semesters that I attended, I received over 40 hours of training.

Over the course of a semester, we covered andragogy, teaching methodologies, syllabus development, new course development, and technology that enhances learning.

A full day workshop that assists in the process of identifying large grants, the process of applying for grants, and appropriate writing techniques for grants.
Utah Council on Family Relations Annual Conference
Ogden, UT
April 2016

Utah Council on Family Relations Annual Conference
Logan, UT
April 2015

Affordable Care Act Community Service Providers Training
Department of Social and Health Services, Yakima, WA
May 2013

Northwest Council on Family Relations Annual Conference
Portland, OR
April 2013

Department of Social and Health Services TANF Conference
2012
Department of Social and Health Services, Cle Elum, WA
September

Student Mentorship

Marshall Grimm
Summer 2017
Utah State University

Ty Aller
Spring 2017
Utah State University

Jameson Bills
Spring 2017
Utah State University

Bonnie Blackburn
Spring 2017
Utah State University

Kevin Dyslin
Fall 2016
Utah State University

Ashley Xagoraris
2011-2014
Entrust Community Services
Central Washington University

Lindsay Montgomery
2012-2014
Entrust Community Services
Central Washington University
Sha
non Murphy
Entrust Community Services
Central Washington University

Greta Stuhlsatz
Entrust Community Services
Central Washington University

*Italics indicate graduate student*

Mentored graduate and undergraduate students through a variety of educational and professional endeavors including designing and developing courses, grading, managing and entering data, developing and implementing community programming, managing grant-funded programs, advocacy for at-risk populations, and working in non-profit community services.

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**Service**

**Professional Service**

**Ad-Hoc Manuscript Reviewer**

*Journal of Comparative Family Studies* 2016-Present

**Board President**

*Kittitas County Homelessness and Affordable Housing Committee* 2013-2014

**Professional Affiliations**

National Council on Family Relations 2011-Present
Northwest Council on Family Relations 2011-Present
Utah Council on Family Relations 2014-Present

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**Honors and Awards**

**Stella Griffiths Scholarship Recipient** 2015-Present

This scholarship provides financial assistance to students who have demonstrated excellent academic performance and need. The Griffiths scholarship provides $1,000 per semester to assist with tuition and materials required for school.