

An Investigation into Risk and Resiliency in Gender and Sexual Minority Emerging Adults

by

Barrett Scroggs

B.S.Ed., Columbus State University, 2010

M.A., Kansas State University, 2015

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

School of Family Studies and Human Services
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

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Approved by:

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Dr. Elaine Johannes

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Table of Contents

List of Figures	x
List of Tables	xi
Acknowledgements	xii
Dedication	xiii
Chapter 1 - Gender and Sexual Minority Emerging Adults	1
Emerging Adulthood Within the Life-Span.....	1
The Field of Emerging Adulthood.....	1
The Present Studies.....	2
Measurement invariance in the Inventory of the Dimensions of Emerging Adulthood: The moderating effect of gender and sexual minority identity	3
GSM Group Identification as a Process of Identity Development During Emerging Adulthood	5
Sexual Minority Self-Esteem Development Across the Transition to Adulthood: The Influence of Familial Understanding	5
Summary.....	6
References.....	7
Chapter 2 - Measurement invariance in the Inventory of the Dimensions of Emerging Adulthood: The moderating effect of gender and sexual minority identity.....	10
Introduction.....	10
Emerging Adulthood.....	11
Markers of Emerging Adulthood.....	11
Identity Exploration	12
Instability	12
Feeling In-Between.....	13
Time of Possibilities	13
Self-Focus	14
Gender and Sexual Minority Emerging Adults	14
The Present Study	15
Methods	16

Data and Participants	16
Pilot study	16
Primary study	16
Instrument	17
Analytic Plan.....	17
Results.....	19
Possibilities subscale: mean item differences	19
Possibilities subscale: multiple group CFA	19
Identity exploration subscale: mean item differences.....	20
Identity exploration subscale: multiple group CFA.....	20
Instability subscale: mean item differences	21
Instability subscale: multiple group CFA	21
Self-focus subscale: mean item differences	21
Self-focus subscale: multiple group CFA.....	22
Feeling in-between subscale: mean item differences.....	22
Feeling in-between subscale: multiple group CFA.....	22
Full latent model	22
Discussion	23
Limitations	26
Conclusion	26
References.....	31
Chapter 3 - GSM Group Identification as a Process of Identity Development During Emerging Adulthood	35
Introduction.....	35
Group Identification in the GSM Community as a Developmental Process	36
Paths to Group Identification	36
Implications of Group Identification	37
The Present Study	38
Methods	38
Data and Participants	38
Measures	39

Identity Salience.....	39
Attribution to Prejudice.....	40
Group Identification.....	40
Well-being.....	40
Control variables.....	40
Analytic Plan.....	41
Results.....	41
Discussion.....	42
Limitations and future research.....	44
Conclusion.....	45
References.....	49
Chapter 4 - Sexual Minority Self-Esteem Development Across the Transition to Adulthood: The	
Influence of Familial Understanding.....	53
Introduction.....	53
Theoretical Framework.....	54
Self-Esteem Development in Context Across the Life-Span.....	55
Self-Esteem Development During Emerging Adulthood.....	55
Social support and the development of self-esteem.....	57
The Present Study.....	58
Methods.....	59
Data and Participants.....	59
Measures.....	59
Self-Esteem.....	59
Family Understanding.....	59
Control variables.....	60
Analytic Plan.....	60
Results.....	61
Discussion.....	63
Limitations and future research.....	65
Conclusion.....	66
References.....	69

Chapter 5 - Conclusion	74
Overall findings	75
Implications.....	76
Implications for further intersectional research	76
Implications for GSM research methods	77
Conclusion	78
References.....	80
Appendix A - Informed consent form.....	83

List of Figures

Figure 1 Structural Equation Model of Group Identification as a Developmental Process..... 48

List of Tables

Table 1 Unstandardized factor loadings and variances for GSM ($n = 365$) and Heterosexual/Cisgender ($n = 445$) individuals	28
Table 2 Unstandardized and constrained correlation matrix. Unconstrained where noted for GSM (bolded $n = 365$) and heterosexual/cisgender individuals ($n = 445$).....	30
Table 3 Reports of Identity Salience, Attributions to Prejudice, Group Identification, and Well-Being Variables: Descriptive statistics ($N = 365$).....	46
Table 4 Reports of Identity Salience, Attributions to Prejudice, Group Identification, and Well-Being Variables: Correlations ($N = 365$)	47
Table 5 Reports of familial understanding, race, gender, and self-esteem across the transition to adulthood: Correlations, Means, and Standard Deviations for heterosexual ($N = 6018$) and sexual minority ($N = 486$; bolded) individuals.	67
Table 6 Latent growth curve analysis of self-esteem across four time-points; Supplementary model with predictor variables for heterosexual ($N = 6018$) and sexual minority ($N = 486$; bolded) individuals.....	68

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Dedication

The studies which make up this dissertation are dedicated to all gender and sexual minority adolescents making the transition to adulthood. May the present research shine a light on their unique developmental needs.

Chapter 1 - Gender and Sexual Minority Emerging Adults

Emerging Adulthood Within the Life-Span

The field of life-span human development is the scientific exploration of ontogenesis, or how humans change and remain the same across the life-span from conception to death (Overton, 2010). Overton (2010) argues that this exploration into development cannot be reduced to simply an exploration into the impact of age as he posits that age is merely a “convenient empirical marker” (p. 23) which does not fully capture the developmental experience. Instead, the study of human development includes an exploration into the biological, cognitive, and psychosocial domains related to how humans develop (Arnett, 2012) and looks at, through epigenesis, how one’s biology interacts with their context. Over the last half of the twentieth century developmental scientists became more interested in the life-span (Baltes, 1987; Baltes, Lindenberger, and Staudinger, 1998) as opposed to only exploring development during earlier stages of life. Baltes (1987) has offered a theoretical perspective of life-span development and contends that one of the primary characteristics/assumptions which make this theoretical perspective unique is that development occurs across the life-span. In keeping with this assumption, a new field of research has emerged exploring the transition from adolescence to early adulthood (Arnett, 2000).

The Field of Emerging Adulthood

According to Arnett (2000, 2006, 2015), individuals do not transition to adulthood as they did in previous generational cohorts; this process typically takes longer. This new field of study, coined as emerging adulthood, recognizes that the third decade of life (around ages 18-29) is associated with unique developmental experiences including the acquisition of autonomy as well as the process of identity development. For many, this period is marked by feeling in-

between adolescence and adulthood (Arnett, 2000) in which the individual feels as though they have achieved adult status in some ways but in other ways still exists as an adolescent. This identity confusion is brought on, in part, by the changing social expectations for this age group. Specifically, previous cohorts of 18-year-olds were expected to immediately adjust to adult expectations; they got married, started families, and entered the work force directly after high school. In the 21st Century, 18-year-olds in industrialized societies experience more freedom when it comes to these societal expectations, and a sizeable percentage of 18-year-olds in the United States go to college following the completion of their secondary education (Arnett, 2015). It is in this context that the individual is given the opportunity to actively explore their identity and to temporarily delay the transition to adulthood.

The field of emerging adulthood is not without critique (Arnett, 2011). Critics of this developmental theory have noted the lack of an intersectional approach and note that there is an inherent privilege that comes along with the experiences of emerging adulthood. Going to college is one example of an experience in which the individual can temporarily put off the commonly held responsibilities of adulthood. College education, like others, is made possible due to the financial ability to make this choice. Critics of this theory question whether the developmental moratorium is available to all individuals during this developmental stage (Arnett, 2011) and wonder how race, socioeconomic status, sexual orientation, and gender identity moderate this experience. One area of research, which is needed, at present is that which looks at the developmental experiences of gender and sexual minority emerging adults.

The Present Studies

Arnett (2000) has contended that experiences of identity development continue past adolescence and are a key marker of the experience of emerging adults. This is especially true

for gender and sexual minority (GSM) emerging adults as they typically do not develop in a household with others who share that identity (Rosario, Schrimshaw, Hunter, & Braun, 2006) and are expected to learn about their identity on their own; a difference between the development of GSM identities and other identities (e.g., racial identities). Even so, there is a lack of research on the experience of GSM emerging adults (Morgan, 2015; Peter, Toomey, Heinze, & Horn, 2017) and further research into this population is necessary. Researchers in emerging adulthood have dealt with generalizability issues as questions have arisen regarding the notion of the “forgotten half,” or those individuals who are not privileged to experience a period of moratorium like college during this stage of life (Arnett, 2011). This area of research questions the validity of the claim that emerging adulthood is a stage in which everyone experiences and not just a process which the privileged few experience. Further research is needed to explore how this debate relates to GSM individuals, and therefore the current studies elucidate the developmental experiences of GSM emerging adults. Specifically, we are interested in how this population aligns with the general concepts of emerging adulthood long associated with the heterosexual and cisgender majority, how gender and sexual minorities connect with one another and identify as a group, and how practitioners can better support the self-esteem of GSM individuals across the transition to adulthood.

Measurement invariance in the Inventory of the Dimensions of Emerging Adulthood: The moderating effect of gender and sexual minority identity

One of the primary critiques of the theory of emerging adulthood is that it does not effectively explain the experiences of all 18-29-year-olds. As mentioned, the privilege attached to this theory has been called into question (Arnett, 2011). In order to address these criticisms or

correctly identify the privilege attached to emerging adulthood, further data collection is needed to represent the whole of this population.

The first paper investigates the validity of Arnett's markers of emerging adulthood (Arnett, 2000) by using the Inventory of the Dimensions of Emerging Adulthood (IDEA) (Reifman, Arnett, & Colwell, 2007), a quantitative measure gauging one's levels of each of the five markers of emerging adulthood outlined by Arnett (2000). This measure has been used previously (e.g., Crocetti et al., 2015; Lisha, et al., 2014); however, Arnett's developmental markers and the measure need to be validated with additional samples focused on different forms of identity diversity. Whereas prior research has validated Arnett's theory with racial minority groups (e.g. Crocetti et al., 2015) the current study is specifically interested in the validity of the theory with a sample of gender and sexual minority individuals. This study is interested in how a national sample of GSM individuals would respond to the IDEA measure of emerging adulthood and takes a critical view of this measure by using multiple group comparison to elucidate any differences between a sample of GSM individuals and one of heterosexual and cisgender individuals. This paper will analyze differences in GSM emerging adults' experiences of identity exploration, feeling in-between, instability, optimism, and self-focus (Arnett, 2000). Due to their developmental experience as minorities, it is predicted that there will be differences in the ways GSM respondents understand and experience this developmental stage. Multiple group Confirmatory Factor Analysis (CFA) will be used to measure any significant differences between the two groups as it relates to their perception of Arnett's (2000) five markers.

GSM Group Identification as a Process of Identity Development During Emerging Adulthood

Prior research has found that support from one's peer group begins to be of greater importance as the individual transitions from adolescence to adulthood (Segrin, 2003). With this in mind it is important to have a clear understanding how one's peer group offers support to emerging adults. Using structural equation modeling, this second paper will look at the ways in which GSM emerging adults identify and participate with the larger lesbian, gay, bisexual, transgender, and queer (LGBTQ) community and how this group identification can serve as both a risk and resiliency factor. We are interested in how salience, or feeling that one's GSM identity is an important piece of their identity, is associated with identification with the LGBTQ community and how this group identification is associated with self-esteem through one's attributions to prejudice.

Sexual Minority Self-Esteem Development Across the Transition to Adulthood: The Influence of Familial Understanding

The final paper takes a life-span approach to risk and resiliency in our understanding of the transition from adolescence into adulthood in sexual minority individuals. Research on sexual minority emerging adults is scant (Morgan, 2015); moreover, longitudinal analysis of the transition from adolescence into adulthood for this population is an important missing piece from the literature. Using multiple group latent growth curve analysis, the final paper looks at the variables associated with both initial levels, and change over time, in the self-esteem of both heterosexual and sexual minority individuals as they transition to adulthood. This final paper seeks to illustrate ways in which practitioners working with the sexual minority population can better support sexual minority emerging adults as they transition into adulthood. This final paper

takes into account the proposition that development is an additive process (Baltes, Lindenberger, & Staudinger, 1998) and that it is through this lens that we can see how experiences at one stage influence the individual at later points in development. Researchers take an ecological perspective (Bronfenbrenner, 1979; 2005) to examine how familial understanding influences sexual minority self-esteem across the life-span.

Summary

Research on the developmental experience of gender and sexual minority emerging adults is scant (Morgan, 2015; Peter, Toomey, Heinze, & Horn, 2017). Whereas research has focused on the developmental trajectories of GSM populations (e.g. D'Augelli, 1994; Lev, 2004), there is still more to be known. Further work is needed to elucidate the distinct developmental trajectories of this population. The body of research surrounding the third decade of life, emerging adulthood, has continued to increase. The three papers that make up this dissertation bridge these two worlds and concentrate on the unique developmental trajectories of GSM individuals as they transition from adolescence into adulthood.

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Chapter 2 - Measurement invariance in the Inventory of the Dimensions of Emerging Adulthood: The moderating effect of gender and sexual minority identity

Introduction

In the last two decades, there has been continued focus on the experience of individuals transitioning from adolescence to adulthood. Arnett (1994, 2000, 2015) and others have noted the unique experience of emerging adults in the United States. Arnett theorized that this transition is marked by five characteristics: (a) emerging adults are in the midst of identity exploration, (b) emerging adults feel unstable, (c) emerging adults feel in-between adolescence and adulthood, (d) emerging adults are optimistic and see this as a time of possibilities, and (e) emerging adults feel self-focused. As interest in this developmental stage of the life-span has increased, further work has been done to test the validity of this theory.

Arnett's (1994) original theoretical framework of emerging adulthood developed from his analysis of qualitative interviews of 18-to-29-year-olds. Since that time, researchers have conducted additional analysis to operationalize the markers of emerging adulthood for use in quantitative research. Whereas this original research has been found to be generalizable to many samples, further research must be conducted in order to validate this theory with diverse populations. Reifman, Arnett, and Colwell (2007) developed the Inventory of the Dimensions of Emerging Adulthood (IDEA) to measure Arnett's (2000) markers; this measure has since been applied in numerous studies exploring the experiences of emerging adults (e.g., Crocetti et al., 2015; Hendry & Kloep, 2010; Lisha, et al., 2014). Whereas attempts have been made to utilize this measure with a diverse set of populations (Hendry & Kloep, 2010), the IDEA measure has

not been validated with a sample of gender and sexual minority (GSM) individuals. Using multiple group Confirmatory Factor Analysis (CFA) the current study seeks to illuminate unique differences between the way a gender and sexual minority (GSM) sample responds to the IDEA measure.

Emerging Adulthood

The breadth of research on development across the life-span has increased over the last half-century (Baltes, 1987; Baltes, Lindenberger, and Staudinger, 1998) following a shift to a more expansive exploration of development across the life-span as opposed to a focus on development during the early stages of life. Baltes (1987) has offered a theoretical perspective of life-span development and contends that one of the primary characteristics/assumptions which make this theoretical perspective unique is that development occurs across the life-span. In keeping with this assumption, a new field of research has emerged exploring the transition from adolescence to adulthood (Arnett, 2000).

Markers of Emerging Adulthood

According to Arnett (2000; 2015), individuals do not transition to adulthood as they did in previous generational cohorts; this process typically takes longer. This new field of study, coined as emerging adulthood, recognizes that the third decade of life (around ages 18-29) is associated with unique developmental experiences including the acquisition of autonomy as well as the process of identity development. Arnett (2004; 2015) has written extensively about the characteristics which he theorizes are the markers of this developmental stage. His original work on this topic came from a set of 300 semi-structured interviews which were collected across the U.S. with individuals in their twenties (Arnett, 2015). These markers have been used to define

this stage as developmentally unique as compared to adolescence and adulthood and demonstrate the transitional nature of this period.

Identity Exploration

Erik Erikson (1968) proposed a model of human development which focused on the crises, or psychosocial developmental tasks, which individuals experience at each stage of the life-span. Of note, Erikson (1968) theorized that adolescence was a stage of life marked by identity exploration. To Erikson, the crisis to be experienced was one of identity vs. role confusion and yet he also noted that there was the possibility for a “prolonged adolescence” which many experience in industrialized societies. Arnett (2000) agrees that experiences of identity development can continue past adolescence and are key to the experience of emerging adults. This is especially true for gender and sexual minority (GSM) emerging adults as they typically do not develop in a household with others who share that identity (Rosario, Schrimshaw, Hunter, & Braun, 2006) and are expected to learn about their gender and sexual identities on their own; a difference between the development of GSM identities and other identities (e.g., racial identities). Emerging adults are also able to positively develop their identity due in part to the fact that, possibly for the first time, they are living on their own.

Instability

Arnett’s contributions to developmental theory include recognition of the instability that occurs during emerging adulthood. For many emerging adults, this is a stage of transition which means instability in numerous ways. For example, emerging adults often experience instability in their housing situations. For those emerging adults who attend college, this stage may be a time in which they experience instability in housing as they move in and out of their parents’ house, in and out of dorms, etc. Emerging adults also experience relationship instability as they begin and

end friendship and romantic relationships (e.g., Warner, Manning, Giordano, & Longmore, 2011).

Feeling In-Between

Prior research has found that one marker of this stage is a feeling of being in-between adolescence and adulthood (Arnett, 2000) which is based on the finding that, when asked whether or not they were adults, many emerging adults responded, “in some respects yes, in some respects no” (p. 471). Arnett (2015) has argued that this in-between feeling has been brought about by the longer time it takes to reach socially assigned norms of adulthood. Arnett (2015) also notes that, across cultures, there are three key criteria which define one’s adult status: accepting responsibility for oneself, making independent decisions, and becoming financially independent. The in-between feelings emerging adults experience are often due to feelings of inadequacy when it comes to reaching these, and other personal, criteria for adulthood. For most of the U.S. society and government policies an individual reaches adulthood at 18 when, in many states, they are provided with additional rights (e.g., voting rights). However, at the same time, the individual may still rely on parental financial support which may encourage feeling like an adolescent within the individual.

Time of Possibilities

This stage of the life-span is also marked by optimism as this is a time of great possibilities (Arnett, 2000). Research on emerging adults has typically found that individuals in the third decade of life tend to be optimistic. Emerging adults view this time of their life as full of possibilities and look forward to the prospect of what their life has in store. Whereas emerging adults are in a stage of transition they overwhelmingly sense that one day they will achieve their personal goals (Arnett, 2006). Additionally, emerging adults’ sense of possibilities is due in part

to the fact that, for perhaps the first time in their lives, emerging adults are solely responsible for all of their own choices. This freedom opens up endless possibilities for the emerging adult.

Self-Focus

Arnett (2000) and others also recognize that emerging adults exist in a developmental period in which they are often focused on themselves. As Arnett (2000) noted, many emerging adults are delaying typical markers for achieving adult status which were more socially expected in previous cohorts. This includes a delayed entry into marriage and parenthood which allow the emerging adult to focus solely on themselves. Overall, many emerging adults do not have to be concerned with the well-being of anyone but themselves, however, this self-focus should not be confused with the egocentrism which marks adolescence (Elkind, 1967).

Gender and Sexual Minority Emerging Adults

Arnett (2015) has noted that he does not consider his five markers to be universal experiences for all individuals in their twenties. On the contrary, he recognizes that contextual differences exist which differentiate the experience of emerging adulthood. As mentioned, previous research has taken this into account by testing the validity of the IDEA with diverse samples of emerging adults however, there has not been an in-depth exploration of the five markers of emerging adulthood with GSM emerging adults.

Prior research has found unique experiences which mark the transition to adulthood for GSM individuals. For example, Peter, Toomey, Heinze, and Horn (2017) note that, while emerging adulthood is typically marked by positive developmental milestones (e.g. beginning a career, becoming financially independent), GSM emerging adults are constrained by their experiences and may not experience this stage in the same way. Peter and colleagues (2017) go on to say that, due to the contextual experiences of GSM individuals prior, during, and after

emerging adulthood, further analysis is needed with this population. Additionally, whereas parental support has been found to be of increased importance during this stage (Barry, Padilla-Walker, Madsen, & Nelson, 2008), Needham and Austin (2010) found that GSM individuals reported less parental support as compared to their heterosexual peers. Although peer support importance has been found to outweigh that of parental support (Segrin, 2003), the relationship with one's parents is still of importance. Many emerging adults experience a transition in the relationship with their parents in such a way to allow for further autonomy. This transition, often referred to as recentering, involves a renegotiation of the parent-child relationship from a position of hierarchy to one of autonomy (Tanner, 2006). These unique developmental experiences during emerging adulthood warrant further investigation into the validity of Arnett's original theoretical foundations with this population.

The Present Study

Whereas prior research has analyzed the five markers of emerging adulthood with diverse samples (Crocetti et al., 2015; Hendry & Kloep, 2010; Lisha, et al., 2014) further work is needed to validate the theory with a GSM population in order to test for measurement invariance. Measurement invariance is defined as the similar response on a construct between two separate groups (Schmitt & Kuljanin, 2008). The present study is interested in whether GSM emerging adults reflect the five qualities of emerging adulthood differently than their heterosexual and cisgender peers. Utilizing multiple group confirmatory factor analysis, the present study seeks to compare a GSM sample with a heterosexual and cisgender one to elucidate any variance in the ways these two groups of emerging adults respond to the Inventory of the Dimensions of Emerging Adulthood (IDEA) measure of the five markers of emerging adulthood.

Methods

Data and Participants

Pilot study

Data for the pilot study was collected using on snowball sampling from advertisements on social media (Facebook and Twitter) and through campus organizations targeting gender and sexual minorities. The sample ($n = 133$) included both sexual and gender minorities. Participants were between the ages of 18-29 ($M_{age} = 23.43$). 44.2% identified as a woman, 32.7% identified as a man, and 23% identified as a gender minority (including transgender, gender-queer, gender non-conforming, gender variant, etc.). 50.4% identified as gay or lesbian, 25.7% identified as bisexual, 11.5% identified as pansexual, 6.2% identified as asexual, and 6.2% identified their sexual orientation as “not listed.” 85.8% of the sample identified as white. Finally, 14.2% of the sample had completed a high school degree or GED and 30.1% had completed some college.

Primary study

Data for the larger study was collected using Amazon Mechanical Turk (MTurk) work marketplace. Methods were used to collect data from an equal proportion of data from heterosexual and sexual minority individuals in order to have a sample size which follows the requirements outlined in the work of Bentler & Chou (1987) and Tanaka (1987). Participants were paid a small honorarium for their participation. Inclusion in our sample required that participants be an emerging adult (ages 18-29) as defined by Arnett (2000). Participants were split into two groups (GSM and non-GSM) using a dichotomous screener question asking about self-identification as “LGBTQ” leaving us with a total sample of $n = 810$ (GSM = 365; non-GSM = 445). The mean age of the sample was 25.09. In terms of education, 9% of our sample had completed a high school degree/GED or less, and 12.1% had completed a Master’s degree or

higher. Additionally, 33.6% of the sample had a total household income of less than \$20,000, 52.9% of the sample had a total household income between \$20,000 - \$74,999, and 13.4% had a total household income of \$75,000 or greater. The sample was made up of 50.7% women, 43.3% men, and 6% gender minority individuals. Of the total sample, 55.2% identified as heterosexual, 13.5% identified as gay/lesbian, 24.8% identified as bisexual, and 6.5% identified as another sexual orientation. Finally, 46.8% of the sample identified as a person of color. Data collection for this study was approved by the university's IRB #8967.

Instrument

Arnett's markers of emerging adulthood were measured using the 28-item Inventory of the Dimensions of Emerging Adulthood (IDEA) which was developed specifically to measure these dimensions of emerging adulthood (Reifman, Arnett, & Colwell, 2007). Prior research has used the IDEA to measure participants' levels of Arnett's five markers of emerging adulthood (Crocetti et al., 2015; Hendry & Kloep, 2010; Lisha, et al., 2014) whereas others have tested the validity of this measure with various groups (Hill, Lalji, van Rossum, van der Geest, & Blokland, 2015; Leontopoulou, Mavridis, & Giotsa, 2016). The measure includes five sub-scales which follow the characteristics of emerging adulthood laid out by Arnett. Items ask questions such as whether this period of life is a time of "finding out who you are" (identity exploration), "open choices" (time of possibilities), "unpredictability" (instability), "personal freedom" (self-focus), and "gradually becoming an adult" (feeling in-between). Items are measured on a likert-scale ranging from 1-4 where 1= *strongly disagree* and 4= *strongly agree*.

Analytic Plan

The purpose of the current study was to determine whether the dimensions of emerging adulthood, as measured by the Inventory of the Dimensions of Emerging Adulthood (Reifman,

Arnett, & Colwell, 2007), are experienced in the same way for both gender and sexual minorities and their heterosexual/cisgender peers. A pilot study was conducted to determine if it was acceptable to consider gender and sexual minorities one homogenous group based on mean differences on the variables of interest. Results of the pilot study indicated that gender and sexual minorities did not significantly differ in their responses to all but the item which stated that emerging adulthood is a time of high pressure ($p < .01$). Thus, gender and sexual minorities (GSM) were combined into one group to create a dichotomous variable for the current study (0 = *heterosexual/cisgender* and 1 = *GSM*). Thus, in the present study, participants were asked whether they identified as “LGBTQ.” which “may include but is not limited to lesbian, gay, bisexual, transgender, queer, pansexual, asexual, gender queer, gender non-conforming, gender variant, non-binary, agender, etc.”

First, t-tests were run to compare mean differences between GSM and non-GSM participants at the item-level. Levenes’s test for homogeneity of variances and test statistics with equal variances not assumed were requested. Then, *Mplus* (Muthén & Muthén, 2010) with Full Information Maximum Likelihood (FIML) to handle missing data (Finney & DiStefano, 2006) was used to assess the moderating effect of GSM status on the experience of the five defining characteristics of emerging adulthood as outlined by Arnett (2000). A model with all parameters freely estimated across both groups was fit to the data followed by the progressive constraining of each unstandardized factor loading, factor variance, and latent variable mean structure for each subscale of the Inventory of the Dimensions of Emerging Adulthood (Reifman, Arnett, & Colwell, 2007) independently. Model fit was assessed using the following parameters (Hu & Bentler, 1999; McDonald & Ho, 2002): root mean square error of approximation ($RMSEA < .08$), standardized root mean square residual (SRMR; $< .08$), Comparative Fit Index ($CFI > .95$), and

Non-Normed Fit Index ($TLI > .95$) in addition to the model chi-square ($p > .05$). Chi-square difference tests were used to compare the fit of the constrained models with the fit of the unconstrained model to determine if constraining the parameter to be equivalent across groups significantly reduced the fit of the model, suggesting that parameter is significantly moderated by GSM status and there is variance in the measurement model across groups (Cheung & Rensvold, 2002). Finally, latent variable correlations were progressively constrained to analyze the larger scale as a whole.

Results

Possibilities subscale: mean item differences

T-test comparisons indicated that heterosexual/cisgender individuals had a significantly higher ($t = 4.45, p < .05$) sense that this time of life is a time of possibilities ($M = 3.29; SD = .80$) than their GSM peers ($M = 3.05; SD = .80$). T-test analysis also indicated that heterosexual and cisgender individuals ($M = 3.22; SD = .78$) had a significantly higher sense of this being a time of open choices ($t = 2.08, p < .05$) compared to GSM individuals ($M = 3.10; SD = .82$).

Possibilities subscale: multiple group CFA

The fully unconstrained model was an adequate fit to the data: $\chi^2(14) = 59.11, p < .001$; $CFI = .96$; $TLI = .94$; $RMSEA = .09$; $SRMR = .03$. Chi-square differences tests indicated no significant differences between the two groups in the factor loadings of the items in this latent variable. Further, chi-square difference tests indicated that the possibilities latent variable explained a greater amount of the variance for GSM compared to heterosexual/cisgender individuals in the items which asked about whether this time of life is a “period of many possibilities” ($\chi^2_{diff}[15] = 63.33, p < .001$) and “trying out new things” ($\chi^2_{diff}[15] = 63.22, p < .001$). Additionally, mean scores for the latent variable measuring whether emerging adulthood

was a time of possibilities were significantly lower for GSM individuals ($\chi^2_{diff} [19] = 60.03, p < .001$) ($\beta = -.138, p < .01$).

Identity exploration subscale: mean item differences

T-test comparisons indicated significant differences for each of the items in the identity exploration subscale with GSM individuals reporting lower levels of identity exploration than their heterosexual/cisgender peers. GSM individuals had a lower sense ($t = 2.50, p < .05$) that this period of life was a time of finding out who they were ($M = 3.02; SD = .84$) compared to their heterosexual and cisgender peers ($M = 3.17; SD = .90$) and saw this less ($t = 2.54, p < .05$) as a time of separating from their parents ($M = 2.97; SD = 1.00$) compared to the majority ($M = 3.14; SD = .92$). GSM individuals also saw this less ($t = 4.64, p < .001$) as a time of defining themselves ($M = 3.12; SD = .83$) than heterosexual/cisgender emerging adults ($M = 3.38; SD = .74$) and reported less ($t = 4.50, p < .001$) perception that this was a time of planning for the future ($M = 3.27; SD = .80$) compared to their heterosexual/cisgender peers ($M = 3.50; SD = .67$). GSM emerging adults saw this less ($t = 3.20, p < .01$) as a time of seeking meaning ($M = 3.16; SD = .83$) than heterosexual/cisgender individuals ($M = 3.33; SD = .72$) and perceived this period less ($t = 2.10, p < .05$) as a time of deciding on their own beliefs and values ($M = 3.24; SD = .82$) than their peers ($M = 3.35; SD = .76$). Finally, GSM individuals saw this period less ($t = 3.68, p < .001$) as a time to think for themselves ($M = 3.22; SD = .85$) as compared to heterosexual/ cisgender individuals ($M = 3.43; SD = .80$).

Identity exploration subscale: multiple group CFA

The fully unconstrained model was a good fit to the data: $\chi^2 (34) = 115.81, p < .001; CFI = .95; TLI = .94; RMSEA = .08; SRMR = .04$. Chi-square differences tests indicated no significant differences between GSM and heterosexual/cisgender groups in the factor loadings of the

identity exploration variable on the items. Chi-square difference tests did indicate that the identity exploration latent variable explained more variance in the item indicating that this time of life is a “period of planning for the future” for GSM individuals compared to heterosexual/cisgender individuals ($\chi^2_{diff}[35] = 121.45, p < .001$). No significant differences in the means of the latent variable existed between the two groups.

Instability subscale: mean item differences

T-test comparisons indicated that GSM individuals had a significantly higher ($t = -3.70, p < .001$) sense that this time of life is a time of feeling restricted ($M = 2.52; SD = .95$) as compared to their heterosexual and cisgender peers ($M = 2.27; SD = .93$). T-test analysis also indicated that the difference in participants’ sense of this being a time of high pressure was approaching significance ($t = 2.0, p = .050$) with heterosexuals ($M = 3.04; SD = .90$) having a higher perception than GSM individuals ($M = 2.92; SD = .93$).

Instability subscale: multiple group CFA

The fully unconstrained model was an adequate fit to the data: $\chi^2(34) = 144.38, p < .001$; $CFI = .94$; $TLI = .93$; $RMSEA = .09$; $SRMR = .05$. Chi-square difference tests revealed no significant differences in item factor loadings. Additionally, chi-square difference tests indicated that GSM individuals had a higher amount of variance explained by the instability latent variable for the item regarding whether this time of life is a “period of high pressure” ($\chi^2_{diff}[35] = 151.92, p < .001$). Finally, no significant differences existed between the latent mean structure between the two groups.

Self-focus subscale: mean item differences

T-test comparisons indicated that GSM individuals had a significantly lower ($t = 2.20, p < .05$) sense that this is a time of personal freedom ($M = 3.01; SD = .93$) as compared to their

heterosexual and cisgender peers ($M = 3.15$; $SD = .86$). T-test analysis also indicated that GSM individuals reported a significantly lower perception ($M = 3.30$; $SD = .73$; $t = 3.54$, $p < .001$) in comparison to their peers ($M = 3.48$; $SD = .67$) that this is a time of responsibility for yourself. GSM individuals also reported significantly lower ($t = 3.50$, $p < .01$) levels of optimism ($M = 2.91$; $SD = .90$) as compared to the majority ($M = 3.13$; $SD = .84$).

Self-focus subscale: multiple group CFA

The fully unconstrained model was an adequate fit to the data: $\chi^2(23) = 70.63$, $p < .001$; $CFI = .94$; $TLI = .93$; $RMSEA = .07$; $SRMR = .04$. Chi-square difference tests revealed no significant differences in item factor loadings. Additionally, chi-square difference tests indicated that the self-focus latent variable explained a higher amount of the variance for the item which asked whether this time of life is a “self-sufficiency” for GSM individuals ($\chi^2_{diff}[24] = 75.80$, $p < .001$). Finally, the mean scores for the self-focus latent variable were significantly lower for GSM individuals ($\beta = -.151$, $p < .01$).

Feeling in-between subscale: mean item differences

T-test comparisons indicated that GSM individuals had a significantly lower ($t = 2.01$, $p < .05$) perception that this is a time of gradually becoming an adult ($M = 3.18$; $SD = .90$) as compared to their heterosexual and cisgender peers ($M = 3.30$; $SD = .82$).

Feeling in-between subscale: multiple group CFA

The fully unconstrained model was an excellent fit to the data: $\chi^2(2) = 3.40$, $p > .05$; $CFI = 1.00$; $TLI = .99$; $RMSEA = .04$; $SRMR = .02$. Chi-square difference tests revealed no significant differences in item factor loadings. Finally, no significant differences existed in item variances or the means of the latent variable between GSM and heterosexual/cisgender groups.

Full latent model

Following confirmatory factor analysis, correlations between latent variables were determined to analyze the larger Inventory of the Dimensions of Emerging Adulthood scale. Chi-square difference tests were run to examine the moderating effect of GSM identity and indicated that a significantly stronger ($\chi^2_{diff} [736] = 2109.90, p < .001$) correlation existed between identity development and self-focus for GSM individuals ($r = .26, p < .001$) as compared to heterosexual/cisgender individuals ($r = .18, p < .001$). Correlations not moderated by GSM status were constrained to be equal across groups. The final full structural model was an adequate fit to the data: ($CFI = .84, TLI = .83, RMSEA = .07, SRMR = .09, \chi^2 [744] = 2119.01, p < .001$).

Unconstrained correlations are presented in Table 2. Identity development was significantly correlated with a sense that this was a time of possibilities ($r = .19, p < .001$), feeling in-between adolescence and adulthood ($r = .18, p < .001$), and instability ($r = .09, p < .001$). Their sense that this was a time of possibilities was correlated with feeling in-between ($r = .16, p < .001$), self-focus ($r = .25, p < .001$), and instability ($r = .04, p < .01$). Feeling in-between was correlated with self-focus ($r = .17, p < .001$) and instability ($r = .19, p < .001$). Finally, self-focus was not significantly correlated with instability ($r = .002, p > .05$). As mentioned, the correlation between identity development and self-focus was not constrained to be equal as the correlation was stronger for GSM individuals ($r = .24, p < .001$) as compared to heterosexual/cisgender individuals ($r = .20, p < .001$).

Discussion

The Inventory of the Dimensions of Emerging Adulthood (Reifman, Arnett, & Colwell, 2007) has previously been used as a measure of Arnett's (2000) markers of emerging adulthood (e.g., Crocetti et al., 2015; Hendry & Kloep, 2010; Lisha, et al., 2014) and allows researchers to explore individuals' perceptions of their emerging adult experience. Participants respond to the

five subscales which allow for further exploration into their perception of their own identity, optimism, feeling-in between, instability, and self-focus. The current study was interested in whether any measurement variance on the IDEA existed between GSM and heterosexual/cisgender individuals.

Overall, the measurement invariance which our study found indicates that GSM individuals do not perceive drastic differences in these constructs from their heterosexual and cisgender peers. However, it is important to consider from where the small amount of difference comes for these two groups. The results of the present study build off the work of Peter, Toomey, Heinze, and Horn (2017) and indicate that GSM individuals feel more restricted during this time of development. They perceived emerging adulthood less as a time of identity development than their heterosexual/cisgender peers. Whereas it was predicted that GSM individuals experience more identity development due to coming to terms with their sexual orientation and/or gender identity in a heteronormative and cisnormative society, the present study found the opposite. GSM emerging adults did not perceive that they had the space to explore their identity. Further research is necessary to better understand this restriction in identity development. Additionally, GSM emerging adults perceived less opportunities and optimism regarding their future. Emerging adults are generally known to be mindful of and optimistic regarding their future opportunities. However, when compared to heterosexual/cisgender individuals, GSM individuals did not perceive that this was a time of open choices and possibilities indicating another subscale which illustrated the GSM population's sense of restriction. Their experiences of discrimination may cause feelings of restriction as they may not feel like they can live as openly as they would like (Kosciw, Palmer & Kull, 2015). A GSM individual who perceives that they will experience discrimination may be less likely to perceive this as a time of opportunities. Further research is

necessary to understand the implications of discrimination on GSM emerging adults' sense of optimism.

Our findings also illustrate issues of multicollinearity between some of the latent constructs of the IDEA measure. Whereas the IDEA measures five constructs related to the emerging adult's perceptions of this developmental stage, the present study illustrates that these constructs are still related to each other. We would expect correlation since these subscales are part of the same scale and measuring the larger construct of "emerging adulthood." For example, emerging adults' perceptions that this was a time of identity development was highly positively correlated with self-focus for both GSM and heterosexual/cisgender individuals. As the emerging adult introspectively focuses on their own needs and desires, they are also more able to explore their own identity. The one correlation which was small and insignificant for both groups was the correlation between self-focus and instability. These subscales appear to be measuring two distinct constructs for emerging adults. The multicollinearity found in the IDEA measure illustrate the interconnectedness of Arnett's (2000) theoretical markers. Each of his theoretical markers illustrate a piece of the emerging adult experience. However, they are not all so unique that they capture distinct experiences.

The measurement invariance we found provides opportunities for future research since the measure can be used with GSM samples without reservation. Research on GSM emerging adults is arguably scant (Morgan, 2015) but our results indicate that more work can be done using the IDEA measure with this population. Measurement invariance across groups on the overall IDEA measure seems to illustrate that, although the degree to which they experience them may differ, there are no significant differences in the ways the items relate to each other in

connection to the latent variables they represent. The present study helps us to better understand the experiences of GSM individuals during the transition from adolescence to adulthood.

Limitations

Our study was limited by sample size and so we were unable to utilize further analysis exploring age differences between younger and older emerging adults. Further research should explore the use of the IDEA with diverse age groups which make up the emerging adult population (i.e. 18-25, 25-29). Arnett's (2000) original model of emerging adulthood included ages 18-25, however those ages were eventually extended (Arnett, 2015). Whereas the developmental experience of emerging adulthood can exist through age 29, our study illustrated diversity even within emerging adults and calls into question using a sample of participants spanning such a large age range. Whereas our study had a large sample of people of color, it was also limited by our lack of an intersectional lens exploring multiple overlapping minority identities due to our sample's power. Further research should also use an intersectional lens in analysis of the measurement invariance. Specifically, further research should explore whether there are differences when factor loadings and means are moderated by both GSM and racial identities which would allow, for example, what the experiences are for an individual who is both a racial and sexual minority. An intersectional lens could highlight and explain additional variance in respondent's responses to the IDEA.

Conclusion

Prior research has analyzed the experiences of emerging adults ages 18-29 (Arnett, 1994; 2000; 2015) including the creation of an empirical measure for emerging adults' perceptions of this stage of life (Reifman, Arnett, & Colwell, 2007). Whereas the measure has been used with numerous samples (Crocetti et al., 2015; Hendry & Kloep, 2010; Lisha, et al., 2014), further

work was needed to test the validity of the IDEA with a sample of GSM emerging adults. The present study found that, on most accounts, GSM emerging adults perceived this stage of life in very similar ways to their heterosexual and cisgender peers. Whereas no substantial differences were found, the present study provides support for the use of this measure with GSM samples.

Table 1 Unstandardized factor loadings and variances for GSM (*n* = 365) and Heterosexual/Cisgender (*n* = 445) individuals

	Unstandardized		Unstandardized	
	Factor loadings		variances	
	GSM	Het/Cis	GSM	Het/Cis
Identity Exploration				
time of finding out who you are?	1.10	1.22	.50	.54
time of separating from parents?	.91	.82	.78	.71
time of defining yourself?	1.41	1.20	.28	.26
time of planning for the future?	1.01	.80	.42	.32
time of seeking a sense of meaning?	1.22	1.02	.40	.30
time of deciding on your own beliefs and values?	1.26	1.24	.32	.26
time of learning to think for yourself?	1.34	1.21	.35	.29
Experimentation/Possibilities				
time of many possibilities?	.84	.85	.41	.32
time of exploration?	1.20	1.20	.34	.30
time of experimentation?	1.10	1.06	.51	.43
time of open choices?	1.10	1.02	.40	.33
time of trying out new things?	1.10	1.02	.40	.30
Instability				
time of confusion?	1.44	1.59	.60	.54
time of feeling restricted?	.69	.63	.72	.73
time of feeling stressed out?	1.15	1.25	.34	.40
time of instability?	.97	1.03	.45	.50

time of high pressure?	.90	1.05	.52	.40
time of unpredictability?	.82	.86	.53	.60
time of many worries?	1.10	1.21	.41	.37
<hr/>				
Self-Focus				
time of personal freedom?	1.61	1.95	.46	.48
time of responsibility for yourself?	.62	.51	.40	.38
time of optimism?	.82	.70	.55	.60
time of independence?	.88	1.01	.30	.33
time of self-sufficiency?	.70	.63	.50	.38
time of focusing on yourself?	.81	.85	.43	.38
<hr/>				
Feeling In-Between				
time of feeling adult in some ways but not others?	1.30	1.13	.31	.36
time of gradually becoming an adult?	.80	.90	.47	.40
time of being not sure whether you have reached full adulthood?	.84	.89	.60	.64

Table 2 Unstandardized and constrained correlation matrix. Unconstrained where noted for GSM (bolded $n = 365$) and heterosexual/cisgender individuals ($n = 445$)

Variables	1	2	3	4	5
1. Identity development	–				
2. Possibilities	.19***	–			
3. Feeling in-between	.18***	.16***	–		
4. Self-focus	†.20/. .24 ***	.25***	.17***	–	
5. Instability	.09***	.04**	.19***	.002	–

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed)

†unconstrained

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Chapter 3 - GSM Group Identification as a Process of Identity

Development During Emerging Adulthood

Introduction

A primary tenant of the life-span theoretical perspective (Goulet & Baltes, 1970) is the focus on age-related changes and that these changes occur across the entire life-span. Additionally, a life-span approach explores commonalities during development, intraindividual plasticity and interindividual differences across development (Baltes, Lindenberger, & Staudinger, 1998). To this end, exploration into the experiences of emerging adults should include a focus on their identity development as well as their connection to peer groups (Arnett, 2015). Whereas identity development was once associated primarily with the developmental milestones of adolescence, the last two decades have seen a shift in focus on this process extending through emerging adulthood (Arnett, 2000). Additionally, peer groups begin to outweigh the family of origin in importance and support during this stage (Segrin, 2003). This has been found to be especially true for gender and sexual minority individuals as many models of GSM identity development include pieces of identity development and peer group immersion (e.g., Bilodeau & Renn, 2005; Cass, 1979; D'Augelli, 1994; Lev, 2004).

Both Cass (1979) and D'Augelli (1994) view the process of sexual orientation development as moving away from heterosexuality to a place of identity integration in which the sexual minority has integrated their identity within themselves and feels integrated into the larger sexual minority community. Lev (2004) views gender identity development in an analogous way: moving from awareness to integration. While the risk and resiliency of GSM individuals has been studied in numerous fields of study, one area which lacks a substantial focus on the GSM experience is life-span human development (D'Augelli, 2012). D'Augelli (1994; 2012)

notes the importance of a life-span view of GSM identity development. For example, to D'Augelli (1994), "one consequence of a human development view for the study of lesbians and gay men is that to talk about the development of their lives without focus on family, social, institutional, and historical factors is fundamentally distorted" (p. 122). Using a life-span developmental lens to explore the experiences of this population will allow for exploration into interindividual differences in contexts which influence an individual's developmental experience.

Group Identification in the GSM Community as a Developmental Process

Paths to Group Identification

Many models of sexual orientation development include some form of social element in the developmental process (e.g. Bilodeau, 2005; Cass, 1979; D'Augelli, 1994) as a means of coping with their GSM identity (Floyd & Stein, 2002). For example, one way in which Cass (1979) tracks the sexual minority individual's acceptance of their identity is by how much the individual is immersed within the LGBT community. D'Augelli (1994) clarifies this further by identifying this immersion as its own process of the development of one's sexual minority identity. Additionally, Dillon, Worthington and Moradi (2011) proposed a model which encompasses the determinants of sexual orientation which, among other important variables, includes social identity as a key piece of this experience. They note that this identity is made up of both group membership and the attitudes towards this group (Dillon et al., 2011). Bilodeau and Renn (2005) also adapted D'Augelli's original work to fit the development of gender identity and noted the importance of connecting with a transgender community. While some have questioned the notion that group connection is in some way a marker of deeper identity

development (Fassinger & Miller, 1996), this study recognizes the important contribution that connection with similar peers provides for the process of identity development.

Implications of Group Identification

Group identification has previously been found to be associated with increases in well-being (e.g., Crabtree, Haslam, Postmes & Haslam, 2010; Greenaway et al., 2015; Kertzner, Meyer, Frost, & Stirratt, 2009). Greenaway and colleagues (2015) note that, “where an individual may have no hope of accomplishing a goal alone, interdependent action by a group of individuals can overcome obstacles and achieve otherwise impossible ends” (p. 55). According to social identity theory (Tajfel & Turner, 1979), group membership serves as a protective factor; however, prior research has also looked at the ways in which this relationship is different when the membership is in a minority group (Phinney, 1990).

One implication for group identification is the relationship this identification has with attributions to prejudice which refers to the level to which a minority individual perceives that the negative experiences of their life are due to their minority status. Whereas Crocker and Major (1989) determined that group identification with a minority group significantly predicted attributions of prejudice, Branscombe, Schmitt and Harvey (1999) found the bidirectional path to be significant. It is important to consider this association between group identification and attributions to prejudice as experiences of prejudice have been found to be linked with lower levels of well-being (e.g., Everett, 2015; Pearson & Wilkinson, 2013). Finally, group identification has also been found to serve as a protective factor. Branscombe and colleagues (1999) found that making attributions to prejudice was directly associated with a decrease in well-being. However, this relationship had a positive association when explained through group identification.

The Present Study

The present study builds off the work of Cass (1979), D'Augelli (1994), and Lev (2004) by exploring group identification with the GSM community as a process situated within the individual's identity development. Additionally, the present study stems from the work of Branscombe, Schmitt, and Harvey (1999) and Crocker and Major (1989) by looking at the individual developmental processes (i.e. identity salience) which influence one's attributions to prejudice and group identification with a minority group. Whereas prior research has found that group identification with the LGBT community is associated with increases in well-being (e.g., Crabtree, et al., 2010; Kertzner, et al., 2009) as well as the mediating role of attributions to prejudice (Branscombe, et al., 1999) the current study looks at the ways in which one's developmental milestones are associated with these variables. We hypothesize that H1: higher levels of identity salience will be associated with increases in attributions to prejudice. Additionally, we hypothesize that H2: higher levels of attributions to prejudice will be associated with lower levels of well-being, but that H3: a higher level of attributions to prejudice will be associated with higher levels of well-being when explained through group identification with the GSM community.

Methods

Data and Participants

Data were collected using Amazon Mechanical Turk (MTurk) to garner a nationally representative sample of GSM individuals. Prior research has found that MTurk is an exceptional way to achieve a diverse sample (Casler, Bickel, & Hackett, 2013; Gardner, Brown, & Boice, 2012). For example, Casler and colleagues (2013) found that MTurk respondents were more diverse compared to in-person data collection in terms of socio-economic status and race.

Participants were paid a small honorarium for their participation in this survey. Data collection for this study was approved by the university's IRB #8967.

Inclusion in the sample required that participants be between the ages of 18-29 and self-identify as a sexual and/or gender minority. Participants were asked for their sexual orientation and gender identity with multiple options for selection. Additionally, a dichotomous screener question asking about self-identification as "LGBTQ" was also included leaving us with a total sample of $n = 365$. The mean age of our sample was 25.07. In our sample, 50% identified as being a woman and 13% of the total sample identified as a gender minority. Gender-minority status included anyone who identified their gender as transgender, gender-queer, gender non-conforming, gender variant, non-binary, agender, or "not listed." Additionally, 53% of our sample identified as a person of color. Our sample was made up of 29.3% Asian Americans, 4.9% American Indian/Alaska Native, 7.7% African American, 46.3% white, and 8.5% Hispanic/Latinx with an additional 3.3% identifying that their race was "not-listed." Finally, 7.1% of our sample had completed a high school degree or GED, 23% had completed some college, 10% had an Associate's degree, 43.6% had a Bachelor's degree, 13.4% had a Master's degree.

Measures

Identity Salience

Identity salience was collected via one-item which asking, "Do you feel that your sexual orientation is an important part of your identity?" Participants responded on a Likert-scale from 1 (*not important at all*) to 6 (*extremely important*).

Attribution to Prejudice

The participant's attribution to prejudice was measured using a revised version of the attributions of personal setbacks to prejudice measure (Herek & Glunt, 1995) which includes four statements measuring the individual's perceptions of their personal setbacks being the result of their gender identity and/or sexual orientation. The four items were measured on a likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and included such items as "most of the bad things in my life happen because of homophobia/transphobia." The standardized factor loadings ranged from .85 to .91 with a reliability coefficient of $a = .93$.

Group Identification

Group identification with the GSM community was measured as a single item of "I feel connected with my local LGB community" to which the participants responded on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*) with higher scores equating to higher levels of group identification with the LGBT community.

Well-being

The participant's level of individual well-being was measured using three items which asked how often within the past week they felt "just as good as other people," "hopeful about the future," and if they "enjoyed life" Participants responded on a scale from 1 (*never*) to 4 (*most of the time*). Standardized factor loadings ranged from .72 to .85 with a reliability coefficient of $a = .79$.

Control variables

The present study also controlled for age, race, gender, and gender minority identity. Age was a numerical value in years. Race, gender, and gender minority identity were all dichotomous variables where 0 = *white* and 1 = *person of color* for race, 0 = *men*, 1 = *women* for gender, and 0

= *not a gender minority*, 1 = *gender minority* for gender minority identity. Gender minority identity was operationalized as any individual who self-identified as transgender, gender-queer, gender non-conforming, gender variant, non-binary, agender, or “not listed.”

Analytic Plan

Confirmatory factor analysis was run on all latent variables and paths were added to test the structural model (see Figure 2). Indirect effects were examined using 2000 bootstrapped confidence intervals (Preacher, Rucker, & Hayes, 2007). Model fit was confirmed using cutoff points outlined by Hu and Bentler (1999) as well as McDonald and Ho (2002): comparative fit index ($CFI > .95$), non-normative fit index ($TLI > .95$), root mean square error of approximation ($RMSEA < .08$), standardized root mean square residual ($SRMR < .08$), and chi-square difference test ($\chi^2; p > .05$). Additionally, missing data (ranging from 0 - 3.8%) was handled using full information maximum likelihood (Acock, 2005).

Results

Correlations for our variables of interest are found in Table 2. Attributions to prejudice were significantly correlated with higher levels of group identification ($r = .37, p < .001$). Identity salience was significantly correlated with attributions to prejudice ($r = .16, p < .01$), group identification ($r = .34, p < .001$) and well-being ($r = .30, p < .001$). Additionally, identifying as a woman was negatively correlated with attributions to prejudice regarding their sexual orientation and/or gender identity ($r = -.22, p < .001$).

Our model fit the data well with excellent model fit ($\chi^2(39) = 48.80, p > .05; CFI = .99; TLI = .99; RMSEA = .03; SRMR = .03$) following the work of Hu and Bentler (1999) and McDonald and Ho (2002). Additionally, the hypotheses in our proposed model were confirmed. Identity salience was significantly associated with increases in one’s attributions to prejudice (b

= .16, $p < .01$, $\beta = .19$). Feeling as though one's LGBTQ identity was an important part of their identity was associated with higher levels in attributions to prejudice. This attribution to prejudice was significantly associated with an increase in group identification ($b = .34$, $p < .001$, $\beta = .31$). Feeling as though the bad things in life were due to one's sexual orientation and/or gender identity was associated with an increase in feeling connected to one's local LGBT community. Finally, group identification was significantly associated with higher levels of well-being ($b = .13$, $p < .01$, $\beta = .23$). Feeling connected to one's local LGBT community was associated with higher levels of overall well-being.

Our model also explored the indirect ways in which identity salience influenced well-being through attributions of prejudice and group identification with the LGBTQ community. Identity salience was significantly associated with an increase in well-being while being explained through attributions to prejudice and group identification ($b = .01$, $p < .05$; 95% CI .004 to .03). A significant indirect relationship also existed between attributions to prejudice and well-being while being explained through group connection ($b = .07$, $p < .01$; 95% CI .03 to .12). Whereas attributions to prejudice was negatively associated with well-being ($b = -.03$, $p > .05$, $\beta = -.05$), group identification mediate this relationship. When explained through group identification, the association between attributions to prejudice and well-being was positive. Our model explained 24% of the variance in attributions to prejudice, 23% of variance in group identification, and 16% of variance in the participants' levels of well-being.

Discussion

Researchers examined situating one's experience being a gender and/or sexual minority as a part of their identity development during emerging adulthood as well as how this process supported the well-being of members of this community. Our model illustrates the ways in which

identity development and group identification in emerging adulthood can serve as a protective factor for sexual and gender minorities. Specifically, our model considers identity development previously outlined by Cass (1979), Lev (2004), and D'Augelli (1994) as well as the process of rejection from the majority group and identification with the minority group (Branscombe, et al., 1999).

Models of sexual orientation and gender identity development include connection to the larger GSM community as a primary piece of the identity development. This focus recognizes the inherent identity development which comes from connecting with similar individuals. The current study takes a further look at the ways in which this connection can support the well-being of minority individuals. As individuals develop further through the stages of sexual and gender identity development they typically connect with a group of individuals who are going through similar experiences. The present study explored the implications of such connection and found that group identification with the GSM community was associated with increases in well-being.

The present study also considers rejection identification (Branscombe, et al., 1999) which has been found to have better explanatory power in understanding how group identification supports well-being in minority populations. Our model echoes the ways in which making attributions to prejudice is associated with increases in group identification and how group identification mediates the relationship between attributions to prejudice and well-being. Our model found that higher levels of attributions to prejudice were associated with increases in group identification with the GSM community. Additionally, our model investigated the indirect path from attributions to prejudice to well-being through the group identification. Whereas attributions to prejudice were negatively associated with well-being, group identification significantly mediated this relationship which illustrates the positive ways in which this group

connection can support GSM individuals. Feeling connected to a minority group may have given GSM individuals additional peer support to help them better understand their experiences of prejudice.

The indirect paths in our model also illustrate the complexity of the relationship between identity development and well-being. There was a significant and positive direct path present from identity salience to well-being and, as mentioned previously, an indirect path through attribution to prejudice and group identification. Whereas feeling like one's GSM identity is important was significantly associated with increases in well-being, our model illustrates the complexity of identity development by exploring the indirect paths through attributions to prejudice and group identification. These variables appear to have better explanatory power for understanding the process of GSM identity development than the direct path.

Limitations and future research

Our model was limited due to the items utilized for operationalization. We attempted to measure further aspects of identity development in this population, however our data collection on these measures suffered from missing data. We also attempted to measure group identification as a latent variable measuring various additional constructs related to group identification, however this operationalization did not fit the model well. Future research should utilize additional variables to construct latent variables in order to account for error.

Further research is needed to understand the longitudinal nature of this model. Our study is limited in our use of cross-sectional data and, thus, time-order statements cannot be made. It would be important to understand the longitudinal implications to better illustrate the developmental models of sexual orientation and gender identity (Cass, 1979; D'Augelli, 1994; Lev, 2004). Future research would also benefit from exploration into longitudinal benefits to

well-being from identity development and group identification. It would be important to explore whether this model was associated with increases in well-being later in the life-span.

Conclusion

Connection with the larger GSM community has previously been found to be a primary stage of sexual orientation and gender identity development (Cass, 1979; D'Augelli, 1994; Lev, 2004). Additionally, the protective nature of group identification has previously been found to be better explained when considering one's feelings of rejection and discrimination from the majority group (Branscombe, et al., 1999). Therefore, the present model brought these models together and explored this group identification and rejection as a developmental process connecting identity development and psychological well-being. Results revealed that this was successful, explaining the importance that connecting to similar peers has on the mental health and well-being of minority individuals.

Table 3 Reports of Identity Saliency, Attributions to Prejudice, Group Identification, and Well-Being Variables: Descriptive statistics ($N = 365$)

Variables	<i>M</i>	<i>SD</i>	Range
Identity Saliency	3.35	1.18	1 – 5
Failure attribution	2.61	1.21	1 – 5
Bad things are due to homophobia/transphobia	2.47	1.23	1 – 5
Bad things are due to GSM identity	2.44	1.25	1 – 5
Setbacks are due to homophobia/transphobia	2.45	1.24	1 – 5
Group identification	3.18	1.12	1 – 5
Self-esteem	2.64	.91	1 – 4
Life-satisfaction	2.64	.85	1 – 4
Hope	2.70	.90	1 – 4

Table 4 Reports of Identity Saliency, Attributions to Prejudice, Group Identification, and Well-Being Variables: Correlations ($N = 365$)

Variables	1	2	3	4
1. Identity saliency	–			
2. Prejudice attributions	.16**	–		
3. Group Identification	.34***	.37***	–	
4. Well-Being	.30***	.10	.32***	–

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed)

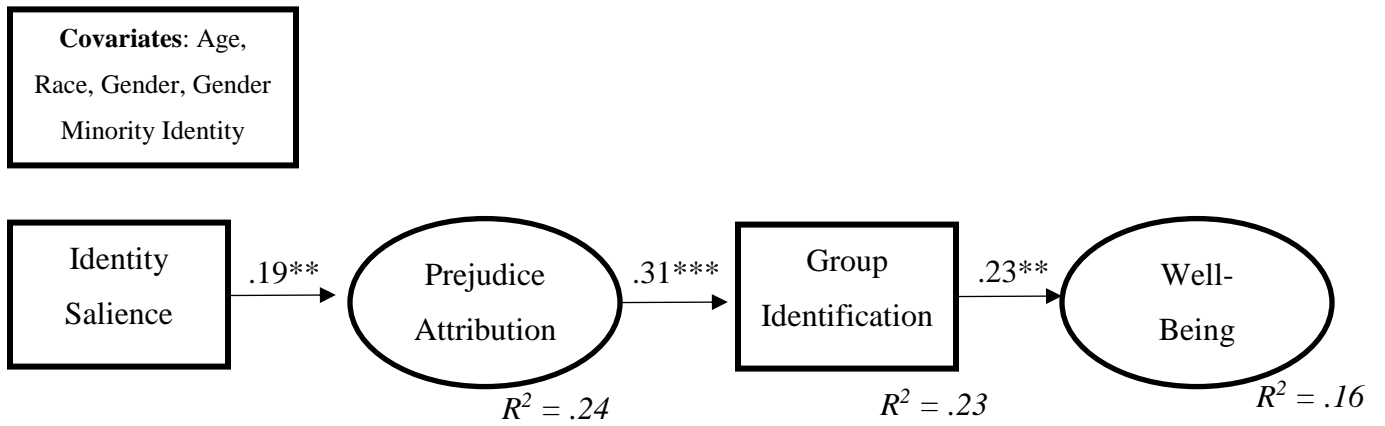


Figure 1 Structural Equation Model of Group Identification as a Developmental Process

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed).

$\chi^2 (39) = 48.80, p > .05$

$CFI = .99, TLI = .99, RMSEA = .03, SRMR = .03$

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Chapter 4 - Sexual Minority Self-Esteem Development Across the Transition to Adulthood: The Influence of Familial Understanding

Introduction

Research on sexual minority individuals is scant and longitudinal research on this population is even more rare. This is especially true in terms of research on sexual minority emerging adults ages 18-29 (Morgan, 2015). Further research is necessary to understand the unique factors which put sexual minority individuals at risk as they transition from adolescence to adulthood. For example, whereas prior research has found that minority stress is associated with lower levels of well-being (e.g., Fingerhut, Peplau, & Gable, 2010; Hershberger & D'Augelli, 1995; Kelleher, 2009; Meyer, 1995, 2003; Meyer & Frost, 2013), further research is needed to understand this relationship through a developmental lens. One of these understudied aspects of well-being is self-esteem. Self-esteem, the feeling of being just as good as those around you (Rosenberg, 1965) has important implications for development across the life-span.

Prior research has found that self-esteem typically develops in quadratic fashion across the transition from adolescence into adulthood (Orth, Trzesniewski, & Robins, 2010). Further research is necessary, however, in order to explore whether this trajectory is typical for minority populations as well. Additionally, more needs to be known related to the specific variables which influence the development of self-esteem. The current study analyzes the development of sexual minority well-being (operationalized as self-esteem) through a bioecological lens (Bronfenbrenner, 1979, 2005) by looking at the ways in which parents and family of origin influence development across the transition to adulthood in sexual minority individuals.

Theoretical Framework

The current study uses both a life-span developmental and social ecological framework. One of the tenants of the life-span developmental theoretical perspective is a focus on how experiences at one stage of the life-span can influence development at later stages. Longitudinal data analysis allows for the exploration into change over time within the individual (Hofer, Thorvaldsson & Piccinin, 2012) as well as an exploration into the ways in which experiences at one stage of life influence later development (Baltes, Lindenberger, & Staudinger, 1998). The field of life-span human development is also an amalgamation of various age-specific areas of study into a full life-span approach (Baltes, et al., 1998). Research of this nature is imperative as it sheds light on experiences which put individuals from marginalized groups at risk or support resiliency.

Additionally, developmental scientists have become increasingly interested in the relationship with one's contextual surroundings (e.g., Bronfenbrenner, 1979). Bronfenbrenner (1979) and others have contended that development occurs within contexts. For example, Bronfenbrenner (1979, 2005) theorized that human development exists at the center of various systems of influence which include the individual's family, peers, faith community, culture, among other various social systems. Life-span human development theory holds that development is the interaction between these social systems and the biology of the individual, epigenesis, which is the bidirectional relationship between one's biology and their environment (Baltes et al., 1998). Prior research has used this perspective to explain the influence which social support exerts on an individual. For example, Barry, Padilla-Walker, Madsen and Nelson (2008) found that parental-child relationship quality was associated with higher levels of prosocial behavior in emerging adulthood.

Self-Esteem Development in Context Across the Life-Span

The life-span developmental framework theorizes that human development is best explained through commonalities across the life-span, intraindividual plasticity, and interindividual differences in development (Baltes et al., 1998). Prior research has used a life-span developmental lens like this to investigate change in self-esteem (Orth, Trzesniewski, & Robins, 2010). Self-esteem has been defined as the feeling that one is good enough (Rosenberg, 1965) and is an important variable for understanding human development. While support from the outside is important, self-esteem touches on the personal opinions of oneself by the individual themselves. This comparison is especially poignant through the transition from adolescence into adulthood due to the identity development which occurs during these stages (Arnett, 2000). Prior research has found that self-esteem has a quadratic slope across development which increases through adolescence and emerging adulthood before peaking and decreasing in older adulthood (Orth et al., 2010) which attests to the importance of studying self-esteem during emerging adulthood. For example, higher levels of self-esteem for LGBT adolescents has been found to be associated with increases in GPA (Kosciw, Palmer, & Kull, 2015). Longitudinal implications of higher levels of self-esteem have also been explored. Steiger, Allemand, Robins, and Fend (2014) found that lower levels of self-esteem during adolescence were associated with later levels of depression.

Self-Esteem Development During Emerging Adulthood

The transition to adulthood is a pivotal time for exploration into the development of self-esteem as prior research has found that self-esteem typically increases during this stage (i.e. Chung, et al., 2014; Tetzner, Becker, & Baumert, 2016). For example, Chung and colleagues (2014) found that there was a significant increase in self-esteem between freshman year and

senior year in emerging adult college students. Additionally, they found that academic success was associated with these increases (Chung, et al., 2014). Tetzner and colleagues (2016) found that not only did self-esteem increase across the transition to adulthood, but that higher levels of self-esteem weakened any decline in self-esteem due to experiences of multiple negative non-normative life events (i.e. death of a parent, divorce, and unemployment).

The transition to adulthood is also a crucial time to explore the development of self-esteem due to the common experiences which occur during this stage (Arnett, 2000). As mentioned, emerging adulthood is one of the stages of human development marked by a time of identity development (Arnett, 2000). This identity development has an important influence on one's self-esteem (Bang, 2015; Ryeng, Kroger, & Martinussen, 2013). For example, Bang (2015) found that identity achievement was significantly associated with increases in self-esteem. In a meta-analysis, Ryeng and colleagues (2013) found correlations between identity formation and self-esteem.

This transitional period is also marked by a time of instability in which individuals feel caught between adolescence and adulthood (Arnett, 2000). Emerging adults feel like they are adolescents in some way while they are also attempting to achieve markers associated with adulthood. Prior research has found that achieving markers associated with being an adult is associated with increases in self-esteem (Galambos, Barker, & Krahn, 2006; Wagner, Lüdtkke, Jonkmann, & Trautwein, 2013). Galombos and colleagues (2006) found that periods of unemployment were associated with decreases in self-esteem. Wagner and colleagues (2013) found that being partnered in a romantic relationship by ages 23-25 on average had a positive association with self-esteem. Additionally, a higher sense of adulthood has been found to be

associated with increases in self-esteem (Luyckx, De Witte, and Goossens, 2011); the more that someone feels as though they have reached the state of adulthood, the higher their self-esteem.

Social support and the development of self-esteem

It is also crucial to consider the implications of context on the development of self-esteem. Bronfenbrenner (1979) theorized that the individuals and groups of people which surround us have a considerable influence on our development. This is especially important to consider during emerging adulthood as the transition from adolescence to adulthood is marked by a shifting in one's social support. For example, the parent-child unit are typically navigating a change in their relationship (Tanner, 2006) in a process called recentering which typically involves a shift in the relationship from one of hierarchy to one of mutual respect. This shift also involves the emerging adult's desire for autonomy. Peer relationships are also of significant importance during emerging adulthood (Demir, 2010). It has been found that the importance of peer support begins to outweigh that of the importance of parental support (Segrin, 2003). The various supports which surround sexual minority individuals have an important influence on the development of their self-esteem.

Research has taken an ecological perspective (Bronfenbrenner, 1979) specifically focused on the influence social support plays in the lives of sexual minority individuals (e.g., Ryan, Russell, Huebner, Diaz & Sanchez, 2010; Sheets & Mohr, 2009; Smith, Faulk, & Sizer, 2016). For example, Ryan and colleagues (2010) found that a greater sense of parental acceptance of one's sexual minority status was associated with increases in self-esteem and social support during adolescence. Sheets and Mohr (2009) found a positive association between general social support from friends and life-satisfaction as well as a positive association between support from one's family related specifically to one's sexual orientation and life-satisfaction. Further research

is needed to understand the longitudinal influence that support systems have on the trajectory of change of self-esteem across this developmental period as well as the specific ways in which support manifests itself.

The Present Study

Self-esteem has been found to change across the life-span (Orth et al., 2010) and support systems have been found to influence levels of self-esteem (e.g., Ryan, et al., 2010). However, research should explore whether this trajectory is true for both heterosexual and sexual minority individuals as sexual minority individuals are at a unique risk for lower levels of well-being due to their minority status. Finally, further research is needed in regard to unique forms of social support from one's family of origin and how these experiences of support predict the development of self-esteem. The current study uses a multiple group latent growth curve analysis to analyze changes in self-esteem in sexual minority individuals as compared to heterosexual individuals across the transition to adulthood. We hypothesize that H1: both sexual minority and heterosexual self-esteem will follow a quadratic path of development across the transition to adulthood, however H2: sexual minority individuals will experience lower levels of self-esteem across this transition. Additionally, it is predicted that H3: feeling understood by one's family will be associated with increases in initial values of self-esteem as well as H4: the rate of change of self-esteem across the transition to adulthood and that H5: feeling understood by one's family will have a stronger association with the initial values and rate of change of self-esteem in sexual minority individuals as compared to their heterosexual peers.

Methods

Data and Participants

Secondary data from the National Longitudinal Study of Adolescent and Adult Health (Add Health) study was used for analysis (Harris et al., 2009). This longitudinal data set was collected in four waves across the transition to adulthood. Wave 1 (W1) was collected in 1994 when participants were adolescents ages 11-18 ($N = 6,504$) using an in-school and in-home survey. Wave 2 (W2) was collected in 1995 when participants were in or transitioning out of adolescence. Wave 3 (W3) was collected during emerging adulthood when participants were ages 18 – 26. Finally, Wave 4 (W4) was collected when the participants were ages 24 – 32. The present study was interested in the experiences of sexual minority individuals as compared to their heterosexual peers and, thus, a multiple group analysis was conducted. Participants were asked at time 3 to identify their sexual orientation on a scale from 100% heterosexual to 100% homosexual. Participants who identified their sexual orientation as anything besides 100% heterosexual were coded as being a sexual minority ($N = 486$) and participants who selected “100% heterosexual” were coded as heterosexual ($N = 6018$). The sample was made up of 52% women and 34% people of color. Mean age at wave 2 was 16.02.

Measures

Self-Esteem

Self-esteem was measured at W1, W2, W3 and W4 using one item on a Likert scale which asked, “how often in the past week have you felt that you were just as good as other people.” Participants responded on a Likert scale from *never or rarely* (0) to *most of the time or all the time* (3).

Family Understanding

Family understanding at W1 was measured using a single item in which participants were asked how much people in their family understand them. Participants responded on a scale from *not at all* (1) to *very much* (5).

Control variables

Our model will also control for both gender and race. Race will be controlled as a dichotomous variable where 0 = *Non-White* and 1 = *White*. Gender is coded as a dichotomous variable where 0 = *woman*, 1 = *man* for gender.

Analytic Plan

The analytic plan involved a two-step process: (1) running a multiple group latent growth curve analysis of the self-esteem variable across four time-points comparing heterosexual and sexual minority individuals, and (2) adding the covariates of family understanding as a predictor of the initial values and change in self-esteem. An unconditional latent growth curve model was constructed using self-esteem across the four time-points without any predictor or control variables. A quadratic latent growth model was constructed allowing the loadings on the middle two time-points to be freely estimated using nonlinear curve fitting (Curran, Obeidat, & Losardo, 2010; Kaplan, 2009; Meredith & Tisak, 1990). This method allowed for a clearer exploration of the developmental trajectory and allowed for additional degrees of freedom to be utilized. Model fit was tested using the following parameters (Kenny, 2015; Kline, 2011): root mean square error of approximation ($RMSEA < .08$), standardized root mean square residual ($SRMR < .08$), Comparative Fit Index ($CFI > .95$), and Non-Normed Fit Index ($TLI > .95$) in addition to the model chi-square ($p > .05$). Finally, structural paths were added to test the associations between our latent variables and the intercept and slope for self-esteem. To test the moderating effect of sexual orientation on the latent growth curve, the path from familial understanding on the initial

value and rate of change were constrained to be equal. Chi-square difference tests were used to compare the fit of this constrained models to the fit of the unconstrained model. If constraining the path to be equivalent across groups significantly reduced the model fit, then that path is significantly different between groups (Cheung & Rensvold, 2002).

Results

Correlations between variables of interest as well as means and standard deviations are found in Table 1. For example, adolescent self-esteem is significantly correlated with family understanding for both sexual minority ($r = .16, p < .001$) and heterosexual individuals ($r = .08, p < .001$). Additionally, adolescent self-esteem is correlated with adult self-esteem for sexual minority ($r = .28, p < .001$) and heterosexual ($r = .24, p < .001$) individuals. Mean scores for each data point of self-esteem item were 1.89 at W1, 1.84 at W2, 2.21 at W3 and 2.14 at W4 for sexual minorities and 1.94 at W1, 1.99 at W2, 2.34 at W3 and 2.22 at W4 for heterosexual individuals. T-test comparison revealed that sexual minority individuals had significantly lower self-esteem levels at times two ($t = 2.87, p < .01$) and three ($t = 3.00, p < .01$). The trajectory of self-esteem development for both groups supports the use of a quadratic growth model to illustrate the development of self-esteem and follows prior findings as it rises from adolescence through emerging adulthood and then declines once the sample reached adulthood. The unconditional model following the trajectory of growth of self-esteem had good model fit ($\chi^2 [8] = 53.68, p < .001, CFI = .98, TLI = .97, RMSEA = .04, SRMR = .03$). Model fit for the supplementary model with predictors and control variables had excellent model fit ($\chi^2 [20] = 65.28, p < .001, CFI = .98, TLI = .96, RMSEA = .03, SRMR = .02$).

Our hypotheses were partially confirmed. As mentioned, self-esteem in both the sexual minority and heterosexual samples developed in quadratic fashion across the transition from

adolescence to adulthood; developing linearly from adolescence through emerging adulthood before going down in adulthood (Table 5). The sexual minority sample experienced a small dip in self-esteem between the first two time-points; however, t-test comparison revealed no significant difference between these two time-points ($t = .81, p > .05$). For sexual minority individuals, feeling as though one's family understood them in adolescence was significantly associated with self-esteem during adolescence ($b = .13, p < .01, \beta = .20$) as well as the slope of the developmental trajectory of self-esteem across four time-points ($b = -.08, p < .05, \beta = -.17$). For heterosexuals, adolescent family understanding was significantly associated with self-esteem during adolescence ($b = .07, p < .001, \beta = .11$) as well as the slope of the developmental trajectory of self-esteem across four time-points ($b = -.03, p < .05, \beta = -.07$). In terms of our control variables, gender was significantly associated with initial levels ($b = -.16, p < .001, \beta = -.12$) and the change in self-esteem ($b = .09, p < .001, \beta = .11$) for heterosexuals. Gender was not significantly associated with initial levels ($b = -.04, p > .05, \beta = -.03$) or change in self-esteem ($b = -.09, p > .05, \beta = -.08$) in sexual minority individuals. Finally, for heterosexuals, race was significantly associated with initial values ($b = .07, p < .01, \beta = .06$) of self-esteem but not the development of self-esteem ($b = .03, p > .05, \beta = .05$) whereas race was not significantly associated with initial levels ($b = .04, p > .05, \beta = .04$) or rate of change in self-esteem ($b = -.03, p > .05, \beta = -.04$) for sexual minorities.

Finally, chi-square difference tests revealed that there were no differences between sexual minority and heterosexual individuals in the association between familial understanding and initial levels of self-esteem ($\chi^2_{diff}[21] = 67.72, p < .001$) as well as the association between familial understanding and the rate of change of self-esteem ($\chi^2_{diff}[21] = 67.00, p < .001$).

Discussion

The goal of this study was to elucidate any differences in the development of self-esteem in sexual minorities as well as to explore the influence that familial understanding has on this development. Our study built upon results from prior research on the development of self-esteem which have found that it typically develops in linear fashion before decreasing in adulthood. Results indicate that, even when exploring the moderating influence of sexual orientation, self-esteem still developed in a quadratic fashion for both groups. Whereas sexual minority individuals are at risk due to their minority status, they still experience a similar trajectory for self-esteem across adolescence and adulthood. The only difference was that sexual minority individuals experienced a non-significant and small dip in self-esteem at the end of adolescence. These are promising findings as they illustrate that, even in spite of their minority stress, sexual minority individuals are still experiencing similar increases (and decreases) in their self-esteem at developmentally expected time points as compared to their heterosexual peers.

The present study also illustrates important life-span implications for sexual minority individuals. The life-span developmental perspective theorizes that experiences at one stage of development can influence later stages. Our study takes an ecological perspective and continues the important conversation surrounding familial connection. The study found that familial understanding during adolescence has a lasting influence on self-esteem during the transition from adolescence to adulthood. Both sexual minority and heterosexual individuals who felt as though their family understood them during adolescence were found to have higher levels of self-esteem during adolescence, emerging adulthood, and young adulthood. Bronfenbrenner (1979) acknowledged that one's family of origin has a direct influence on one's development. Additionally, Bronfenbrenner (2005) theorized that the passage of time was an important

construct of which to be mindful. Although time has passed (in what Bronfenbrenner would term the chronosystem), the influence of familial understanding is long lasting as familial understanding significantly predicted increased self-esteem at each of the four time points.

Additionally, familial understanding was significantly associated with the rate of change in self-esteem across these four time-points for both groups. Familial understanding did not just predict later levels of self-esteem; it was also associated with the developmental trajectory of self-esteem. More specifically, familial understanding in adolescence was significantly associated with a slower increase in self-esteem for both groups. Feeling understood by one's parents set into motion a unique trajectory for the development of self-esteem across the transition to adulthood and helped to understand the development of self-esteem across this period for both heterosexual and sexual minority individuals. Research such as this is important for better understanding the ways in which individuals develop self-esteem.

Our study also illustrates parental influence at an important period of development. Arnett (2000) and Tanner (2006) have written extensively on the ways in which relationships change during this stage of the life-span. Peer support begins to outweigh parental support in terms of importance, and emerging adults typically experience a change in the relationship with their parents. However, our study illustrates that feeling supported by one's family is still associated with well-being across this developmental period. It predicts higher levels of self-esteem and helps to explain the unique trajectory of development of self-esteem. Feeling understood by one's family of origin during adolescence is arguably more important for sexual minority individuals as adolescence is typically a time in which individuals figure out and explore their sexual orientation. Feeling understood at such a pivotal moment as this would be imperative for feeling good about oneself. Feeling understood addresses a unique form of

familial support in that it does not necessarily entail the receipt of tangible support. It does, however, involve feeling that one's identity is being acknowledged.

The present study has important implications for families as well as for those adults working with adolescents who identify as a sexual minority. As parents reconcile their adolescent's sexual orientation it is important for them to recognize the lasting influence that moment of minority declaration has for their child. Many adolescents feel nervous about coming out to their parents and worry about rejection. However, support does not simply mean not rejecting one's child. The current study illustrates that simply having an elevated level of understanding has lasting implications for positive development and self-esteem. Supporting one's sexual minority child during this transition does not simply mean providing tangible aspects of support like a "roof over their head" and financial support. The present study illustrates that deeper expressions of support related to familial understanding have lasting implications for the way sexual minority individuals feel about themselves.

Limitations and future research

Our study includes limitations due to the use of secondary data. For example, the variable which involved feeling understood did not specifically address the individual's sexual orientation and, instead, simply asked the question in general. Further research would benefit from exploration into the unique way that feeling as though one's parents understand one's sexual orientation is connected to the development of one's self-esteem. It could be that a variable of this nature would capture the distinct ways in which sexual minority adolescents perceive their family's understanding of their identity.

The field of human development would also benefit from further research with more long-term analysis of self-esteem. It would be important to see how trajectories of self-esteem

develop for sexual minority individuals from childhood through adulthood. As current cohorts delineate and declare their sexual minority status earlier than in previous generations, it would be important to see how this identity exploration and development and the parental support which accompanies this is associated with self-esteem development trajectories beginning earlier in the life-span. Finally, our study is limited by a homogenous sample with a sizable percentage (66%) of white participants. Further research on this topic should strive for more diversity as it relates to racial representation.

Conclusion

Self-esteem has been found to develop in quadratic fashion across the transition from adolescence to adulthood. Using multiple group latent growth curve analysis, the present study illustrated that the same is true for sexual minority individuals. Additionally, the perception of familial understanding in adolescence was associated with both initial levels of self-esteem as well as the rate of change of self-esteem across the transition to adulthood for both heterosexual and sexual minority individuals. Family members of sexual minority adolescents have a lasting influence on their child's well-being and practitioners working with families can work with their clients to find ways to show this understanding and support to their sexual minority child.

Table 5 Reports of familial understanding, race, gender, and self-esteem across the transition to adulthood: Correlations, Means, and Standard Deviations for heterosexual ($N = 6018$) and sexual minority ($N = 486$; bolded) individuals.

Variables	1	2	3	4	5	6	7
<u>Self-Esteem</u>							
1. Time 1	–	.44***	.25***	.28***	.16***	-.01	-.03
2. Time 2	.40***	–	.24***	.28***	.08	-.07	-.10
3. Time 3	.26***	.32***	–	.34***	.04	.01	-.07
4. Time 4	.24***	.28***	.32***	–	.12*	-.07	.01
<u>Predictors</u>							
5. Familial understanding	.08***	.06***	.03*	.06***	–	-.16**	-.17***
6. Race	.06***	.10***	.12***	.07***	-.02	–	.08
7. Gender	-.09***	-.07***	-.04**	-.04*	-.05***	-.02	–
<i>M</i>	1.94/ 1.89	1.99/ 1.84	2.34/ 2.21	2.22/ 2.14	3.63/ 3.36	.66/ .71	.50/ .73
<i>SD</i>	1.00/ 1.00	.99/ 1.03	.92/ .91	.88/ .91	1.01/ 1.07	.47/ .45	.50/ .45
Range	0 – 3	0 – 3	0 – 3	0 – 3	1 – 5	0 – 1	0 – 1

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed)

Table 6 Latent growth curve analysis of self-esteem across four time-points; Supplementary model with predictor variables for heterosexual ($N = 6018$) and sexual minority ($N = 486$; bolded) individuals.

Variables	Intercept	Slope
Familial understanding	.11***/ .20**	-.07*/ -.17*
Race	.06**/ .04	.05/ -.04
Gender	-.12***/ -.03	.11***/ -.08

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed)

Model fit: $\chi^2 [20] = 65.28, p < .001, CFI = .98, TLI = .96, RMSEA = .03, SRMR = .02$.

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Chapter 5 - Conclusion

The life-span developmental theoretical framework contends that development occurs across the entire life and that experiences at one stage of life influence later development (Baltes, 1987). Whereas previous developmental theory focused solely on development early in life, recent decades have seen a shift in focus to explore development from cradle to grave. To this end, Arnett (2000) developed a theoretical framework through which to study the period of life following adolescence upon recognizing that this transition to adulthood typically takes longer than it did for previous generations. This period of emerging adulthood includes ages 18-29 and is made possible, in large part, by a time of moratorium during which individuals can temporarily put off taking on fully adult roles. However, the implications for the experience of minority groups during this developmental age need further study.

The societal contexts have changed since Baltes and others were originally writing about the nature of human development across the life-span. As social contexts have changed, so too must our research of those contexts change. The present three studies reflect a shift to focus on marginalized groups and their experiences during emerging adulthood and the gaps that exist in life-span developmental research. Life-span theory can adjust to fit the need of scholarly exploration into GSM individuals because, at the core, one of the factors with which Baltes and others were concerned was interindividual differences. The current studies illustrate life-span theory (Baltes, 1987) through the focus on an understudied stage of the life-span (emerging adulthood), the focus on interindividual differences based on GSM identity, and the exploration into longitudinal implications for development.

Overall findings

The first study sought to explore the validity of Arnett's (2000) original theory of emerging adulthood as it relates to gender and sexual minority (GSM) individuals. Testing the measurement variance of the Inventory of the Dimensions of Emerging Adulthood (IDEA), the study revealed that, overall, there were no major differences in GSM emerging adults' perceptions of this developmental stage. GSM emerging adults perceived the period of emerging adulthood in a very similar way to their heterosexual and cisgender peers. The study illustrated how the IDEA can, and should, be used with gender and sexual minority groups and that further research should include members of this population in study samples.

The second study delved into the concept of minority group identification as a protective factor for the GSM community. The study situated group identification as a process of identity development following the work of other developmental theories (Cass, 1979; D'Augelli, 1994; Lev, 2004). Using structural equation modeling, the study found that identifying with the GSM community was a protective factor for this population. Whereas higher attributions to prejudice were directly associated with decreases in well-being, when explained through group identification, the association was positive. This paper highlights the important ways in which connecting with other gender and sexual minority individuals can protect the individuals in this population from negative outcomes.

The final study looked longitudinally at the experiences of sexual minority individuals recognizing that the experiences at one stage of life can influence later development. Using multiple group latent growth curve modeling, the study found that both heterosexual and sexual minority individuals' self-esteem develops in quadratic fashion over the transition to adulthood. Additionally, it was found that feeling as though one's family understood them in adolescence

was significantly associated with both the initial level and the rate of change of self-esteem for both groups. This study illustrates the importance of contextual support for sexual minority individuals as they make the transition to adulthood as well as the long-lasting influence that familial understanding can have on the individual's well-being.

Implications

Implications for further intersectional research

The present studies inform the fields of emerging adulthood and life-span human development and offer implications for further research by focusing attention on a marginalized group. The studies illustrate the importance of using moderating variables such as sexual orientation and gender identity in research to look into the margins of the population. Arnett's theory of emerging adulthood has long been criticized for its lack of an intersectional lens (Arnett, 2011). The present studies challenge the theoretical framework and provide extensions for further research with this population. Our first study indicated that GSM emerging adults perceive their experience during this developmental stage in similar ways to their heterosexual and cisgender peers. However, as mentioned previously, this study did not consider further minority identities as moderators. Thus, future research should explore similar studies related to the moderating influence of further identities such as race and socioeconomic status. The study testing measurement invariance on the IDEA measure should be used as a model for further testing of the measure.

Additionally, the present studies provide implications for future research using an intersectional lens as one area of research which is noticeably lacking is research on gender and sexual minority individuals of color. The present studies move the field forward by studying samples with substantial amounts of diversity in terms of race and gender identity. As De Vries

and Herdt (2012) note, “it is nonetheless gay men who have received the disproportionate share of attention” (p. 85). Ordover (2003) takes that a step further and says that the research has a focus on white gay men and calls into question research which “extrapolated about all gay men, despite an extremely homogenous subject sample” (p. 64). Researchers studying GSM individuals need to look into the margins of the margins and explore those with multiple minority statuses. Cohen (1997) contends that there are limits to generalizability in GSM research and that “for those of us who find ourselves on the margins, operating through multiple identities and thus not fully served or recognized through traditional single-identity-based politics, theoretical conceptualizations of queerness hold great political promise” (p. 24). We must move our research from single-identity to multiple-identity and the present studies made progress to that end.

Implications for GSM research methods

The present studies also offer extensions of the research on GSM emerging adults both in terms of methods and theoretical framework. To begin, research on GSM emerging adults is limited and of great need (Morgan, 2015; Peter, Toomey, Heinze, & Horn, 2017). In terms of samples, the studies did not include GSM individuals as a small percentage of the sample but, instead, explored the variables associated with risk and resiliency in this population alone. Related to research methods and study designs, the first paper investigated measurement invariance in the IDEA, the leading measurement of emerging adulthood. The second paper looked cross-sectionally at the experiences of GSM individuals as they exist within emerging adulthood. Finally, the third paper used longitudinal design to look at lasting implications of familial understanding. All three of these research designs are important and they each say something important about the distinct developmental experience of the GSM emerging adult

population. Taken together, these three papers illustrate the variety of methods available to use in order to study this population.

The present studies also offer extensions related to the theoretical focus of research on this population. Developmental research on GSM samples has been divided on whether to focus on the victim narrative or the resiliency narrative as it relates to the experiences of this community (Savin-Williams, 2005). The victim narrative focusses on the negative experiences of GSM individuals and paints this community as one in need of support. Research in this camp typically explores how GSM individuals are lower in well-being and higher in psychological distress as compared to their heterosexual cisgender peers (e.g., Everett, 2015; Hatzenbuehler, McLaughlin, & Nolen-Hoeksema, 2008; Pearson & Wilkinson, 2013; Watson, Wheldon & Russell, 2015). The resiliency narrative focusses on GSM individuals' ability to come back from experiences of homophobia, transphobia, and/or heterosexism to a place of resilience. For example, previous research has found that being open about one's sexual orientation and/or gender identity is associated with higher levels of psychological well-being (Kosciw, Palmer, & Kull, 2015) and that a more positive view of one's identity is associated with higher levels of outness and well-being (Whitman & Nadal, 2015). Research such as this illustrates the resiliency that can occur for GSM individuals and the positive impact that an acceptance and openness about one's identity can have. I argue that a balanced investigation into risk and resiliency is important. What is imperative to consider is determining *who* is being resilient, *how* they are being resilient, and *why* they are able to achieve this resiliency.

Conclusion

The transition to adulthood is a tumultuous period of the life-span. Emerging adults are continuing to figure out who they are. They are often taking responsibility for their lives for the

first time as they renegotiate the changing relationship with their family of origin. These dynamic experiences are heightened when they exist as a minority. The present studies represent a catalog of research focused on the risk and resiliency present for GSM emerging adults during the transition to adulthood. Taken separately, they indicate the unique experiences of this population. Taken together, however, they showcase how GSM individuals are resilient in the face of adversity during this developmental stage. GSM emerging adults perceive this period in a consistent way as their heterosexual and cisgender peers but are still subject to experiences of prejudice. Even with these attributions to prejudice, their connection with others around them who share their identity, as well as the understanding they receive from their family of origin, provide support for their self-esteem and overall well-being.

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Appendix A - Informed consent form

KANSAS STATE UNIVERSITY INFORMED CONSENT

PROJECT TITLE: Gender and sexual minority risk and resiliency development project.

APPROVAL DATE OF PROJECT: TBD **EXPIRATION DATE OF PROJECT:** TBD

PRINCIPAL INVESTIGATOR: Dr. Elaine Johannes

CO-INVESTIGATOR(S): Barrett Scroggs, Ph.D. Candidate

CONTACT NAME AND PHONE FOR ANY PROBLEMS/QUESTIONS:

Dr. Elaine Johannes, ejohanne@k-state.edu, Office Phone: 785-532-7720

IRB CHAIR CONTACT/PHONE INFORMATION:

Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall,
Kansas State University, Manhattan, KS 66506, (785) 532-3224

Cheryl Doerr, Associate Vice President for Research Compliance, 203 Fairchild Hall,
Kansas State University, Manhattan, KS 66506, (785) 532-3224.

PURPOSE OF THE RESEARCH: The purpose of the research is to better understand the experiences of emerging adults ages 18-29 years old. We are interested in how individuals develop during this stage and how they connect with the people around them (including their peers and their parents).

PROCEDURES OR METHODS TO BE USED: The research will be conducted via Amazon MTurk. The MTurk website will direct participants to a survey put out by Kansas State University Qualtrics. Participants will respond to the survey questions online.

LENGTH OF STUDY: 25-30 minutes

RISKS OR DISCOMFORTS ANTICIPATED: Some participants will be asked minimally invasive questions about their sexual orientation and gender identity development and their relationship with their parents. These questions may cause minimal emotional distress. Participants will have the opportunity to skip certain questions which make them uncomfortable.

BENEFITS ANTICIPATED: The surveys will allow participants self-evaluation and introspection which can be beneficial for well-being.

EXTENT OF CONFIDENTIALITY: All data will be collected on Qualtrics via Amazon MTurk. No personal identification (i.e. your name) will be connected to the data while online or after the data is downloaded for analysis. The only identifier connected to the participant will be a number.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: N/A

TERMS OF PARTICIPATION:

I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.