# The Stigma-Related Strengths Model: The Development of Character Strengths

among Lesbian, Gay, and Bisexual Individuals

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### ABSTRACT

The Stigma-Related Strengths Model: The Development of Character Strengths among Lesbian, Gay, and Bisexual Individuals

Nadav Antebi-Gruszka

Research concerning lesbian, gay, and bisexual (LGB) individuals has, thus far, largely focused on understanding the many ways in which stigma operates to harm their lives (e.g., Hatzenbuehler, 2011; Meyer, 2003). Conversely, little is known about the potential positive consequences of stigma among LGB individuals, and even less is known about the mechanisms that may facilitate the development of such positive consequences.

Drawing on the distinct, yet related, literatures of minority stress, stress-related growth, character strengths, and well-being, a conceptual model of stigma-related strengths was developed and examined for the purpose of this study. The specific aims of the current study were designed to examine the various components of the stigma-related strengths model. Specifically, this study had six specific aims:

- 1) To compare self-identified LGB and heterosexual individuals on character strengths.
- To identify the possible cognitive, affective, and interpersonal (i.e., social) mediators of the relationship between sexual identity (LGB vs. heterosexual) and character strengths.
- To examine the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals.

- To identify the possible cognitive, affective, and interpersonal (i.e., social) mediators of the relationship between perceived interpersonal stigma and character strengths among LGB individuals.
- To investigate which character strengths serve as mediators of the relationship between perceived interpersonal LGB-related stigma and mental health among LGB individuals.
- 6) To explore which character strengths may mediate the relationship between perceived interpersonal LGB-related stigma and well-being among LGB individuals.

A sample of 718 individuals was recruited from Amazon Mechanical Turk to complete an online (i.e., web-based) survey consisting of a set of self-report measures. Of those, 421 (59%) participants self-identified as LGB. In addition to self-identifying as either LGB or heterosexual, eligible participants had to be fluent in English, 18-60 years old, and living in United States.

No significant differences in character strengths were found between LGB and heterosexual participants. Among LGB participants, an inverted U-shaped relationship was found between perceived interpersonal LGB-related stigma and five of the 24 character strengths, namely appreciation of beauty and excellence, curiosity, fairness, honesty, and kindness; these strengths were then referred to as stigma-related strengths among LGB individuals. Conversely, prudence and judgment were found to be negatively and linearly associated with perceived interpersonal LGB-related stigma. Cognitive flexibility mediated the relationship between perceived interpersonal LGB-related stigma and the five stigma-related strengths among LGB participants. Brooding mediated the relationship between perceived interpersonal stigma and both kindness and appreciation of beauty and excellence. Furthermore, suppression was found to mediate the association between perceived interpersonal stigma and kindness. Social support mediated the perceived interpersonal stigma-fairness relation. As for prudence and judgment, only cognitive flexibility was found to mediate their relationship with perceived interpersonal LGB-related stigma among LGB individuals. All five stigma-related strengths, as well as prudence and judgment, mediated the relationship between interpersonal stigma and well-being, whereas only curiosity mediated the relationship between interpersonal stigma and mental distress among LGB individuals.

The findings demonstrate that moderate levels of stigma are associated with character strengths among LGB individuals. Further, findings suggest that interventions addressing LGB individuals' engagement in cognitive flexibility, brooding, and social support will facilitate the development of their stigma-related strengths, which in turn, promote their well-being.

TABLE OF CONTENTS
-------------------

A.	List	t of Tablesi	iv
B.	List	t of Figuresxi	ii
1.	Intr	oduction	1
1	.1.	Problem Statement	1
1	.2.	Dissertation Research Aims	2
2.	Lite	erature Review	3
2	2.1.	LGB Health Disparities	3
2	2.2.	Stigma	5
	2.2.	1. Interpersonal LGB-Related Stigma	6
	2.2.	2. Self-Stigma among LGB Individuals	8
	2.2.	3. Structural Stigma Affecting LGB Individuals	9
2	2.3.	Minority Stress: A Comprehensive Model of LGB Stigma 1	.1
	2.3.	1. Extending Minority Stress Theory: The Psychological Mediation Framework 1	.3
	2.3.	2. Mediation versus Moderation Hypotheses 1	.4
2	2.4.	Positive Psychology: A New Framework for Neglected Missions 1	.5
	2.4.	1. Stress-Related Growth 1	.6
	2.4.	2. Character Strengths 1	.9
2	2.5.	Stigma-Related Strengths: Integrating Distinct, Yet Related, Literatures	23
	2.5.	1. Stigma-Related among LGB Individuals	24
	2.5.	2. Mediators of Stigma-Related Strengths among LGB Individuals	31
	2	.5.2.1. Cognitive Resources: Cognitive Flexibility	31
	2	.5.2.2. Emotional-Affective Resources: Emotion Regulation	33

2	.5.2.3. Social Resources: Social Support across Various Levels	36
2.5.	3. Stigma-Related Strengths, Mental Health, and Well-Being	38
2.6.	Dissertation Hypotheses	41
3. Met	hod	43
3.1.	Participants	43
3.2.	Procedure	44
3.3.	Measures	47
3.3.	1. Predictor Variable	47
3.3.	2. Mediator Variables	48
3.3.	3. Outcome Variables	50
3.3.	4. Control Variables	52
3	.3.4.1. Control Variables (for Aims 1-2)	53
3	.3.4.2. Control Variables (for Aims 3-6)	53
3.4.	Data Analysis	55
4. Res	ults	58
4.1.	Aim 1	58
4.2.	Aim 2	60
4.3.	Aim 3	60
4.4.	Aim 4	63
4.5.	Aim 5	69
4.6.	Aim 6	71
5. Dise	cussion	73
5.1.	Summary of Findings	73

5.1.1. Differences in Character Strengths as a Function of Sexual Identity (Aims 1 & 2) 76
5.1.2. Stigma-Related Strengths: The Relationship between Interpersonal LGB-Related
Stigma and Character Strengths among LGB Individuals (Aim 3) 79
5.1.3. Mechanisms of Stigma-Related Strengths in LGB Individuals (Aim 4) 87
5.1.4. Stigma-Related Strengths, Mental Health, and Well-Being (Aims 5 & 6)97
5.2. Potential Implications
5.3. Limitations
5.4. Recommendations for Future Studies
6. References
7. Appendix Tables
8. Appendix Figures

# LIST OF TABLES

Table 1. Classification of the Six Core Values and Their Corresponding Character Strengths . 199
Table 2. Demographic Characteristics of Participants in the Current Sample       201
Table 3. Internal Consistency Reliabilities for each of the 24 Character Strengths Subscales 204
Table 4. Mean Scores and Standard Deviations for Character Strengths as a Function of Sexual
Identity (Using Various Groupings)
Table 5. Pearson Correlations among the 24 Character Strengths
Table 6. Multivariate and Univariate Analyses of Variance for Character Strengths       208
Table 7. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Appreciation of Beauty and Excellence in LGB individuals 210
Table 8. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Curiosity in LGB individuals
Table 9. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Fairness in LGB individuals
Table 10. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Honesty in LGB individuals
Table 11. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Kindness in LGB individuals
Table 12. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Prudence in LGB individuals
Table 13. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related
Stigma Predicting Judgment in LGB individuals

Table 14. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Bravery in LGB individuals	217
Table 15. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Love in LGB individuals	218
Table 16. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Teamwork in LGB individuals	219
Table 17. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Creativity in LGB individuals	220
Table 18. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Forgiveness in LGB individuals	221
Table 19. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Gratitude in LGB individuals	222
Stigma Predicting Gratitude in LGB individuals Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	222
Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related         Stigma Predicting Hope in LGB individuals	223
<ul> <li>Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related</li> <li>Stigma Predicting Hope in LGB individuals</li> <li>Table 21. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related</li> </ul>	223
<ul> <li>Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Hope in LGB individuals</li> <li>Table 21. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Humor in LGB individuals</li> </ul>	223 224
<ul> <li>Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Hope in LGB individuals</li></ul>	223 224
<ul> <li>Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Hope in LGB individuals</li> <li>Table 21. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Humor in LGB individuals</li> <li>Table 22. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Perseverance in LGB individuals</li></ul>	223 224 225
<ul> <li>Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Hope in LGB individuals</li></ul>	223 224 225

Table 25. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Humility in LGB individuals	228
Table 26. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Perspective in LGB individuals	229
Table 27. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Self-Regulation in LGB individuals	230
Table 28. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Social Intelligence in LGB individuals	231
Table 29. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Spirituality in LGB individuals	232
Table 30. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related	
Stigma Predicting Zest in LGB individuals	233
Table 31. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related Stigma on Appreciation of Beauty and Excellence through Multiple	
Mediators in LGB individuals	234
Table 32. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related Stigma on Curiosity through Multiple Mediators in LGB individuals	235
Table 33. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related Stigma on Fairness through Multiple Mediators in LGB individuals	236
Table 34. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related Stigma on Honesty through Multiple Mediators in LGB individuals	237
Table 35. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related on Kindness through Multiple Mediators in LGB individuals	238

vi

- Table 36. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

   LGB-Related Stigma on Appreciation of Beauty and Excellence through Cognitive

   Flexibility in LGB individuals
- Table 37. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

   LGB-Related Stigma on Curiosity through Cognitive Flexibility in LGB individuals .. 240
- Table 38. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Fairness through Cognitive Flexibility in LGB individuals.... 241 Table 39. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

- LGB-Related Stigma on Honesty through Cognitive Flexibility in LGB individuals.... 242 Table 40. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
- LGB-Related Stigma on Kindness through Cognitive Flexibility in LGB individuals.. 243 Table 41. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
- Table 42. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

   LGB-Related Stigma on Appreciation of Beauty and Excellence through Brooding in
- Table 43. Bootstrapping Analyses to Examine the Indirect Effects of Perceived InterpersonalLGB-Related Stigma on Curiosity through Brooding in LGB individuals246
- Table 44. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
- Table 45. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

Table 46. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Kindness through Suppression in LGB individuals
Table 47. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Appreciation of Beauty and Excellence through Suppression in
LGB individuals
Table 48. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Curiosity through Suppression in LGB individuals
Table 49. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Fairness through Suppression in LGB individuals
Table 50. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Honesty through Suppression in LGB individuals253
Table 51. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Fairness through Social Support in LGB individuals254
Table 52. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Appreciation of Beauty and Excellence through Social Support
in LGB individuals
Table 53. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Curiosity through Social Support in LGB individuals
Table 54. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Honesty through Social Support in LGB individuals
Table 55. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Kindness through Social Support in LGB individuals

viii

Table 56. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal
LGB-Related Stigma on Appreciation of Beauty and Excellence through Reappraisal in
LGB individuals

Table 58. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Prudence through Multiple Mediators in LGB individuals .... 264 Table 62. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Judgment through Multiple Mediators in LGB individuals.... 265 Table 63. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Prudence through Cognitive Flexibility in LGB individuals.. 266 Table 64. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Judgment through Cognitive Flexibility in LGB individuals . 267 Table 65. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

Table 67. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal

LGB-Related Stigma on Judgment through Social Support in LGB individuals ...... 273

Table 72. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal	
LGB-Related Stigma on Judgment through Reappraisal in LGB individuals	5

 Table 73. Bootstrapping Analyses to Examine the Indirect Effects of Three Levels of Stigma on

 Mental Distress through Multiple Mediators in LGB individuals

 276

 Table 74. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress

 through Curiosity in LGB individuals

 Table 75. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress

 through Appreciation of Beauty and Excellence in LGB individuals

 278

- Table 76. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress

   through Fairness in LGB individuals

   279
- Table 77. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress

   through Honesty in LGB individuals

   280

Table 78. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distr	ess
through Kindness in LGB individuals	. 281
Table 79. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distr	ress
through Prudence and Judgment in LGB individuals	. 282
Table 80. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distr	ess
through Prudence in LGB individuals	. 283
Table 81. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distr	ess
through Judgment in LGB individuals	. 284
Table 82. Bootstrapping Analyses to Examine the Indirect Effects of Three Levels of Stigma	on
Well-Being through Multiple Mediators in LGB individuals	. 285
Table 83. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Appreciation of Beauty and Excellence in LGB individuals	. 286
Table 84. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Fairness in LGB individuals	. 287
Table 85. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Honesty in LGB individuals	. 288
Table 86. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Kindness in LGB individuals	. 289
Table 87. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Curiosity in LGB individuals	. 290
Table 88. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Prudence and Judgment in LGB individuals	. 291

Table 89. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Prudence in LGB individuals	292
Table 90. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being	
through Judgment in LGB individuals	293
Table 91. Summary of Findings of the Current Study	294

# LIST OF FIGURES

Figure 1. Minority stress and stigma-related strengths processes in LGB individuals 296
Figure 2. Minority Stress, Stigma-Related Strengths, Mental Health, and Well-being Processes in
LGB Individuals
Figure 3. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma <sup>2</sup> and
Appreciation of Beauty and Excellence among LGB Individuals
Figure 4. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma <sup>2</sup> and
Curiosity among LGB Individuals
Figure 5. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma <sup>2</sup> and
Fairness among LGB Individuals
Figure 6. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma <sup>2</sup> and
Honesty among LGB Individuals
Figure 7. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma <sup>2</sup> and
Kindness among LGB Individuals
Figure 8. Linear (Negative) Relationship between Stigma and Prudence among LGB Individuals
Figure 9. Linear (Negative) Relationship between Stigma and Judgment among LGB Individuals

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xiv

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XV

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xvi

## DEDICATION

To my father who reminded me every day that I am his life. I miss you so very much. To my grandmothers and grandfathers who poured all their love on me. May you RIP. To my four cousins who left us so early reminding us the fragility of life. I miss you. To each and every LGB person who paved our way to a better and more equal society. To our strengths – those we know of and those we will get to know one day.

#### **INTRODUCTION**

#### 1.1. Problem Statement

Lesbian, gay, and bisexual (LGB) individuals are chronically exposed to minority stress due to the social stigma attached to their identities, ultimately leading to negative health outcomes (Hatzenbuehler, 2009; Meyer, 2003). A growing line of research concerning LGB individuals has, thus far, largely focused on understanding the many ways in which stigma operates to harm their lives and identities (Vaughan & Rodriguez, 2014). Consequently, little is known about the mechanisms that may explain the many cases of LGB people who thrive despite, and perhaps even as a result of, their stigmatized identity and stigma-related experiences (i.e., discrimination and marginalization). Hence, this study will employ a complementary, yet overlooked, approach to the study of stigma, which focuses on understanding how the experience of interpersonal LGB-related stigma can also produce beneficial outcomes for LGB individuals (Riggle & Rostosky, 2011; Shih, 2004). Such an investigation will further elucidate the dual nature of interpersonal stigma, specifically, its negative and (potential) positive consequences on the lives of LGB people.

The present study will draw on the distinct, yet related, literatures of stigma, minority stress, stress-related growth, and positive psychology (with a focus on character strengths) in an effort to test a conceptual model developed for this study, the Stigma-Related Strengths model. This model will illustrate the psychological processes leading from stigma (operationalized as LGB identity or perceived interpersonal LGB stigma) to the development of positive psychological attributes, specifically character strengths.

Moreover, character strengths are positively related to both mental health and well-being (Park, Peterson, & Seligman, 2004a). Therefore, the stigma-related strengths that will be identified in the current study will be further examined as possible mediators of the relationships between perceived interpersonal LGB-related stigma and both mental health and well-being among LGB individuals.

### 1.2. Dissertation Research Aims

- 1) To compare self-identified LGB and heterosexual individuals on character strengths.
- To identify the possible cognitive, affective, and interpersonal (i.e., social) mediators of the relationship between sexual identity (LGB vs. heterosexual) and character strengths.
- To examine the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals.
- To identify the possible cognitive, affective, and interpersonal (i.e., social) mediators of the relationship between perceived interpersonal stigma and character strengths among LGB individuals.
- To investigate which character strengths serve as mediators of the relationship between perceived interpersonal LGB-related stigma and mental health among LGB individuals.
- 6) To explore which character strengths may mediate the relationship between perceived interpersonal LGB-related stigma and well-being among LGB individuals.

#### LITERATURE REVIEW

### 2.1. LGB Health Disparities

Since questions about LGB identity are not typically included in national, populationbased surveys conducted in the U.S., it is still unknown what percentage of the population is LGB. Current estimates suggest that approximately 3.5-4.5% of U.S. adults self-identify as LGB, which implies that there are at least 9 million Americans who identify as LGB (Gates, 2011; Pew Research, 2015a). Despite the fact that a relatively low percentage of Americans self-identify as LGB, they experience many health disparities, which are disproportionate differences between LGB and heterosexual individuals in disease distribution. More specifically, LGB individuals experience higher rates of negative mental and physical health outcomes, as well as lower levels of well-being.

Research provides persuasive evidence regarding the higher prevalence of negative mental health outcomes among LGB individuals in comparison to heterosexual individuals. LGB mental health disparities include mood and anxiety disorders among LGB adults (Cochran & Mays, 2000a; 2000b; Cochran, Mays, & Sullivan, 2003; Gilman, Cochran, Mays, Ostrow, & Kessler, 2001; Sandfort, deGraaf, Bijl, & Schnabel, 2001) and LGB youth (D'Augelli, 2002; Fergusson, Horwood, & Beautrais, 1999; Fergusson, Horwood, Ridder, & Beautrais, 2005; Hatzenbuehler, McLaughlin, & Nolen-Hoeksema, 2008; Lock & Steiner, 1999; Russell & Joyner, 2001; Safren & Heimberg, 1999), attention deficit and hyperactivity disorder (Frisell, Lichtenstein, Rahman, & Langström, 2010), eating disorders (Meyer, Blissett, & Oldfield, 2001; Siever, 1994), and substance use, including alcohol, tobacco, and illicit drugs (Burgard, Cochran & Mays, 2005; Cochran, Keenan, Schober, & Mays, 2000; Drabble, Midanik, & Trocki, 2005;

Eisenberg & Wechsler, 2003; Hatzenbuehler, Corbin, & Fromme, 2008; Lee, Griffin, & Melvin, 2009; Mansergh et al., 2001).

LBG individuals, as a group, also face an array of negative physical health outcomes compared to heterosexual individuals (Lick, Durso, & Johnson, 2013). An ample amount of research studies reported a heightened prevalence of HIV and other sexually-transmitted diseases (such as chlamydia, gonorrhea, and syphilis) among gay, bisexual, and transgender individuals, especially those of color (Centers for Disease Control and Prevention, 2015); these higher rates represent the most significant HIV disparity in the United States. Other physical health disparities LGB individuals face include cardiovascular diseases (Fredriksen-Goldsen, Kim, & Barkan, 2012), asthma (Blosnich, Farmer, Lee, Silenzio, & Bowen, 2014), digestive problems (Cochran & Mays, 2007), obesity among lesbian and bisexual women in particular (Case et al., 2004; Denenberg, 1995; Diamant, Wold, Spritzer, & Gelberg, 2000; Haynes, 1995; Struble, Lindley, & Montgomery, 2010), and overall poor health (Eliason, 2014; Fredriksen-Goldsen, Kim, & Barkan, 2012; Frost, Lehavot, & Meyer, 2011). Higher rates of substance use and obesity might explain the suggestive yet limited data about the increased prevalence of anal, colon, lung, and breast cancer among LGB compared to heterosexual individuals (Dibble & Roberts, 2002, 2003; Frisch, Smith, Grulich, & Johansen, 2003; Grulich et al., 2007; Kavanaugh-Lynch, White, Daling, & Bowen, 2002). In addition, the co-occurrence of two or more adverse health outcomes, also known as comorbidity, is also heightened among LGB individuals compared to their heterosexual counterparts (Cochran et al., 2003; Fergusson et al., 2005; Sandfort et al., 2001).

LGB identity was framed as negatively affecting the health of LGB individuals in the early 1960's, when homosexuality was classified as a mental disorder in the Diagnostic and

Statistical Manual of Mental Disorders (DSM) by the American Psychiatric Association. Then, it was believed that gay and lesbian individuals were internally disordered and that their homosexuality was caused by traumatic events and psychological issues experienced earlier in their lives. This status was challenged by gay-affirmative research suggesting that gay men are not psychologically different from their heterosexual counterparts (Hooker, 1957). As a result, in 1973, homosexuality was removed from the DSM as a mental disorder and has since been considered a healthy expression of human sexuality. Following the removal of homosexuality from the DSM, the focus in LGB health research has shifted from the refuted internal pathology of LGB individuals to the negative consequences of homophobia on their health. In other words, instead of suggesting that LGB individuals experience health problems due to an internal pathology or disorder, research has suggested that the main reason for those health problems is the experience of stigma and discrimination because of their non-heterosexual identities.

### 2.2. <u>Stigma</u>

Stigma operates on three levels: structural, interpersonal, and intraindividual (e.g., selfstigma; Hatzenbuehler, Phelan, & Link, 2013). Although the different levels are interrelated (Bos, Pryor, Reeder, & Stutterheim, 2013), the social psychological study of stigma has focused on its interpersonal level (Hatzenbuehler, 2014). Therefore, in this section, I specifically discuss the dual nature of interpersonal stigma and its negative and possible positive consequences for its targets. Given the interrelationship between the three levels of stigma, I also elaborate on structural and self-stigma in relation to their effect on interpersonal stigma, as well as the potential beneficial outcomes of interpersonal stigma for its targets. Relevant theoretical and empirical studies with LGB individuals will also be noted.

#### 2.2.1. Interpersonal LGB-Related Stigma

In this review, interpersonal stigma refers to the direct experience and perception of devaluation and discriminatory treatment of a person because of their social identity (Hatzenbuehler, Phelan, & Link, 2013). Interpersonal stigma can be manifested in multiple ways, including social rejection and avoidance, verbal and physical violence, microaggressions, and nonevent stressors (i.e., anticipated experiences that do not materialize, such as not getting promoted because of one's LGB identity) (Balsam, 2003; Frost & LeBlanc, 2014; Herek, 1989, 2009; Herek & Garnets, 2009; Herek, Gillis, & Cogan, 1999; Gersten, Langner, Eisenberg, & Orzek, 1974 ; Meyer, Schwartz, & Frost, 2008; Nadal et al., 2011; Pearlin, 1999; Sue et al., 2007).

In his book, *Stigma: Notes on the Management of a Spoiled Identity*, Goffman (1963) theorizes stigma as an interpersonal phenomenon that emerges as a result of the tendency of people to categorize one another, especially if they appear to be qualitatively different from each other. He further suggests that in stigmatized individuals, the stigmatized attribute, whatever its nature, overshadows all other aspects of the person and becomes the single most important and defining characteristic of that person. Therefore, it is evident that the process of stigmatization bears dire consequences on the individual (Goffman, 1963). A stigmatized person is reduced "from a whole and usual person to a tainted, discounted one" (p. 3). In fact, "the person with a stigma is not quite a human" (p. 5). Based on this assumption, a wide variety of deleterious acts are exercised, such as discrimination, through which the stigmatized person's life chances are effectively reduced.

Although Goffman's (1963) analysis focuses on the injurious consequences of stigma on its targets, he also notes the ways in which stigma may facilitate the development of character

strengths. Goffman notes that the stigmatized individual "may also see the trials he has suffered as a blessing in disguise, especially because of what it is felt that suffering can teach one about life and people" (p. 11). This potential insight is reserved solely for stigmatized individuals who can then re-assess the limitations of non-stigmatized people, and thereby acknowledge and embrace their advantage over non-stigmatized people. While a burden at times, Goffman acknowledges the potential of enhancing one's social capital as a result of being a representative of a stigmatized group. He maintains that "in making a profession of their stigma, native leaders are obliged to have dealings with representatives of other categories, and so find themselves breaking out of the closed circle of their own kind" (p. 27).

When discussing stigma management strategies (e.g., passing, covering), Goffman claims that "a person who passes leads a double life" (p. 76) and that "given that the stigmatized individual in our society acquires identity standards which he applies to himself in spite of failing to conform to them, it is inevitable that he will feel some ambivalence about his own self" (p. 106). This sense of ambivalence may encourage stigmatized people to become more introspective and to constantly evaluate their identity and social status. Moreover, this ambivalence makes the stigmatized person "a scanner of possibilities" (p. 88) and "a critic of the social scene, an observer of human relations" (p. 111). In other words, the stigmatized person may develop a critical and unique standpoint regarding social life based on their<sup>1</sup> heightened sensitivity and attention to "features of interaction that might otherwise be too much taken for granted to be noted" (p. 104). Like Goffman, other scholars (Mayo, 1982; Sue, 2003) contend that stigmatization may render the individual ambivalent and conflicted, but it may also lead to increased social sensitivity and intelligence.

<sup>&</sup>lt;sup>1</sup> The word "their" will be used here instead of his/her in an effort to practice gender-inclusive, non-binary language.

Experimental evidence supports this interpretation of heightened sensitivity of stigmatized people to social cues, showing that socially rejected individuals are better detectors of genuine versus fake facial cues (e.g., smiling to perform happiness) compared to socially-included and control participants (Bernstein et al., 2008), have better memory for socially-relevant information (Gardner, Pickett, & Brewer, 2000), and are more mindful and empathic towards their interaction partners (Frable, Blackstone, & Scherbaum, 1990). Overall, Goffman's analysis of stigma demonstrates its essence as a 'double-edged sword,' as it most likely leads to negative outcomes for its targets (e.g., rumination and hypervigilance), but may also bring about enlightening and enriching experiences (e.g., insight and self-awareness) that can, in turn, cultivate character strengths among stigmatized individuals.

#### 2.2.2. Self-Stigma among LGB Individuals

Given the pervasiveness of structural and interpersonal stigma (Hatzenbuehler, Phelan, & Link, 2013), it is perhaps not surprising that many LGB individuals internalize stigma (Herek, Gillis, & Cogan, 2009). Among LGB individuals, a set of negative beliefs and attitudes towards LGB characteristics in oneself and in others is known as self-stigma or internalized homophobia.<sup>2</sup> Self-stigma is related to a plethora of negative psychosocial outcomes that affect the lives of LGB people (Newcomb & Mustanski, 2010). At the individual level, higher levels of self-stigma are linked to lower self-esteem (Cabaj, 1988; Herek, Cogan, Gillis, & Glunt, 1998; Kimmel & Mahalik, 2005; Rowen & Malcolm, 2002; Szymanski & Gupta, 2009), depression (Herek et al., 1998; Nicholson & Long, 1990), and suicidal ideation (Meyer, 1995). At the interpersonal level, high levels of self-stigma are correlated with distrust in people, rejection

<sup>&</sup>lt;sup>2</sup> Although the term internalized homophobia is more commonly used in the literature, I will refer to previous research on that topic as self-stigma. Given that both stigmatized and non-stigmatized individuals may internalize stigma, the term self-stigma is preferred when describing internalized stigma among stigmatized individuals (Herek, Saha, & Burack, 2013).

sensitivity, and social anxiety symptoms which may, in turn, lead to greater feelings of isolation and loneliness (Cabaj, 1988; Feinstein, Goldfried, & Davila, 2012; Finnegan & Cook, 1984), less disclosure of one's sexual orientation (Herek, Cogan, Gillis, & Glunt, 1998; Kahn, 1991; Nungesser, 1983; Ross & Rosser, 1996), and more experiences of discrimination (Feinstein, Goldfried, & Davila, 2012). Given that LGB individuals live in a heterosexist society (Neisen, 1993), self-stigma is a reasonable, yet undesired, response to oppression and discrimination (Kitzinger, 1997). In addition, negative outcomes resulting from self-stigma originate back to the structural and interpersonal levels of stigma, which in turn, largely engender self-stigma (Berg, Ross, Weatherburn, & Schmidt, 2013; Vogel, Bitman, Hammer, & Wade, 2013). That is, the negative consequences of self-stigma are not only a reflection of structural and interpersonal stigma, but also further exacerbate self-stigma.

#### 2.2.3. <u>Structural Stigma Affecting LGB Individuals</u>

Hatzenbuehler and Link (2014) recently defined structural stigma as a broader macrosocial structure that exists above and beyond individuals, but nonetheless influences their health through numerous mechanisms: institutional policies, cultural norms, and societal-level conditions. An example of structural LGB stigma is the fact that to this day, in many states in the U.S., LGB individuals can be fired because of their sexual identity. According to Link and Phelan (2001), stigma occurs when elements of labeling, stereotyping, cognitive separation into categories of *us* and *them*, status loss, and discrimination co-occur in a power situation that allows these components to unfold. They argue that people with greater resources of knowledge, money, power, prestige, and social connections are generally better able to avoid risks and adopt protective strategies (Link & Phelan, 1995). Therefore, they suggest that stigma is a fundamental cause of disease and health inequalities (Hatzenbuehler, Phelan, & Link, 2013; Link & Phelan,

1995). Similarly, Parker and Aggleton (2003) suggest a conceptualization of stigma as a social structure that leads to power differentials, and as a result, discrimination and inequalities. They further assert that we need to re-conceptualize stigma and discrimination as "social processes that can only be understood in relation to broader notions of power and domination" (Parker & Aggleton, 2003, p. 16), and this will be possible only if we understand that these social processes are "linked to the reproduction of inequality and exclusion" (p. 19).

Empirical evidence illuminates the detrimental impact of structural stigma on its targets. In an influential study on the impact of structural stigma on the health of LGB populations, Hatzenbuehler, McLaughlin, Keyes, and Hasin (2010) examined the impact of institutional discrimination (i.e., state-level policies prohibiting same-sex marriage) on the prevalence of psychiatric disorders among LGB populations. They reported a significant increase in different psychiatric disorders, such as mood disorder and generalized anxiety disorder, among LGB respondents living in states that banned same-sex marriage. These psychiatric disorders did not increase significantly among LGB respondents living in states *without* such laws, or among heterosexual individuals living in states with such laws. Many other studies have documented the negative effects of structural stigma on the health of LGB individuals (see Hatzenbuchler, 2014 for a review).

Scholars whose work has focused on the negative consequences of stigma (especially at the structural level) on its targets are not indifferent about its potential positive outcomes. Link and Phelan (2001) state that former conceptualizations of stigmatized individuals as mostly passive victims (e.g., Goffman, 1963) are lacking, as it is known that such individuals mobilize personal and social resources to resist stigma and its negative effects (e.g., Thoits, 2011). In addition, Hatzenbuehler, Phelan, and Link (2013) call for identifying current gaps in the stigma

literature that may be filled by applying the concept of stigma in novel ways that oppose existing paradigms, and thereby expand our understanding of stigma and its effect on health and psychological character. Parker and Aggleton (2003) also urge the need for conceptual and empirical elaborations on stigma that will inform future interventions promoting positive outcomes, such as community connectedness and mobilization, which in turn reduce the negative impact of stigma on health and identity. A study by Hatzenbuehler, Keyes, and McLaughlin (2011) pointed to the protective effect of structural indicators. They found that the prevalence of depression and anxiety disorders was significantly lower among LGB people living in states with higher concentration of same-sex couples, compared to LGB individuals living in states with lower concentration of same-sex couples. This study demonstrates how contextual (i.e., structural) indices may also serve as resilience factors.

#### 2.3. Minority Stress: A Comprehensive Model of LGB Stigma

Meyer (2003) offers a conceptual framework, the Minority Stress Model, which emphasizes the influence of sociocultural context on mental and physical health and is intended to serve as an explanation for the disproportionate burden of negative health outcomes (e.g., depression, substance use) among LGB compared to heterosexual populations. Meyer (2003) argues that LGB people are subjected to chronic additional stress burden alongside their general life stressors due to their stigmatized identity (i.e., membership in a stigmatized group). According to this model, both distal (e.g., discrimination) and proximal stressors (e.g., concealment, self-stigma) as well as a general hostile environment have deleterious consequences for sexual minorities. The minority stress model thus illustrates the trajectory through which macro-level structures influence interpersonal constructs, which in turn affect intra-individual (i.e., internalized) processes among LGB people. Specifically, this model

illuminates the various minority stress processes that link minority status (i.e., LGB identity) to adverse mental and physical health outcomes.

Although Meyer (2003) includes in his model the potential to develop positive mental health outcomes as a result of minority stress, he does not discuss this possible trajectory in his review. He also does not discuss the potential mechanisms (i.e., mediators) leading from LGB-related stigma to the development of positive outcomes. He does, however, discuss resilience factors that moderate the pathogenic impact of minority stress processes on one's health. Specifically, Meyer (2003) underscores the potential buffering effect of both individual-level (e.g., personality, hardiness) and group-level resilience factors, such as social support and community connectedness, as well as coping, and notes that minority stress and resilience interact in predicting health outcomes. Among other factors, Meyer (2003) claims that one's identity salience, centrality, valence (negative or positive), and integration with other identities will strongly determine the (negative or positive) impact of minority stress on the health and psychological character of LGB people.

Recent evidence supports the claim that identity centrality and salience among people with concealable stigmatized identities (e.g., LGB) are predictive of poor physical and mental health as mediated by high levels of distress (Quinn & Chaudoir, 2009). Meyer (2003) further suggests that personal identity can be "a source of strength" (p. 678) and as suggested by other scholars (e.g., D'Emilio, 1983), minority stress processes may present LGB individuals with opportunities for flourishing and growth, alongside a potentially injurious effect. Crocker and Major (1989) elaborate on the protective properties of stigma and argue that by adopting strategies and values that enhance their group, members of stigmatized groups counteract minority stress and protect their self-esteem. It is therefore plausible to assume that minority

stress may lead to both negative and positive health outcomes. This research study is designed with the intention to address this gap in the literature and conceptualization of the minority stress model by examining how minority stress processes may be linked to the development of character strengths among LGB people. As such, the study of stigma-related strengths processes among LGB people may serve as a complementary perspective to the minority stress model.

## 2.3.1. Extending Minority Stress Theory: The Psychological Mediation Framework

Extending minority stress theory, Hatzenbuehler's (2009) psychological mediation framework posits that research focusing on the health of LGB people must consider both groupspecific stressors and general psychological processes. According to the minority stress model (Meyer, 2003), holding a minority status causes stress which in turn leads to negative mental and physical health outcomes, whereas the psychological mediation framework places stigma-related stress first in the causal chain, creating deficits in risk-related psychological processes (e.g., emotion regulation) which in turn leads to psychopathology. Hatzenbuehler (2009) thus synthesizes different bodies of research into one model that urges LGB health researchers to examine the mechanisms (i.e., mediators) that link stigma-related stress to the development of internalizing and externalizing mental disorders, using the causal chain: stigma  $\rightarrow$  stress  $\rightarrow$ psychological mediators  $\rightarrow$  negative health outcomes. More specifically, Hatzenbuehler (2009) presents significant evidence on the mediating role of 3 groups of psychological processes in LGB health: (1) coping/emotion regulation (rumination and coping motives); (2) social/interpersonal (social isolation and social norms); and (3) cognitive (hopelessness, negative self-schemas, and alcohol expectancies).

Like Meyer's (2003) minority stress model, the focus of Hatzenbuehler's (2009) model is to explain how stigma may lead to negative health outcomes. Hence, he also does not discuss the

possibility of developing positive outcomes as a result of stigma-related stress. However, he does mention extant research on resilience (Fergus & Zimmerman, 2005, Garmezy, 1991; Rutter, 1993), suggesting that exposure to stress may also lead to the development of resilient responses and coping strategies that make the individual better capable of managing stigma-related stressors. Given that many members of stigmatized groups are resilient and content, the goal of stigma researchers is to predict which of them will remain vulnerable or thrive, as well as identifying the mediators in each of these trajectories (Quinn & Chaudoir, 2009). This study is intended to address this goal, specifically with regards to the development of character strengths.

### 2.3.2. Mediation versus Moderation Hypotheses

The stigma-related strengths model seeks to gain a better understanding of the mechanisms that may explain the association between interpersonal LGB-related stigma and character strengths among LGB individuals. Therefore, the current study calls for use of mediational theories and analyses. It should be noted that some of the hypothesized mechanisms of the development of stigma-related strengths (e.g., social support) may also serve as moderators of the interpersonal stigma-character strengths relationship. However, unlike moderators, mediators are considered to be caused by the predictor (i.e., interpersonal LGB-related stigma), and consequently explicate the association between the predictor and the outcome (e.g., stigma-related strengths) (Baron & Kenny, 1986; Hayes, 2009; Hayes & Preacher, 2010; Preacher, 2015). Moderation analysis is often used when testing conditional hypotheses, whereas mediation analysis is used for testing theories of process, as is the case with the stigma-related strengths model (Rucker, Preacher, Tormala, & Petty, 2011). Indeed, many social psychologists employ mediational models and analyses to further elucidate the psychological processes (i.e., cognitive, affective, and social)

that facilitate the development of a certain outcome by the activation of a specific independent variable (MacKinnon, Fairchild, & Fritz, 2007).

In testing the stigma-related strengths model, it may be argued that LGB individuals who regulate their emotions using rumination (i.e., brooding) strategies did so prior to experiencing interpersonal LGB-related stigma. This may be true, but the stigma-related strengths model postulates that experiencing such stigma will intensify the use of rumination after interpersonal LGB-related stigma experiences among LGB individuals. In turn, the increased use of rumination following the experience of interpersonal LGB-related stigma will statistically account for the relationship between interpersonal stigma and the development of character strengths among LGB individuals. Although both mediators and moderators may be conceptualized as mechanisms that explain the development of stigma-related strengths among LGB individuals, the primary focus of the stigma-related strengths is its mediational processes that may shed light on why interpersonal LGB-related stigma lead to character strengths. This is in contrast to moderation analyses that will examine processes that may increase or decrease the likelihood that interpersonal LGB-related stigma contribute to the development of character strengths among LGB individuals (Preacher, Rucker, & Hayes, 2007). Although the current study focuses on mediators, a discussion about identity-related constructs as potential moderators of the stigma-related strengths model is included in the future directions section (see pages 122-123).

#### 2.4. <u>Positive Psychology: A New Framework for Neglected Missions</u>

Positive psychology reminds us that psychology has neglected two of its fundamental missions: (1) enabling more fulfilling lives, and (2) identifying and nurturing human flourishing and talent (Seligman, 1998). This neglect created a significant gap in our understanding of

human growth and thriving. Positive psychologists address this gap by examining what goes right in life as opposed to what is wrong, and places an emphasis on fostering the mechanisms that allow flourishing (Seligman & Csikszentmihalyi, 2000). Positive psychology offers various valuable theoretical and methodological tools for the study of human strengths, virtues, and abilities (Dahlsgaard, Peterson, & Seligman, 2005; Seligman, 1998; Sheldon & King, 2001). It is suggested that these tools and methods can be of great value in understanding, improving, and empowering the lives of stigmatized groups, among them LGB people (Bonet, Wells, & Parsons, 2007; Vaughan & Waehler, 2010). In this section, I discuss the experience of growth as a result of facing stress and adversity (i.e., stress-related growth). I then elaborate on one of the major accomplishments of positive psychology, the classification of core virtues and character strengths, as one dimension of stress-related growth.

## 2.4.1. Stress-Related Growth

Adversity and stress are commonly thought to have only negative consequences on one's health and psychological character. However, a growing body of theoretical and empirical research suggests that experiencing adversity may lead to, at least for some people, positive outcomes. Many terms have been used to describe the same psychological phenomenon of experiencing positive changes as a result of stressful events and adversity, including: stress-related growth (Park, Cohen, & Murch, 1996), posstraumatic growth (Tedeschi & Calhoun, 1995), thriving (O'Leary & Ickovics, 1995), adversarial growth (Linley & Joseph, 2004), and benefit finding (Affleck & Tennen, 1996). Henceforth, I will refer to this phenomenon as growth.

Most people hold fundamental beliefs about the world they live in, including its benevolence, meaningfulness (i.e., justice), and self-worth. The sum of these beliefs is referred to as one's assumptive world, an internal cognitive-emotional schema that affords us the sense of

controllability, safety, and invulnerability (Jannof-Bulman, 1992, 1999; Lerner & Miller, 1978). Experiencing a traumatic/stressful event is thought to be tremendously damaging to oneself mainly because it has the capacity to shatter one's assumptive world and disrupt one's psychological equilibrium. On the other hand, this cognitive process also creates an opportunity for psychological growth. In order for growth to happen, one must rebuild/reconstruct their cognitive schemas and assumptive world in a way that integrates the traumatic/stressful experience (Janoff-Bulman, 1992; Tedeschi & Calhoun, 2004). Individuals who fail to positively accommodate the new information following the traumatic/stressful event into their existing (pre-trauma) cognitive schemas are rendered vulnerable to further fragmentation of their assumptive world and are prone to feelings of hopelessness and distress (Joseph & Linley, 2005). Conversely, those who manage to complete this integrative cognitive progress are more likely to experience growth.

Another contributor to growth is the severity of the stressful event. Previous research suggests an inverted U-shaped (i.e., curvilinear) relationship between stress and growth, such that moderate levels of stress are tied to maximal reports of growth (Linley & Joseph, 2004). This relationship likely results from that fact that low levels of stress may not prompt the cognitive processes (e.g., reintegration of shattered assumptions) required for growth, whereas high levels of stress may over-burden the individual and deplete their resources accordingly (Helgeson, Reynolds, & Tomich, 2006). Research also shows that in cases where high levels of stress facilitate growth, it is unlikely to be veridical and enduring (Dekel, Ein-Dor, & Solomon, 2012; Gunty et al., 2011; Zoellner, Rabe, Karl, Maercker, 2008).

It should be emphasized that the experience of stress is not sufficient to facilitate growth (Calhoun & Tedeschi, 2004; Joseph & Linley, 2005; Park, 2010). Rather, it is the process of

meaning-making, reevaluating, and reintegrating one's assumptive world with the stressful event that enables growth. These processes of self-reintegration are accompanied by intrusive thoughts, rumination, introspection, and coping efforts, and are therefore considered antecedents of growth (Frankl, 1963; Park, 2008; Tedeschi & Calhoun, 1995). In fact, positive outcomes of stress (i.e., growth) usually co-exist with its negative outcomes (Folkman, 1997; Schaefer & Moos, 1992; Shakespeare-Finch & Lurie-Beck, 2014; Tedeschi & Calhoun, 1995). Put differently, following a traumatic/stressful event, one could experience psychological growth *alongside* negative stressrelated symptoms such as psychopathology (Tedeschi & Calhoun, 1995). These laborious and oftentimes painful mental processes potentially leading to growth are facilitated by personal resources (e.g., self-efficacy, cognitive flexibility) and access to social resources (e.g., social support) (O'Leary & Ickovics, 1995; Park, 1998; Tedeschi & Calhoun, 1995).

Generally, growth is defined as an internal transformation in one's understanding of the world manifested through the reconstruction of new beliefs, goals, and identities (Janoff-Bulman, 1999; Park, 2010). This internal transformation, i.e., growth, may be manifested in numerous dimensions and aspects of the human experience, as demonstrated by previous theoretical and empirical studies (Tedeschi & Calhoun, 1996). Growth is therefore conceptualized as a multidimensional construct. One of most frequently established growth domains is personal strength (i.e., positive changes to the self) or the development of positive psychological attributes (Antebi, 2014; Fromm, Andrykowski, & Hunt, 1996; Joseph & Linley, 2008; Massey, Cameron, Ouelette, & Fine, 1998; Park, Cohen, & Murch, 1996; Schwarzer & Knoll, 2003; Siegel & Schrimshaw, 2000; Taylor, 1983; Taylor, Lichtman, & Wood, 1984). Given that character strengths are defined as multidimensional positive psychological attributes reflected in

cognitions, emotions, and behaviors (Park et al., 2004), it is plausible to classify the development of character strengths as a result of facing adversity as a growth domain.

## 2.4.2. Character Strengths

Character strengths are one of the three main pillars of the positive psychology as conceptualized by Seligman and Csikszentmihalyi (2000). They are considered as trait-like qualities that develop throughout one's life course and can be fostered by cultural and social institutions (Peterson & Seligman, 2004). A total of twenty-four character strengths, grouped into six core virtues (Table 1), were determined as universal across various cultures, nations, and ideologies (Dahlsgaard et al., 2005), and are treated as individual differences given the fact that they exist in degrees (Park, Peterson, & Seligman, 2004a). The 24 character strengths were identified after a thorough and comprehensive review of seminal philosophical, psychological, and theological literatures that informed strict selection criteria that consisted of the following parameters for a strength classification: (1) ubiquitous and widely recognized across cultures; (2) fulfilling and contributes to individual self-realization, life satisfaction, and happiness broadly construed; (3) morally valued in its own right and not for tangible outcomes it may produce; (4) does not diminish others and instead elevates others who witness it; (5) has non-felicitous and obvious antonyms that are negative; (6) trait-like individual difference with demonstrable generality and stability; (7) has been successfully measured by researchers as an individual difference; (8) distinct and not redundant (conceptually or empirically) with other character strengths; (9) has paragons and is strikingly embodied in some individuals; (10) has prodigies and is precociously shown by some children or youths; (11) can be selectively absent and missing altogether in some individuals; and (12) has enabling institutions that deliberately target its cultivation (Peterson & Seligman, 2004).

By their nature, all character strengths are considered to be desired characteristics and to have an overall positive effect on one's health and well-being. That is, there is no one character strength that is "better" than the others in any given context. Instead, as noted by leading scholars in the field of positive psychology, the inquiry of character strengths and its link to health and well-being should focus on answering what are the chief character strengths for a certain purpose and by what criteria (Park, Peterson, & Seligman, 2004). Put differently, some character strengths might have a more robust effect on a specific outcome than others. For example, when examining academic performance among middle school students, perseverance emerged as the chief character strength (Duckworth et al., 2007), whereas the character strength of love best predicted a secure style of attachment in adults (Park, Peterson, & Seligman, 2004). This premise implies that the outcome of a specific study should dictate what character strengths would be explored, along with theoretical and empirical justification. In the case of the stigma-related strengths model, certain character strengths are also probably more likely to be associated with the experience of interpersonal LGB-related stigma, including fairness, kindness, and creativity, among others. A detailed discussion about these hypothesized relationships is included in the section noting the previous studies conducted about the stigma-related strengths of LGB individuals (see pages 29-30).

The findings of another study by Peterson, Park, and Seligman (2006) might shed light on the relationship between stress and the building of character strengths. In their study, they reported that coping with a mental illness develops character strengths, such that participants with a history of mental illness scored higher on kindness, judgment, and social intelligence compared to participants who had not recovered from or had no history of mental illness. This finding suggests that character strengths may be considered as a form of growth. Interestingly,

studies also showed that people who were high on kindness, judgment, and social intelligence held more positive attitudes towards people with mental illness, that is, they scored lower on stigma of mental illness (Ewalds-Kvist, Högberg, & Lützén, 2013; Vertilo & Gibson, 2014).

Character strengths have been found to mitigate (i.e., moderate) the negative consequences of stress. Like growth, they may co-exist alongside negative outcomes resulting from facing adversity (Park, 2004). Previous studies suggest that one's character strengths are related to their satisfaction with life, which may be considered as a growth dimension (Park, Peterson, & Seligman, 2004b). A related study found that bravery, kindness, humor, appreciation of beauty, and love of learning mediated the association between having a physical/mental disability and life satisfaction (Peterson, Park, & Seligman, 2006). Another study found small, but positive linear associations between: (1) number of traumatic events and character strengths scores; (2) number of traumatic events and growth scores; and (3) character strengths and growth (Peterson et al., 2008). Unfortunately, the authors did not test for curvilinear relationships between number of traumatic events, character strengths, and growth.

In a study about the positive effects of collective trauma on character strengths, Peterson and Seligman (2003) found an increase in 7 of the 24 character strengths among participants who completed the survey in the two months immediately after terrorist attacks on New York City on September 11, 2001 in comparison to participants who completed the survey before September 11. A follow-up assessment 10 months after September 11 still revealed higher, yet slightly reduced, scores on the same 7 character strengths. Given the study sample size (n=4,817), its findings may be interpreted as community-level growth (Bloom, 1998). Another study examined the relationship between humility (i.e., character strength) and enthusiasm about life (i.e., a dimension of well-being), where it was found that trauma (measured by the experience of

traumatic events, such as natural disasters or a serious illness) moderated this relationship, such that with increasing trauma, the association between humility and enthusiasm about life was strengthened (Park, Peterson, & Seligman, 2004). This study's findings lend further support to the relationship between trauma, growth, and character strengths.

More and more studies examine the presence of character strengths across cultures and countries, including the United Kingdom (Linley et al., 2007), South Africa (Van Eeden, Wissing, Park, & Peterson, 2008), and Israel (Littman-Ovadia & Lavy, 2012), as well as similarities and differences between different cultures, such as between Japan and the U.S. (Shimai, Otake, Park, Peterson, & Seligman, 2006) and Switzerland and the U.S. (Peterson, Ruch, Beermann, Park, & Seligman, 2007). Previous research has also looked at character strengths across various populations, such as college students (Lounsbury, Fisher, Levy, & Welsh, 2009), children (Park & Peterson, 2006, adolescents (Steen, Kachorek, & Peterson, 2003), and combat veterans (Kashdan, Julian, Merritt, & Uswatte, 2006), among others. Notably, one study consisted of two community samples differing in gender, age, occupation, and religiosity found different mean scores of character strengths; this finding suggested that some sociodemographic factors may have an effect of the endorsement of character strengths (Littman-Ovadia & Lavy, 2012). Additionally, this finding calls into question the universality of character strengths, and urges character strengths researchers to examine the plausible effects of various sociodemographic factors in their studies, such as sexual and gender identity, on character strengths (Blankenship, 1998). In spite of compelling evidence regarding the potential positive effects of stigma on one's identity and psychological character, no studies have examined the possible association between stigma and character strengths, especially among LGB people. In fact, no studies have investigated the existence of character strengths in LGB populations.

In sum, despite calls for the examination of the relationship between stress and character strengths (Schuldberg, 2007), the relationship between stigma and character strengths remains to be further elucidated. The current study will examine the relationship between holding a stigmatized identity and character strengths, as well as the relationship between perceived interpersonal LGB-related stigma and character strengths. In light of the evidence for the inverted U-shaped relationship between stress and growth as discussed earlier, the same relationship is hypothesized for the relationship between stigma and character strengths. Furthermore, although prior studies point to the potential association between interpersonal stigma and certain character strengths among LGB individuals (e.g., fairness), the present study will test all 24 character strengths as potentially related to stigma among LGB individuals and as possible mechanisms that facilitate their health and well-being. This is mainly due to the exploratory nature of the current study.

# 2.5. <u>Stigma-Related Strengths: Integrating Distinct, Yet Related, Literatures</u>

This study draws on the distinct, yet related, literatures of stigma, minority stress, stressrelated growth, and character strengths in an effort to create a conceptual model, the stigmarelated strengths model, which illustrates the psychological processes leading from holding an LGB identity to the development of character strengths. Combining the aforementioned literatures in relation to LGB individuals, I therefore suggest the causal path presented in Figure 1. The conceptual model of stigma-related strengths addresses calls for the development of a coherent framework for the study of LGB strengths as psychology is at a disadvantage in providing scientifically informed perspectives on these strengths (Bonet et al., 2007; Domínguez, Bobele, Coppock & Peña, 2015; Horne, Puckett, Apter, & Levitt, 2014; Moradi et al., 2009; Savin-Williams, 1990, 2001b, 2005, 2008; Vaughan & Rodriguez, 2014).

Similar to the minority stress model and psychological mediation framework, the stigmarelated strengths model is a *possible* trajectory, meaning that not all LGB individuals will develop character strengths (i.e., experience growth), just as not all LGB individuals will develop negative health outcomes due to their stigma-related stress. In the following section, I discuss previous research supporting the various aspects of stigma-related strengths processes among LGB individuals.

## 2.5.1. Stigma-Related Strengths Among LGB individuals

One of the growth constructs that is especially relevant to the study of stigma-related strengths among LGB individuals is Coming Out Growth (Bonet, Wells, & Parsons, 2007; Vaughan & Waehler, 2010). There is abundant evidence suggesting that coming out (i.e., sharing one's LGB identity with others) as LGB can be both stressful and growth-enhancing (Berger, 1990; D'Augelli, Grossman, & Starks, 2006; Meyer, 2003; Riggle & Rostosky, 2011; Ryan, Huebner, Diaz, & Sanchez, 2009; Shilo, Antebi, & Mor, 2014). Conversely, concealing one's identity typically has detrimental mental health effects on LGB individuals (see Pachankis, 2007 for a review). Based on existing literature about the experience of coming out as LGB, Vaughan (2007) identified five coming out growth domains: (1) honesty/authenticity; (2) personal/social identity; (3) mental health/resilience; (4) social/relational; and (5) advocacy/generativity. A subsequent factor analysis of the Coming Out Growth scale developed by Vaughan and Waehler (2010) revealed only two factors that were ultimately termed individualistic and collectivistic growth. Similar to the fourth growth domain identified by Vaughan and Waehler (2010), Berger (1990) found that 63% of gay and lesbian participants in her sample reported that coming out strengthened their same-sex relationships.

Coming out as LGB is only one of many minority stressors that may concurrently present opportunities for growth. In a series of pioneering qualitative studies exploring the positive aspects of lesbian, gay, bisexual, transgender and queer (LGBTQ) people, Riggle and Rostosky (2011) found the following eight positive themes as reported by LGBTQ-identified people: (1) authenticity; (2) self-awareness, personal insight, and personal growth (including spiritual growth); (3) freedom from existing rules and creating new ones (mainly gender and sex norms); (4) stronger emotional relationships with others; (5) freedom to explore relationships and sexuality; (6) compassion and empathy; (7) being a mentor/role model and engaging in activism; and (8) belonging to an LGBTQ community.

Previous studies examining the positive aspects of stigma among LGB are consistent with the themes found in Riggle and Rostosky's studies (2011). For instance, Antebi (2011) reported that LGB participants scored higher on measures of authenticity and empathy compared to heterosexual participants, confirming the first and sixth themes identified by Riggle & Rostosky (2011). Frost (2011) also found that same-sex couples view the lack of prescribed norms and expectations about relationships among LGB individuals as an opportunity for creating and reinventing the ideal trajectory for them, a replication of Riggle and Rostosky's (2011) fifth theme. Meyer, Ouellette, Haile, and McFarlane (2011) asked LGB participants in a qualitative study to imagine a world without stigma. Interestingly, participants noted that such a world would bring "an imagined loss of some essential and positive aspects of themselves" (p. 208) and "they would not be who they are now" (p. 210). Like Riggle and Rostosky (2011), they reported the participants' construal of belonging to a community of like-minded people as a positive aspect of their stigmatized identity (Meyer et al., 2011). Harper, Brodsky, and Bruce's (2012) qualitative investigation of gay and bisexual male adolescents' positive aspects of their sexual identity also revealed community connectedness as a positive aspect of being gay/bisexual. They identified themes of rejection of stereotypes, corresponding with the third and fifth themes presented by Riggle & Rostosky (2011), and activism, replicating the seventh theme (Harper, Brodsky, & Bruce, 2012). Participants in two other qualitative studies noted activism, community connectedness, and increased personal agency as positive aspects of being gay/bisexual (Antebi, 2014; Massey, Cameron, Ouelette, & Fine, 1998).

In a qualitative content analysis study of the videos posted for the Trevor Project's social media campaign "It Gets Better" (that was launched in response to the numerous consecutive suicide incidents of LGBTQ youths in 2010-2011), one of the themes was turning life challenges to opportunities for growth and the building of character strengths. Among the strengths mentioned by participants in the various videos were compassion and empathy, personal strength, and a heightened sense of resilience in managing future stress and challenges (Asakura & Craig, 2014)

Qualitative studies focusing on members of particular sub-groups within the LGBTQ community also identified similar strengths and positive aspects. For example, one study noted that butch-identified women reported various strengths of being butch, including freedom from mainstream gender stereotypes, camaraderie with male and female members of the butch community, and access to leadership roles (Levitt & Hiestand, 2004). A qualitative study with femme-identified women revealed a heightened sensitivity to social injustice and egalitarian relationships as strengths of being femme (Levitt, Gerrish, & Hiestand, 2003). A different study about the male bear culture within the gay and bisexual community found that valuing nurturance and deep intimacy between men was a common strength identified by bear-identified men (Manley, Levitt, & Mosher, 2007). Similarly, gay and bisexual members of the leather

community reported a sense of pride from belonging to a community of leathermen, in addition to trustful and loyal relationships with other men (Mosher, Levitt, & Manley, 2006). These positive aspects and strengths are clearly similar to the ones identified in Riggle and Rostosky's (2011) series of qualitative studies.

Related to Riggle and Rostosky's third and fifth theme (2011), Brown (1989) contends that the lack of clear rules and role models for LGB people forced the creative invention of useful alternatives in forging an identity and in overcoming daily struggles. She calls this common aspect of reality among LGB individuals normative creativity. Brown (1989) further suggests that LGB individuals are simultaneously members of the heterosexual and nonheterosexual cultures. This sense of biculturalism may create different, and sometimes even contradicting, perceptions of oneself and society (LaFramboise, Coleman, & Gerton, 1993). As discussed earlier, this point relates to Goffman's (1963) argument about the ambivalence that stigmatized individuals may have about their own selves. Still, Brown (1989) argues that along with the conflicts that arise due to this constantly shifting experience of living, this sense of biculturalism (or ambivalence, in Goffman's words) may also stimulate a more flexible and complex perspective which avoids an "either/or" proclivity. Simply put, being able to partake in two divergent cultures may prompt cognitive flexibility. Indeed, Antebi (2011) found higher levels of cognitive flexibility among LGB individuals compared to heterosexual people. It is commonly believed that cognitive flexibility and creativity are essential qualities that allow one's easier adjustment and accommodation to different situations and conditions in life (Anderson, 1998; Martin & Rubin, 1995; Plummer, 1975; Sue, 2003). We can thus conclude that the experience of marginality and feeling of "otherness" enables LGB people to develop more critical and multidimensional viewpoints (Brown, 1989; Daly, 1973; Harding, 1986), and in

doing so, they challenge conventional beliefs, theories and points of view. Frable (1993) discovered that individuals with concealable stigmatized identities (e.g., LGB) are more likely to feel unique and less likely to perceive a consensus between their personal preferences and those of others. Relatedly, in his study about the strengths of gay male adolescents, Anderson (1998) argued that their sense of "otherness" led to an introspective process, which in turn provided a deeper understanding of their selves and sociocultural environments. Savin-Williams (2001a, 2008) also maintains that identity formation processes and the challenges with which LGB people have to cope with lead to greater introspection and insight. Thus, self-awareness and personal insight, as suggested by Riggle & Rostosky (2011), may serve as facilitators (i.e., mediators) of growth. It was postulated that holding a unique and unconventional perspective may reinforce a better psychological adaptation and thus can serve as a protective and growth-inducing factor for LGB people (Anderson, 1998; Moradi, Mohr, Worthington, & Fassinger, 2009; Plummer, 1975).

In the same vein, Unger (2000) expands on Mayo's concept of positive marginality (1982), which is defined as the ability to view one's stigmatized attributes as positive aspects of their identity, and thereby promotes feelings of personal empowerment, resilience, and agency. Additionally, positive marginality supports the notion that "injustice is rooted in structural processes rather than personal inadequacy" (Unger, 2000, p. 177). Therefore, positive marginality may be a precursor for growth among stigmatized populations, and especially LGB people. Similar to the concept of positive marginality, Oyserman and Swim (2001) present two models of resilience in the face of stigmatization, one of which, the empowerment model, suggests that stigmatized individuals actively make sense of the social world and create positive outcomes (e.g., self-efficacy) that facilitate personal transformation and growth.

As mentioned earlier, the current study explores the relationship between perceived interpersonal LGB-related stigma and all twenty-four character strengths as potential stigmarelated strengths. However, in light of the previous studies discussed above, it is probable that certain character strengths will be associated with interpersonal LGB-related stigma, whereas others may not. In particular, I hypothesize that the following character strengths will be related to interpersonal LGB-related stigma: social intelligence, creativity, honesty, fairness, openmindedness (i.e., judgment), kindness, and love. Below, I briefly summarize the relevant literature to support these hypotheses based on previously reviewed research studies.

Goffman (1963) argued that members of stigmatized groups, including LGB individuals, may be particularly socially intelligent as their stigma-related experiences make them highly critical social readers. Like Goffman, other scholars (Anderson, 1998; Mayo, 1982; Sue, 2003) contend that stigmatization may lead to heightened social sensitivity and intelligence. Therefore, it is likely that interpersonal LGB-related stigma would be related to social intelligence among LGB individuals.

LGB individuals are also thought to be creative mainly because of their stigma-related experiences. For instance, Brown (1989) claimed that because LGB individuals live in a heteronormative society, they must develop creative alternatives in order to adapt to a restricting environment. Other studies lend support to this hypothesis, suggesting that LGB individuals engage their creativity to facilitate their self-expression and uniqueness (Frost, 2011; Harper, Brodsky, & Bruce, 2012; Levitt & Hiestand, 2004; Riggle & Rostosky, 2011). Relatedly, authenticity and honesty are also related to the stigma-related experiences of LGB individuals as reported in several of the aforementioned studies (Antebi, 2011; Riggle & Rostosky, 2011; Vaughan, 2007; Vaughan et al., 2014). These studies mainly discuss issues of honesty and

authenticity of LGB individuals with regards to self-disclosure of their LGB identity and being sincere with others

Because LGB individuals face many incidents of unfairness and injustice, they tend to hold a fair perspective and remain open-minded towards others (Levitt, Gerrish, & Hiestand, 2003; Riggle & Rostosky, 2011). Such positive traits are also linked to the heightened sense of compassion and kindness LGB individuals demonstrate (Antebi, 2011; Asakura & Craig, 2014; Riggle & Rostosky, 2011). The same mechanisms and processes leading to their fair and compassionate perspective may also be possibly facilitative of their egalitarian viewpoint on relational matters and profound valuing of loving and being loved (Berger, 1990; Frost, 2011; Levitt, Gerrish, & Hiestand, 2003; Manley, Levitt, & Mosher, 2007; Mosher, Levitt, & Manley, 2006; Riggle & Rostosky, 2011).

In sum, based on the studies discussed above, it is probable to assume that LGB individuals possess many character strengths, such as open-mindedness (i.e., judgment), honesty, fairness, kindness, and creativity, among others. Moreover, it is evident that stigmatization and marginalization do not necessarily lead to negative and unfortunate consequences. In fact, membership in a stigmatized group may protect one's self-esteem (Crocker & Major, 1989), and even help transform negative experiences into positive traits and a sense of well-being. Indeed, positive self-concept is a critical factor in efficacious adaptation in the context of adversity (Masten, 2001), and a robust contributor to one's well-being and adjustment (Frable, Wortman, & Joseph, 1997; Luhtanen, 2002).

It should be explicitly stated that the investigation of the positive consequences of stigma, such as the present study, is *not* intended, by any means, to justify, legitimize, or approve any kind of stigma. In addition, this line of research does *not* diminish or disregard peoples' suffering

because of stigma, *nor* is its goal to replace the current discourse about stigma. Rather, the primary goal of this investigation is to complement the existing discourse on stigma by exploring growth outcomes among LGB people, an examination that will further elucidate the dual nature of stigma and its consequences.

## 2.5.2. <u>Mediators of Stigma-Related Strengths Among LGB individuals</u>

Existing conceptualizations of stress-related growth emphasize the interactive effect of access to personal (i.e., cognitive and emotional-affective) and social resources (e.g., social support; Armeli, Gunthert, & Cohen, 2001; O'Leary & Ickovics, 1995; Park, 1998; Schaefer & Moos, 1992; Tedeschi & Calhoun, 1995; Waysman, Schwartz, & Solomon, 2001). In this section, I will briefly describe 3 potential mediators of stigma-related strengths that will be explored in this study representing three resource clusters: cognitive flexibility (cognitive), emotion regulation (emotional-affective), and social support (social).

## 2.5.2.1. Cognitive Resources: Cognitive Flexibility

The challenges imposed on members of stigmatized groups, such as LGB people, create an ever-threatening environment that requires adaptive and flexible responses in order to experience growth (Tennen & Affleck, 1998). In order to display behavioral flexibility, one must be cognitively flexible (Parks, 1994). According to Martin & Rubin (1995), "cognitive flexibility relates to a person's (a) awareness that in any given situation there are options and alternatives available, (b) willingness to be flexible and adapt to the situation, and (c) self-efficacy in being flexible" (p. 623). Therefore, being cognitively flexible is not only having the ability to recognize the different choices underlying any situation and condition, but also expressing readiness to demonstrate behavioral flexibility, and believing in one's capacity to perform accordingly. In other words, cognitive flexibility encompasses a wide and complex viewpoint

(Schroder, Driver, & Streufert, 1967), as well as self-confidence in effectively acting and adapting to different situations, contexts and needs (Bandura, 1977).

Cognitive flexibility was proposed to enable adaptive coping with internal and external stressors, and thereby leads to more positive and desired outcomes, such as higher self-esteem and positive mental health (Koesten, Schrodt, & Ford, 2009). Additionally, cognitive flexibility is a required skill in competent interpersonal communication (Spitzberg, 2003), which is in turn positively related to experiencing higher levels of psychological, emotional, and physical wellbeing (Segrin & Flora, 2000). As a significant and valuable human trait, cognitive flexibility is positively related to self-compassion (Martin, Staggers, & Anderson, 2011), interaction involvement, self-monitoring (Martin & Rubin, 1995), adaptability (Hullman, 2007), general conversational sensitivity (Chesebro & Martin, 2003), interpersonal communication competence (Rubin & Martin, 1994), and most importantly, adaptive, reappraisal coping strategies (Ahn, Kim, & Park, 2008). Cognitive flexibility is also positively related to higher self-esteem, life satisfaction, and optimism (Mellor, Cummins, Karlinski, & Storer, 2003), as well as with the tendency to forgive others (Thompson et al., 2005), personal insight (Grant, Franklin, & Langford, 2002) and overall social flexibility (Singelis, Hubbard, Her, & An, 2003). Cognitive flexibility is negatively linked to dogmatism, rigidity, and unwillingness to communicate (Martin & Rubin, 1995; Martin, Staggers, & Anderson, 2011). Based on Beck's (1967) theory, inflexible and immutable cognitions together with generalized negative thoughts may cause psychological disorders, such as depression and anxiety. Hence, it may be assumed that cognitive flexibility stimulates positive thinking as well as positive coping responses that may in turn facilitate the development of character strengths (Bilgin, 2009).

As suggested earlier, the experience of stigma (i.e., "otherness") may lead to the development of cognitive flexibility among LGB individuals, given their bicultural (or multicultural if they belong to more than one disenfranchised group) perspective based on their participation in the heterosexual and nonheterosexual cultures (Brown, 1989). Holding a bicultural (or multicultural) viewpoint may lead to bicultural self-efficacy, which is defined as the ability to successfully navigate and manage participation in more than one culture, and was theorized as a possible mediator of mental health and well-being (David, Okazaki, & Saw, 2009). One study found that bisexual participants score higher in cognitive flexibility than heterosexual, gay, and lesbian individuals (Konik & Crawford, 2004), whereas other studies failed to show this sexual identity difference in a sample comprised of LGB and heterosexual participants (Moore & Norris, 2005; Zinik, 1983). However, Moore and Norris (2005) found a significant positive correlation between cognitive flexibility and androgyny (possessing both male and female characteristics; Bem, 1974), replicating Carter's (1985) findings concerning this relationship. Brewster et al. (2013) found that cognitive flexibility moderated the relationship between stigma and mental distress, as well as between stigma and well-being among bisexual people. Despite theoretical evidence suggesting that LGB individuals will develop a cognitively flexible perspective, Brewster et al. (2013) tested cognitive flexibility as a moderator, and not a mediator. However, taken together, the aforementioned theoretical suppositions and empirical findings lend substantial support to the role cognitive flexibility plays in well-being, as well as to its possible mediating role in the stigma-character strengths causal path.

## 2.5.2.2. Emotional-Affective Resources: Emotion Regulation

Emotion regulation refers to conscious and unconscious strategies and processes "by which we influence which emotions we have, when we have them, and how we experience and

express them" (Gross, 2002, p. 282). Since one's well-being is inextricably linked to their emotional-affective state, the different emotion regulation strategies they employ matter (Gross, 2002). Given that LGB individuals experience stigma-related stress in addition to general stressors (Meyer, 2003), it is inevitable that they use emotion regulation strategies in order to manage their emotional responses. One such strategy may be rumination, which is defined as one's tendency to repetitively and passively focus on experiencing distress and its consequences (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Indeed, Hatzenbuehler (2009) provides ample evidence to the mediating role of rumination in the stigma-psychopathology relationship among LGB individuals. Suppression, which is defined as an effort to reduce emotional expressivity (Gross, 1998a,b), is another well-studied emotion regulation strategy that may be related to stigma-related strengths and well-being among LGB individuals. Indeed, a study of 473 mostly gay and bisexual women found that suppression strategies mediated the relationship between self-stigma and distress (Szymanski & Henrichs-Beck, 2014).

However, rumination may also have positive consequences on one's character and wellbeing. In their model of posttraumatic growth, Tedeschi and Calhoun (1995) considered both automatic and deliberate rumination to be a crucial step in facilitating growth after experiencing a traumatic/stressful event, a conceptualization that was supported later in empirical research. For example, brooding (a severe case of rumination) was found to mediate the relationship between distress and growth among sexual assault survivors (Stermac, Cabral, Clarke, & Toner, 2014). Other emotion regulation processes were also found to be predictive of growth. In a study among cancer survivors, expressive revealing (compared to expressive suppression) as well as positive affect predicted growth (Yu et al., 2014).

One of the most adaptive and common forms of emotion regulation is reappraisal (or reinterpretation/reattribution) of the negative conditions to positive and empowering experiences (Gross, 1998a,b; Gustems & Calderon, 2013; Meyer, 2003; Siegel, Schrimshaw, & Pretter, 2005; Thoits, 1985). Indeed, LGB people counteract stressful experiences by establishing alternative structures and values that enhance their group (D'Emilio, 1983; Crocker & Major, 1989; Pendragon, 2010). Recently, reappraisal was also noted as a primary dimension of resilience among LGB individuals (Kwon, 2013). Unlike suppression (i.e., reducing emotion expressivity), reappraisal was found to have positive affective, cognitive, and social consequences in a series of experimental studies (John & Gross, 2004). Not surprisingly, positive reappraisal was conceptualized as a precursor of growth, a claim that is now well-supported by prior research. For example, in a study of gay and bisexual men caregiving for their HIV-positive partners, Folkman (1997) found reappraisal to be associated with positive states, and speculated that these reappraisal efforts may have helped the study participants reevaluate the traumatic/stressful event in a more positive light, which in turn facilitated positive emotions. Sears, Stanton, and Danoff-Burg (2003) found that positive reappraisal at baseline predicted growth, perceived health, and perceived mood at 12 months among women with early-stage breast cancer, an illness to which stigma is attached (Peters-Golden, 1982).

Emotion regulation is one form of self-regulation. Although self-regulation is one of the 24 character strengths, no studies have examined the relationship between emotion regulation and the development of character strengths. Moreover, a recent review on the topic of LGB resilience and emotion regulation strategies concluded that there is a need for more quantitative research examining the use of rumination, reappraisal, and suppression in LGB individuals (Hill & Gunderson, 2015). In light of the evidence presented above suggesting the mediating role of

various emotion regulation strategies in growth, it is probable to assume that emotion regulation strategies will serve as mediators of stigma-related strengths among LGB individuals.

## 2.5.2.3. Social Resources: Social Support across Various Levels

Social support is the perception and experience of being loved and cared for by others, respected and valued, and a member of social networks that provide mutual assistance as well as obligations (Wills, 1991). There are multiple forms of social support, including informational, instrumental, emotional, functional, familial, and structural, that are beneficial to members of stigmatized groups (Taylor, 2007). The buffering (i.e., moderating) role of social support in the relationship between stigma and health disparities is well-supported (Meyer, 2003), such that it was conceptualized as a fundamental cause of health and illness (Link & Phelan, 1995), and like reappraisal, was proposed as one of three principal resilience factors among LGB individuals (Kwon, 2013). However, there is reason to believe that social support is also a mediator of the stigma-health relationship, lending support to its mediating role in the possible causal chain leading from stigma to character strengths. For example, a recent study of Romanian immigrants to Spain found social support to mediate the relationship between perceived discrimination and psychological well-being (Fernández et al., 2015). Link et al. (1997) document the effects of stigma on social isolation, which serves as a barrier to social support among members of stigmatized groups. As discussed earlier, Hatzenbuehler (2009) also notes the mediating role of social isolation and rejection (versus social support) as manifested across various levels (e.g., interpersonal, structural) between stigma and the development of negative health outcomes among LGB people. Other studies documented the adverse effects of social rejection and exclusion on forging a positive LGB identity (Frable, Wortman, & Joseph, 1997; Rosario, Schrimshaw, & Hunter, 2008).

On the other hand, much evidence exists to conclude that various levels of support (e.g., interpersonal, familial, community) enable the development of character strengths among stigmatized individuals in general, and LGB individuals in particular. Community connectedness is one level of social support that is well-documented to promote positive adaptation and wellbeing among LGB individuals. Community connectedness provides the individual with a sense of belonging to a larger collective; close relationships with fellow collective members; satisfaction of one's personal needs; and opportunities for personal and community empowerment (McMillan, 1996). In other words, belonging to a community of like-minded people who share the same fate of being stigmatized "provides a basis for giving, receiving, and benefiting from social support that provides individuals with the emotional, intellectual, and material resources to cope with and resist the injustice of discrimination, prejudice, and stigma" (Haslam et al., 2009, p. 12), even if the ties between community members are weak and indirect (Granovetter, 1973). Thus, a strong sense of connectedness to the broader LGBTQ community may be a mechanism for coping with minority stress, which in turn promotes the development of character strengths (Blaine & Crocker, 1995; Fergus & Zimmerman, 2005; Hershberger & D'Augelli, 1995; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009; James, Lovato, & Khoo, 1994; Lehmiller & Konkel, 2013; Meyer, 2003; Postmes & Branscombe, 2002; Schmitt & Branscombe, 2002). For instance, Kaminski (2000) noted that women who self-identify as lesbians reported that supportive environments, characterized by feminist perspective and lifestyle, facilitated the formation of a positive lesbian identity and enhanced their well-being. In support of these findings, Taylor (1996) contends that women deconstruct their stigmatized identities while reconstructing a positive self-concept with the help of feminist thought and practice. Put differently, forming a positive identity is mediated by a positive and supportive

environment that enables the development of character strengths. Taken together, the theoretical and empirical evidence presented above supports the hypothesis that social support across its various manifestations may serve as a mediator of stigma-related strengths.

#### 2.5.3. Stigma-Related Strengths, Mental Health, and Well-Being

As reviewed earlier, LGB individuals face many mental health disparities due to stigma and discrimination. Similarly, holding an LGB identity has been negatively linked to well-being (Hatzenbuehler, 2009; Herek & Garnets, 2007; King et al., 2008; Meyer, 2003). Given that one's mental health, thriving, and well-being have much to do with their character strengths (Seligman, 2002), many positive psychologists have turned to examine the relationship between character strengths and different dimensions of well-being. In one of the first studies examining the relationship between character strengths and well-being, Park, Peterson, and Seligman (2004) found that curiosity, gratitude, hope, love, and zest are consistently and robustly linked to life satisfaction – a dimension of well-being.

Among the character strengths that were found to be related to well-being, hope is the most studied strength. Indeed, previous studies documented the positive relationship between hope, mental health, and well-being (Chang, 1998; Cramer & Dyrkacz, 1998; Irving et al., 1998; Kwon, 2000; Kwon, 2002; Shorey, Snyder, Yang, & Lewin, 2003; Snyder et al., 1996). Conversely, it was reported that hope is negatively associated with mental distress (Maikranz, Steele, Dreyer, Stratman, & Bovaird, 2007). Furthermore, a recent longitudinal study spanning a period of six years revealed that hope led to greater positive affect and predicted higher levels of well-being (Ciarrochi et al., 2015). This finding is supported by previous studies that have shown that hopeful people cope better with stressful and traumatic events than individuals with low levels of hope (Chang, 1998; Ciarrochi, Heaven, & Davies, 2007; Horton & Wallander, 2001;

Valle, Huebner, & Suldo, 2006. Another study conducted with people with severe mental illness found that hope mediated the relationship between participants' self-esteem and quality of life (a dimension of well-being; Mashiach-Eizenberg et al., 2013). Hope is strongly related to cognitive and psychological flexibility (Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Kashdan & Rottenberg, 2010), which in turn affects the individual's psychological adjustment and well-being (Snyder, 1996, 2002).

Another study compared satisfaction of life between undergraduates who reported very high levels of happiness and undergraduates who reported moderate or very low levels of happiness. Although both the very happy and very unhappy participants experienced about equal amounts of negative and positive emotions daily, the very happy respondents scored higher on life satisfaction (Diener & Seligman, 2002). Notably, the very happy group reported substantially higher levels of satisfying interpersonal (i.e., social and romantic) lives than the moderately and least happy groups. This finding suggests that the character strength of love, i.e., the ability to love and be loved, is associated with life satisfaction (i.e., a dimension of well-being).

The same relationship between love and well-being was found in the aforementioned study by Park, Peterson, and Seligman (2004). Interestingly, Lavy and Littman-Ovadia (2011) reported that love, zest, and hope mediated the relationship between an avoidant attachment style and life satisfaction, whereas hope, curiosity and perspective mediated the relationship between attachment anxiety and life satisfaction. They also noted that participants who scored higher on social character strengths, namely kindness, teamwork, and social intelligence, had additional resources that allowed them to better cope with stress, which in turn may lead to positive mental health and well-being (Lavy & Littman-Ovadia, 2011). With regards to the effect of kindness on the individual's well-being, it was shown that compared to the control group, students who

performed and monitored their random acts of kindness experienced an increased sense of happiness (Lyuobomirskly, 2008; Otake et al., 2006).

Other studies provide further support to the association between the aforementioned character strengths and well-being, along with other character strengths. For example, a recent study revealed that both hope and forgiveness were related to well-being (Yalçın & Malkoç, 2015). Additional studies found a relationship between well-being and forgiveness (McCullough, 2000; McCullough & Witvliet, 2002), and others reported that both gratitude and forgiveness significantly predicted subjective well-being above personality variables such as the Big Five (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism; McCullough, Bellah, Kilpatrick, & Johnson, 2001; Wood, Jospeh, & Maltby, 2008, 2009). Gratitude was also found to improve people's coping with stressful/traumatic events by practicing positive reappraisal of such negative life experiences (Kubovy, Kahneman, Diener, & Schwartz, 1999; Nes et al., 2006; Watkins, Grimm, & Kolts 2004), which led to greater satisfaction with life and optimism, increased positive affect and prosocial behavior, as well as fewer health complaints (Bono, Emmons & McCullough, 2004; Emmons & Crumpler, 2000; Emmons & McCullough, 2003; Lyuobomirskly, 2008). A study with over 42,000 Germanspeaking respondents revealed high positive relationships between hope and quality of life, but also with humor, especially among older respondents (Ruch, Proyer, & Weber, 2010).

Furthermore, previous studies provide convincing evidence of the relationship between both mental health and well-being and appreciation of beauty and excellence (Littman-Ovadia & Lavy, 2012; Martínez-Martí, Hernández-Lloreda, & Avia, 2015; Peterson et al., 2008; Peterson, Park, & Seligman, 2006), spirituality (Neighbors, Musick, & Williams, 1998; Pargament, 2007;

Pargament & Mahoney, 2002), and leadership (Arnold et al., 2007; Kuoppala et al., 2008) among others.

In light of the empirical and theoretical evidence discussed above, it is very likely that character strengths will mediate the relationship between perceived interpersonal stigma and mental health, as well as between perceived interpersonal stigma and well-being. More specifically, the character strengths that will be predicted by stigma among LGB individuals will be further examined as mediators of the aforementioned relationship between stigma, mental health, and well-being. The complete conceptual model of Stigma-Related Strengths that includes the outcomes of mental health and well-being is presented in Figure 2.

# 2.6. Dissertation Hypotheses

Aim 1: To compare self-identified LGB and heterosexual individuals on character strengths.

a. Hypothesis 1: Self-identified LGB individuals will score higher on measures of character strengths compared to heterosexual individuals.

Aim 2: To identify the possible cognitive, affective, and interpersonal mediators of the relationship between sexual identity (LGB vs. heterosexual) and character strengths.

a. Hypothesis 2: Cognitive flexibility, reappraisal, suppression, brooding, and social support will mediate the relationship between sexual identity and character strengths.

*Aim 3: To examine the relationship between perceived interpersonal stigma and character strengths among LGB individuals.* 

a. Hypothesis 3: There will be an inverted U-shaped relationship between perceived interpersonal stigma and character strengths, such that LGB individuals who experienced moderate levels of perceived interpersonal stigma will score higher

on measures of character strengths compared to LGB individuals who experienced low or high levels of perceived interpersonal stigma.

Aim 4: To identify the possible cognitive, affective, and interpersonal mediators of the relationship between perceived interpersonal stigma and character strengths among LGB individuals.

a. Hypothesis 4: Cognitive flexibility, reappraisal, suppression, brooding, and social support will mediate the relationship between perceived interpersonal stigma and character strengths among LGB individuals.

Aim 5: To determine which character strengths serve as mediators of the relationship between perceived interpersonal stigma and mental health among LGB individuals.

 a. Hypothesis 5: The stigma-related strengths identified in aim 3 will mediate the relationship between perceived interpersonal LGB-related stigma and mental health in LGB individuals.

Aim 6: To explore which character strengths may mediate the relationship between perceived interpersonal stigma and well-being among LGB individuals.

 a. Hypothesis 6: The stigma-related strengths identified in aim 3 will mediate the relationship between perceived interpersonal LGB-related stigma and well-being in LGB individuals.

### METHOD

## 2.1. Participants

A total of 718 individuals (recruited from Amazon Mechanical Turk) participated in the present study during July 19-24, 2015. To be eligible, participants had to (1) be fluent in English; (2) be between 18 and 60 years of age; (3) live in the United States; and (4) self-identify as heterosexual or LGB. The maximum age of 60 was selected based on recent demographics of Internet use and literacy, which shows that more than half of the older (64+ years old) adult population in the U.S. do not have access to the Internet (Pew Internet & American Life Project, 2012). Individuals who self-reported to be non-fluent in English, younger than 18 years or older than 60 years, and, at a certain point during data collection, individuals who self-identified as heterosexual or bisexual were excluded from the current study. Furthermore, participants who self-identified as queer (N = 28), questioning/uncertain (N = 47), or another sexual identity (N = 30) were eventually excluded from the current sample due to the low number of participants in each of those three sexual identity groups, and consequently, the insufficient statistical power required in order to detect group differences effects. Therefore, only heterosexual and LGB participants were included in the present study.

The demographic characteristics of the present sample are presented in Table 2. Participants ranged in age from 18 to 60 years (mean=32.1; SD=9.6) and 53% were female. Overall, 421 participants self-identified as LGB (59%). Among the LGB participants, 137 respondents self-identified as gay (male only), 99 as lesbian (female only), and 185 as bisexual. The study sample was predominantly White (83%) and educated, with 85% having at least some college experience. In addition, 65% of participants reported their personal annual income to be

between \$20,000 and \$79,999. The aforementioned demographic characteristics of the present sample are consistent with a recent investigation by Shapiro, Chandler, and Mueller (2013), which found that Amazon Mechanical Turk (MTurk) users are younger and more educated than the general U.S. population and are predominantly Caucasian/White and middle class. However, compared to college student samples and traditional online samples, samples recruited on MTurk were found to be more representative of the general population, more diverse, and more representative of individuals in all 50 states (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012).

# 2.2. Procedure

Study participants were recruited from Amazon Mechanical Turk (MTurk), an online workforce that allows people to complete work, or "Human Intelligence Tasks" (HITs), in exchange for money. A HIT was created on MTurk and re-posted at least once a day between July 19 and 24, 2015. Specifically, the HIT on MTurk, entitled "Sexuality and Positive Psychology Study," included a brief description of the HIT (i.e., study) that read: "The Sexuality and Positive Psychology Study is a short survey conducted by researchers at Columbia University for the purpose of exploring how sexual identity may shape one's personality strengths." Along with the HIT description, various keywords (e.g., psychology, identity, and stigma) were used in order to facilitate the identification of the HIT by prospective respondents using the MTurk search engine. The HIT also specified the number of assignments per HIT (on average, 100 assignments per HIT were selected for the purposes of the current study), that is, the maximum number of MTurk users who were able to complete the HIT each time it was posted. Lastly, the HIT specified the monetary compensation (i.e., reward) per assignment, which was \$1.50 in this study, a typical amount for a minimal risk and not labor-intensive task,

such as completing a survey (Buhrmester et al., 2011). The HIT was available for preview by MTurk users located in the United States only. In order to obtain somewhat equal numbers of participants in each of the L/G/B and heterosexual groups, and given the fast recruitment of heterosexual and bisexual participants who completed the online survey, sexual self-identification was periodically added as an eligibility criterion. That is, in certain HITs that included sexual self-identification as an eligibility criterion, heterosexual and bisexual individuals were rendered ineligible to participate in the study.

Interested MTurk users were asked to click the URL link presented in the HIT in order to complete the survey. By clicking on URL link, potential participants were directed to the webbased (i.e., online) survey. The online survey was conducted using Qualtrics; a secure, online, password-protected, HIPAA-compliant research suite that is well established for academic research purposes and was used extensively by the PI in previous research studies (Antebi, 2011; Downing, Antebi, & Schrimshaw, 2014).

Prospective respondents were first presented with the online consent form on Qualtrics (i.e., first page of the survey). The online consent form contained information about the types of questions included in the survey, the estimated length of time the survey would take, and a detailed explanation of the anonymous and confidential nature of this study. Upon agreement to the terms outlined in the web-based consent form, participants were presented with the questions included in the survey. Respondents who answered a question that was designed to assess participant eligibility by indicating a response that renders them ineligible were forwarded to the end of the survey, where they were thanked for their time and effort. In addition, in order to eliminate the possibility of false, machine-generated (i.e., computerized) responses, the survey included easy "filler" questions such as: "please select/answer option 5 in the following

question." Responses that incorrectly responded to such questions were excluded from the study sample.

Out of 1,137 eligible respondents who started answering the survey, a total of 890 eligible participants fully completed it. This translates to a response rate of 78%, which is considered a high response rate for online research with LGB individuals (Riggle, Rostosky, & Reedy, 2005). Eligible participants who fully completed the survey were presented with a fourdigit password. Participants were then instructed to insert the presented password back in the HIT to confirm their full participation in the study, and hence their monetary compensation. This password was required and changed every time a new HIT was posted on MTurk to prevent duplicate responses from participants who previously completed the survey and were therefore presented with the password. MTurk allows the requester of the HIT (i.e., PI) to approve or reject each of the individual submitted assignments (i.e., completed surveys) within a previously agreed-upon time window (three days in this case). This process is facilitated by an MTurk Worker ID assigned to each MTurk user once they register to the MTurk system. These features allow requesters, if they wish, to confirm that each user completed the HIT/survey only once by checking for duplicate submissions by the same Worker ID. Therefore, once all the assignments per HIT were fully completed, the PI confirmed that each of the submissions was unique, completed by a new Worker ID, and that the correct password was entered. Only unique submissions were approved, and therefore, compensated for completing the HIT. Prospective participants were clearly informed in the HIT that duplicate submissions would not be approved, and thus, not compensated. This study was approved by the Columbia University Medical Center Institutional Review Board (IRB).

## 2.3. Measures

Participants in the current study completed the following measures:

*Demographic characteristics*. A demographic questionnaire included questions about the respondents' age, fluency in English, biological sex, race, ethnicity, education level, income, relationship status, and state of residence.

*Sexual identity*. Respondents were asked to choose one sexual identity label that best describes them. Options were gay, lesbian, bisexual, heterosexual, queer, questioning/uncertain, and other (with a follow-up specification of their label). Examining a stigmatized sexual identity, in comparison to other markers of sexual orientation (e.g., sexual behavior), is most appropriate for the purpose of the current study, as identity implies an underlying sociocultural context (Young & Meyer, 2005) that may make members of stigmatized groups more resourceful and thus more likely to develop stigma-related strengths (Vaughan et al., 2014). More specifically, self-identifying as LGB (rather than engaging in homosexual or bisexual behavior) typically implies a group membership with the broader LGB community, where various promotive factors (e.g., social support) may be available for LGB individuals. Such promotive factors may in turn increase the likelihood of self-identified LGB individuals to possess character strengths (Seligman & Csikszentmihalyi, 2000).

## 2.3.1. Predictor Variable

Interpersonal LGB-related stigma. An adapted version of the Schedule of Racist Events scale (SRE; Landrine & Klonoff, 1996) was used to assess interpersonal LGB-related stigma (i.e., discrimination). The SRE was previously modified to be used with gay and lesbian participants, which proved to be highly reliable ( $\alpha$ =.93; Fingerhut, Peplau, & Gable, 2010). In the present study, the word *Black* was reworded to either lesbian, gay, or bisexual based on the

participant's selected sexual identity label, and the word *racist* (in other items) was reworded to homophobic. The original measure includes 17 incidents of race-based discrimination, such as,

"How many times have you been treated unfairly by teachers and professors because you are Black?" This is followed by 3 questions representing three response scales: (1) "how many times in the past year?" (past year's discrimination) (2) "how many times in your entire life?" (lifetime discrimination) and (3) "how stressful was this for you?" (stressfulness). Due to survey length limitations, only the second and third response scales were included in the present study. Eventually, the third response scale was excluded from data analysis procedures because of the high correlation (r=.80) with the second subscale found in the present study, which may, in turn, raise issues of multicollinearity. For the second response scale, the response options were between *never* (1) to *almost all of the time* (6). Participants' final scores ranged from 17 to 102 and were summed within each participant, such that higher scores represent higher levels of interpersonal LGB-related stigma. The adapted second response scale (assessing lifetime experiences of interpersonal stigma) was found to be highly reliable in the present study ( $\alpha$ =.95 among LGB participants only).

## 2.3.2. Mediator Variables

*Cognitive flexibility.* The Cognitive Flexibility Scale (Martin & Rubin, 1995) assesses an individual's awareness of alternatives, willingness to adapt to situations, and self-efficacy in being flexible. The scale has 12 items, such as *"I can communicate an idea in many different ways"* and *"I avoid new and unusual situations"* (reversed). The items are rated on a 6-point scale with options ranging from (1) *strongly disagree* to (6) *strongly agree*. Importantly, this scale has demonstrated good psychometric properties (Martin & Rubin, 1995; Martin, Staggers, & Anderson, 2011), suggesting adequate internal consistency reliability of the measure. The

Cronbach's Alpha for this measure was 0.86 in the current sample, demonstrating good internal consistency reliability. Martin et al. (2011) also reported a correlation coefficient of .83 for investigating the test-retest reliability of the measure over a one-week period. Furthermore, the scale has demonstrated adequate convergent and discriminant validity (Martin & Rubin, 1995; Martin, Staggers, & Anderson, 2011). The final scores were averaged within each participant, such that higher scores represent higher levels of cognitive flexibility.

*Reappraisal and suppression.* The Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) consists of a total of 10 items representing the reappraisal and suppression subscales. Sample items include, *"I control my emotions by changing the way I think about the situation I'm in"* for the reappraisal subscale, and *"I control my emotions by not expressing them"* for the suppression subscale. The ERQ demonstrated adequate internal consistency and test-retest reliability across samples, as well as good discriminant and convergent validity (Gross & John, 2003). To the researcher's best knowledge, no studies have used this measure with LGB individuals. In the present study, both subscales demonstrated good reliabilities ( $\alpha$ =.91 for reappraisal and  $\alpha$ =.83 for suppression). Final scores ranged between 1 and 7 and were averaged within each participant, such that higher scores represent higher levels of reappraisal and suppression, separately.

*Brooding*. The Response Styles Questionnaire (RSQ; Treynor, Gonzalez, & Nolen-Hoeksema, 2003) is a well-established measure of both reflective pondering (i.e., rumination) and brooding (a more severe form of rumination). Respondents are asked to indicate the frequency of thinking or doing something when they feel sad or depressed. For the purposes of the current study, only the five brooding items were used due to survey length limitations. Items were presented on a 4-point Likert scale from *almost never* (1) to *almost always* (4). The brooding subscale demonstrated good internal consistency ( $\alpha$ =.85) in a study with LGB participants (Hatzenbuehler et al., 2009). Participants' scores ranged between 1 and 4 and were averaged within each participant, such that higher scores represent greater brooding ( $\alpha$ =.85).

Social support. The 12-item version of the Interpersonal Support Evaluation List (ISEL-12; Cohen et al., 1985) was used to assess social support. The ISEL-12 is comprised of 3 subscales with four items each: (1) appraisal (*"There is someone I can turn to for advice about handling problems with my family"*); (2) belonging (*"If I wanted to have lunch with someone, I could easily find someone to join me"*) and (3) tangible (*"If I were sick, I could easily find someone to help me with my daily chores"*). Response options range from *definitely false* (1) to *definitely true* (4). The ISEL-12 has been extensively used in previous studies, both in the general population (Cohen et al., 1985) and with LGB individuals (e.g., Lyons, Hosking, & Rozbro, 2015), and has consistently demonstrated good internal consistency reliability. In the present sample, the Cronbach's Alpha was 0.92, demonstrating excellent internal consistency reliability. Total scores were computed by summing all twelve items (range 12-48), such that higher scores represent higher levels of social support.

## 2.3.3. Outcome Variables

*Character strengths.* The Values in Action (VIA) Institute short adult version of the Inventory of Strengths (Peterson, Park, & Seligman, 2005) was used in the present study to assess character strengths. This well-established measure is widely used and is comprised of 72 items. The scale consists of 24 subscales (3 items each) reflecting 24 character strengths. Each item is a statement (e.g., *"I never quit a task before it is done")* and the respondent is asked to choose the one option that best describes what they are like in response to each statement on a scale from *very much unlike me* (1) to *very much like me* (5). The internal consistency reliabilities of each of the twenty-four subscales are presented in Table 3. As the scoring key for the VIA Institute Inventory of Strengths is not publically available, the raw responses provided by the participants were de-identified and sent to the VIA Institute for final scoring. Total scores for each of the 24 character scales were computed by the VIA institute (range 1-5), such that a higher score represents a higher level of the specific character strength.

Previous factor analytic studies provide inconsistent evidence of the factorial structure of the character strengths measure, ranging from three to six factors (i.e., virtues) (Brdar & Kashdan, 2010; Littman-Ovadia & Lavy, 2012; Macdonald, Bore, & Munroe, 2008; McGrath, 2014, 2015; Peterson et al., 2008; Ruch et al., 2010; Shryack, Steger, Krueger, & Kallie, 2010; Singh & Choubisa, 2010; van Eeden et al., 2008 ). Such inconsistent findings preclude the possibility of reducing the measures to a few interrelated constructs, although such reduction may simplify the hypotheses testing and analysis. In addition, per the PI's agreement with the VIA Institute, the final scores for each of the 24 character strengths will be provided to the PI by the VIA Institute only if the full measure will be administered to participants. For these reasons, all 24 character strengths will be tested individually as potential stigma-related strengths in this study despite concerns of parsimony.

*Mental distress*. The Kessler Psychological Distress Scale (K-10; Kessler et al., 2002) was used to measure mental distress. The K-10 is a brief 10-item measure designed to assess the frequency of symptoms of mental distress the respondent experienced in the past 30 days. The questions ask about symptoms related to experiencing depression, anxiety, fatigue, and motor agitation. The response scale ranges from *none of the time* (1) to *all of the time* (5). This scale has demonstrated excellent psychometric properties with a Cronbach's alpha of 0.93. The scale has been widely used in health research, including World Health Organization mental health

surveys and government health surveys in both the United States and Canada (Kessler & Üstün, 2004. In the present study, the K-10 demonstrated excellent reliability, with Cronbach's  $\alpha$ =.94. Final scores ranged from 10 to 50 and were summed within each participant, such that higher scores represent higher levels of mental distress.

*Well-being.* The Flourishing Scale, a brief 8-item scale, was employed to assess psychological and social well-being (Diener et al., 2010). Specifically, this scale measures the respondent's perceived success in important areas such as relationships, self-esteem, and purpose in life. All eight items (e.g., *"I lead a purposeful and meaningful life"*) are on a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7). Although there are separate measures for psychological well-being (Ryff & Keyes, 1995) and social well-being (Keyes, 1998) that have been widely used in previous studies, the Flourishing Scale was selected due to its brief nature, excellent psychometric properties (Alpha=.87), and its parsimonious nature of combining both psychological and social well-being in one measure (Diener et al., 2010). The Cronbach's Alpha for this measure was 0.94, demonstrating excellent internal consistency reliability. Total scores were summed within each participant, thus ranging from 8 to 56, such that higher scores indicate greater well-being.

#### 2.3.4. <u>Control Variables</u>

Social desirability. As character strengths are by definition socially desirable, its assessment must take into consideration the potential pitfall of social desirability (Park & Peterson, 2006b). Therefore, a short form of the Marlowe-Crowne Social Desirability Scale was used in this study (Reynolds, 1982). This short form consists of 11 items from the original scale (Crowne & Marlowe, 1960) and demonstrated acceptable internal consistency reliability (Reynolds, 1982). This scale demonstrated acceptable reliability ( $\alpha$ =.73) in the present study.

Total scores were computed by summing the three subscales scores (range 0-11), such that higher scores represent higher levels of social desirability.

#### 2.3.4.1. <u>Control Variables (for aims 1-2 only)</u>

As the focus of the first and second aims of the present study is to examine the association between sexual identity (LGB vs. heterosexual) and character strengths, potential confounding variables are those who are pertinent to one's identity and have been shown to have an effect on character strengths. As previous research suggests that both biological sex/gender identity (male vs. female) and racial/ethnic identity (White vs. non-White) are associated with character strengths (Littman-Ovadia & Lavy, 2012) and stress-related growth (Calhoun & Tedeschi, 2004; Laufer & Solomon, 2006; Tedeschi & Calhoun, 2004), it is crucial to control for these identity variables when examining the relationship between sexual identity and character strengths. Both control variables will be categorized as a Multivariate Analysis of Variance only allows for categorical control variables (Hair et al., 2006; Pallant, 2013; Stevens, 1996; Tabachnick & Fidell, 2007).

#### 2.3.4.2. Control Variables (for aims 3-6)

Unlike aims 1 and 2 where the focus was on one's identity as a predictor of character strengths, the other four aims of the current study focus on the perceived experience of interpersonal LGB-related stigma as the predictor of character strengths, and in turn, stigma-related strengths as predictors of both mental health and well-being. Therefore, confounding variables that should be controlled for in the analyses of aims 3-6 of the present study are related to the experience of stigma among LGB individuals. While biological sex and racial/ethnic identity are indeed related to character strengths, in aims 3-6, the perceived experience of interpersonal discrimination based on the participant's biological sex/gender and race/ethnicity

will be assessed and controlled for. Other forms of discrimination will also be controlled for in aims 3-6 in order to assess the unique association between perceived interpersonal LGB-related stigma and character strengths, as well as mental health and well-being among LGB individuals.

*Outness*. Participants' level of being "out" as LGB, i.e. outness, was controlled for because it can be theorized as either a risk or a resilience factor. For example, disclosing one's LGB identity in an unsupportive environment may function as a risk factor, whereas being out in a safe environment may be empowering and affirming to the LGB individual. Conversely, concealing one's sexual identity typically has detrimental effects on the mental health and personal character of LGB individuals (Pachankis, 2007). Participants' level of being "out" as LGB was assessed using a single item (*"I would say that I am open (out) as LGB"*). The singleitem was recently compared to a multi-item measure of outness and was found to have a higher predictive power of mental health outcomes (i.e., depression) and higher construct validity (Wilkerson et al., 2015). Each respondent was presented with either the word lesbian, gay, or bisexual based on their previously selected sexual identity label on the survey. A higher score indicated greater outness (range 1-5).

*Internalized homophobia.* As the focus of the current study was to assess the association between interpersonal LGB-related stigma and character strengths, internalized LGB-related stigma, or internalized homophobia, was controlled for. Internalized homophobia was measured using a single item from the revised LGB Identity Scale (LGBIS; Mohr & Kendra, 2011). The LGBIS consists of eight subscales, one of which is internalized homonegativity (i.e., homophobia). The item used in the present study ("*If it were possible, I would choose to be straight"*) was chosen based on its highest factor loading in the internalized homonegativity subscale. A higher score indicated higher levels of internalized homophobia (range 1-6).

Multiple forms of perceived discrimination. LGB individuals experience many forms of discrimination other than LGB-related stigma. Therefore, in order to detect the unique correlation between interpersonal LGB-related stigma and each of the three outcome variables described above, I controlled for other forms of discrimination that LGB individuals reported experiencing other than LGB-related discrimination. In this study, an additive (versus multiplicative) theory of intersectionality was employed, suggesting that stigma, discrimination, and experiences of singular social identities are separate and distinct (Dowd & Bengston, 1978; Grollman, 2014; Harper, Jernewall, & Zea, 2004; Havinsky & Christoffersen, 2008; Parent, Deblaere, & Moradi, 2013; Purdie-Vaughns & Eibach, 2008; Szymanski & Gupta, 2009) (for a discussion on intersectionality see the recommendations for future directions section on pages 123-124). The Multiple Forms of Discrimination questionnaire was developed for the purposes of the current study and was used to assess LGB participants' non-LGB-related discrimination experiences throughout their lifetime. Using the prompt: "Have you experienced any discrimination based on your \_\_\_\_\_ throughout your lifetime?" participants were asked a series of 7 questions about their lifetime discrimination experiences based on their: (1) nationality; (2) age; (3) race/ethnicity; (4) gender/sex; (5) gender nonconformity; (6) physical/mental ability status; (7) weight/height; and (8) income/education. Response options were yes (1) and no (0). Final scores are a count of the number of forms of discrimination to which participants indicated they experienced throughout their lifetime, ranging from 0 to 8, with higher scores indicating greater forms of lifetime discrimination.

## 2.4. Data Analysis

Descriptive statistics were computed for all variables. To examine mean differences between self-identified heterosexual and LGB individuals in character strengths, a series of three

consecutive one-way between-groups Multivariate Analysis of Variance were used, after controlling for sex/gender and racial/ethnic identity. Given that the first aim of the current study was not supported, no further analyses were conducted to address aim 2 (i.e., mediation of the hypothesized relationship). For aim 3, a series of 24 hierarchical linear regressions were used to examine the association between perceived interpersonal LGB-related stigma and character strengths among LGB individuals, after controlling for outness, internalized homophobia, social desirability and multiple forms of discrimination. To identify the possible mediators of the quadratic association between perceived interpersonal LGB-related stigma and the significant character strengths that were identified in aim 3, Hayes and Preacher's (2010) SPSS MEDCURVE macro used to employ bootstrapping analysis. These bootstrapping analyses provide a regression coefficient Theta ( $\Theta$ ) for the indirect effect of perceived interpersonal LGBrelated stigma on the character strength and the indirect effect of perceived interpersonal stigma through the specified mediator, as well as a bias-corrected 95% confidence interval. The same bootstrapping analyses as described above were employed to examine the character strengths that were identified as significant (in aim 3) as potential mediators of the relationship between perceived interpersonal LGB-related stigma and mental distress (aim 5) and well-being (aim 6), after controlling for the covariates that were previously identified.

All statistical analyses presented in this chapter were conducted using IBM SPSS Version 23 by the PI. The internal consistency reliability analyses as well as the final scores of all participants for each of the 24 subscales of the Character Strengths measure were conducted using IBM SPSS Version 21 by the VIA Institute's Science Director, Dr. Ryan Niemiec. Additionally, the graphs (attached as appendices) were created using R software version 3.1.3.

Further details on the statistical analyses that were used to address the aims of the current study are described in greater detail in the results chapter.

#### RESULTS

The findings of the current study will be presented in accordance with the respective aims they address.

## 4.1. <u>Aim 1</u>

The **first** aim of the current study was to examine between-group differences in character strengths among LGB and heterosexual individuals. Specifically, I hypothesized that self-identified LGB individuals would score higher on measures of character strengths in comparison to heterosexual individuals.

The analyses related to aim 1 were conducted using a series of 3 one-way betweengroups multivariate analyses of variance (MANOVAs). The mean scores and standard deviations for character strengths as a function of sexual identity using the various groupings that were used in the three steps described below are presented in Table 4. First, I examined differences in character strengths between LGB and heterosexual individuals. All 24 character strengths were used as the dependent variables. The independent variable was sexual identity, which was dichotomized (LGB vs. Heterosexual) for the purposes of this analysis. Social desirability, biological sex (male vs. female), and race/ethnicity (White vs. non-White) were controlled for to allow for identifying the potential unique association between sexual identity and character strengths among LGB and heterosexual individuals. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. The Pearson correlations among the 24 character strengths (conducted to examine and rule out multicollinearity) are presented in Table 5. The multivariate and univariate analyses of variance

for character strengths are presented in Table 6. No significant differences were found between LGB and heterosexual people on the combined dependent variables, F(24, 432) = 1.07, p = .379; Wilks' Lambda = .94; partial eta squared = .06.

Second, I examined between-groups differences using a different grouping, specifically: (1) L+G; (2) B; and (3) H. This grouping was chosen based on theoretical and empirical evidence suggesting that bisexual individuals as a social group are significantly different from lesbian, gay, and heterosexual individuals, mainly because of the unique challenges that bisexual individuals face compared to lesbian and gay individuals (e.g., Balsam & Mohr, 2007; Brewster & Moradi, 2010; Meyer, 2003; Savin-Williams, 2001b). Therefore, the first group of lesbian and gay individuals represented homosexual self-identification; the second group represented bisexual self-identification; and the third represented heterosexual self-identification. All 24 character strengths were used as the dependent variables. The independent variable was sexual identity which had 3 categories (L+G, B, and H) for the purposes of this analysis. The same covariates were included in this MANOVA. No significant differences were found between L+G, B and heterosexual people on the combined dependent variables, F (48, 798) = 1.08, p = .379; Wilks' Lambda = .88; partial eta squared = .06 (Table 6).

Lastly, I examined between-groups differences among lesbian, gay, bisexual and heterosexual as separate categories. This categorization is based on previous research suggesting significant group differences within the LGB community, that is, the distinct characteristics of lesbian, gay, and bisexual communities (e.g., Fassinger & Arseneau, 2007; Meyer, 2003). The independent variable was sexual identity which had 4 categories (L, G, B, and H) for the purposes of this analysis. No significant differences were found between L, G, B, and heterosexual people on the combined dependent variables, F(72, 1193) = 1.08, p = .487; Wilks'

Lambda = .84; partial eta squared = .06 (Table 6). It can thus be concluded that the first aim and hypothesis of the current study was not supported.

# 4.2. <u>Aim 2</u>

The **second** aim of the present study was to identify the possible cognitive, affective, and interpersonal mediators of the relationship between sexual identity (LGB vs. heterosexual) and character strengths. Specifically, I hypothesized that cognitive flexibility, emotion regulation, and social support would mediate the relationship between sexual identity and character strengths. Given that the first hypothesis was not supported (i.e., a main effect relationship), no mediational analyses were conducted for aim 2.

# 4.3. <u>Aim 3</u>

The **third** aim of the present study was to examine the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals. Based on theoretical and empirical literature (Tedeschi & Calhoun, 2004), it was hypothesized that there would be an inverted U-shaped relationship between interpersonal stigma and character strengths, such that LGB individuals who experienced moderate levels of interpersonal stigma would score higher on measures of character strengths compared to LGB individuals who experienced low or high levels of interpersonal stigma. A series of 24 hierarchical linear regressions were used to assess the ability of perceived interpersonal LGB-related stigma and stigma<sup>2</sup> (i.e., quadratic term of stigma) to predict character strengths, after controlling for the influence of internalized homophobia (i.e. internalized LGB-related stigma), social desirability, outness, and multiple forms of discrimination other than LGB-related discrimination. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. Internalized homophobia, social desirability,

outness, and multiple forms of discrimination were entered at step 1, interpersonal LGB-related stigma was entered at step 2, and stigma<sup>2</sup> was entered at step 3. All analyses for aim 3 were conducted among LGB people only as no differences were found between the three sub-groups. Moreover, aggregating all LGB participants to one group strengthens the statistical power of the current analysis. It should be added that all variables were mean centered before being included in the regression models.

A quadratic term of interpersonal LGB-related stigma, Stigma<sup>2</sup>, was significantly associated with a total of 5 of the 24 character strengths, namely: (1) appreciation of beauty and excellence; (2) curiosity; (3) fairness; (4) honesty; and (5) kindness. As hypothesized, the curvilinear relationship between stigma and the five significant character strengths was inverted U-shaped. Specifically, stigma<sup>2</sup> was significantly associated with appreciation of beauty and **excellence**, beta = -.14, p = .04,  $F_{change}$  (1, 302) = 4.34,  $p_{change} = .04$ , indicating that LGB individuals who reported moderate levels of interpersonal stigma were more likely to report appreciation of beauty and excellence than were LGB individuals who reported high or low levels of interpersonal stigma. The final model for stigma<sup>2</sup> predicting appreciation of beauty and excellence is presented in Table 7. Stigma<sup>2</sup> was also significantly associated with **curiosity**, *beta* = -.17, p = .01,  $F_{change}$  (1, 302) = 6.70,  $p_{change}$  = .01, indicating that LGB individuals who reported moderate levels of interpersonal stigma were more likely to report curiosity than were LGB individuals who reported high or low levels of interpersonal stigma. The final model for stigma<sup>2</sup> predicting curiosity is presented in Table 8. Furthermore, stigma<sup>2</sup> was found to significantly associate with **fairness**, beta = -.16, p = .01,  $F_{change}(1, 302) = 6.10$ ,  $p_{change} = .01$ , indicating that LGB individuals who reported moderate levels of interpersonal stigma were more likely to report fairness than were LGB individuals who reported high or low levels of interpersonal stigma. The

final model for stigma<sup>2</sup> predicting fairness is presented in Table 9. Additionally, stigma<sup>2</sup> was associated with **honesty**, *beta* = -.17, *p* = .01, *F*<sub>change</sub> (1, 302) = 6.36, *p*<sub>change</sub> = .01, indicating that LGB individuals who reported moderate levels of interpersonal stigma were more likely to report honesty than were LGB individuals who reported high or low levels of interpersonal stigma. The final model for stigma<sup>2</sup> predicting honesty is presented in Table 10. Lastly, in the final model presented in Table 11, stigma<sup>2</sup> was found to be significantly associated with **kindness**, *beta* = -.14, *p* = .03, *F*<sub>change</sub> (1, 302) = 4.93, *p*<sub>change</sub> = .03, indicating that LGB individuals who reported moderate levels of interpersonal stigma. The significant levels of interpersonal stigma were more likely to report kindness than were LGB individuals who reported high or low levels of interpersonal stigma. The significant quadratic (i.e., inverted U-shaped) association between interpersonal LGB-related stigma and the five character strengths is presented in Figures 3-7.

In addition to the five character strengths (noted above) that were found to be associated with stigma<sup>2</sup>, two additional character strengths (i.e., prudence and judgment) were linearly associated with interpersonal LGB-related stigma among LGB individuals. In the final model presented in Table 12, stigma was significantly associated with **prudence**, *beta* = -.16, *p* = .03, indicating that LGB individuals who reported higher levels of interpersonal stigma were less likely to report prudence than were LGB individuals who reported lower levels of interpersonal LGB-related stigma and prudence among LGB individuals is presented in Figure 8. In the final model presented in Table 13, stigma was also found to be significantly associated with **judgment**, *beta* = -.20, *p* = .01, such that LGB individuals who reported higher levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma and prudence among LGB individuals is presented in Figure 8. In the final model presented in Table 13, stigma was also found to be significantly associated with **judgment**, *beta* = -.20, *p* = .01, such that LGB individuals who reported higher levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less likely to report judgment than were LGB individuals who reported lower levels of interpersonal stigma were less l

stigma. The significant linear negative relationship between interpersonal LGB-related stigma and judgment among LGB individuals is presented in Figure 9.

The remaining 17 of 24 character strengths were **not** associated with stigma or stigma<sup>2</sup>. The final models for the remaining 17 character strengths are presented in Tables 14-30. Those character strengths were bravery (stigma: beta = .13, p = .06; stigma<sup>2</sup>: beta = -.08, p = .22); love (stigma: beta = -.03, p = .70; stigma<sup>2</sup>: beta = -.08, p = .20); teamwork (stigma: beta = -.03, p = .20); .69; stigma<sup>2</sup>: beta = -.04, p = .57); creativity (stigma: beta = .05, p = .46; stigma<sup>2</sup>: beta = -.12, p = .46; stigma<sup>2</sup>: beta = -.12; beta = -..08); forgiveness (stigma: beta = -.08, p = .26; stigma<sup>2</sup>: beta = .05, p = .44); gratitude (stigma: beta = -.00, p = .96; stigma<sup>2</sup>: beta = -.11, p = .07); hope (stigma: beta = .03, p = .62; stigma<sup>2</sup>: *beta* = -.08, p = .19; humor (stigma: *beta* = -.12, p = .13; stigma<sup>2</sup>: *beta* = -.07, p = .31); perseverance (stigma: beta = .04, p = .60; stigma<sup>2</sup>: beta = -.09, p = .15); leadership (stigma: beta = -.09, p = .19; stigma<sup>2</sup>: beta = -.07, p = .28); love of learning (stigma: beta = .02, p = .78; stigma<sup>2</sup>: beta = -.10, p = .13); humility (stigma: beta = -.12, p = .10; stigma<sup>2</sup>: beta = -.03, p = .10; stigma<sup>2</sup>: beta = -.03; beta =.64); perspective (stigma: beta = -.04, p = .60; stigma<sup>2</sup>: beta = -.05, p = .45); self-regulation (stigma: beta = -.04, p = .61; stigma<sup>2</sup>: beta = -.01, p = .94); social intelligence (stigma: beta = -.04); social intelligence (stigma: beta =.01, p = .86; stigma<sup>2</sup>: beta = -.03, p = .64); spirituality (stigma: beta = .14, p = .05; stigma<sup>2</sup>: beta = .06, p = .35) and zest (stigma: *beta* = .15, p = .03; stigma<sup>2</sup>: *beta* = -.09, p = .17). It should be noted that although the beta value for zest by perceived interpersonal stigma was significant, the  $R^2$  change was not significant ( $F_{change}$  (1, 302) = 1.89,  $p_{change}$  = .17), and was therefore considered insignificant.

## 4.4. <u>Aim 4</u>

The **fourth** aim of the current study was to identify the possible cognitive, affective, and interpersonal mediators of the relationship between perceived interpersonal LGB-related stigma

and character strengths among LGB individuals. More specifically, I hypothesized that cognitive flexibility, emotion regulation (i.e., reappraisal, suppression and brooding), and social support would mediate the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals. To test the significance of the indirect (i.e., mediating) effect of the quadratic association between interpersonal LGB-related stigma and the 5 significant character strengths that were identified in aim 3, I used Hayes and Preacher's (2010) SPSS MEDCURVE macro to employ bootstrapping analysis. The five mediators tested were (1) cognitive flexibility; (2) reappraisal; (3) suppression; (4) brooding; and (5) social support.

MEDCURVE requires the testing of each mediator separately. Therefore, I conducted 5 separate mediation analyses for each of the five significant character strengths. First, I used the MEDCURVE macro to employ bootstrapping analyses with 5000 resamples (as recommended by Hayes, 2009), with all three individual paths  $(X \rightarrow Y, X \rightarrow M, Y \rightarrow M)$  specified as quadratic (rather than linear, logarithmic, exponential, or inverse) and after controlling for the four covariates included in aim 3 (internalized homophobia, social desirability, outness, and multiple forms of perceived discrimination). Since there was no evidence of a significant quadratic mediation, I then used the MEDCURVE macro to employ bootstrapping analyses with 5000 resamples with the individual path  $X \rightarrow Y$  specified as quadratic and both paths of  $X \rightarrow M$  and  $M \rightarrow Y$  specified as linear. Similar to aim 3, I controlled for internalized homophobia, social desirability, outness, and multiple forms of perceived discrimination. These bootstrapping analyses provide the instantaneous indirect effect (Theta) of stigma (X) on the character strength (Y) through the specified mediator (M) at three certain values of X (Xval) representing low, moderate and high levels of stigma. Put differently, the instantaneous indirect effect ( $\Theta$ )

quantifies "the rate at which a change in *X* changes *Y* indirectly through changes in *M*" (Hayes & Preacher, 2010, p. 631). Although the MEDCURVE output includes three thetas for three different levels of stigma (low, moderate, high), when specifying the individual paths  $X \rightarrow M$  and  $M \rightarrow Y$  as linear, the thetas for all three levels of X remain the same value (Hayes & Preacher, 2010). These analyses also produce a bias-corrected 95% confidence interval for each of the three values of X. Confidence intervals that do **not** include 0 are statistically significant at the *p* < .05 level. Unlike other methods that rely on statistical significance criteria for individual paths in a mediation model in order to assess whether a specific variable functions as a mediator (e.g., the widely-used casual steps approach popularized by Baron and Kenny [1986]), the indirect effect provided by the MEDCURVE macro might be significant regardless of the significance or non-significance of any of the individual paths ( $X \rightarrow Y, X \rightarrow M, Y \rightarrow M$ ; Hayes, 2009).

The bootstrapping analyses examining the indirect effects of perceived stigma on each of the five significant character strengths through **all** five mediators are presented in Tables 31-35. These five tables only include the thetas, standard errors, and lower and upper limits of the 95% confidence intervals of stigma on the five significant character strengths.

Overall, cognitive flexibility was found to mediate the relationship between perceived interpersonal LGB-related stigma and all five stigma-related strengths. Brooding mediated the relationship between perceived stigma and both kindness and appreciation of beauty and excellence. Furthermore, suppression was found to mediate the relationship between perceived stigma and kindness. Lastly, social support mediated the perceived interpersonal stigma-fairness relationship. I now discuss each of these in turn below.

As for cognitive flexibility, it was found that among LGB individuals, greater perceived interpersonal LGB-related stigma was associated with less cognitive flexibility (B = -.01, p =

.00), and greater cognitive flexibility was associated with higher levels of **appreciation of beauty and excellence** (B = .39, p = .00), **curiosity** (B = .47, p = .00), **fairness** (B = .40, p = .00), **honesty** (B = .44, p = .00), and **kindness** (B = .39, p = .00). The regression models of cognitive flexibility as a mediator of perceived interpersonal LGB-related stigma on the five character strengths mentioned above are presented in Tables 36-40. The indirect (i.e., mediated) effect of perceived interpersonal LGB-related stigma on each of the five significant character strengths through cognitive flexibility was negative, indicating that higher levels of perceived interpersonal stigma are correlated with lower levels of character strengths through lower levels of cognitive flexibility. The theta values for each of the five character strengths were -.0055 for appreciation of beauty and excellence (CI = -.0090, -.0030), -.0067 for curiosity (CI = -.0098, -.0040), -.0056 for fairness (CI = -.0087, -.0033), -.0063 for honesty (CI = -.0094, -.0039), and -.0056 for kindness (CI = -.0089, -.0032).

As presented in Tables 41-42, brooding was found to mediate the relationship between perceived interpersonal LGB-related stigma and both kindness and appreciation of beauty and excellence. Specifically, greater perceived interpersonal LGB-related stigma was associated with more brooding (B = .01, p = .00), and greater brooding was associated with higher levels of **kindness** (B = .21, p = .00) and **appreciation of beauty and excellence** (B = .15, p = .04). The indirect effect of perceived interpersonal LGB-related stigma on the two significant character strengths through brooding was positive, indicating that higher levels of perceived interpersonal stigma are correlated with higher levels of kindness and appreciation of beauty and excellence through higher levels of brooding. The theta values for kindness was .0022 (CI = .0007, .0048) and.0016 (CI = .0002, .0040) for appreciation of beauty and excellence. The regression models indicating that brooding was not a mediator of perceived interpersonal LGB-related stigma on

the other three character strengths (curiosity, fairness, and honesty) are presented in Tables 43-45.

Additionally, suppression was found to mediate the relationship between perceived interpersonal LGB-related stigma and kindness among LGB individuals (see Table 46). Although the association between perceived interpersonal stigma and suppression was not significant (B = .01, p = .08), it was found that greater suppression was associated with lower levels of **kindness** (B = .09, p = .01). Overall, the indirect effect of perceived interpersonal LGB-related stigma on kindness was negative ( $\Theta = -.0009$ , CI = -.0024, -.0001), indicating that higher levels of perceived interpersonal stigma are correlated with lower levels of kindness through higher levels of suppression. The regression models indicating that suppression was not found to mediate the association between perceived interpersonal stigma and the other four character strengths (appreciation of beauty and excellence, curiosity, fairness, and honesty) are presented in Tables 47-50.

As can be seen in Table 51, social support mediated the relationship between perceived interpersonal LGB-related stigma and fairness among LGB individuals. Like with suppression, the association between perceived interpersonal LGB-related stigma and social support was not significant (B = -.05, p = .13), but the association between the mediator and the outcome was significant, such that greater levels of social support were associated with higher levels of **fairness** (B= .02, p = .00). Overall, the indirect effect of perceived interpersonal LGB-related stigma on fairness was negative, indicating that higher levels of perceived interpersonal stigma are correlated with lower levels of fairness through lower levels of social support ( $\Theta$  = -.0010, CI = -.0025, -.0001). The regression models indicating that social support did not mediate the relation between perceived interpersonal LGB-related stigma and the other four character

strengths (appreciation of beauty and excellence, curiosity, honesty, and kindness) are presented in Tables 52-55.

In addition, as presented in Tables 56-60, reappraisal was associated with each of the five character strengths (appreciation of beauty and excellence, curiosity, fairness, honesty, and kindness). However, unlike the above mediators, reappraisal was not found to significantly mediate the association between perceived interpersonal LGB-related stigma and character strengths among LGB individuals.

Given that two other character strengths were found to be linearly and negatively associated with perceived interpersonal LGB-related stigma in aim 3, namely prudence and judgment, further mediation analyses were conducted to test a possible linear mediation model. All the mediation procedures remained the same as described earlier, with the exception of specifying all three individual paths  $(X \rightarrow Y, X \rightarrow M, Y \rightarrow M)$  as linear. As Hayes and Preacher (2010) noted, it is possible to use the MEDCURVE macro to examine mediation models in linear relationships. When all paths are specified as linear, the bootstrapping analyses provide an unstandardized regression coefficient *B* for the indirect effect of perceived interpersonal LGBrelated stigma on the character strength and the indirect effect of stigma through the specified mediator, as well as generate a bias-corrected 95% confidence interval. Confidence intervals that do not include 0 are statistically significant at the p < .05 level.

The indirect effects of perceived interpersonal stigma on prudence and judgment through all five mediators are presented in Table 61 and 62, respectively. Among the ten bootstrapping analyses that were conducted (5 mediators X 2 character strengths), only cognitive flexibility was found to mediate the relationship between perceived interpersonal LGB-related stigma and both prudence and judgment among LGB individuals. More specifically, it was found that

among LGB individuals, greater perceived interpersonal LGB-related stigma was associated with less cognitive flexibility (B = -.01, p = .00), and greater cognitive flexibility was associated with higher levels of **prudence** (B = .30, p = .00) and **judgment** (B = .46, p = .00). As presented in Tables 63-64, the indirect (i.e., mediated) effect of perceived interpersonal LGB-related stigma on both prudence and judgment through cognitive flexibility was negative, indicating that higher levels of perceived interpersonal stigma are correlated with lower levels of prudence (B = -.0042, CI = -.0073, -.0021) and judgment (B = -.0065, CI = -.0098, -.0038) through lower levels of cognitive flexibility. Tables 65-72 include the regression models of the other four insignificant mediators (brooding, suppression, social support, and reappraisal) of perceived interpersonal LGB-related stigma on prudence and judgment.

## 4.5. <u>Aim 5</u>

After identifying the significant mediators of the relationship between stigma and character strengths among LGB individuals, it is of further interest to then examine the potential relationship among perceived interpersonal stigma, character strengths, and mental health outcomes. More specifically, the **fifth** aim of the present study was to explore the character strengths that were significantly associated with stigma in aim 3 as potential mediators of the relationship between perceived interpersonal stigma and mental distress among LGB individuals. That is, upon establishing that perceived interpersonal stigma → mediators → character strengths, we next explored whether perceived interpersonal stigma → character strengths → mental distress.

Similar to the analyses conducted to address the fourth aim of the present study, I used Hayes and Preacher's (2010) SPSS MEDCURVE macro to employ bootstrapping analysis in order to test the significance of the indirect effect of the association between interpersonal LGBrelated stigma and mental distress among LGB individuals. Specifically, I used the MEDCURVE

macro script to employ bootstrapping analyses with 5000 resamples the individual path  $X \rightarrow M$ specified as quadratic and both paths  $X \rightarrow Y$  and  $Y \rightarrow M$  specified as linear. Similar to aim 4, internalized homophobia, social desirability, outness, and multiple forms of discrimination were controlled for. The hypothesized indirect effects were tested in 5 separate model runs, one for each mediator (i.e., character strength), as the MEDCURVE macro accepts only one mediator at a time.

The bootstrapping analysis examining the indirect effects of three levels of stigma (low, moderate, high) on mental distress through **all** five mediators is presented in Table 73 (i.e., thetas, standard errors, and lower and upper limits of the 95% confidence intervals). The bootstrapping analysis (presented in Table 74) revealed that, among LGB individuals who reported **low** levels of interpersonal LGB-related stigma, perceived stigma is indirectly associated with less **mental distress** through higher levels **curiosity** (*theta* = -.0357, CI = -.091, .006). Conversely, in LGB individuals who have experienced **high** levels of interpersonal LGB-related stigma, perceived stigma, perceived stigma was indirectly associated with more **mental distress** through low levels of **curiosity** (*theta* = .0205, CI = .004, .051). As presented in Tables 75-78, the remaining 4 character strengths (appreciation of beauty and excellence, fairness, honesty, and kindness) were not found to mediate the curvilinear relationship between stigma and mental distress among LGB individuals.

Similarly, prudence and judgment were not found to significantly mediate the linear negative relationship between stigma and mental distress. The bootstrapping analyses examining the indirect effects of stigma on mental distress through **both** prudence and judgment are presented in Table 79 (i.e., B, standard errors, and lower and upper limits of the 95% confidence intervals). The same bootstrapping analyses were employed, except for all three individual paths

were specified as linear this time. In addition, the (insignificant) regression models of prudence and judgment as mediators of perceived interpersonal stigma on mental distress are presented in Tables 80-81.

# 4.6. <u>Aim 6</u>

The **sixth** aim of the present study was to explore the same (significant) character strengths as possible mediators of the relationship between interpersonal stigma and well-being among LGB individuals. The analyses were conducted in the same way as described in aim 5, except for the outcome. Table 82 summarizes the bootstrapping analysis examining the indirect effects of three levels of stigma (low, moderate, high) on well-being through **all** five mediators.

Overall, all seven character strengths were found to significantly mediate the relationship between stigma and well-being in LGB individuals. Tables 83-87 present the results of the five regressions of each of the stigma-related strengths as mediators of the stigma-well-being relationship in the same order they are reported below. Among LGB individuals who reported **high** levels of interpersonal LGB-related stigma, perceived stigma was associated with lower scores on **appreciation of beauty of excellence** (*theta* = -.0520, CI = -.104, -.020), **fairness** (*theta* = -.0396, CI = -.085, -.011), **honesty** (*theta* = -.0743, CI = -.135, -.029), and **kindness** (*theta* = -.0426, CI = -.089, -.011), which were, in turn, associated with lower levels of **wellbeing**. Furthermore, the bootstrapping analysis revealed that, among LGB individuals who reported **low** levels of interpersonal LGB-related stigma, perceived stigma is indirectly associated with greater **well-being** through higher levels **curiosity** (*theta* = .0793, CI = .011, .172). On the other hand, in LGB individuals who have experienced **high** levels of interpersonal LGB-related stigma, perceived stigma was indirectly associated with lower levels of **well-being** through low levels of **curiosity** (*theta* = -.0476, CI = -.099, -.009). Notably, this finding mirrors the finding presented above about curiosity mediating the stigma-mental distress relationship, with opposite signs of the thetas for curiosity as a mediator of the stigma-well-being relationship.

Lastly, the bootstrapping analyses examining the indirect effects of stigma on well-being through **both** prudence and judgment are presented in Table 88 (i.e., B, standard errors, and lower and upper limits of the 95% confidence intervals). Tables 89-90 present the results of the two regressions of prudence and judgment as mediators of the stigma-well-being relationship. Specifically, prudence and judgment were found to mediate the linear relationship between stigma and well-being, such that **higher** levels of interpersonal LGB-related stigma were related to **lower** levels of prudence (*theta* = -.0205, CI = -.046, -.006) and judgment (*theta* = -.0494, CI = -.086, -.024) (i.e., **negative** relationship), which were, in turn, related to **less** well-being (i.e., **positive** relationship).

### DISCUSSION

#### 5.1. Summary of Findings

Drawing on the distinct, yet related, literatures of stigma, minority stress, stress-related growth, and positive psychology (with a focus on character strengths), the goal of the current study was to create and evaluate a conceptual model, the Stigma-Related Strengths model. This model was designed with the intention to illustrate the psychological processes leading from stigma (operationalized as LGB identity or perceived interpersonal LGB-related stigma) to the development of positive psychological attributes, specifically character strengths. Moreover, given the established relationship between character strengths, mental health, and well-being (Park, Peterson, & Seligman, 2004b), the identified stigma-related strengths were then examined as mediators of the relationship between perceived interpersonal LGB-related stigma and mental health, as well as of the relationship between perceived interpersonal LGB-related stigma and well-being, among LGB individuals. A summary of the current study's findings is presented in Table 91.

In order to examine the multiple components and possible trajectories included in the proposed Stigma-Related Strengths model, the present study had 6 aims. The first aim was to compare self-identified LGB and heterosexual individuals on character strengths. It was hypothesized that self-identified LGB individuals would score higher on measures of character strengths compared to heterosexual individuals. Given that no significant differences were found between self-identified LGB (using three different groupings, specifically, LGB, L+G/B, and L/G/B) and heterosexual individuals, the first hypothesis of the current study was not supported.

relationship between sexual identity (LGB vs. heterosexual) and character strengths, but no analyses were conducted as the first hypothesis was not supported.

The third aim was to examine the relationship between perceived interpersonal LGBrelated stigma and character strengths among LGB individuals. It was postulated that there would be an inverted U-shaped relationship between perceived interpersonal LGB-related stigma and character strengths, such that LGB individuals who experienced moderate levels of perceived interpersonal stigma would score higher on measures of character strengths compared to LGB individuals who experienced low or high levels of perceived interpersonal LGB-related stigma. Analyses revealed a significant quadratic association between perceived interpersonal LGB-related stigma and 5 character strengths, namely: (1) appreciation of beauty and excellence; (2) curiosity; (3) fairness; (4) honesty; and (5) kindness. As hypothesized, the curvilinear relationship between stigma and the five significant character strengths formed an inverted Ushape. In addition, a linear negative association was found between perceived interpersonal LGB-related stigma and (1) prudence and (2) judgment. Given that only 5 character strengths were curvilinearly related to perceived interpersonal LGB-related stigma, while two other character strengths were linearly and negatively associated with perceived stigma, it can be concluded that the third hypothesis of this study was only partially supported.

Building on the third aim, the fourth aim was to identify the possible cognitive, affective, and interpersonal mediators of the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals. Specifically, it was hypothesized that cognitive flexibility, reappraisal, suppression, brooding, and social support would mediate the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals. Among the 5 character strengths that were found to be curvilinearly related to

interpersonal stigma, analyses revealed that cognitive flexibility, brooding, and suppression mediated the relationship between perceived interpersonal LGB-related stigma and kindness. Cognitive flexibility and brooding mediated the relationship between interpersonal LGB-related stigma and appreciation of beauty and excellence. Moreover, in the association between perceived interpersonal LGB-related stigma and fairness, both cognitive flexibility and social support were found as mediators. The relationship between interpersonal stigma and curiosity was only mediated by cognitive flexibility, as well as the relationship between interpersonal stigma and honesty. Additional mediation analyses found cognitive flexibility to mediate the linear negative relationship between perceived interpersonal LGB-related stigma and prudence and judgment. In light of these findings, it can be concluded that hypothesis 4 was partially supported. It should be noted that among the aforementioned significant mediation models, greater cognitive flexibility, social support, and brooding were associated with **higher** levels of the investigated character strengths, whereas more suppression was associated with **lower** levels of kindness.

In an effort to explore the last component of the Stigma-Related Strengths model, the fifth aim was to explore the stigma-related strengths (that were identified in aim 3) as potential mediators of the relationship between perceived interpersonal stigma and mental distress among LGB individuals. Similarly, the sixth aim of this study was to examine the same stigma-related strengths as mediators of the stigma-well-being relationship. It was found that only curiosity mediated the relationships between interpersonal LGB-related and mental distress, and therefore, the fifth hypothesis of this study was only partially supported. In contrast, all five stigma-related strengths and prudence and judgment (negative linear relationships with interpersonal stigma)

mediated the association between perceived interpersonal LGB-related stigma and well-being among LGB individuals.

Overall, the Stigma-Related Strengths model was only partially supported by the findings of this study. More specifically, a greater number of hypotheses were not supported by the findings of the present study when compared to the number of hypotheses that were supported. However, it is evident that the current study builds on, complicates, and extends the current evidence about the complex relationship between stigma, positive outcomes, mental health, and well-being. Next, in separate sections, I will discuss in further detail the findings relevant to each aim, explicitly, aim(s) 1+2, 3, 4, and 5+6.

#### 5.1.1. Differences in Character Strengths as a Function of Sexual Identity (Aims 1 & 2)

From its early inception by prominent scholars such Williams James and Abraham Maslow (Froh, 2004) and its recent re-emergence (Seligman & Csikszentmihalyi, 2000), the field of positive psychology is often criticized for its overemphasis on individual differences and factors that affect one's mental health and well-being. As discussed earlier, more recently, a few recent studies in positive psychology explored group differences in character strengths based on different demographic variables such as culture (Biswas-Diener, 2006), nationality (McGrath, 2015a) gender, age, and religiosity (Littman-Ovadia & Lavy, 2012). While the similarities between the various groups in character strengths seem to be large in those past studies, a few significant differences were also found. It is, therefore, of great interest to explore betweengroups differences in character strengths based on sexual identity. In spite of the potential of such investigation to further elucidate the nature of character strengths and their determining factors, no studies have examined such differences. Thus, the present study is, to my best knowledge, the first to examine between-groups differences in character strengths between

heterosexual and LGB individuals. Although differences in character strengths between LGB and heterosexual individuals were hypothesized to be found because of the impact of sexual identity on one's personal character, the findings of the current study did not support such sexual identity-related differences. These findings suggest that sexual identity, and specifically LGB identity, does not affect one's character strengths. Therefore, the conceptual model developed for this study should be revised such that interpersonal LGB-related stigma, and not LGB identity, is the contributing factor to the development of character strengths. It should be added that sexual orientation consists of several dimensions other than sexual identity, such as sexual behavior, attraction, and fantasies. Although sexual identity was not found to have a significant impact on character strengths, other dimensions of sexual orientation may have a potential influence on the character strengths of LGB and heterosexual individuals alike.

The investigation of differences and similarities in character strengths between LGB and heterosexual individuals is the first primary contribution of the present study to the current (distinct) literatures on sexual identity and positive psychology. From a sexual identity research perspective, the finding of no significant differences between LGB and heterosexual individuals should not be discounted, but rather interpreted within a sociocultural context. That is, although at first glance it is clear that there were no differences found between LGB and heterosexual individuals in character strengths, it is critical to consider this finding in light of the societal treatment of LGB compared to heterosexual individuals. In a heterosexist and homophobic society where LGB individuals experience, on average, two incidents of heterosexist hassles a week (Swim, Johnson, & Pearson, 2009), it is nearly impossible to avoid exposure to adversity and discrimination (Moradi et al., 2009). Therefore, the finding of no differences between LGB and heterosexual individuals in character strengths is, at the very least, an indication of the

resilience of LGB individuals, i.e., their ability to bounce back from and thrive in the face of adversity. A clear distinction should be made between resilience and stress-related growth. While resilience refers to the ability to return to baseline in the face of adversity, growth means that the individual exceeded and rose above their baseline, therefore landing at a better place before the stressful/traumatic event (O'Leary & Ickovics, 1995). Put differently, while growth hypothesis would suggest that LGB individuals would be higher on character strengths compared to heterosexual individuals, the resilience hypothesis would suggest that LGB individuals would be the same as heterosexual individuals in character strengths despite facing more stigma and discrimination. Although resilience is a central component of stress theories, including the minority stress model, it is oftentimes overlooked in LGB research (Meyer, 2015). More specifically, the lack of group differences can possibly serve as evidence of LGB communitylevel resilience, which refers to the positive impact of the broader LGB community on its individual LGB members in developing and sustaining well-being in the face of adversity. Put differently, as social disadvantages limit individual-level resilience, resources provided by one's community may promote such individual resilience and well-being (Meyer, 2015).

From a positive psychology view, the lack of significant differences between LGB and heterosexual individuals on all twenty-four character strengths provide further evidence of the universality of character strengths in general, and preliminary support for the universality of character strengths across diverse sexual identity groups in particular. Indeed, the classification of character strengths led by Peterson and Seligman (2004) was developed with the intention of capturing universally-agreed-upon strengths that exist across multiple cultures, nations, and ideologies (Dahlsgaard, Peterson, & Seligman, 2005). Although previous studies found differences in character strengths across certain groups (e.g., gender: males vs. females; Littman-

Ovadia & Lavy, 2012), sexual identity was not found to have an impact on character strengths among LGB and heterosexual individuals. Thus, it can be cautiously argued that this study begins to suggest that sexual identity is perhaps not a determining factor of character strengths. Further studies are required, however, in order to replicate these results.

Lastly, it is important to note that within the field of positive psychology, character strengths are treated as individual differences as they exist in variable degrees in different people (Park, Peterson, & Seligman, 2004b). In fact, Seligman (2002) maintains that each person possesses signature strengths, which are typically one's top five character strengths. These signature strengths are thought to be the resources from which the individual can draw in the pursuit of well-being and happiness. Although this conceptualization was later criticized (Fowers, 2005), it may be speculated that no differences were detected between LGB and heterosexual individuals because every individual possesses all 24 character strengths to variable extents. Therefore, it is probable to assume that the differences between individuals will be lessened once individual data is aggregated.

# 5.1.2. <u>Stigma-Related Strengths: The Relationship between Interpersonal LGB-Related Stigma</u> and Character Strengths among LGB Individuals (Aim 3)

By integrating distinct, yet related, bodies of literature, a conceptualization of stigmarelated strengths was created for the purposes of the current study. The concept of stigma-related strengths is, in essence, the character strengths that LGB individuals possess as a result of experiencing interpersonal LGB-related stigma. The theoretical underpinnings of the construct of stigma-related strengths lie in the stress-related growth literature, according to which the perceived experience of stress may lead to the development of positive outcomes, and not only negative outcomes as commonly believed (Calhoun & Tedeschi, 2004).

Growth is conceptualized as a multidimensional construct and may be experienced and manifested in many different ways. Indeed, numerous studies report various growth domains and manifestations, and thereby lend further credence to the multidimensionality of the construct of growth. One such established growth domain is personal strength, which is defined as positive and desired changes to the self, or the development of character strengths (Antebi, 2014; Fromm, Andrykowski, & Hunt, 1996; Joseph & Linley, 2008; Massey, Cameron, Ouelette, & Fine, 1998; Park. Cohen, & Murch, 1996; Schwarzer & Knoll, 2003; Siegel & Schrimshaw, 2000; Taylor, 1983; Taylor, Lichtman, & Wood, 1984). Three other growth domains are openness to new possibilities, greater appreciation of life, and improved interpersonal relationships (Tedeschi & Calhoun, 1995; Calhoun & Tedeschi, 2004).

Interestingly, the five character strengths that were significantly and curvilinearly (inverted U-shaped relationship) associated with perceived interpersonal LGB-related stigma among LGB individuals-- (1) appreciation of beauty and excellence; (2) curiosity; (3) fairness; (4) honesty; and (5) kindness-- correspond with the growth domains mentioned above. In fact, Peterson et al. (2008) conducted a study about the relationship between character strengths and growth following stressful/traumatic events in which they noted specific character strengths that correspond with the components of growth as identified by Tedeschi and Calhoun (1995). Among other strengths, they classified kindness as corresponding with the domain of improved relationships, curiosity with openness to new possibilities, appreciation of beauty and excellence with greater appreciation of life, and honesty with enhanced personal strength.

Previous studies support the aforementioned classification of growth domains and their corresponding character strengths. Among other positive changes to one's personal character as a result of stress, honesty (i.e., authenticity and self-integrity) is a recurring trait reported in studies

about growth (Calhoun & Tedeschi, 2004; Goldman & Kernis, 2002; Tedeschi & Calhoun, 1995). Similarly, the character strength appreciation of beauty and excellence aligns with the growth domain of becoming more appreciative of life. It is often argued that people who experienced stress-related growth "stop to smell the flowers," a manifestation of an increased appreciation of beauty and life (Joseph, 2011; Miller, Merry, & Miller, 2008; Schmidt, 2013; Shim, Barroso, Gilliss, & Davis, 2013; Turner & Cox, 2004; Wood, Froh & Geraghty, 2010). In addition, the character strengths of kindness and fairness are, by nature, interpersonal strengths that capture a general sense of generosity and unbiased treatment of people. Such strengths may, in turn, lead to deeper and more meaningful interpersonal relationships. As for fairness, it is important to add that its relation with interpersonal LGB-related stigma is not surprising, as LGB people are fair and empathetic towards others (Antebi, 2011; Kleiman, Spanierman, & Smith, 2015), probably because of their own experiences of receiving biased treatment from others.

The resemblance between the stigma-related strengths that were found in this study and the well-established growth domains provides preliminary credibility to the concept of stigmarelated strengths. Furthermore, such parallel findings confirm the underlying assumption of the current study, according to which minority stress may contribute to growth, and especially the development of certain (but not all) character strengths among LGB individuals.

The five character strengths that are significantly associated with interpersonal LGBrelated stigma are not only consistent with previous studies on growth in general, but also with studies focusing on the strengths and positive aspects of LGB-identified individuals. A recent meta-analysis found that LGB individuals possess many character strengths, some of which were also found in the current study (e.g., honesty), while other strengths were not (e.g., love) (Vaughan et al., 2014). Among the documented LGB strengths, honesty and kindness, and to a

lesser extent, curiosity and fairness, are discussed more frequently in the academic literature, whereas appreciation of beauty and excellence is mostly demonstrated by popular writings (e.g., novels, biographies) and other art works and forms by LGB individuals. In fact, Vaughan et al. (2014) mention that there is a dearth of research on appreciation of beauty and excellence in general, and among LGB individuals in particular.

Curiosity is characterized by an ongoing interest and openness to explore novel expressions of self and life. Living in a heteronormative society poses many challenges for LGB individuals. When addressing such challenges LGB individuals are often required to demonstrate curiosity, or the openness to explore alternative ways of living. Indeed, previous research suggests that LGB individuals explore a plethora of ways to express themselves, mainly with regards to their gender, sex, sexuality, and relationships (Frost, 2011; Harper, Brodsky, & Bruce, 2012; Levitt & Hiestand, 2004; Riggle & Rotosky, 2011; Vaughan, 2007; Vaughan et al., 2014). In addition, the current study sheds light on curiosity from an LGB perspective, which was found to be understudied among other character strengths in a recent content analysis study on LGB strengths (Vaughan et al., 2014).

Like curiosity, issues pertinent to fairness (i.e., egalitarian treatment towards all people) are also mentioned in research about LGB individuals. Vaughan et al. (2014) reported that a total of 29 publications in their content analysis study discussed a commitment to fair and unbiased treatment of others, as well as involvement and affiliation with organizations and institutions devoted to the promotion of equality and broader justice. Interestingly, all of the 29 publications were either qualitative or non-empirical, including theoretical/conceptual articles, personal narratives, and program descriptions (Vaughan et al., 2014). Therefore, it can be concluded that although fairness seems to be a recurrent theme in LGB research, this study is the first to

quantitatively examine this construct among LGB individuals and lend preliminary support to its possession among LGB individuals.

Honesty, also defined as authenticity and integrity, is oftentimes found to be related to the experience of being LGB (Buhrke, Ben-Ezra, Hurley, & Ruprecht, 1992; Clark & Serovich, 1997; Huang et al., 2010; Phillips, Ingram, Smith, & Mindes, 2003). Many theories and models of identity formation and development among LGB individuals include the stage of accepting oneself and as a result, disclosing and sharing one's LGB identity with others, also known as coming out (Cass, 1979; Diamond, 2008; Martos, Nezhad, & Meyer, 2015; Morris, 1997; Rosario, Hunter, Maguen, Gwadz, & Smith, 2001; Savin-Williams & Cohen, 2015; Savin-William & Ream, 2007; Troiden, 1979, 1989; See Eliason, 1996 for a review). In all of the aforementioned models and theories, the psychological process of self-acceptance and coming out is characterized by having a renewed sense of honesty, self-integrity, and authenticity about one's "true" self. Furthermore, LGB individuals who have come out also report that the burden of concealing their authentic identity in contrast to the benefits of coming out made them not only more authentic with themselves, but also more honest with others (Vaughan, 2007). Other studies with LGB individuals also note the heightened sense of honesty and authenticity as a positive aspect of being LGB, among other positive aspects (Goldman & Kernis, 2002; Riggle et al., 2008; Riggle & Rostosky, 2011; Rostosky, Riggle, Pascale-Hague, & McCants, 2010).

Kindness is characterized as being generous, altruistic, caring and compassionate towards others. Similar to the other character strengths discussed above, previous research also lends support to the association between stigma and kindness among members of stigmatized groups, especially LGB individuals. Although indirectly related to kindness, both qualitative and quantitative studies report that LGB individuals believe that their experiences with stigma and

discrimination made them more empathetic, altruistic and compassionate towards the suffering of others (Antebi, 2011, 2014; Asakura & Craig, 2014; Ellis, Hoffman, & Burke, 1990; Harper, Brodsky, & Bruce, 2012; Levitt, Gerrish, & Hiestand, 2003; Massey, Cameron, Ouelette, & Fine, 1998; Riggle et al., 2008; Riggle & Rostosky, 2011; Rostosky, Riggle, Pascale-Hague, & McCants, 2010; Salais & Fischer, 1995; Sergeant, Dickins, Davies, & Griffiths, 2006; Vaughan, 2007; Vaughan & Waehler, 2010). Moreover, LGB participants in these studies also perceived that their stigma-related experiences made them value their interpersonal relationships and make them emotionally deep and meaningful (Berger, 1990; Manley, Levitt, & Mosher, 2007; Mosher, Levitt, & Manley, 2006; Riggle et al., 2008; Riggle & Rostosky, 2011; Rostosky, Riggle, Pascale-Hague, & McCants, 2010; Vaughan, 2007; Vaughan & Waehler, 2010).

Clearly, the stigma-related strengths model that was developed and tested for the present study was not fully supported. In fact, two other character strengths were found to be linearly and negatively related to perceived interpersonal LGB-related stigma among LGB individuals, namely judgment and prudence, contrary to the hypothesized relationships. According to the classification of character strengths, judgment is defined as holding a critical perspective, being open-minded and thinking things through (Peterson & Seligman, 2004). In contrast to previous theoretical and empirical studies that suggest the members of stigmatized groups are more likely to develop a critical viewpoint and be more open-minded than members of privileged groups (Daly, 1973; Goffman, 1963; Harding, 1986; Kleiman, Spanierman, & Smith, 2015; Riggle & Rostosky, 2011), the findings of the present study suggest that experiencing stigma is actually associated with lower levels of open-mindedness and critical thinking.

As only 7 of the 24 character strengths were associated with perceived interpersonal LGB-related stigma, it is worth mentioning the character strengths that were hypothesized, but

were not found, to be associated with interpersonal stigma among LGB individuals. As noted in the introduction, these character strengths are social intelligence, creativity, and love. Although theoretical writings and empirical evidence point to the relationship between experiencing stigma and becoming more socially intelligent (Goffman, 1963; Riggle & Rostosky, 2011) and more creative (Brown, 1989; Riggle & Rostosky, 2011), the findings of the current study did not support this theorized relationship among LGB individuals who experience interpersonal LGBrelated stigma. In addition, numerous studies mentioned above report that LGB individuals perceive their lifetime stigma-related experiences/being LGB as contributing to the quality, meaning, and value of their interpersonal relationships (Berger, 1990; Manley, Levitt, & Mosher, 2007; Mosher, Levitt, & Manley, 2006; Riggle et al., 2008; Riggle & Rostosky, 2011; Rostosky, Riggle, Pascale-Hague, & McCants, 2010; Vaughan, 2007; Vaughan & Waehler, 2010). In contrast to the perceptions of LGB individuals who participated in those aforementioned studies, the character strength love, which is described as valuing close relationships as well as loving and being loved, was not found to be related to perceived interpersonal LGB-related stigma among LGB participants in the current study. However, other studies suggest that LGB-related stigma across multiple levels (i.e., structural, interpersonal, and internalized) has a negative and lasting effect on interpersonal relationships and intimacy building among LGB individuals (Frost, 2011; Frost & Meyer, 2009; Peplau & Fingerhut, 2007). Thus, it might be the case that for some LGB individuals, stigma is negatively related to love, whereas for other LGB individuals, stigma is positively related to love such that any linear relationship between interpersonal stigma and love might be canceled, producing an overall null effect. In contrast to the current study, in previous studies, the association between experiencing LGB-related stigma and love-related issues was made explicit, and participants were asked to explicate, either

qualitatively or quantitatively, how stigma may affect their interpersonal relationships and loverelated goals (Frost, 2011; Frost & Meyer, 2009; Peplau & Fingerhut, 2007). This methodological difference between prior research and the present study may also explain the non-significant finding about the relation between interpersonal LGB-related stigma and love among LGB individuals.

In sum, given that only a limited number of character strengths were found to be related to interpersonal LGB-related stigma begs to conclude that the stigma-related model is applicable to only certain character strengths. The contribution of the present study with regards to the findings of its third aim is threefold. First, the investigation of perceived interpersonal LGBrelated stigma and character strengths is done separately. That is, most if not all studies discussed above have instructed their participants to note the strengths and positive aspects of either experiencing stigma and discrimination or being LGB. Therefore, in those previous studies, the association between stigma-related experiences and character strengths was made explicit, whereas participants in the current study were blinded to the leading research question for this aim, which focused on identifying the character strengths that are associated with perceived interpersonal LGB-related stigma. Consequently, this study's findings about the association between perceived interpersonal stigma and character strengths in LGB individuals may be considered as a preliminary, yet more methodologically sound corroboration of the aforementioned earlier studies' findings. As such, the findings of this study empirically tested previously theorized, hypothesized, or perceived associations between stigma-related experiences and specific character strengths, such as love, creativity, and social intelligence that were not found to be associated with stigma among LGB individuals. Second, this study is the first, to the writer's best knowledge, that examined a quadratic relationship between stress (i.e.,

interpersonal stigma) and positive psychological outcomes (i.e., character strengths) among LGB individuals. In general, not many studies have explored the association between stress and character strengths, and even less have explored a quadratic (i.e., inverted U-shaped) relationship between these constructs, despite theoretical and empirical evidence supporting such investigation (Schuldberg, 2007). Third, this study's findings lend further support to previous studies reporting on the relation between stigma-related experiences and character strengths, such as honesty and kindness, among others.

#### 5.1.3. <u>Mechanisms of Stigma-Related Strengths in LGB Individuals (Aim 4)</u>

One of the main components of the Stigma-Related Strengths Model is the mechanisms through which perceived interpersonal LGB-related stigma is related to character strengths among LGB individuals. The fourth aim of this study explored 5 potential mediators grouped into three categories: cognitive, affective, and interpersonal mechanisms, reflecting the three main pillars of the field of psychology.

As discussed earlier in greater detail, the experience of stress is not sufficient for growth to ensue (Joseph & Linley, 2005; Park, 2010; Tedeschi & Calhoun, 2004). Instead, it is the process of meaning-making, reevaluating, and reintegrating one's assumptive world with the stressful event that enables growth. These processes of self-reintegration are accompanied by a myriad of cognitive, emotional, and social coping strategies, and are therefore considered mechanisms of growth (Frankl, 1963; Park, 2008; Tedeschi & Calhoun, 1995).

This study is the first to examine the relationship between cognitive flexibility and character strengths, and the first to test cognitive flexibility as a mediator of the relationship between perceived interpersonal LGB-related stigma and character strengths among LGB individuals. Although many definitions of cognitive flexibility can be found in the literature,

most definitions include the three central aspects of cognitive flexibility, which are: (1) awareness of and ability to generate multiple alternative explanations for any given situation; (2) tendency to perceive various difficult situations as controllable; and (3) willingness to be flexible and self-efficacy in being flexible (Dennis & Vander Wal, 2010; Martin & Rubin, 1995). Cognitive flexibility contributes to one's adaptive coping, and thereby leads to positive and desired outcomes (Koesten, Schrodt, & Ford, 2009). Indeed, cognitive flexibility was found to be positively related to a plethora of adaptive coping strategies and positive psychological outcomes, such as competent interpersonal communication (Spitzberg, 2003), self-compassion (Martin, Staggers, & Anderson, 2011), personal insight (Grant, Franklin, & Langford, 2002), higher self-esteem, optimism, and life satisfaction (Mellor, Cummins, Karlinski, & Storer, 2003), overall social flexibility (Singelis, Hubbard, Her, & An, 2003), and adaptability (Hullman, 2007). Furthermore, cognitive flexibility is assumed to stimulate positive thinking and increase one's self-efficacy in adapting to and overcoming challenging situations (Beck, 1967; Bilgin, 2009; Dennis & Vandel Wal, 2010). For all of these reasons, it is not surprising that cognitive flexibility was positively related to all five stigma-related strengths, such that greater cognitive flexibility was associated with higher levels of appreciation of beauty and excellence, curiosity, fairness, honesty, and kindness.

Conversely, perceived interpersonal LGB-related stigma was associated with less cognitive flexibility, a finding that contradicts the hypothesis of the current study regarding the relationship between stigma and cognitive flexibility among LGB individuals. The negative association between interpersonal LGB-related stigma and cognitive flexibility among LGB individuals may be explained in different ways. First, stigma has been shown to deplete self-regulatory capacities and to promote a "tunnel vision (Inzlicht et al., 2006; Fredrickson, 1998),

which in turn may reduce one's cognitive flexibility (Hayes et al., 2004). Furthermore, according to Masuda et al. (2009), holding stigmatizing beliefs reflects the holder's psychological inflexibility. Although discussed in the context of people who endorse mental health stigma, Masuda et al.'s (2009) study may shed further light on the negative association between interpersonal LGB-related stigma and cognitive flexibility among LGB individuals. As greater interpersonal stigma leads to greater self-stigma (Vogel et al., 2013), it is probable to assume that LGB individuals who experience higher rates of interpersonal LGB-related stigma would internalize this stigma, which in turn, would have a negative effect on their level of cognitive and psychological flexibility. Another possible explanation may be derived from the finding of the third aim of the present study, according to which judgment (i.e., open-mindedness) is also negatively and linearly associated with interpersonal LGB-related stigma. Given the positive relationship between cognitive flexibility and open-mindedness (Martin & Rubin, 1995; Martin, Staggers, & Anderson, 2011), it is likely that interpersonal stigma will also be negatively related to cognitive flexibility. Third, when reviewing the current literature about the relationship between cognitive flexibility and LGB self-identification, mixed evidence is reported. While Konik and Crawford's (2004) study showed that bisexual participants scored higher in cognitive flexibility compared to heterosexual, gay, and lesbian individuals, other studies reported no difference in cognitive flexibility between LGB and heterosexual participants (Moore & Norris, 2005; Zinik, 1983).

Rumination is the tendency to repetitively focus on the experience of distress and its consequences (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Brooding, a severe form of rumination, was found to be a mechanism of the relationship between perceived interpersonal LGB-related stigma and both kindness and appreciation of beauty and excellence. More

specifically, perceived interpersonal LGB-related stigma was found to be positively associated with brooding, which in turn was associated with higher levels of kindness and appreciation of beauty and excellence. The relationship between interpersonal stigma and rumination is consistent with prior research suggesting that stigma-related experiences lead to heightened ruminative self-focus among LGB individuals (Hatzenbuehler, 2009; Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009; Lewis et al., 2006). Similarly, the relationship between brooding and character strengths is consistent with theoretical and empirical evidence about stress-related growth, suggesting that rumination is a precursor of growth (Calhoun et al., 2000; Lindstron, Cann, Calhoun, & Tedeschi, 2013; Prati & Pietrantoni, 2009; Stermac et al., 2014; Taku, Calhoun, Cann, & Tedeschi, 2008; Tedeschi & Calhoun, 1995), and therefore, of character strengths. Although it might seem counterintuitive to assert that rumination contributes to the experience of growth, ruminative processes allow for meaning-making of the stressful/traumatic event, which in turn facilitates the reintegration of the event and its consequences into one's assumptive world (Janoff-Bulman, 1992; Tedeschi & Calhoun, 2004). An alternative speculative explanation for these findings might be provided by studies that show the differential effect of rumination versus reflective processing of negative emotions. For example, one study revealed that people who engage in self-distancing in addition to focusing on why a specific event (i.e., reflection) occurred experience lower levels of negative affect when compared to those who are immersed and focused on what occurred (Kross, Ayduk, & Mischel, 2005). It remains to be determined why brooding did not mediate the associations between interpersonal LGB-related stigma and curiosity, fairness, and honesty. One potential explanation can be found in the growth literature, where it was shown that rumination was associated with certain growth domains, namely appreciation of life and relating to others, while unrelated to other domains, such as

personal strength (Calhoun et al., 2000). Given that curiosity and honesty are considered to be personal strengths, this may be one reason why they were not associated with rumination. As to the relation between rumination and fairness, the non-significant results may be explicated by the kind of questions people who engage in rumination focus on--questions that are usually centered around justice and fairness (e.g., "Why me?"; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008)

A significant body of research suggests that rumination (and brooding) is a maladaptive emotion regulation strategy (Lyubomirsky & Tkach, 2004; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Pavani et al., 2015; Trapnell & Campbell, 1999). Furthermore, Hatzenbuehler (2009) provides ample evidence to the mediating role of rumination and brooding in the association between stigma and psychopathology among LGB individuals. However, in his comprehensive review paper, Watkins (2008) presents abundant evidence suggesting that repetitive thought (i.e., rumination, brooding) has both negative and positive consequences on the personal character, health, and well-being of the individual. Among the various positive consequences of rumination, recovery from stress/trauma and adaptive preparation are identified, which lend further support to the facilitative effect of rumination on adaptation to and growth as a result of challenging situations, which LGB individuals constantly face. He also notes several factors that determine whether rumination would have positive or negative consequences, such as the context in which the rumination occurs (Watkins, 2008).

Like brooding, suppression, which is characterized by reducing and inhibiting emotional expressivity (Gross & Levenson, 1993), is also a mediator of the relationship between perceived interpersonal LGB-related stigma and kindness among LGB individuals. However, unlike brooding, higher levels of perceived interpersonal stigma are correlated with **lower** levels of kindness through **higher** levels of suppression. This finding is consistent with previous research

showing that suppression typically leads to a myriad of negative cognitive, affective, and social consequences, and is associated with unhealthy adaptation (Aldao & Nolen-Hoeksema, 2010; Borton, Markowitz, & Dietrich, 2005; Carver, Scheier, & Weintraub, 1989; Folkman & Lazarus, 1980; John & Gross, 2004; Polivy & Herman, 2002; Romer & Borkovec, 1994). In fact, a growing body of literature suggests that suppressing emotions may not only be unhelpful in avoiding such emotions, but can actually increase both the frequency and severity of these emotions (Hayes, Strosahl, & Wilson, 1999; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Wegner & Erber, 1992; Wegner, Schneider, Carter, & White, 1987).

According to Gross' (1998) temporal perspective of various emotion regulation efforts, a distinction is drawn between antecedent-focused and response-focused emotion regulation strategies. He (Gross, 1998) further contends that suppression comes relatively late in the regulative process and primarily modifies the behavioral manifestations of experiencing the negative emotion, without reducing its negative emotional manifestation. As a result, the negative emotion lingers and the individual is continually attempting to manage and suppress such negative emotions as they arise. These repeated unsuccessful efforts do not come without their price, as they consume and even deplete the individual's psychological resources that could otherwise be used for optimal adaptation, resilience, and even growth (John & Gross, 2004). Moreover, engaging in continuous efforts of suppression may also negatively affects one's psychological character, as it may create a sense of discrepancy, and therefore inauthenticity, between what the person feels and how they behave (Higgins, 1987; Rogers, 1951). Such negative feelings of dishonesty and lack of self-integrity may, in turn, lead to self-bashing and alienation from others, a process that in itself may have pervasive deleterious effects on the individual's adaptation and character (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Based on

these aforementioned explanations, it is not surprising that suppression was found to be negatively associated with lower levels of kindness among LGB individuals, and to be a mediator through which interpersonal LGB-related stigma is related to lower levels of kindness.

The last mechanism of stigma-related strengths among LGB individuals is social support. In particular, social support was a mediator of the association between perceived interpersonal LGB-related stigma and fairness, such that greater interpersonal stigma is related to lower levels of fairness through less social support. Although prior evidence points to the moderating effect of social support in the relationship between stigma and health and well-being (Link & Phelan, 1995; Meyer, 2003), the findings of this study add to the mounting literature suggesting that stigma may also lead to lower levels of social support (Fernández et al., 2014; Hatzebuehler, 2009; Link et al., 1997). Similarly, the positive relationship between social support and fairness among LGB individuals in the present study also adds to a growing body of literature showing that social support can positively affect the personal character of members of stigmatized groups, including LGB individuals (Blaine & Crocker, 1995; Crocker & Major, 1989; Fergus & Zimmerman, 2005; Granovetter, 1973; Harper, Brodsky, & Bruce, 2012; Haslam et al., 2009; Hershberger & D'Augelli, 1995; Herrick, Friedman, & Stall, 2013; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009; James, Lovato, & Khoo, 1994; Kaminski, 2000; Lehmiller & Konkel, 2013; Madsen & Green, 2012; McDavitt et al., 2008; McMillan, 1996; Meyer, 2003; Postmes & Branscombe, 2002; Schmitt & Branscombe, 2002; Taylor, 1996; Vincke & Heeringen, 2002). In fact, social support is believed to have such a positive impact on the personal character and wellbeing of LGB individuals that it was recently proposed as one of their three principal resilience factors (Kwon, 2013). In addition, this finding is also consistent with previous studies showing that social support is a mechanism of growth, as reported in a meta-analytic review (Prati &

Pietrantoni, 2009). That being said, social support did not mediate the relationship between interpersonal LGB-related stigma and the other four stigma-related strengths. According to Beck (1967, 1976), prior experience with unfair treatment and unsupportive relationships may bias people's judgment such that supportive attempts are perceived as unhelpful and less likely to be recalled than unsupportive attempts. Thus, it is possible that experiencing interpersonal stigma may bias the perception of LGB individuals regarding the availability of social support, which in turn may render them less capable of developing curiosity, honesty, appreciation of beauty and excellence, and kindness. This hypothesis awaits further empirical testing. It is perhaps not surprising that only fairness was related to social support, as the perception of social support and fair treatment are inextricably related (Lakey & Cassady, 1990).

Perhaps the most surprising finding pertinent to the fourth aim of the current study is the non-significant results of reappraisal as a potential mediator of stigma-related strengths among LGB individuals. An abundance of theoretical and empirical literature points to the positive impact of reappraisal in adapting to challenging and stressful situations in general (Butler et al., 2003; Folkman & Moskowitz, 2004; Gross & Thompson, 2007; John & Gross, 2004; Pavani et al., 2015), and in LGB individuals in particular (Hill & Gunderson, 2015; McDavit et al., 2008; Meyer, 2003; Pachankis & Goldfried, 2010). In fact, like social support, reappraisal is considered to be another principal resilience factor among LGB individuals (Kwon, 2013).

Despite theoretical and empirical evidence showing that reappraisal may positively affect one's personal character and well-being in the face of stigma and discrimination, Soto et al. (2012) report that among Latinos who perceive high levels of discrimination, reappraisal fails to counteract the effects of discrimination on well-being. Although speaking specifically of racism, Outlaw (1993) also contends that discrimination may not easily be reappraised in a more positive

manner, if at all. Given that stigma-related experiences are usually uncontrollable and typically evoke a sense of injustice, it is unlikely that reappraising the negative stigma-related experience as positive is possible, and even if it is, such processes might not be rendered useful. Conversely, being cognitively flexible, which entails being able to generate alternative explanations for such stigma-related experiences, and perceiving such negative experiences as possibly controllable (Dennis & Vander Wal, 2010; Martin & Rubin, 1995), may be a more promising strategy in facilitating growth and stigma-related strengths among LGB individuals when compared to reappraisal. It is important to note that cognitive flexibility and reappraisal are related (Ahn, Kim, & Park, 2008), yet distinct constructs and strategies. While reappraisal entails reconstructing a negative experience, including its causes and consequences as positive, cognitive flexibility simply allows for the expansion of one's perspective, which in turn increases self-efficacy and ability to behave accordingly.

This finding, taken together with the other findings pertinent to the fourth aim of the present study, lends considerable support to Bonanno and Burton's (2013) regulatory flexibility perspective of coping and emotion regulation. According to this perspective, no one emotion regulation or coping strategy is always adaptive or maladaptive (a misconception they label as the "fallacy of uniform efficacy"; Bonanno & Burton, 2013), but rather stressor- and context-dependent. That is, a certain emotion regulation strategy (e.g., reappraisal) may be useful in dealing with a specific challenging situation, but not when facing other situations. It is likely that different types of interpersonal forms of stigma (e.g., being treated unfairly by family vs. strangers) could lead to different emotion regulation strategies, a possibility that warrants greater attention in future research. For example, given the importance of familial support to the well-being of LGB individuals (especially youth) (Ryan et al., 2009), familial homophobia may be

potentially traumatic such that reappraisal efforts would be impossible, or if successful, potentially damaging as the discriminatory treatment persists (Schulman, 2009). Conversely, LGB individuals who engage in reappraisal efforts after experiencing discrimination by strangers may be better equipped to deal with the negative consequences of such discrimination as they are not emotionally tied to the perpetrators.

The findings of the current study show how rumination/brooding, an emotion regulation strategy that is commonly thought to be maladaptive, is also a mechanism of stigma-related strengths, which are positive and desired human traits. Conversely, this study's findings also did not support the presumed ever-positive effect of reappraisal, an emotion regulation strategy that is considered strictly adaptive (John & Gross, 2004), on developing stigma-related strengths among LGB individuals.

It is worth speculating why some stigma-related strengths were mediated by multiple (separate) mechanisms, while other strengths were mediated only by cognitive flexibility. More specifically, kindness was mediated by three mechanisms, both fairness and appreciation of beauty and excellence by two mechanisms, and curiosity and honesty by one (i.e., cognitive flexibility). Put differently, except for cognitive flexibility, the other mechanisms, namely, brooding, suppression, and social support, mediated only two or one of the stigma-related strengths, respectively. One possible explanation for such inconsistent associations between the various mechanisms and the identified stigma-related strengths is that some character strengths (i.e., appreciation of beauty and excellence and kindness) are more strongly and positively related to coping, and possibly coping flexibility, than other character strengths (Cheng, Lau, & Chan, 2014; Gustems-Carnicer & Calderón, 2015).

In sum, the conceptual model of Stigma-Related Strengths addresses older and more recent calls for the development of a coherent framework of LGB strengths, as psychology lacks scientifically informed perspectives on these strengths (Bonet, Wells, & Parsons, 2007; Domínguez, Bobele, Coppock & Peña, 2015; Horne, Puckett, Apter, & Levitt, 2014; Moradi et al., 2009; Savin-Williams, 1990, 2001, 2005, 2008; Vaughan & Rodriguez, 2014). By identifying the character strengths associated with interpersonal stigma among LGB individuals, as well as the mechanisms facilitating the development of such strengths, this study advances the current knowledge about the impact of stigma on the personal character of LGB individuals. More specifically, this study provides preliminary evidence about the construct of stigma as being a double-edged sword. It is apparent that stigma is not necessarily and solely associated with negative and unfortunate consequences, but also with desired character strengths.

In sum, the stigma-related strengths model is somewhat useful in explaining the development of character strengths among LGB individuals. However, when investigating the development of a *specific* character strength, say kindness, only certain mechanisms are applicable, specifically cognitive flexibility and brooding. Therefore, in an effort to revise and improve the stigma-related strengths model, Bonanno and Burton's (2013) regulatory flexibility framework should be considered and incorporated into the model in order to account for the inconsistent findings with regards to the mechanisms of stigma-related strengths among LGB individuals.

# 5.1.4. Stigma-Related Strengths, Mental Health, and Well-Being (Aims 5 & 6)

By definition, character strengths are considered to be desired and valued characteristics that positively affect one's health and well-being (Park, Peterson, & Seligman, 2004b). As such, character strengths and positive self-concept are critical factors in efficacious adaptation and

adjustment in the context of adversity (Frable, Wortman, & Joseph, 1997; Kaminski, 2000; Luhtanen, 2002; Masten, 2001). After identifying the stigma-related strengths and their respective mechanisms, the present study further explored their association with mental health and well-being among LGB individuals. Such investigation addresses the mechanisms that explain the relationship between stigma and mental health and well-being, a topic that is understudied (Major, Berry Mendes, & Dovidio, 2013).

Among all 5 tested stigma-related strengths and prudence and judgment, only curiosity was found to mediate the association between perceived interpersonal stigma and mental distress among LGB individuals, such that higher levels of curiosity were related to lower levels of mental distress. This finding is in line with previous research about the negative relation between curiosity and mental distress (Gillham et al., 2011; Kashdan, Rose, & Fincham, 2004; Kashdan et al., 2006; Seligman, Steen, Park, & Peterson, 2005), although more research is required to address this association. In addition, this study is, to my best knowledge, the first study to examine the character strengths as mechanisms of lower mental distress among LGB individuals who experience interpersonal LGB-related stigma.

Mirroring the association between curiosity and mental distress, the findings of the present study also show that curiosity mediates the relationship between perceived interpersonal LGB-related stigma and well-being, such that higher levels of curiosity are related to higher levels of well-being among LGB individuals. The same relationship was found between well-being and appreciation of beauty and excellence, fairness, honesty, kindness, prudence, and judgment. Therefore, it can be concluded that all five stigma-related strengths and prudence and judgment (i.e., linearly and negatively related to interpersonal stigma) are mechanisms of well-being among LGB individuals. As previous research points to the negative association between

holding a stigmatized LGB identity and well-being (Hatzenbuehler, 2009; Herek & Garnets, 2009; King et al., 2008; Meyer, 2003; Riggle, Rostosky, & Danner, 2009), the findings of the current study reveal some of the mechanisms through which well-being can be improved among LGB individuals.

When testing all 24 character strengths, prior research on the relation between character strengths and well-being found that hope, zest, gratitude, curiosity, and love are most strongly correlated with well-being (Park, Peterson, & Seligman, 2004a,b). Honesty, fairness, kindness, prudence, and judgment were moderately associated with well-being, and appreciation and beauty and excellence were only weakly related to well-being in two out of three samples (Park, Peterson, & Seligman, 2004b). In contrast, the findings of the present study suggest that all five stigma-related strengths and prudence and judgment are positively and significantly associated with well-being among LGB individuals. Below, I discuss in detail the associations of each of the five stigma-related strengths with well-being among LGB individuals.

The positive relationship between appreciation of beauty and excellence and well-being was also reported in a recent study by Martínez-Martí et al. (2015). They found that people who score high on appreciation of beauty and excellence experience greater satisfaction with life, report more positive emotions and overall vitality, perceive constant personal growth, have a higher sense of purpose in life, and are generally more hopeful compared to those who scored lower on appreciation of beauty and excellence (Martínez-Martí et al., 2015). They further note that people who report high levels of appreciation of beauty and excellence tend to be more empathetic, compassionate, actively concerned for the well-being of others, and strongly believe in the positive nature and good intentions of others (Martínez-Martí et al., 2015). For all these

reasons, it is clear why appreciation of beauty of excellence is a mechanism of well-being among LGB individuals.

Curiosity is one of the top five character strengths that are related to well-being (Gallagher & Lopez, 2007). Kashdan, Rose, and Fincham (2004) propose two underlying dimensions of curiosity that are thought to promote well-being and personal growth: (1) exploration, which refers to a general inclination to pursue and seek novel information and experiences; and (2) absorption, referring to a tendency to completely and mindfully focus one's attention on a specific task, which is conceptually related to the positive psychological notion of flow states (Csikszentmihalyi, 1990). Therefore, individuals who score high on measures of curiosity are more likely to attentively focus on and explore novel and challenging situations, be fully engaged in such experiences, and ultimately benefit and grow from these experiences. Indeed, in a daily diary study among 97 college students, on days when they reported higher state curiosity, those high in trait curiosity experienced more frequent growth-oriented behaviors and greater satisfaction with life than those low in state curiosity (Kashdan & Steger, 2007). People high in trait curiosity also reported higher sense of meaning, above and beyond personality correlates, such as the Big Five (Kashdan & Steger, 2007). Altogether, prior research on curiosity has revealed that curiosity is positively related to well-being and life satisfaction (Diener, 2000; Kashdan, Rose, & Fincham, 2004; Park, Peterson, & Seligman, 2004a), consistent with this study among LGB individuals.

Fairness is among the character strengths that are conceptually related to well-being (Diener, Oishi, & Lucas, 2003; Keyes, 1998), yet remains scarcely studied compared to other strengths. Although only tangentially related, one study showed that a belief in fair treatment by parents is positively associated with greater social and emotional well-being among children, as

well as improved self-esteem (Kowal et al., 2002). Two other studies by Park and Peterson (2006c, 2008) suggest that fairness predicted higher grades as measured before and after an academic year, which is considered an aspect of academic well-being. Given the dearth of studies on this topic, it could be speculated that fairness is positively related to well-being among LGB individuals, as an unbiased treatment of others may facilitate greater social support from and closeness to other members of the broader LGBTQ community, as well as other stigmatized populations that may experience the same challenges, and can therefore serve as allies. Greater social support and connectedness to a community of like-minded people were both shown to be positively related to well-being among LGB individuals, as previously discussed.

Honesty is another factor contributing to well-being among LGB individuals as suggested by the findings of this study. Indeed, past research on honesty and authenticity shows that the more honest and authentic a person feels, the greater their levels of well-being and psychological functioning (Goldman & Kernis, 2002; Sheldon & Kasser, 1995; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Furthermore, honesty and authenticity were found to be positively related to selfesteem, optimism and positive affect (Goldman & Kernis, 2002; Harter, Marold, Whitesell, & Cobbs, 1996; Heppner et al., 2008; Sheldon et al., 1997; Wood et al., 2008). Goldman and Kernis' (2002) study further revealed strong positive correlations between authenticity and subjective well-being, and modest positive correlations with self-worth, life satisfaction and less negative affect. Significant positive associations were found among honesty, secure attachment styles, and well-being (Leak & Cooney, 2001). Although none of the aforementioned studies were conducted with LGB samples, the findings of the present study add to the current literature on honesty and authenticity and provide further support to their positive association with wellbeing. The last stigma-related strength that was positively associated with well-being among LGB individuals is kindness. Although this study is the first to examine this relationship among LGB individuals, previous research provides evidence for the positive association between kindness and well-being (Lavy & Littman-Ovadia, 2011). Furthermore, several strength-based interventions suggest that kindness is not only associated with, but also leads to, well-being. For example, past studies reported that participants who performed and monitored their random acts of kindness experienced an increased sense of happiness and well-being when compared to the control group (Layous et al., 2012; Lyuobomirskly, 2008; Lyuobomirskly, Sheldon, & Schkade, 2005; Otake et al., 2006). These studies lend support to the role of kindness as a determinant of well-being in the general population, and when combined with the findings of this study, also among LGB individuals.

Prudence and judgment were also found to be positively related to well-being among LGB individuals in the current study, replicating previous research supporting this association (Park, Peterson, & Seligman, 2004a). Interestingly, previous studies on prudence and judgment have focused on physical well-being rather than mental well-being. This is not surprising, as people who score high on prudence may experience greater physical well-being by their tendency to avoid undue risks and carefully examine both potential positive and negative consequences of a specific behavior before pursuing said behavior (Peterson & Seligman, 2004). Indeed, one study revealed that people who score high on prudence reported higher levels of abstinence from alcohol, lower risk of drinking, and fewer negative consequences of drinking among heavy drinkers (Logan, Kilmer, & Marlatt, 2010). Relatedly, being open-minded (i.e., people who score high on judgment) is associated with having a critical perspective that is both multidimensional and inclusive of different ways of acting and engaging in a certain behavior

(Peterson & Seligman, 2004). Supporting this association, one study reports a positive relation between open-mindedness and reduced harm from substance use (Perry et al., 2002). The findings of the current study advance the current literature by providing preliminary evidence about the positive association between prudence, judgment, and other forms of well-being (e.g., psychological well-being and flourishing) among LGB individuals.

The well-established positive association between the five stigma-related strengths and positive mental health, as well as the often-documented relation of character strengths to wellbeing, might be best explained by the broaden-and-build theory of positive emotions (Fredrickson, 1998). Emotions, unlike affect, are momentary experiences that produce cognitive, behavioral, and physiological changes in one's mind and body (Fredrickson & Branigan, 2005). The broaden-and-build theory of positive emotions (Fredrickson, 1998; Fredrickson & Cohn, 2008) proposes that while negative emotions narrow one's cognitive and behavioral repertoires in response to a stressful situation, positive emotions play a complementary role in broadening the individual's repertoires, prompting them to pursue a wider range of thoughts and actions than is typical. That is, positive emotions produce novel and broad-ranging thoughts and actions that are not usually critical to one's immediate safety, well-being or survival. However, the broadened thought-action repertoires of positive emotions were likely adaptive in the long-run in their ability to build a variety of personal resources that can change people's lives (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Fredrickson & Branigan, 2005). These resources may include social resources (Lee, 1983), physical resources (Boulton & Smith, 1992), cognitive and intellectual resources (Panksepp, 1998), and psychological resources (Fredrickson, Tugade, Waugh, & Larkin, 2003). In that sense, positive emotions forecast desired outcomes such as physical and psychological health, longevity, and wealth because they help build the resources

necessary for achieving such positive outcomes (Fredrickson et al., 2008, 2009). Although the current study did not include measures of positive emotions and their relation to mental health and well-being, it is reasonable to speculate that such positive emotions may be the driving force behind the positive association between the identified stigma-related strengths and mental health and well-being among LGB individuals.

Furthermore, experiences of positive emotions not only trigger upward spirals toward (emotional) well-being (Fredrickson & Joiner, 2002), but, over time, they can also build one's psychological resilience over time. More specifically, as positive emotions broaden one's scopes of attention and cognition, and thus, enable flexible and creative thinking, they also expand the individual's coping resources (Aspinwall, 1998; Isen, 1990). Consistent with this prediction, studies have shown that people who experience positive emotions are more likely to develop long-term personal resources, plans, and goals (Fredrickson & Joiner, 2002; Fredrickson, 2003; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Ong, Bergman, & Bisconti, 2004; Ong et al., 2006; Stein, Folkman, Trabasso, & Richards, 1997).

In conclusion, the findings of the current study have been discussed in relation to the current literature on stigma, character strengths, mental health, and well-being, especially among LGB individuals. It is evident that the findings of this study advance our current knowledge on these topics, as well as provide more nuanced conceptual and empirical links between these findings. Generally, the findings of the present study not only provide preliminary evidence about the strengths that LGB individuals develop while facing stigma and discrimination (i.e., stigma-related strengths), but also reveal some of the mechanisms that contribute to the development of such strengths. Lastly, this study also shows how the identified stigma-related strengths are, in turn, positively associated with greater mental health and well-being among

LGB individuals. It should be added, however, that similarly to the facilitative mechanisms of stigma-related strengths, this study's findings indicate that while all 5 identified stigma-related strengths (including prudence and judgement) are related to well-being among LGB individuals, only curiosity is associated with less mental distress. Thus, the stigma-related strengths model might not always be useful in describing the relationship between stigma and mental health among LGB individuals.

# 5.2. <u>Potential Implications</u>

The findings of the present study have both academic and practical implications. In this section, I discuss the potential implications of the findings of the current study in two overarching domains. First, the findings of this study will be discussed in relation to the current academic (i.e., theoretical and empirical) inquiry of stigma, minority stress, positive psychology, and LGB individuals, while focusing on the different ways this study's findings may advance these distinct, yet related, bodies of literature. Second, the findings of the current study will be discussed in the context of practical implications and recommendations as they relate to the development of various interventions aimed at advancing the health and well-being of LGB individuals, clinical work with LGB clients, and policy issues affecting LGB individuals.

Broadly, the present study applies Nietzsche's (1889) popular adage, "that which does not kill us makes us stronger," to the study of stigma, which does not outright kill but certainly impacts its targets in many debilitating ways. That is, could stigma, through some mechanisms, also make its targets psychologically stronger and healthier? The findings of the current study document the dual nature of stigma by providing preliminary evidence of its association with not only negative processes and outcomes (e.g., mental distress), but also with positive and desired outcomes (i.e., cognitive flexibility, kindness). Although some theoretical evidence suggests that

stigma may be associated with or lead to the development of positive outcomes (e.g., Goffman, 1963; Shih, 2004), such as character strengths, this study is among the first to empirically test this supposition by using explicit measures of interpersonal LGB-related stigma and character strengths.

Moreover, by integrating distinct, yet related, bodies of literature, the current study advances the current knowledge about the relation between stigma and character strengths. More specifically, this study conceptually developed and empirically examined the construct of stigma-related strengths. It further identified the cognitive, affective, and social mechanisms that contribute to the development of stigma-related strengths among LGB individuals. Ultimately, the present investigation resulted in a preliminary version of the Stigma-Related Strengths model 33wq (see Figure 2). Although further refinement and testing of this model is necessary in order to determine its reliability and validity, this preliminary version can serve as a starting point to examine character strengths' development among LGB individuals facing minority stress.

Although the current study focused on the relationship between interpersonal LGBrelated stigma and character strengths among LGB individuals, the construct of stigma-related strengths may be applied to other members of stigmatized groups, such as racial and ethnic minorities, overweight individuals, and transgender populations. When examining the stigmarelated strengths of different stigmatized groups, it is important to acknowledge the sociocultural context in which these groups operate, and thereby the various social and psychological challenges they might face. For example, an investigation of the stigma-related strengths of individuals with concealable stigmas (e.g., LGB identity) may include certain identity-related factors that might be irrelevant when examining stigma-related strengths among individuals with of non-concealable stigma (e.g., racial/ethnic minorities). One such example is disclosure of one's stigmatized identity, which may not be applicable when studying individuals with nonconcealable stigma. Relatedly, research suggests that individuals with non-concealable stigma typically have higher levels of self-esteem compared to individuals with concealable stigma (Crocker & Major, 1989). Therefore, it could be hypothesized that individuals with nonconcealable stigmas (e.g., dark skin tone) may score higher on measures of character strengths in comparison to individuals with concealable stigmas.

The concept of stigma-related strengths can also serve as an extension of both the minority stress model (Meyer, 2003) and Hatzenbuehler's (2009) psychological mediation framework. Both conceptual models are used to explain the causes of significant sexual orientation health disparities, and this study has used these models to further explore the potential development of character strengths among LGB individuals who face stigma and discrimination. Although the minority stress model (Meyer, 2003) includes the potential to develop positive outcomes as a result of minority stress, Meyer (2003) does not discuss this possible trajectory in his review. He does, however, discuss resilience factors that moderate the pathogenic impact of minority stress processes on one's health. As resilience and growth are separate, though related, constructs, the findings of the present study addresses this gap in the minority stress model by introducing the concept of stigma-related strengths. Similarly, the construct of stigma-related strengths also extends the psychological mediation framework (Hatzenbuehler, 2009) by adding another possible trajectory of developing character strengths as facilitated by the same mechanisms that lead to psychopathology among LGB individuals, such as brooding and social support. By integrating Meyer's (2003) minority stress model, Hatzenbuehler's (2009) psychological mediation framework, and the stigma-related strengths model tested in this study, a more comprehensive picture of stigma and its consequences on the

lives of LGB individuals can be drawn. It should be noted that the stigma-related strengths model is not intended to replace the minority stress model (Meyer, 2003) or the psychological mediation framework (Hatzenbuehler, 2009), but rather to allow for the examination of positive outcomes and strengths resulting from stigma among LGB individuals, an examination that can be pursued in isolation from or in addition to the further exploration of the negative consequences of stigma experienced by LGB individuals.

The findings of the current study also offer a critical perspective on positive psychology, and especially the study of character strengths. Although no differences were documented between LGB and heterosexual individuals in character strengths in the present study, these findings, as discussed earlier, shed light on the impact of sociocultural differences (or lack thereof) on the development of character strengths. More specifically, the fact that LGB individuals face minority stress along with multiple general stressors, but still scored almost exactly equal to the heterosexual participants in character strengths demonstrates the resilience of LGB individuals who manage to thrive in spite of stigma and discrimination. Furthermore, this finding and its interpretation highlight the importance of contextualizing the study of character strengths in particular, and positive psychology in general, a line of study that is frequently criticized for its emphasis on individual-level factors, while ignoring social and cultural factors that may be at play (Fowers, 2005, 2008). Moreover, in his recent commentary, Meyer (2014) argues that "more has been done on the side of LGBT health researchers in utilizing positive psychology than on the side of positive psychology researchers' inclusion of LGBT health concerns" (p. 348). As the study of LGB issues and individuals may advance our knowledge about human behavior in general (Goldfried, 2001; Moradi et al., 2009), the field of positive psychology is promised to benefit from such connection of literatures.

As for the study of stress-related growth, the findings of the present study provide mounting support to the conceptual link between minority stress and stress-related growth. Prior to this study, no studies have put this conceptual link to the test, except for growth resulting from coming out (Vaugahn & Waehler, 2010). Moreover, this study's findings also establish that character strengths can be considered as a dimension or manifestation of stress-related growth, at least among LGB individuals. Although previous research studies document many personal changes to the self as a manifestation of growth (Linley & Joseph, 2004), no studies have used the measure of character strengths to operationalize this growth manifestation, especially among LGB individuals.

Snyder and Fromkin (1977) have indicated that behaviors or identities that deviate from the "norm" have been studied solely from a negative perspective, and thereby negative connotations are ingrained within them. In an effort to promote the depathologization of human differences, they offer the term uniqueness as an alternative, which conveys "a positive striving for differentness relative to other people" (Snyder & Fromkin, 1977, p. 518). Twelve years later, Brown (1989) contended that in psychology, lesbian experiences are framed as an "interesting variant of human experience, equal but still separate and always marginal" (p. 447-448). In relation to the overarching mission of positive psychology, the findings of the present study may serve as a humble step towards a paradigm shift with regard to any kind of "otherness." Instead of framing any variations in behavior or experience, such as being LGB, as social difference or nonconformity, it may be more constructive to adopt a framework of uniqueness and distinctiveness while allocating more resources that focus on the positive aspects of human beings in general. Indeed, Lynn and Snyder (2002), who called for greater social acceptance of human differences and diversity, further proposed that the more diversity within a society, the greater the range of human resources will be available for it to adapt and survive in the face of difficulties.

Lastly, this study directs the academic inquiry of LGB individuals to their strengths and positive aspects, along with the negative effects of stigma on their lives. LGB strengths is an underexamined concept that has gained more attention in the past few years (Riggle & Rostosky, 2011; Vaughan et al., 2014), and further research in needed. In fact, the stigma-related strengths model may serve as a coherent framework for the study of LGB strengths, which was identified as a research priority (Vaughan & Rodriguez, 2014). Similar to the study of stigma, focusing on and highlighting the strengths and positive aspects of LGB individuals enables a more holistic and profound understanding of their experience, thereby allowing a wider range of opportunities for health promotion, individual- and community-level growth, and elimination of inequalities.

Both health promotion and positive psychology focus on building well-being rather than the treatment of disease and illness (Bull, 2008). Thus, the current study also has potential implications for the health promotion of LGB individuals. Indeed, the findings of the current study may be translated in numerous ways in an effort to improve the lives and well-being of LGB individuals. Below, I discuss such health promotion opportunities.

The last decade has seen a significant growth in strength-based interventions due to the modern reemergence of the field of positive psychology (Linley, Woolston, & Biswas-Diener, 2009). Strength-based interventions are typically designed with the goal of increasing well-being through the identification and cultivation of strengths, and can be individual- or community-based efforts (Seligman, Rashid, and Parks, 2006; Quinlan, Swain, & Vella-Brodrick, 2012). Indeed, it is well documented that strength-based interventions promote strengths knowledge and awareness among its targets, but a more effective intervention should include an understanding

and practice of the mechanisms contributing to the development of strengths (Quinlan Swain, & Vella-Brodrick, 2012). Hence, the mechanisms of the stigma-related strengths identified in this study present novel targets for interventions designed to cultivate strengths among LGB individuals. Stigma-related strengths interventions that emphasize its mechanisms may be best delivered in a clinical or psychotherapeutic setting. Such context is most conducive for such intraindividual-level work, and is not foreign for many LGB individuals, given that they report relatively high utilization rates for counseling and psychotherapy services (Cochran et al., 2007; Eubanks-Carter, Burckell, & Goldfried, 2005; Godfrey et al., 2006; Liddle, 1997).

Specifically, clinical interventions designed to stimulate greater cognitive flexibility and brooding may be found useful in promoting stigma-related strengths in LGB clients. Clinicians might be apprehensive about encouraging their client to engage in brooding, as it is commonly thought to be a maladaptive strategy. As mentioned earlier, more recent conceptualizations of emotion regulation and coping strategies suggest that the effectiveness of a specific strategy depends on the context in which it is employed (Bonanno & Burton, 2013). Thus, clinicians should be clearly informed that deliberate and frequent reflection (i.e., brooding) on the various stigma-related experiences LGB individuals face may allow for the integration of such experiences into their clients' assumptive world (Janoff-Bulman, 1992), and thereby promote their sense of growth and possibly cultivate stigma-related strengths. In the same vein, encouraging LGB clients to proactively pursue social support and become better connected to the broader LGBTQ community may be found equally as helpful in the promotion of stigma-related strengths. In contrast to the positive effect of cognitive flexibility, brooding, and social support on the cultivation of stigma-related strengths, clinicians working with LGB clients may further

promote their clients' stigma-related strengths by discouraging them from engaging in suppression and other strategies that may inhibit their emotional expressivity.

Clinical interventions that target an earlier point in the stigma-health causal chain (i.e., reducing stigma itself) might be most effective in promoting the health of LGB individuals (Dohrenwend, 1978). However, developing interventions that focus on reducing LGB stigma and discrimination is a challenging task, and their delivery and implementation may take a long period of time. Therefore, focusing interventions on the mechanisms that facilitate better health and well-being might be a complementary approach to improving the lives of LGB individuals in the face of pervasive stigma and discrimination (Major, Berry Mendes, & Dovidio, 2013; Proyer, Ruch, & Buschor, 2013). Given that the stigma-related strengths identified in this study, as well as prudence and judgment, are correlates of well-being among LGB individuals, interventions designed to develop stigma-related strengths among LGB individuals may likely also improve their well-being. Relatedly, if aiming to reduce one's level of mental distress (i.e., depression and anxiety), curiosity-based interventions may be found useful with LGB individuals.

As an example, training LGB clients to become more appreciative of beauty and excellence may not only increase their well-being, but also their prosocial (i.e., altruistic) attitudes and behaviors, which may in turn be beneficial for other individuals (Martínez-Martí et al., 2015). Similarly, fostering greater appreciation of beauty and excellence in LGB clients may also improve the clients' relationships with their family, peers, and broader community by encouraging their appreciation of the positive qualities of others and of their like-minded community members (Martínez-Martí et al., 2015). Like training in appreciation of beauty and excellence, encouraging LGB clients to engage in random and daily acts of kindness may also

help foster their self-worth, increase their happiness and sense of belonging, and promote their overall well-being (Lyuobomirskly, 2008).

There are other forms and designs of interventions that may contribute to the building of stigma-related strengths and overall mental health and well-being among LGB individuals. An expressive writing intervention is one such example. An increasing number of studies indicate that writing about traumatic/stressful events, such as LGB stigma-related experiences, may be personally transformative to the writer, and thereby improve their mental and physical health (Lepore & Smyth, 2002; Pennebaker & Chung, 2007; Pennebaker & Graybeal, 2001; Sloan & Marx, 2004), and possibly foster greater use of their character strengths (Quoidbach, Mikolajczak, & Gross, 2015; Zhang et al., 2014). There is also evidence that expressive writing interventions have numerous psychosocial benefits for LGB individuals, such as openness about their sexual orientation (Clyman & Pachankis, 2014; Lewis et al., 2005; Pachankis & Goldfried, 2010). Another example for interventions that were found to positively influence the mental health and well-being of their targets is mindfulness-based interventions (Niemiec, 2012). Such interventions were also found to develop character strengths, which further promote the wellbeing of its targets (Bishop et al., 2004; Coffey, Hartman, & Fredrickson, 2010). Given that no mindfulness-based intervention studies were conducted, so far, with LGB individuals, it might be an interesting venue for building their stigma-related strengths, and thereby improving their wellbeing. Other evidence-based interventions that have the potential to foster stigma-related strengths and greater well-being among LGB individuals are self-affirmation interventions (Cohen et al., 2009), belongingness-based interventions (Walton & Cohen, 2011), and community-based interventions (Lechner & Antoni, 2004; Revenson & Schiaffino, 2000).

This study also has potential policy implications. The various intervention designs described above may not only contribute to the development of stigma-related strengths and better well-being among LGB individuals, but may also be applied to the context of reducing and eliminating LGB health disparities. A recent review on the studies funded by the National Institute of Health examining LGB-related health issues between the years of 1989-2011 revealed that none of the total number of 628 studies, and the subset of 202 intervention studies, have used a strengths-based framework (Coulter, Kenst, Bowen, & Scout, 2014). Given the findings of the current study, it seems promising to develop strengths-based interventions that may promote well-being, in addition to the building of stigma-related strengths, and thereby, reducing LGB mental health disparities. More specifically, policies encouraging the National Institutes of Health and other funding agencies to secure funding for strength-based interventions may further enhance the health and well-being of LGB individuals

The findings of the current study may also be applicable to policy changes affecting public health and healthcare professionals working with LGB individuals, other than clinicians and psychotherapists. Policy changes are typically brought about to treat, reduce, or eliminate a certain challenge or problem. However, the findings of the current study provide preliminary and indirect evidence that by adopting a strength-based perspective when working with LGB individuals, influential public stakeholders and policymakers may be able to promote healthier and more fulfilling lives for LGB populations. Indeed, Meyer (2014) argues that although it would be ideal to have our health care system pay closer attention to health-promotive (i.e., salutogenic) factors, the focus has, so far, been on the prevention of disease and distress. Therefore, adopting a strength-based perspective when working with LGB individuals may not only reduce the negative consequences of facing stigma and discrimination, but may also

improve their health and well-being. For example, healthcare professionals who emphasize the stigma-related strengths of their LGB clients/patients, such as their honesty and kindness, along with preventive measures for HIV acquisition (i.e., screening), may not only present a more balanced picture of both the strengths their LGB clients/patients possess and the risks they face, but may also encourage their LGB clients/patients to pursue such preventive strategies.

Furthermore, it can be argued that espousing a strength-based approach to the representation of LGB individuals in the media would not only encourage a more positive representation of LGB individuals, but also a more holistic and multidimensional one. As LGB media representations are known to have a lasting effect of the lives of LGB individuals (Gomillion & Giuliano, 2011), as well as contribute to a positive change in the general attitude towards LGB individuals (Calzo & Ward, 2009), such policy changes are of significance. Moreover, emphasizing the positive traits and experiences of LGB populations in the media may have the potential to balance the distorted and biased narrative imposed on them; this narrative is typically deficit-based and focuses on the negative experiences (e.g., suicide attempts) of LGB individuals, especially youths.

## 5.3. Limitations

Despite the contribution of the present study to the current knowledge, it is not without limitations. First, the cross-sectional design of the present study only allowed for the examination of associations between the variables on interest, and thus causation cannot be established; this is a pressing concern regarding the internal validity of this study. Similarly, mediation analyses without experimental or longitudinal research design are inherently limited. Specifically, causality cannot be inferred due to ambiguous temporal precedence, as it remains unknown whether LGB participants possessed the identified stigma-related strengths (i.e.,

appreciation of beauty and excellence, curiosity, fairness, honesty, and kindness) before or as a result of (i.e., after) experiencing interpersonal LGB-related stigma. That being said, as in other correlational studies, one direction of a causal influence is sometimes unlikely. In this case, it is unlikely that possessing certain character strengths (i.e., stigma-related strengths) would cause LGB individuals to report higher levels of interpersonal LGB-related stigma. In fact, it might be the case the LGB individuals possessing stigma-related strengths will be more likely to report higher happiness and well-being, as found in this study and prior research (Park, Peterson, & Seligman, 2004a). Moreover, it is plausible to assume that this association is not bidirectional (i.e., reciprocal), as growth is contingent upon experiencing stigma-related stress. In addition, given that the proposed positive impact of stigma on the health and lives of LGB individuals was never studied previously, it is essential to first explore whether such association exits. Once established, it is necessary to pursue longitudinal studies that will illuminate the issue of temporality and causation.

Second, online (i.e., web-based) studies have some advantages (e.g., ability to recruit hard-to-reach populations or individuals with concealable stigmas), but also important disadvantages, both in the general population (Cooper, 1998; Wright, 2005) and among LGB individuals (Meyer & Wilson, 2009; Riggle, Rostosky, & Reedy, 2005). Issues of internet access should be noted as some groups in the U.S., specifically older adults, do not necessarily have access to the internet (Pew Research, 2015b). For example, 42% of U.S. older adults (65+ years old) do not have access to the internet versus only 4% of young adults ages 18-29 (Pew Research, 2015b). In addition, 22% of African-American and 19% of Latino U.S. citizens do not have access to the internet (Pew Research, 2015b). Other internet access disparities exist among groups of lower educational attainment, lower annual income, and people who reside in rural

areas (Pew Research, 2015b). These internet access disparities are reflected in the sample of the current study as it mainly consisted of predominantly Caucasian/White and middle class participants who are younger and more educated than the general U.S. population. Not surprisingly, the demographic characteristics of this study's sample are consistent with other samples recruited from Amazon Mechanical Turk (Shapiro, Chandler, & Mueller, 2013). That means that both issues of internet access and representativeness of such groups (e.g., racial/ethnic groups) on MTurk should be taken into account when interpreting the results of this study. Clearly, these limitations raise concerns about the generalizability (i.e., external validity) of this study's findings. However, it should be noted that in comparison to college student samples and traditional online samples, samples recruited on MTurk were found to be more representative of the general population, more diverse, and more representative of individuals in all 50 states (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). Relatedly, as there is no data on internet access rates of LGB populations, it is impossible to assess how representative the LGB sample is in the current study. Furthermore, although they fully completed the survey, participants who self-identified as queer (N = 28), questioning/uncertain (N = 47), or another sexual identity (N = 30) were eventually excluded from the current sample due to the low number of participants in each of those three sexual identity groups, and consequently, the insufficient statistical power required in order to detect group differences effects.

Related to the aforementioned limitations, another potential limitation lies in the heterogeneity of this study's sample and the potential bias it introduces of skewing the results. More specifically, the participants in the current sample differ from each other on numerous demographic characteristics that were found to have a significant effect on people's health and character, including sexual identity, state of residence, age, income level, education level, and

others. When such heterogeneity in the sample is not accounted for, it raises the concern that the findings of the present study might have been obscured. Thus, future studies will benefit from paying closer attention to the possible effect of different demographic variables and identity-related constructs.

Third, given the survey design of the current study, all the measures in the present study were based on the participants' self-report (i.e., perceptions), which was previously criticized as a problematic, yet frequently used, method in research (Robinson & Clore, 2002; Stone et al., 1999). More importantly, using only self-report measures introduces a same-source bias, and therefore common variance in method can be partly responsible for observed associations (Avolio, Yammarino, & Bass, 1991). For instance, using objective measures of (structural) stigma, such as discriminatory laws and policies against LGB individuals (e.g., Hatzenbuehler et al., 2010; 2014), may yield different results. In addition, stigma was measured in this study using an inventory of interpersonal discriminatory events experienced by LGB participants throughout their entire lifetime. Such a retrospective method may bias participants' responses due to concerns of memory loss and reconstruction (Schwartz & Sudman, 2012). That being said, some studies also suggest that people who experience mental distress successfully retrieve negative life events, including discriminatory events, mainly due to ruminative processes (Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998). As discriminatory events were positively related to mental distress in this study, it is unlikely that retrospective memory significantly biased the results. Lastly, the measures used in the current study were not only selected because of their excellent psychometric properties, but also because of their brief and parsimonious nature in order to alleviate the burden of survey respondents. This issue raises concerns about the construct validity of the measures used in this study.

A fourth limitation is related to the measure of character strengths that was utilized in the present study. Several studies exploring the factorial structure of the VIA inventory of character strengths were not able to replicate the existence of a six-factor model (representing the six core virtues) as theorized by the developers of the inventory (Brdar & Kashdan, 2010; Littman-Ovadia & Lavy, 2012; Macdonald, Bore, & Munroe, 2008; McGrath, 2014, 2015; Peterson et al., 2008; Ruch et al., 2010; Shryack, Steger, Krueger, & Kallie, 2010; Singh & Choubisa, 2010; van Eeden et al., 2008). These studies extracted between three to five factors, with substantial commonality between the factors. Of particular note is the study by McGrath (2014) that included nearly 500,000 U.S. residents, where five factors emerged: intellectual strengths, emotional strengths, interpersonal strengths, strengths of restraint, and theological strengths. Another study by McGrath (2015) included over 1,000,000 cases across four samples, where a three-virtue (i.e., factor) model was found. It is also important to note, however, that the aforementioned studies have used the 240-item (i.e., full-length) measure of character strengths, whereas in this study, the short version of 72 items was utilized. Regardless, these findings raise questions about the construct validity of the measure which may be addressed in future studies.

Fifth, two limitations related to the statistical analyses conducted in the current study should be noted. The first limitation refers to the possibility of a type 1 error (i.e., incorrect rejection of a null hypothesis or a "false positive") that can be caused by multiple comparisons due to an inflated alpha. For the third aim of this study, a series of 24 hierarchical analyses were conducted without adjusting for the possibility of an alpha inflation. Such a limitation might have biased the results of this study by identifying several relationships between perceived interpersonal LGB-related stigma and certain character strengths as statistically significant, and therefore, as relevant to the stigma-related strengths model. Future studies may employ stricter

and more conservative statistical analyses by including the Bonferroni correction. Additionally, the second limitation refers to the power of the various statistical tests conducted in this study. Power is defined as the probability that a certain statistical test will correctly lead to the rejection of the null hypothesis of no group differences. Since power is a crucial factor to consider when attempting to detect an effect, it is imperative to conduct a power analysis that will determine the minimum sample size required to detect such an effect. However, no such power analysis was conducted in the present study. Instead, the minimum sample size was only estimated based on the four different sexual identity groups that comprised the sample of the present study. Future studies investigating the reliability and validity of the stigma-related strengths model will benefit from rigorous power analyses that will inform the required minimum sample size.

Last, the analyses for aims 3-6 were conducted only among LGB individuals. Although many similarities are documented between lesbian, gay, and bisexual individuals, there are just as many differences. As previously discussed, each of these sexual identity-based groups faces unique challenges and experiences. For example, despite being able to pass as heterosexual individuals and thus experience less discrimination, self-identified and "out" bisexual individuals experience stigma-related stress from both the heterosexual and the non-heterosexual population (Brewster & Moradi, 2010), and lesbian women are subjected to discrimination based on both their gender and sexual identities. Given that within-group differences among LGB individuals were not addressed in this study, future studies should examine how sexual identity moderates these findings.

# 5.4. <u>Recommendations for Future Studies</u>

The findings of the current study, along with its limitations, present multiple opportunities for further exploration of the concept of stigma-related strengths.

Related to the findings pertinent to the first aim of the present study, future studies may benefit from exploring the various resilience factors of LGB individuals that facilitate their positive adaptation and even flourishing in the face of adversity. Such studies may not only serve as replications of the current study, but can also further explicate reasons for the lack of differences in character strengths between LGB and heterosexual individuals. Kwon's (2013) model of LGB resilience may serve as the conceptual framework for these future studies.

In light of the limitation discussed earlier regarding the measurement of character strengths, future studies assessing the strengths of LGB individuals will benefit from using a set of separate measures that assess specific strengths instead of using the VIA measure of character strengths. Alternatively, utilizing separate measures to assess each of the strengths along with the VIA measure of character strengths will allow the opportunity to examine the convergent (i.e., construct) validity of the character strengths measure. A relevant caveat would be the length of such a survey, which may be restricted by including only a subset of measures designed to assess particular character strengths. Of special relevance are unique measures that assess one's level of appreciation of beauty and excellence (Martínez-Martí et al., 2015), curiosity (Kashdan et al., 2009), honesty (Nicol & Paunonen, 2002), fairness and kindness (Kraus & Sears, 2009).

In an effort to address other measurement limitations of the present study, future studies should incorporate different measurement tools other than self-report. For example, as mentioned earlier, using objective measures of stigma may lead to different results regarding the stigma-related strengths of LGB individuals (e.g., Hatzenbuehler et al., 2010, 2014; Meyer, Schwartz, & Frost, 2008) . Specifically, it may be found that LGB individuals who reside in states that have LGB-related discriminatory policies may develop the same or other stigma-related strengths when compared to LGB individuals residing in states without LGB-related discriminatory

policies. Similarly, the use of informants (e.g., friends, family members, romantic partners) for reporting on the LGB participant's character strengths may also present a novel direction for measuring stigma-related strengths. To my best knowledge, no studies have utilized informants to assess participants' character strengths. However, several studies on stress-related growth have successfully used informants for corroboration of the respondents' self-report, a method that was found illuminating and promising (Manne et al., 2004; Park & Lechner, 2006).

As the concepts of growth and stigma-related strengths are inherently temporal and developmental, and in light of the cross-sectional data reported in this study, it is timely to test these concepts among LGB individuals using longitudinal and/or prospective studies. Specifically, prospective studies in which all LGB individuals who have experienced a recent stigma-related event are followed to investigate which ones are more likely to experience growth (i.e., develop stigma-related strengths) are needed to advance this literature. Such research designs will address concerns regarding causation and temporality, as well as issues relevant to the effect of sexual identity formation on the development of stigma-related strengths among LGB individuals. Furthermore, longitudinal studies will also allow for the validation of the various mechanisms included in the stigma-related strengths model. Additionally, experimental studies (including interventions) that manipulate either stigma-related experiences or one of the identified mechanisms (e.g., cognitive flexibility) will further increase the validity of the stigmarelated strengths model. Indeed, many stigma manipulations were used in previous studies that can be easily translated to and used with LGB samples (e.g., Cook et al., 2014; Hatzenbuehler & McLaughlin, 2014; Major et al., 2014; Weiss, Sassenberg, & Freund, 2013). Similarly, experimental studies that manipulate or intervene in any of the stigma-related strengths with

LGB participants will shed light on their hypothesized causal relationship with mental health and well-being.

Other research methods could be found beneficial in their contribution to our current (limited) knowledge on stigma-related strengths and their development. For instance, given the novelty of this concept, it is advised to pursue qualitative studies that allow for the in-depth investigation of the multiple potential processes that facilitate the building of stigma-related strengths among LGB individuals as narrated in their stories. As in-depth semi-structured interviews are especially useful for exploring understudied topics, eliciting rich descriptions, and investigating hard-to-reach and vulnerable populations (such as LGB individuals), using this qualitative method can garner novel findings that may otherwise be left unexplored if only quantitative research studies are pursued. In addition, in studies where the question of interest is community-level growth, focus groups may be best suited as they allow for the collection of diverse accounts and may yield a consensual perspective on a certain idea (Krueger & Casey, 2008). That is, participants in focus groups are encouraged to stimulate each other, and possibly reach a common understanding and interpretation of the inquired topic.

As online studies are many times at an advantage compared to other (offline) studies conducted with LGB participants (Meyer & Wilson, 2009; Riggle et al., 2005), it is recommended to recruit diverse LGB samples from reliable web-based sources, such as MTurk. However, such studies would greatly benefit from including group-based sampling quotas in order to ensure a sufficient representation of the diversity of the LGB population. Such sampling quotas may be based on sexual orientation, race/ethnicity, gender, and socioeconomic status, depending on the research question of interest. Similarly, using social networking websites (e.g., Facebook) and smartphone applications (e.g., Grindr, Scruff) are also useful for recruiting

diverse LGB individuals (Hirshfield et al., 2015; Martinez et al., 2014). Moreover, it is also possible to include other components of one's sexual orientation other than sexual identity, such as sexual behavior and attraction, as it is well documented that one's sexual identity is not necessarily consistent with their sexual behavior or attraction (Schrimshaw et al., 2013; Young & Meyer, 2005). Additionally, other relevant and understudied identity-related constructs, such as identity concealment, salience, centrality, and community connectedness/attachment, may ultimately add to the stigma-related strengths model as possible moderators. Indeed, previous studies have shown that each of these constructs serve as moderators of the effects of perceived stigma on one's health and self-esteem in both LGB and heterosexual individuals (Bonet et al., 2007; Frost & Meyer, 2012; McCoy & Major, 2003; Meyer, 2003; Pachankis, 2007; Quinn & Chaudoir, 2009; Weiss, Sassenberg, & Freund, 2013; Zimmerman, 2000). For example, given its negative effect on the personal character of LGB individuals, concealment may serve as a moderator in the relationship between interpersonal LGB-related stigma and character strengths, such that LGB individuals who conceal their LGB identity will score lower on character strengths (e.g., honesty) than LGB individuals who do not conceal their LGB identity.

As the goal of the present study was to examine the unique positive impact of interpersonal LGB-related stigma on the character strengths of LGB individuals, other relevant variables were controlled for in the analyses (e.g., outness, internalized homophobia, and multiple forms of discrimination). However, these variables that were treated as confounders in the current study could also serve as moderators. For example, one's outness level (which is different from concealment) may determine whether they possess certain stigma-related strengths and to what extent. As one's level of being out is strongly correlated with their level of selfesteem and self-worth (Riggle & Rostosky, 2011; Shilo, Antebi, & Mor, 2014; Vaughan &

Waehler, 2010), outness may serve as a mediator or moderator of the relationship between stigma and character strengths. In addition, as internalized homophobia is in itself a form of stigma (i.e., self-stigma), it might also serve as a predictor, and not only as a mediator/moderator, in future studies. Future studies where the research question of interest is about moderation or other potential mediators of the stigma-related strengths model may pursue the investigation of these aforementioned constructs.

Similarly, future studies could benefit from examining the effect of holding multiple stigmatized identities in addition to LGB identity (i.e., intersectionality) on stigma-related strengths (Crenshaw, 1989; Shields, 2008). There are numerous frameworks through which intersectionality, or multiple stigmatized identities, can be examined in future studies. In psychology and public health, the two central conceptualizations of intersectionality are the multiplicative and additive models. Multiplicative theories imply that the combination of multiple subordinate identities produces a unique, subjective experience that can only be explained holistically, and not in separation from one another (Bowleg, 2013; Cole, 2008). In contrast, additive theories suggest that stigma, discrimination, and experiences of singular social identities are separate and distinct (Grollman, 2014; Harper, Jernewall, & Zea, 2004; Havinsky & Christoffersen, 2008; Purdie-Vaughns & Eibach, 2008; Szymanski & Gupta, 2009). For example, some scholars postulate that LGB people of color experience racism and homophobia separately from one another (Dowd & Bengston, 1978; Grollman, 2014; Parent, Deblaere, & Moradi, 2013; Szymanski & Gupta, 2009). When investigating the impact of intersectionality on stigma-related strengths, both the multiplicative and additive approaches may be found useful in illuminating this relation. Additionally, it is recommended to include a variety of often neglected subordinate identities, such as disability status and age (Purdie-Vaughns & Eibach, 2008).

Indeed, research suggests that LGB individuals experience multiple forms of discrimination because of their race and ethnicity (Battle & Crum, 2007; Kertzner et al., 2009; Rosario, Schrimshaw, & Hunter, 2004), age (Wight, LeBlanc, Meyer, & Harig, 2015), gender and sex (Kertzner et al., 2009; Szymanski & Gupta, 2009), gender nonconformity (Rieger & Savin-Williams, 2012; Skidmore, Linsenmeier, & Bailey, 2006; Strong, Singh, & Randall, 2000), income and education (Mays & Cochran, 2001), nationality (Heller, 2009), physical and mental illness (Boysen et al., 2011; Courtenay-Quirk, Wolitski, Parsons, & Gomez, 2006), and weight and height (Pyle & Loewy, 2009).

Future research studies examining the within-group differences among LGB populations with regards to the validity of the stigma-related strengths model are required (Cardom, Rostosky, & Danner, 2013). In addition, future research applying the stigma-related strengths model to other diverse sexual and gender groups should further test its validity, and possibly introduce new components or alternative models. More specifically, studies with samples consisting of transgender and queer individuals, as well as under-examined sexual and gender identities (such as pansexual, genderqueer) will have significant implications for the stigmarelated strengths model (Clifford & Orford, 2007; Horne et al., 2014; Riggle et al., 2011; Vaughan & Rodriguez, 2014). It should be noted that, in many cases, research on transgender individuals is, by nature, intersectional, as many transgender individuals self-identify as LGB and or another non-heterosexual identity (e.g., pansexual, queer) (Kuper, Nussbaum, & Mustanski, 2012; Samons, 2009). Moreover, given that trans communities (and other marginalized sub-communities) are small, extremely vulnerable, hard-to-reach, and geographically-dispersed, online convenience (non-clinical) samples are considered useful in advancing the current limited literature about transgender individuals (Bockting et al., 2013;

Horvath, Iantaffi, Grey, & Bockting, 2012; Miner et al., 2012; Wilkerson et al., 2014). Studies investigating growth and character strengths among trans individuals may also reveal resilience factors that may mitigate the plethora of negative health concerns that encompass the transgender community (Bockting et al., 2013; Hughto, Reisner, & Pachankis, 2015; Moody & Smith, 2013, such as the alarming rate of 41% of trans individuals attempting suicide (Grant et al., 2011).

Related to both transgender and cisgender (i.e., non-transgender) populations is the concept of gender nonconformity. Gender nonconformity has been negatively linked with wellbeing (Aube & Koestner, 1992; Impett, Schooler, & Tolman, 2006; 2007; Rieger & Savin-Williams, 2012; Skidmore, Linsenmeier, & Bailey, 2006; Strong, Singh, & Randall, 2000; Weinrich et al., 1992). Although sexual orientation and gender nonconformity are correlated (Bailey, Dunne, & Martin, 2000; Bailey & Zucker, 1995; Dunne, Bailey, Kirk, & Martin, 2000; Lippa, 2005a, 2005b), it is critical to examine the effect of each of these variables separately and across both LGB and heterosexual individuals. Indeed, Rieger and Savin-Williams (2012) reported that gender nonconformity is related more negatively to well-being than is sexual orientation. In addition, most research on gender nonconformity has been conducted almost exclusively among LGB individuals (Rieger & Savin-Williams, 2012), and thus the relation between gender nonconformity and well-being among heterosexual individuals remains to be further elucidated. For these reasons, the relationship between stigma-related strengths and gender nonconformity necessitates further research.

As one of the main foci of this study was exploring the relation between stigma-related strengths and mental health and well-being among LGB individuals, further research is needed in order to examine the potential positive impact of other character strengths on the health and well-being of LGB individuals, including gratitude, love, hope, humor, and zest, as reported in

previous studies (Park, Peterson, & Seligman, 2004a). In addition, some scholars criticize the conceptualization of signature strengths as independent characteristics that have a more robust effect of one's well-being, compared to other strengths. For example, Fowers (2005, 2008) and Schwartz and Sharpe (2006) contend that in order to facilitate thriving, one must employ character strengths that interact with each other to bring about the best outcome. In other words, a single character strength is never sufficient to promote well-being in any given situation, but rather the harmonious interrelationships between the multiple character strengths. Hence, testing the possibility of multiple stigma-related strengths as mediating (i.e., multiple mediation) the relation between stigma and mental health and well-being among LGB individuals may be found useful in fostering new insights.

Furthermore, future studies investigating the association between stigma-related strengths and the physical health and well-being of LGB individuals are also needed. Previous studies have shown that stigma not only has a negative effect on one's mental health, but also their physical health (Lick, Durso, & Johnson, 2013; Major et al., 2014). In contrast, preliminary evidence suggests that some character strengths are positively related to physical health and wellness, including curiosity (which was identified as a stigma-related strength in this study), self-regulation, zest, hope, humor, and leadership (Proyer, Gander, Wellenzohn, & Ruch, 2013). Therefore, it is probable that stigma-related strengths, as well as the other character strengths, may positively affect the physical health and well-being of LGB individuals. Such investigation could have broad implications for future interventions addressing the many LGB physical health disparities.

The current study included only a limited number of potential mechanisms of stigmarelated strengths. Therefore, other probable and theoretically-derived mechanisms should be examined in future studies aiming to expand the stigma-related strengths model. Past studies on stress-related growth and character strengths point to some of these potential mechanisms, such as self-compassion (Neff, 2003), insight and self-awareness (Anderson, 1998; Savin-Williams, 2001b, 2008; Riggle & Rostosky, 2011), meaning (Park & Folkman, 1997; Roepke, Jayawickreme, & Riffle, 2013), positive marginality (Mayo, 1982; Unger, 2000), strengths knowledge and use (Govindji & Linley, 2007), empowerment (Oyserman and Swim, 2001), and coping strategies other than the ones tested in this study (Park, 1998).

The broaden-and-build theory of positive emotions (Fredrickson, 1998) was proposed as a potential explanation of the positive association between stigma-related strengths and wellbeing that was found among LGB participants in this study. As the present study did not include measures of positive emotions, this explanation remains only speculative. Therefore, future studies exploring the effect of positive emotions on stigma-related strengths, as well as their mediating role in the relation between stigma-related strengths and well-being among LGB individuals, have the potential to offer novel intervention targets.

Given that strengths of character fall under the subfields of personality and individual differences in psychology, it is only logical to further examine their relation to the five distinctive personality constructs popularized by the Big Five model (i.e., openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). In fact, some positive psychology scholars go so far as to suggest that future studies regarding character strengths should determine whether these strengths are indeed separate from the Big Five personality attributes, or rather should be subsumed under the Big Five model (Harvey & Pauwels, 2004). Thus, future studies on stigma-related strengths among LGB individuals would benefit from including personality-related constructs and examine their potential moderating or

mediating role in the stigma-related strengths and health and well-being relationship (Heidemeier & Görtitz, 2015).

From an ecological perspective (Bronfenbrenner, 1979), it is assumed that the sociopolitical-cultural context in which growth occurs matters. Growth researchers have posed questions regarding the relation between growth and the context in which it takes place. For instance, Linley and Joseph (2004) called attention to the possibility that reporting growth may simply be an indication of adherence to cultural scripts, suggesting that positive changes can result from traumatic/stressful experiences. The common adage "what doesn't kill you makes you stronger" may also serve as a cultural belief internalized by people who experienced traumatic/stressful events, which facilitates meaning-making of these events. Since most of the research on growth conducted is in the United States, studies examining growth in other non-Western cultures, as well as in subcultures within the U.S. such as the LGBTQ community, would allow a better understanding of the phenomenon of growth and its relation to contextual factors (Lomas, 2015; Park & Lechner, 2006). Further, as previously noted, contextual factors related to stigma (e.g., structural stigma) may affect the observed relationships in the present study and would serve as one way to test the impact of social context on character strengths among LGB individuals.

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## APPENDIX TABLES

Core Virtue	Character Strengths									
	CREATIVITY	CURIOSITY	JUDGMENT	LOVE OF LEARNING	PERSPECTIVE					
	<ul> <li>Originality</li> </ul>	• Interest	Open-mindedness		• Wisdom					
Wisdom	<ul> <li>Adaptiveness</li> </ul>	<ul> <li>Novelty-seeking</li> </ul>	<ul> <li>Critical thinking</li> </ul>	<ul> <li>Mastering new</li> </ul>	• Taking the big					
	• Ingenuity	• Exploration	• Thinking things through	skills & topics	picture view					
		• Openness		<ul> <li>Systematically adding to knowledge</li> </ul>	• Providing wise counsel					
	APPRECIATION OF	GRATITUDE	НОРЕ	HUMOR	SPIRITUALITY					
	BEAUTY &									
	EXCELLENCE	• Expressing thanks	<ul> <li>Optimism</li> </ul>	• Bringing smiles to	• Faith					
Transcendence		• Feeling blessed	• Future-mindedness	others	• Purpose					
	• Awe	• Thankful for the	• Future orientation	Playfulness	• Meaning					
	• Wonder	good		• Lighthearted	• Religiousness					
	• Elevation									
	FORGIVENESS	HUMILITY	PRUDENCE	SELF-						
	• Accepting others'	• Modesty	• Careful	REGULATION						
Townson	shortcomings	• Letting one's	Cautious	• Self-control						
	• Giving people a second chance	accomplishments for themselves	• Not taking undue risks	<ul> <li>Managing impulses &amp;</li> </ul>						
	• Mercy			emotions						
				<ul> <li>Disciplined</li> </ul>						

Note: Adapted from the VIA Institute on Character<sup>®</sup> website (2016)

Core Virtue	Character Strengths								
	BRAVERY	PERSEVERANCE	HONESTY	ZEST					
	• Valor	• Persistence	• Authenticity	• Vigor					
Courage	• Not shrinking from fear	<ul><li>Industry</li><li>Finishing what</li></ul>	• Integrity	<ul><li>Vitality</li><li>Enthusiasm</li></ul>					
	Speaking up for	• Finishing what one starts		• Energy					
	what's right			Feeling alive					
	LOVE	KINDNESS	SOCIAL						
	• Both loving and	• Care and	INTELLIGENCE						
Humanity	being loved	compassion	• Aware of the						
	• Valuing closer relationships with	<ul><li> Altruism</li><li> Generosity</li></ul>	motives/feelings of self and others						
	others	• "Niceness"	Knowing what makes						
			other people tick						
	TEAMWORK	FAIRNESS	LEADERSHIP						
Justice	• Social	• Just	• Encouraging a group to						
	responsibility	• Not letting feeling	get things done						
	<ul> <li>Citizenship</li> </ul>	bias decisions	• Organizing group						
	• Loyalty	about others	activities						

Table 1. Classification of the Six Core Values and Their Corresponding Character Strengths (Continued)

Note: Adapted from the VIA Institute on Character<sup>®</sup> website (2016)

	M (SD) or n (%)
Age (Mean Years)	32.1 (9.6)
Age Groups (In Years)	
18-25	200 (28%)
26-30	180 (25%)
31-40	205 (29%)
41-50	84 (11%)
51-60	49 (7%)
Biological Sex	
Male	336 (47%)
Female	382 (53%)
Sexual identity	
Gay	137 (19%)
Lesbian	99 (14%)
Bisexual	185 (26%)
Straight/Heterosexual	297 (41%)
Racial Identity	
White/Caucasian	595 (83%)
Black/African American	69 (10%)
Asian	32 (4%)
American Indian or Alaskan Native	1 (0%)
Native Hawaiian or Pacific Islander	Û
Mixed Race or Other	20 (3%)
Ethnicity	
Hispanic/Latino	68 (9%)
Non-Hispanic/Non-Latino	640 (90%)
Other	6 (1%)
Education	
High School or Less	1 (0%)
High School Graduate or GED	74 (10%)
Some College	252 (35%)
Technical School	33 (5%)
Undergraduate College Degree	281 (40%)
Graduate or Professional Degree	73 (10%)
Personal Yearly Income	· · · · · ·
Under \$20K	192 (27%)
\$20K-39,999k	219 (31%)
\$40K-59,999K	167 (23%)
\$60K-79,999K	76 (11%)
\$80K-99,999K	29 (4%)
\$100K or More	32 (4%)

Table 2. Demographic Characteristics of Participants in the Current Sample (N = 718)

	M (SD) or n (%)
Relationship Status	
Single	286 (40%)
Partnered	431 (60%)
Had Sex in the Past Year	
With Men	427 (60%)
With Women	327 (46%)
With Other	5 (1%)
Forms of Discrimination in the Past Year Based On	
Nationality	139 (19%)
Age	286 (40%)
Race/Ethnicity	231 (32%)
Gender/Sex	355 (50%)
Gender Nonconformity	253 (36%)
Physical/Mental Ability Status	184 (26%)
Weight/Height	315 (44%)
Income/Education	233 (33%)
Current State of residence	233 (3370)
Alabama	8 (1%)
Alaska	2 (0%)
Arizona	16 (2%)
Arkansas	4 (1%)
California	86 (12%)
Colorado	8 (1%)
Connecticut	4 (1%)
Delaware	4 (1%)
Florida	60 (8%)
Georgia	38 (5%)
Hawaii	4 (1%)
Idaho	4 (1%)
Illinois	31 (4%)
Indiana	10 (1%)
Iowa	4 (1%)
Kansas	9 (1%)
Kentucky	13 (2%)
Louisiana	7 (1%)
Maine	3 (0%)
Maryland	16 (2%)
Massachusetts	16 (2%)
Michigan	27 (4%)
Minnesota	5 (1%)

Table 2. Demographic Characteristics of Participants in the Current Sample (N = 718) (Continued)

	M (SD) or n (%)
Current State of residence (Continued)	
Mississippi	8 (1%)
Missouri	6 (1%)
Montana	4 (1%)
Nebraska	1 (0%)
Nevada	6 (1%)
New Hampshire	4 (1%)
New Jersey	16 (2%)
New Mexico	8 (1%)
New York	41 (6%)
North Carolina	32 (5%)
North Dakota	0 (0%)
Ohio	25 (4%)
Oklahoma	7 (1%)
Oregon	12 (2%)
Pennsylvania	46 (6%)
Rhode Island	5 (1%)
South Carolina	6 (1%)
South Dakota	0 (0%)
Tennessee	17 (2%)
Texas	34 (2%)
Utah	5 (1%)
Vermont	0 (0%)
Virginia	19 (3%)
Washington	19 (3%)
West Virginia	3 (0%)
Wisconsin	12 (2%)
Wyoming	2 (0%)

Table 2. Demographic Characteristics of Participants in the Current Sample (N = 718) (Continued)

Character Strength	Cronbach Alpha
Appreciation of Beauty and Excellence	0.83
Bravery	0.81
Love	0.81
Prudence	0.80
Teamwork	0.74
Creativity	0.82
Curiosity	0.68
Fairness	0.74
Forgiveness	0.76
Gratitude	0.80
Honesty	0.75
Норе	0.83
Humor	0.88
Perseverance	0.88
Judgment	0.77
Kindness	0.75
Leadership	0.68
Love of Learning	0.74
Humility	0.63
Perspective	0.76
Self-Regulation	0.70
Social Intelligence	0.79
Spirituality	0.89
Zest	0.83

Table 3. Internal Consistency Reliabilities for each of the 24 Character Strengths Subscales (N = 541)

Note: The total N for the current table is less than the full sample (N = 718) as reliability analyses were conducted only for participants who completed all 72 items of the character strengths measure.

	Heter	osexual	LC	GB	L	G	Gay N	Males	Lesbian	Females	Bise	xual
	N=	=232	N=	309	N=	166	N=	100	N=	=66	N=	143
	М	SD	Μ	SD	Μ	SD	М	SD	М	SD	М	SD
Appreciation of Beauty & Excellence	3.82	0.81	3.91	0.89	3.85	0.94	4.00	0.93	4.00	0.93	3.98	0.83
Bravery	3.73	0.82	3.82	0.78	3.89	0.78	3.78	0.80	4.06	0.73	3.74	0.76
Love	4.04	0.81	3.98	0.84	4.05	0.83	3.89	0.88	4.29	0.68	3.90	0.85
Prudence	3.90	0.79	3.83	0.84	3.82	0.87	3.77	0.87	3.88	0.87	3.84	0.80
Teamwork	3.69	0.70	3.71	0.80	3.79	0.79	3.72	0.81	3.89	0.74	3.62	0.80
Creativity	3.65	0.82	3.81	0.84	3.89	0.83	3.83	0.87	3.97	0.77	3.72	0.84
Curiosity	3.72	0.76	3.81	0.70	3.81	0.75	3.76	0.78	3.89	0.69	3.81	0.66
Fairness	4.18	0.65	4.09	0.74	4.07	0.79	3.96	0.83	4.25	0.70	4.11	0.68
Forgiveness	3.60	0.84	3.52	0.92	3.59	0.97	3.50	1.03	3.74	0.85	3.45	0.87
Gratitude	3.95	0.81	3.90	0.81	3.93	0.81	3.83	0.85	4.08	0.73	3.87	0.82
Honesty	4.25	0.62	4.12	0.72	4.16	0.74	4.05	0.78	4.33	0.63	4.07	0.69
Норе	3.78	0.90	3.72	0.86	3.82	0.82	3.74	0.85	3.94	0.77	3.59	0.88
Humor	4.01	0.83	4.03	0.84	3.99	0.90	3.99	0.87	3.98	0.96	4.08	0.76
Perseverance	3.79	0.87	3.75	0.89	3.88	0.89	3.78	0.89	4.04	0.86	3.60	0.87
Judgment	4.16	0.62	4.11	0.74	4.08	0.75	3.98	0.77	4.22	0.69	4.14	0.74
Kindness	3.96	0.72	3.94	0.80	3.95	0.80	3.78	0.82	4.20	0.71	3.93	0.79
Leadership	3.88	0.69	3.84	0.72	3.91	0.75	3.81	0.77	4.07	0.69	3.77	0.69
Love of Learning	3.73	0.93	3.63	0.95	3.63	0.96	3.54	0.96	3.77	0.96	3.87	0.91
Humility	3.72	0.74	3.53	0.85	3.52	0.88	3.42	0.94	3.66	0.77	3.54	0.82
Perspective	3.68	0.78	3.79	0.79	3.79	0.78	3.71	0.75	3.92	0.81	3.78	0.80
Self-Regulation	2.87	0.91	3.01	0.93	3.14	0.92	3.16	0.92	3.10	0.92	2.87	0.93
Social Intelligence	3.59	0.86	3.54	0.86	3.64	0.86	3.59	0.85	3.72	0.86	3.42	0.85
Spirituality	2.60	1.30	2.61	1.23	2.76	1.23	2.63	1.17	2.96	1.29	2.42	1.21
Zest	3.39	0.92	3.43	0.89	3.65	0.90	3.64	0.92	3.68	0.88	3.31	0.90

 Table 4. Mean Scores and Standard Deviations for Character Strengths as a Function of Sexual Identity (Using Various Groupings)

Character Strength	1	2	3	4	5	6	7	8	9	10	11	12
1. Appreciation of Beauty & Excellence												
2. Bravery	.40											
3. Love	.42	<u>.41</u>										
4. Prudence	<u>.17</u>	.20	.30									
5. Teamwork	<u>.29</u>	.29	<u>.50</u>	.37								
6. Creativity	<u>.38</u>	.48	<u>.41</u>	.23	.29							
7. Curiosity	<u>.47</u>	<u>.47</u>	<u>.51</u>	.25	<u>.39</u>	<u>.61</u>						
8. Fairness	<u>.48</u>	<u>.40</u>	<u>.45</u>	<u>.31</u>	<u>.54</u>	<u>.38</u>	<u>.48</u>					
9. Forgiveness	<u>.33</u>	.23	<u>.41</u>	.22	<u>.43</u>	.26	<u>.38</u>	.50				
10. Gratitude	<u>.49</u>	<u>.41</u>	<u>.65</u>	<u>.31</u>	<u>.52</u>	<u>.40</u>	<u>.57</u>	<u>.48</u>	<u>.45</u>			
11. Honesty	<u>.34</u>	<u>.49</u>	<u>.56</u>	<u>.39</u>	<u>.43</u>	<u>.36</u>	<u>.46</u>	<u>.51</u>	<u>.28</u>	<u>.51</u>		
12. Hope	<u>.32</u>	<u>.40</u>	<u>.60</u>	<u>.25</u>	.44	<u>.45</u>	<u>.59</u>	.36	<u>.45</u>	<u>.64</u>	<u>.49</u>	
13. Humor	.32	<u>.36</u>	<u>.43</u>	<u>.18</u>	<u>.30</u>	<u>.42</u>	<u>.42</u>	<u>.37</u>	<u>.25</u>	<u>.41</u>	<u>.35</u>	<u>.36</u>
14. Perseverance	<u>.23</u>	<u>.43</u>	<u>.50</u>	<u>.38</u>	<u>.43</u>	<u>.37</u>	<u>.50</u>	.38	<u>.27</u>	<u>.49</u>	<u>.60</u>	<u>.58</u>
15. Judgment	<u>.34</u>	<u>.35</u>	<u>.33</u>	<u>.68</u>	<u>.31</u>	<u>.38</u>	<u>.37</u>	<u>.45</u>	.25	<u>.40</u>	<u>.43</u>	.28
16. Kindness	<u>.50</u>	<u>.41</u>	<u>.53</u>	.24	<u>.53</u>	<u>.38</u>	<u>.50</u>	<u>.60</u>	<u>.45</u>	<u>.58</u>	<u>.48</u>	<u>.40</u>
17. Leadership	<u>.40</u>	<u>.45</u>	<u>.48</u>	.28	<u>.58</u>	<u>.45</u>	<u>.49</u>	<u>.63</u>	<u>.40</u>	<u>.49</u>	<u>.47</u>	<u>.41</u>
18. Love of Learning	<u>.35</u>	<u>.35</u>	.21	<u>.17</u>	<u>.13</u>	<u>.41</u>	<u>.40</u>	<u>.30</u>	.22	.24	<u>.30</u>	.24
19. Humility	<u>.14</u>	.01	<u>.16</u>	.39	.30	.03	.12	.25	<u>.30</u>	.20	.22	<u>.14</u>
20. Perspective	<u>.43</u>	<u>.45</u>	.42	.40	.27	.62	.50	<u>.37</u>	<u>.29</u>	.40	<u>.44</u>	<u>.41</u>
21. Self-Regulation	<u>.12</u>	.20	.22	.33	.28	.22	.30	<u>.14</u>	.28	.23	<u>.27</u>	<u>.33</u>
22. Social Intelligence	<u>.29</u>	.44	.54	<u>.19</u>	.45	.50	.57	<u>.36</u>	<u>.39</u>	<u>.51</u>	<u>.44</u>	<u>.59</u>
23. Spirituality	.21	<u>.14</u>	.23	.03	.27	<u>.11</u>	<u>.17</u>	.08*	<u>.24</u>	<u>.31</u>	<u>.11</u>	<u>.23</u>
24. Zest	.31	.37	<u>.56</u>	<u>.22</u>	<u>.49</u>	<u>.45</u>	<u>.62</u>	.33	.43	<u>.66</u>	.40	<u>.73</u>

*Table 5. Pearson Correlations among the 24 Character Strengths* (N = 541)

Note: Only participants who fully completed the 72-item measure of character strengths are included in this analysis. \* p < .05; Underlined coefficients are significant at the p < .01 level.

Character Strength	13	14	15	16	17	18	19	20	21	22	23	24
1. Appreciation of Beauty & Excellence												
2. Bravery												
3. Love												
4. Prudence												
5. Teamwork												
6. Creativity												
7. Curiosity												
8. Fairness												
9. Forgiveness												
10. Gratitude												
11. Honesty												
12. Hope												
13. Humor												
14. Perseverance	<u>.30</u>											
15. Judgment	<u>.31</u>	<u>.38</u>										
16. Kindness	<u>.38</u>	.35	<u>.33</u>									
17. Leadership	<u>.38</u>	<u>.39</u>	<u>.35</u>	<u>.57</u>								
18. Love of Learning	<u>.23</u>	.26	<u>.37</u>	<u>.33</u>	<u>.26</u>							
19. Humility	.02	<u>.18</u>	<u>.23</u>	<u>.16</u>	.22	.10*						
20. Perspective	<u>.34</u>	<u>.39</u>	<u>.49</u>	<u>.37</u>	<u>.42</u>	<u>.45</u>	<u>.18</u>					
21. Self-Regulation	.07	<u>.38</u>	<u>.19</u>	<u>.10</u>	<u>.26</u>	.07	<u>.24</u>	<u>.27</u>				
22. Social Intelligence	<u>.47</u>	<u>.49</u>	<u>.23</u>	<u>.47</u>	<u>.52</u>	<u>.23</u>	.07	<u>.43</u>	<u>.32</u>			
23. Spirituality	.07	<u>.11</u>	01	.22	<u>.12</u>	.02	<u>.14</u>	<u>.15</u>	<u>.19</u>	<u>.18</u>		
24. Zest	<u>.38</u>	<u>.51</u>	<u>.22</u>	<u>.38</u>	<u>.38</u>	<u>.17</u>	<u>.11</u>	<u>.34</u>	<u>.42</u>	<u>.61</u>	<u>.26</u>	

*Table 5. Pearson Correlations among the 24 Character Strengths* (N = 541) (*Continued*)

Note: Only participants who fully completed the 72-item measure of character strengths are included in this analysis. \* p < .05; Underlined coefficients are significant at the p < .01 level.

	Sexual Identity	Sexual Identity	Sexual Identity
	LGB vs. H	L+G/B/H	L/G/B/H
	F (df)	F (df)	F (df)
Multivariate	1.07 (24, 432)	1.08 (48, 798)	1.08 (72, 1193)
<u>Univariate</u>			
Appreciation of Beauty & Excellence	2.89 (1)	1.51 (2)	1.38 (3)
Bravery	0.58 (1)	1.03 (2)	0.74 (3)
Love	0.76 (1)	.600 (2)	0.48 (3)
Prudence	0.15 (1)	1.58 (2)	1.04 (3)
Teamwork	0.32 (1)	0.38 (2)	1.84 (3)
Creativity	2.65 (1)	2.07 (2)	1.42 (3)
Curiosity	1.65 (1)	0.99 (2)	0.51 (3)
Fairness	1.14 (1)	1.11 (2)	0.77 (3)
Forgiveness	0.03 (1)	0.12 (2)	0.23 (3)
Gratitude	0.07 (1)	0.13 (2)	0.07 (3)
Honesty	0.15 (1)	0.05 (2)	0.20 (3)
Норе	0.24 (1)	1.29 (2)	1.10(3)
Humor	0.38 (1)	0.69 (2)	0.50 (3)
Perseverance	0.32 (1)	0.31 (2)	0.30 (3)
Judgment	0.52 (1)	0.64 (2)	0.55 (3)
Kindness	0.30(1)	0.08 (2)	0.33 (3)
Leadership	0.05 (1)	0.19 (2)	0.31 (3)
Love of Learning	0.00(1)	0.78 (2)	0.48 (3)
Humility	4.76 (1)*	2.99 (2)	2.29 (3)

*Table 6. Multivariate and Univariate Analyses of Variance for Character Strengths* (N = 541)

Note: Multivariate F ratios were generated from Wilks' Lambda Statistic \*p<.05, \*\*p<.01, \*\*\*p<.001

	Sexual Identity	Sexual Identity	Sexual Identity
	LGB vs. H	L+G / B / H	L / G / B / H
	F (df)	F (df)	F (df)
<u>Univariate</u>			
Perspective	3.08 (1)	1.83 (2)	1.19 (3)
Self-Regulation	0.46 (1)	1.06 (2)	1.11 (3)
Social Intelligence	0.14 (1)	0.30 (2)	0.65 (3)
Spirituality	0.03 (1)	0.33 (2)	0.24 (3)
Zest	4.09 (1)*	2.76 (2)	2.11 (3)

Table 6. Multivariate and Univariate Analyses of Variance for Character Strengths (N = 541) (Continued)

Note: Multivariate F ratios were generated from Wilks' Lambda Statistic

\**p*<.05, \*\**p*<.01, \*\*\**p*<.001

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.11***	.11***
	Internalized Homophobia	04	.04	06		
	Social Desirability	06	.02	19**		
	Outness	.11	.04	.15**		
	Multiple Forms of Discrimination	.10	.02	.25***		
<u>Step 2</u>					.12***	.01*
-	Stigma	00	.00	04		
Step 3	-				.13***	.01*
-	Stigma <sup>2</sup>	.00	.00	14*		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 7. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Appreciation of Beautyand Excellence in LGB individuals (N = 310)

R<sup>2</sup>Change .13\*\*\*  $\mathbb{R}^2$ Variable SEB В Beta .13\*\*\* Step 1 Internalized Homophobia -.08 .03 -.15\*\* Social Desirability -.27\*\*\* -.07 .01 .04 Outness .03 .07 .14\* Multiple Forms of Discrimination .04 .02

Table 8. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Curiosity in LGB	
individuals ( $N = 310$ )	

Step 2	00	00	07	.13***	.00
Stigma	.00	.00	.07		
<u>Step 3</u>				.15***	.02*
Stigma <sup>2</sup>	.00	.00	17*		
*p<.05, **p<.01, ***p<.001					

Table 9. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Fairness in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.14***	.14***
	Internalized Homophobia	08	.03	15**		
	Social Desirability	08	.02	27***		
	Outness	.04	.03	.06		
	Multiple Forms of Discrimination	.06	.02	.20**		
Step 2					.16***	.02**
-	Stigma	00	.00	08		
Step 3	-				.18***	.02*
_	Stigma <sup>2</sup>	.00	.00	16*		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 10. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Honesty in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.11***	.11***
	Internalized Homophobia	02	.03	05		
	Social Desirability	07	.02	24***		
	Outness	.09	.03	.17**		
	Multiple Forms of Discrimination	.02	.02	.08		
<u>Step 2</u>					.13***	.02*
-	Stigma	00	.00	05		
Step 3	-				.15***	.02*
-	Stigma <sup>2</sup>	.00	.00	17*		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 11. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Kindness in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.15***	.15***
	Internalized Homophobia	05	.03	09		
	Social Desirability	09	.02	30***		
	Outness	.07	.03	.11*		
	Multiple Forms of Discrimination	.07	.02	.19**		
Step 2					.15***	.00
-	Stigma	.00	.00	.01		
Step 3	-				.17***	.01*
	Stigma <sup>2</sup>	.00	.00	14*		
<i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 12. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Prudence in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.09***	.09***
	Internalized Homophobia	.03	.03	.05		
	Social Desirability	09	.02	30***		
	Outness	.02	.04	.03		
	Multiple Forms of Discrimination	.03	.02	.08		
Step 2					.11***	.02**
-	Stigma	01	.00	16*		
Step 3	-				.11***	.00
	Stigma <sup>2</sup>	.00	.00	.00		
*p<.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 13. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Judgment in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.08***	.08***
	Internalized Homophobia	06	.03	11		
	Social Desirability	06	.02	20***		
	Outness	02	.03	03		
	Multiple Forms of Discrimination	.06	.02	.19**		
<u>Step 2</u>					.13***	.05***
-	Stigma	01	.00	20**		
Step 3	-				.13***	.01
-	Stigma <sup>2</sup>	.00	.00	10		
<i><sup>∗</sup>p&lt;.</i> 05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 14. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Bravery in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.16***	.16***
	Internalized Homophobia	12	.03	22***		
	Social Desirability	06	.02	20***		
	Outness	.10	.03	.16**		
	Multiple Forms of Discrimination	.04	.02	.11		
<u>Step 2</u>					.16***	.01
-	Stigma	.01	.00	.13		
Step 3	-				.17***	.00
_	Stigma <sup>2</sup>	.00	.00	08		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.16***	.16***
-	Internalized Homophobia	01	.03	02		
	Social Desirability	07	.02	22***		
	Outness	.19	.04	.29***		
	Multiple Forms of Discrimination	.04	.02	.10		
Step 2					.16***	.01
-	Stigma	00	.00	03		

.00

-.08

.00

.16\*\*\*

.00

Table 15. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Love in LGB individuals (N = 310)

<u>Step 3</u>

Table 16. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Teamwork in LGB individuals (N = 310)

-	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.15***	.15***
	Internalized Homophobia	.03	.03	.06		
	Social Desirability	12	.02	35***		
	Outness	.10	.04	.15*		
	Multiple Forms of Discrimination	.04	.02	.11		
Step 2					.16***	.00
_	Stigma	00	.00	03		
Step 3	-				.16***	.00
	Stigma <sup>2</sup>	.00	.00	04		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

R<sup>2</sup>Change .11\*\*\*  $\mathbb{R}^2$ Variable В SEB Beta .11\*\*\* Step 1 Internalized Homophobia -.08 .03 -.14\* Social Desirability .02 -.22\*\*\* -.07

.04

.02

.00

.00

.10

.12\*

.05

-.12

.11\*\*\*

.12\*\*\*

.00

.01

.07

.05

.00

.00

Table 17. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Creativity in LGB
individuals ( $N = 310$ )

Stigma <sup>2</sup>	
*p<.05, **p<.01, ***p<.001	

Multiple Forms of Discrimination

Outness

Stigma

<u>Step 2</u>

Step 3

Table 18. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Forgiveness in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.24***	.24***
	Internalized Homophobia	07	.04	10		
	Social Desirability	15	.02	43***		
	Outness	.10	.04	.14*		
	Multiple Forms of Discrimination	.04	.02	.09		
<u>Step 2</u>					.24***	.00
-	Stigma	01	.00	08		
Step 3	-				.25***	.00
-	Stigma <sup>2</sup>	.00	.00	.05		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 19. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Gratitude in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.18***	.18***
	Internalized Homophobia	00	.03	01		
	Social Desirability	10	.02	33***		
	Outness	.14	.04	.22***		
	Multiple Forms of Discrimination	.06	.02	.16**		
<u>Step 2</u>					.19***	.00
-	Stigma	.00	.00	00		
Step 3	-				.20***	.01
_	Stigma <sup>2</sup>	.00	.00	11		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.21***	.21***
	Internalized Homophobia	04	.03	07		
	Social Desirability	12	.02	36***		
	Outness	.13	.04	.20***		
	Multiple Forms of Discrimination	.03	.02	.08		
<u>Step 2</u>					.21***	.00
-	Stigma	.00	.00	.03		
Step 3	-				.22***	.01
_	Stigma <sup>2</sup>	.00	.00	08		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 20. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Hope in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.04*	.04*
	Internalized Homophobia	07	.04	12		
	Social Desirability	02	.02	06		
	Outness	.06	.04	.09		
	Multiple Forms of Discrimination	.03	.02	.07		
Step 2					.06**	.02*
-	Stigma	01	.00	12		
Step 3	-				.06**	.00
_	Stigma <sup>2</sup>	.00	.00	07		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 21. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Humor in LGB individuals (N = 310)

Table 22. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Perseverance in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.17***	.17***
	Internalized Homophobia	04	.04	07		
	Social Desirability	11	.02	32***		
	Outness	.12	.04	.18**		
	Multiple Forms of Discrimination	.01	.02	.03		
Step 2					.17***	.00
-	Stigma	.00	.00	.04		
<u>Step 3</u>	-				.17***	.01
-	Stigma <sup>2</sup>	.00	.00	09		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 23. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Leadership in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.13***	.13***
	Internalized Homophobia	03	.03	06		
	Social Desirability	08	.02	29***		
	Outness	.08	.03	.14*		
	Multiple Forms of Discrimination	.04	.02	.14*		
Step 2					.15***	.01*
-	Stigma	01	.00	09		
Step 3	-				.15***	.00
-	Stigma <sup>2</sup>	.00	.00	07		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.07***	.07***
	Internalized Homophobia	14	.04	21***		
	Social Desirability	04	.02	11		
	Outness	01	.04	01		
	Multiple Forms of Discrimination	.06	.03	.14*		
Step 2					.07***	.00
•	Stigma	.00	.01	.02		
Step 3	-				.08***	.01
-	Stigma <sup>2</sup>	.00	.00	10		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 24. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Love of Learning inLGB individuals (N = 310)

Table 25. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Humility in LGBindividuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.12***	.12***
	Internalized Homophobia	.04	.03	.07		
	Social Desirability	12	.02	36***		
	Outness	01	.04	1		
	Multiple Forms of Discrimination	.03	.02	.09		
Step 2					.14***	.02*
-	Stigma	01	.00	12		
<u>Step 3</u>	-				.14***	.00
-	Stigma <sup>2</sup>	.00	.00	03		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 26. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Perspective in LGB individuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.13***	.13***
	Internalized Homophobia	05	.03	10		
	Social Desirability	08	.02	27***		
	Outness	.09	.04	.14*		
	Multiple Forms of Discrimination	.05	.02	.14*		
Step 2					.13***	.00
-	Stigma	00	.00	04		
<u>Step 3</u>	-				.13***	.00
-	Stigma <sup>2</sup>	.00	.00	05		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
				.12***	.12***
ernalized Homophobia	.09	.04	.14*		
cial Desirability	10	.02	30***		
itness	.08	.04	.11		
Multiple Forms of Discrimination	04	.02	11		
				.12***	.00
gma	.00	.01	.04		
-				.12***	.00
gma <sup>2</sup>	.00	.00	01		
	ernalized Homophobia cial Desirability atness altiple Forms of Discrimination gma	ernalized Homophobia .09 cial Desirability10 atness .08 altiple Forms of Discrimination04 gma .00	ernalized Homophobia.09.04cial Desirability10.02atness.08.04altiple Forms of Discrimination04.02gma.00.01	ernalized Homophobia.09.04.14*cial Desirability10.0230***atness.08.04.11altiple Forms of Discrimination04.0211gma.00.01.04	$.12^{***}$ ernalized Homophobia.09.04.14*cial Desirability10.0230^{***}atness.08.04.11altiple Forms of Discrimination04.0211gma.00.01.04.12^{***}

Table 27. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Self-Regulation inLGB individuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.18***	.18***
	Internalized Homophobia	05	.03	08		
	Social Desirability	08	.02	25***		
	Outness	.17	.04	.26***		
	Multiple Forms of Discrimination	01	.02	03		
<u>Step 2</u>					.18***	.00
-	Stigma	.00	.00	.01		
Step 3	-				.18***	.00
-	Stigma <sup>2</sup>	.00	.00	03		
* <i>p</i> <.05,	** <i>p</i> <.01, *** <i>p</i> <.001					

Table 28. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Social Intelligence inLGB individuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.11***	.11***
-	Internalized Homophobia	14	.05	.16**		
	Social Desirability	06	.03	14*		
	Outness	.11	.05	.11		
	Multiple Forms of Discrimination	.08	.03	.14*		
Step 2					.13***	.02**
-	Stigma	.01	.01	.14		
Step 3	-				.13***	.00
-	Stigma <sup>2</sup>	.00	.00	.06		

Table 29. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Spirituality in LGBindividuals (N = 310)

Stigma<sup>2</sup> \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 30. Hierarchical Linear Regression Analysis Summary for Interpersonal LGB-related Stigma Predicting Zest in LGB individuals (N = 310)

	Variable	В	SEB	Beta	$\mathbb{R}^2$	R <sup>2</sup> Change
Step 1					.21***	.21***
_	Internalized Homophobia	01	.04	01		
	Social Desirability	12	.02	35***		
	Outness	.17	.04	.24***		
	Multiple Forms of Discrimination	01	.02	03		
<u>Step 2</u>					.22***	.01
	Stigma	.01	.00	.15*		
<u>Step 3</u>	C				.22***	.01
	Stigma <sup>2</sup>	.00	.00	09		

Note: Although the beta value for stigma was significant, the F change for the second step was not significant. Therefore, we can conclude that stigma is not a significant predictor of zest among LGB individuals.

	Theta	SE	95% CI
Through Cognitive Flexibility	006	.002	009,003*
Through Reappraisal	002	.001	005, .000
Through Social Support	001	.001	003, .000
Through Suppression	001	.001	002, .000
Through Brooding	.002	.001	.000, .004*

Table 31. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Multiple Mediators in LGB individuals (N = 309)

Table 32. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity through Multiple Mediators in LGB individuals (N = 309)

	Theta	SE	95% CI
Through Cognitive Flexibility	007	.002	010,004*
Through Reappraisal	002	.001	004, .000
Through Social Support	002	.001	004, .000*
Through Suppression	000	.000	002, .000
Through Brooding	001	.001	003, .000

Table 33. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Multiple Mediators in LGB individuals (N = 309)

	Theta	SE	95% CI
Through Cognitive Flexibility	006	.001	009,003*
Through Reappraisal	002	.001	004, .000
Through Social Support	001	.001	003,000
Through Suppression	.000	.000	001, .001*
Through Brooding	.001	.001	000, .003*

Table 34. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through Multiple Mediators in LGB individuals (N = 309)

	Theta	SE	95% CI
Through Cognitive Flexibility	006	.001	009,004*
Through Reappraisal	002	.001	004, .000
Through Social Support	001	.001	003, .000*
Through Suppression	.000	.000	001, .000*
Through Brooding	.001	.001	001, .002*

Table 35. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related on Kindness through Multiple Mediators in LGB individuals (N = 309)

	Theta	SE	95% CI
Through Cognitive Flexibility	006	.001	009,003*
Through Reappraisal	002	.001	004, .000
Through Social Support	001	.001	003, .000*
Through Suppression	001	.001	002,000
Through Brooding	.002	.001	.001, .005

Table 36. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Cognitive Flexibility in LGB individuals (N = 309)

	Model Predicting Cognitive Flexibility (M)		
	Coefficient	Standard Error	
Constant	5.0762***	.20	
Internalized Homophobia	1059***	.03	
Social Desirability	0415**	.01	
Outness	.1033**	.03	
Multiple Forms of Discrimination	.0034	.02	
Stigma	0142***	.00	
Summary of Model Predicting Mediator	$R^2$	<i>z</i> = .20***	
	Model Predicting Apprecia	tion of Beauty and Excellence (Y)	
Constant	1.2827**	.48	
Internalized Homophobia	.0026	.03	
Social Desirability	0455*	.02	
Outness	.0796*	.04	
Multiple Forms of Discrimination	.1000***	.02	
Stigma	.0330*	.02	
Stigma <sup>2</sup>	0004*	.00	
Cognitive Flexiblity	1.2827**	.48	
Summary of Model Predicting Outcome	$R^2$	<i>z</i> = .23***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	0055	009,003*	
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0055	009,003*	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0055	009,003*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 37. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity
through Cognitive Flexibility in LGB individuals ( $N = 309$ )

	Model Predicting Cognitive Flexibility (M)		
	Coefficient	Standard Error	
Constant	5.0762***	.18	
Internalized Homophobia	1059***	.03	
Social Desirability	0415**	.01	
Outness	.1033**	.03	
Multiple Forms of Discrimination	.0034	.02	
Stigma	0142***	.00	
Summary of Model Predicting Mediator	$R^2$	2 = .20***	
	Model Pred	icting Curiosity (Y)	
Constant	1.2256***	.35	
Internalized Homophobia	0231	.0245	
Social Desirability	0509***	.0129	
Outness	.0013	.0273	
Multiple Forms of Discrimination	.0455**	.0156	
Stigma	.0344**	.0120	
Stigma <sup>2</sup>	0004**	.0001	
Cognitive Flexibility	.4695***	.0492	
Summary of Model Predicting Outcome	$R^2$	2 = .35***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	0067	0098,0040*	
LGB with Moderate Levels of Stigma (Xval = 36.6)	0067	0098,0040*	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0067	0098,0040*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 38. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Cognitive Flexibility in LGB individuals (N = 309)

	Model Predicting Cognitive Flexibility (M)		
	Coefficient	Standard Error	
Constant	5.0762***	.18	
Internalized Homophobia	1059***	.03	
Social Desirability	0415**	.01	
Outness	.1033**	.03	
Multiple Forms of Discrimination	.0034	.02	
Stigma	0142***	.00	
Summary of Model Predicting Mediator	R <sup>2</sup>	$^{2} = .20^{***}$	
	Model Pred	licting Fairness (Y)	
Constant	2.0617***	.38	
Internalized Homophobia	0359	.03	
Social Desirability	0594***	.01	
Outness	.0100	.03	
Multiple Forms of Discrimination	.0628***	.02	
Stigma	.0294*	.01	
Stigma <sup>2</sup>	0004**	.00	
Cognitive Flexibility	.3970***	.05	
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .31***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	0056	009,003*	
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0056	009,003*	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0056	009,003*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 39. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through Cognitive Flexibility in LGB individuals (N = 309)

	Model Predicting Cognitive Flexibility (M)		
	Coefficient	Standard Error	
Constant	5.0762***	.18	
Internalized Homophobia	1059***	.03	
Social Desirability	0415**	.02	
Outness	.1033**	.03	
Multiple Forms of Discrimination	.0034	.02	
Stigma	0142***	.00	
Summary of Model Predicting Mediator	$R^2$	2 = .20***	
	Model Pred	edicting Honesty (Y)	
Constant	1.5802***	.36	
Internalized Homophobia	.0187	.03	
Social Desirability	0481***	.01	
Outness	.0595*	.03	
Multiple Forms of Discrimination	.0272	.02	
Stigma	.0290*	.01	
Stigma <sup>2</sup>	0004*	.00	
Cognitive Flexibility	.4447***	.05	
Summary of Model Predicting Outcome	$R^2$	2 = .33***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	0063	009,004*	
LGB with Moderate Levels of Stigma (Xval = 36.6)	0063	009,004*	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0063	009,004*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 40. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Kindness through Cognitive Flexibility in LGB individuals (N = 309)

	Model Predicting Cognitive Flexibility (M)	
	Coefficient	Standard Error
Constant	5.0762***	.18
Internalized Homophobia	1059***	.03
Social Desirability	0415**	.02
Outness	.1033**	.03
Multiple Forms of Discrimination	.0034	.02
Stigma	0142***	.00
Summary of Model Predicting Mediator	$R^2$	= .20***
	Model Predicting Kindness (Y)	
Constant	1.6808***	.42
Internalized Homophobia	0063	.03
Social Desirability	0742***	.02
Outness	.0411	.03
Multiple Forms of Discrimination	.0687***	.02
Stigma	.0321*	.01
Stigma <sup>2</sup>	0004*	.00
Cognitive Flexibility	.3927***	.06
Summary of Model Predicting Outcome	$R^2$	= .28***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0056	009,003*
LGB with Moderate Levels of Stigma (Xval = 36.6)	0056	009,003*
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0056	009,003*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 41. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Kindness through Brooding in LGB individuals (N = 309)

	Model Predicting Brooding (M)	
	Coefficient	Standard Error
Constant	1.4906***	.18
Internalized Homophobia	.0609*	.03
Social Desirability	.0444**	.01
Outness	0752*	.03
Multiple Forms of Discrimination	.0887***	.02
Stigma	.0105***	.01
Summary of Model Predicting Mediator	$R^2$	<sup>2</sup> = .25***
	Model Pred	icting Kindness (Y)
Constant	3.2939***	.34
Internalized Homophobia	0609*	.03
Social Desirability	0999***	.02
Outness	.0969**	.03
Multiple Forms of Discrimination	.0511*	.02
Stigma	.0278*	.02
Stigma <sup>2</sup>	0004	.00
Brooding	.2134***	.06
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .20***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0022	.001, .005*
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0022	.001, .005*
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0022	.001, .005*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 42. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Brooding in LGB individuals (N = 309)

	Model Predicting Brooding (M)	
	Coefficient	Standard Error
Constant	1.4906***	.18
Internalized Homophobia	.0609*	.03
Social Desirability	.0444**	.01
Outness	0752*	.03
Multiple Forms of Discrimination	.0887***	.02
Stigma	.0105	.00
Summary of Model Predicting Mediator	$R^2$	<sup>2</sup> = .25***
	Model Predicting Apprecia	tion of Beauty and Excellence (Y)
Constant	2.9581***	.39
Internalized Homophobia	0482	.05
Social Desirability	0686***	.02
Outness	.1305**	.04
Multiple Forms of Discrimination	.0876***	.02
Stigma	.0302	.02
Stigma <sup>2</sup>	0005*	.00
Brooding	.1542*	.07
Summary of Model Predicting Outcome	$R^2 = .16^{***}$	
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	.0016	.000,.004*
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	.0016	.000,.004*
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0016	.000,.004*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 43. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity through Brooding in LGB individuals (N = 309)

	Model Predicting Brooding (M)	
	Coefficient	Standard Error
Constant	1.4906***	.00
Internalized Homophobia	.0609*	.03
Social Desirability	.0444**	.01
Outness	0752*	.03
Multiple Forms of Discrimination	.0887***	.02
Stigma	.0105	.01
Summary of Model Predicting Mediator	$R^2$	2 = .25***
	Model Predicting Curiosity (Y)	
Constant	3.5736***	.31
Internalized Homophobia	0680*	.03
Social Desirability	0667***	.02
Outness	.0414	.03
Multiple Forms of Discrimination	.0545**	.02
Stigma	.0376**	.01
Stigma <sup>2</sup>	0005**	.00
Brooding	0827	.06
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .16***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0009	003,.000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0009	003, .000
LGB with High Levels of Stigma (Xval = 50.7)	0009	003, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 44. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Brooding in LGB individuals (N = 309)

	Model Predicting Brooding (M)	
	Coefficient	Standard Error
Constant	1.4906***	.18
Internalized Homophobia	.0609*	.03
Social Desirability	.0444**	.01
Outness	0752*	.03
Multiple Forms of Discrimination	.0887***	.02
Stigma	.0246***	.00
Summary of Model Predicting Mediator	$R^2$	2 = .25***
	Model Pred	licting Fairness (Y)
Constant	3.8586***	.31
Internalized Homophobia	0830**	.03
Social Desirability	0795***	.02
Outness	.0558	.03
Multiple Forms of Discrimination	.0569**	.02
Stigma	.0283*	.01
Stigma <sup>2</sup>	0005**	.00
Brooding	.0817	.06
Summary of Model Predicting Outcome	$R^2$	2 = .19***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0009	000,.003
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0009	000, .003
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0009	000, .003

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 45. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through Brooding in LGB individuals (N = 309)

	Model Predicting Brooding (M)	
	Coefficient	Standard Error
Constant	1.4906***	.18
Internalized Homophobia	.0609*	.03
Social Desirability	.0444**	.01
Outness	0752*	.03
Multiple Forms of Discrimination	.0887***	.02
Stigma	.0105***	.00
Summary of Model Predicting Mediator	$R^2$	2 = .25***
	Model Predicting Honesty (Y)	
Constant	3.6499***	.31
Internalized Homophobia	0313	.03
Social Desirability	0686***	.02
Outness	.1073***	.03
Multiple Forms of Discrimination	.0247	.02
Stigma	.0289*	.01
Stigma <sup>2</sup>	0004**	.00
Brooding	.0459	.06
Summary of Model Predicting Outcome	$R^2$	2 = .17***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0005	001,.002
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0005	001, .002
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0005	001, .002

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 46. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Kindness through Suppression in LGB individuals (N = 309)

	Model Predicting Suppression (M)	
	Coefficient	Standard Error
Constant	3.7779***	.36
Internalized Homophobia	.1287*	.06
Social Desirability	0088	.03
Outness	0932	.06
Multiple Forms of Discrimination	0231	.04
Stigma	.0104	.01
Summary of Model Predicting Mediator	I	$R^2 = .04*$
	Model Pred	icting Kindness (Y)
Constant	3.9092***	.35
Internalized Homophobia	0368	.03
Social Desirability	0912***	.02
Outness	.0723*	.03
Multiple Forms of Discrimination	.0680***	.02
Stigma	.0327*	.02
Stigma <sup>2</sup>	0004	.00
Suppression	0871**	.03
Summary of Model Predicting Outcome	$R^2$	2 = .19***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0009	002,000*
LGB with Moderate Levels of Stigma (Xval = 36.6)	0009	002,000*
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0009	002,000*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

\**p*<.05, \*\**p*<.01, \*\*\**p*<.001

249

Table 47. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Suppression in LGB individuals (N = 309)

	Model Predicting Suppression (M)	
	Coefficient	Standard Error
Constant	3.7779***	.36
Internalized Homophobia	.1287*	.06
Social Desirability	0088	.03
Outness	0932	.06
Multiple Forms of Discrimination	0231	.04
Stigma	.0104	.01
Summary of Model Predicting Mediator	ŀ	$R^2 = .04*$
	Model Predicting Apprecia	tion of Beauty and Excellence (Y
Constant	3.3998***	.40
Internalized Homophobia	0308	.03
Social Desirability	0623***	.02
Outness	.1128**	.04
Multiple Forms of Discrimination	.0999***	.02
Stigma	.0337	.02
Stigma <sup>2</sup>	0005*	.00
Suppression	0622	.04
Summary of Model Predicting Outcome	$R^2$	2 = .15***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	0006	002, .000
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0006	002, .000
LGB with High Levels of Stigma (Xval = 50.7)	0006	002, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 48. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity through Suppression in LGB individuals (N = 309)

	Model Predicting Suppression (M)	
	Coefficient	Standard Error
Constant	3.7779***	.36
Internalized Homophobia	.1287*	.06
Social Desirability	0088	.03
Outness	0932	.06
Multiple Forms of Discrimination	0231	.04
Stigma	.0104	.01
Summary of Model Predicting Mediator	I	$R^2 = .04*$
	Model Pred	icting Curiosity (Y)
Constant	3.6039***	.32
Internalized Homophobia	0687*	.03
Social Desirability	0707***	.01
Outness	.0449	.03
Multiple Forms of Discrimination	.0463**	.02
Stigma	.0354**	.01
Stigma <sup>2</sup>	0004**	.00
Suppression	0330	.03
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .16***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0003	002, .000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0003	002, .000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0003	002, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 49. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Suppression in LGB individuals (N = 309)

	Model Predicting Suppression (M)	
	Coefficient	Standard Error
Constant	3.7779***	.36
Internalized Homophobia	.1287*	.06
Social Desirability	0088	.03
Outness	0932	06
Multiple Forms of Discrimination	0231	02
Stigma	.0104	.01
Summary of Model Predicting Mediator	I	$R^2 = .04*$
	Model Pred	licting Fairness (Y)
Constant	3.9682	.33
Internalized Homophobia	0778	.03
Social Desirability	0759	.02
Outness	.0492	.03
Multiple Forms of Discrimination	.0641	.02
Stigma	.0303	.01
Stigma <sup>2</sup>	0005	.00
Suppression	0020	.03
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .19***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0000	001,.001
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0000	001, .001
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0000	001, .001

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 50. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through Suppression in LGB individuals (N = 309)

	Model Predicting Suppression (M)	
	Coefficient	Standard Error
Constant	3.7779***	.36
Internalized Homophobia	.1287*	.06
Social Desirability	0088	.03
Outness	0932	.06
Multiple Forms of Discrimination	0231	.04
Stigma	.0104	.01
Summary of Model Predicting Mediator	ŀ	$R^2 = .04*$
	Model Pred	licting Honesty (Y)
Constant	3.6682***	.32
Internalized Homophobia	0298	.03
Social Desirability	0665***	.02
Outness	.1045***	.03
Multiple Forms of Discrimination	.0290	.02
Stigma	.0301*	.01
Stigma <sup>2</sup>	0004**	.00
Suppression	.0096	.03
Summary of Model Predicting Outcome	$R^2$	2 = .16***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0001	001, .001
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0001	001, .001
LGB with High Levels of Stigma ( $Xval = 50.7$ )	.0001	001, .001

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 51. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Social Support in LGB individuals (N = 309)

	Model Predicti	Model Predicting Social Support (M)	
	Coefficient	Standard Error	
Constant	37.8671***	2.03	
Internalized Homophobia	-1.1485***	.31	
Social Desirability	3900*	.16	
Outness	1.6271***	.35	
Multiple Forms of Discrimination	4630*	46	
Stigma	0510	.03	
Summary of Model Predicting Mediator	$R^2$	2 = .21***	
	Model Pred	licting Fairness (Y)	
Constant	3.3369***	.35	
Internalized Homophobia	0563*	.03	
Social Desirability	.0147***	.02	
Outness	.0199	.03	
Multiple Forms of Discrimination	.0729	.02	
Stigma	.0621***	.01	
Stigma <sup>2</sup>	0004*	.00	
Social Support	.0189***	.01	
Summary of Model Predicting Outcome	$R^2$	2 = .22***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	0010	003,000*	
LGB with Moderate Levels of Stigma (Xval = 36.6)	0010	003,000*	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0010	003,000*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 52. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Social Support in LGB individuals (N = 309)

	Model Predicting Social Support (M)	
	Coefficient	Standard Error
Constant	37.8671***	2.03
Internalized Homophobia	-1.1485***	.31
Social Desirability	3900*	.16
Outness	1.6271***	.35
Multiple Forms of Discrimination	4630*	.20
Stigma	0510	.03
Summary of Model Predicting Mediator	$R^2$	= .21***
	Model Predicting Apprecia	tion of Beauty and Excellence (Y)
Constant	2.3398***	.42
Internalized Homophobia	0106	.04
Social Desirability	0522**	.02
Outness	.0801*	.04
Multiple Forms of Discrimination	.1126***	.02
Stigma	.0285	.02
Stigma <sup>2</sup>	0004*	.00
Social Support	.0245***	.01
Summary of Model Predicting Outcome	$R^2$	= .18***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	0013	003,.000
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0013	003,.000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0013	003,.000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 53. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity through Social Support in LGB individuals (N = 309)

	Model Predicting Social Support (M)	
	Coefficient	Standard Error
Constant	37.8671***	2.03
Internalized Homophobia	-1.1485***	.31
Social Desirability	3900*	.16
Outness	1.6271***	.35
Multiple Forms of Discrimination	4630*	.20
Stigma	0510	.03
Summary of Model Predicting Mediator	$R^2$	<sup>2</sup> = .21***
	Model Pred	icting Curiosity (Y)
Constant	2.4880	.32
Internalized Homophobia	0386	.03
Social Desirability	0588	.01
Outness	.0014	.03
Multiple Forms of Discrimination	.0608	.02
Stigma	.0289	.01
Stigma <sup>2</sup>	0004	.00
Social Support	.0298	.01
Summary of Model Predicting Outcome	$R^2$	2 = .25***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0015	004,.000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0015	004,.000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0015	004,.000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 54. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through
Social Support in LGB individuals ( $N = 309$ )

	Model Predicting Social Support (M)	
	Coefficient	Standard Error
Constant	37.8671***	2.03
Internalized Homophobia	-1.1485***	.31
Social Desirability	3900*	40
Outness	1.6271***	.35
Multiple Forms of Discrimination	4630*	46
Stigma	0510	.03
Summary of Model Predicting Mediator	$R^2$	2 = .21***
	Model Pred	licting Honesty (Y)
Constant	2.7950	.33
Internalized Homophobia	.0033	.03
Social Desirability	0558	.01
Outness	.0605	.03
Multiple Forms of Discrimination	.0415	.02
Stigma	.0239	.01
Stigma <sup>2</sup>	0004**	.00
Social Support	.0276	.01
Summary of Model Predicting Outcome	$R^2$	2 = .24***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0014	001, .001
LGB with Moderate Levels of Stigma (Xval = 36.6)	0014	001, .001
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0014	001, .001

 $\frac{10014}{1001} = \frac{10014}{1001} = \frac{100014}{1001} = \frac{100014}{1001} = \frac{10014}{1001} = \frac{$ 

Table 55. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Kindness through Social Support in LGB individuals (N = 309)

	Model Predicting Social Support (M)	
	Coefficient	Standard Error
Constant	37.8671***	2.0316
Internalized Homophobia	-1.1485***	.31
Social Desirability	3900*	.16
Outness	1.6271***	.35
Multiple Forms of Discrimination	4630	.20
Stigma	0510	.03
Summary of Model Predicting Mediator	$R^2$	2 = .21***
	Model Predi	icting Kindness (Y)
Constant	2.6589***	.37
Internalized Homophobia	0165	.03
Social Desirability	0798***	.02
Outness	.0375	.03
Multiple Forms of Discrimination	.0826***	.02
Stigma	.0327	.02
Stigma <sup>2</sup>	0004*	.00
Social Support	.0273***	.01
Summary of Model Predicting Outcome	$R^2$	2 = .24***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0014	001,.001
LGB with Moderate Levels of Stigma (Xval = 36.6)	0014	001,.001
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0014	001,.001

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 56. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Appreciation of Beauty and Excellence through Reappraisal in LGB individuals (N = 309)

	Model Predicting Reappraisal (M)	
	Coefficient	Standard Error
Constant	5.8666***	.33
Internalized Homophobia	0811	.05
Social Desirability	0965***	.03
Outness	.0723	.06
Multiple Forms of Discrimination	.0489	.03
Stigma	0100	.01
Summary of Model Predicting Mediator	$R^2$	= .08***
	Model Predicting Apprecia	tion of Beauty and Excellence (Y)
Constant	2.1092***	.42
Internalized Homophobia	0237	.03
Social Desirability	0438*	.02
Outness	.1056**	.04
Multiple Forms of Discrimination	.0922***	.02
Stigma	.0330*	.02
Stigma <sup>2</sup>	0005*	.00
Reappraisal	.1857***	.04
Summary of Model Predicting Outcome	$R^2$	= .20***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	0019	005, .000
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0019	005, .000
LGB with High Levels of Stigma (Xval = 50.7)	0019	005, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 57. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Curiosity through Reappraisal in LGB individuals (N = 309)

	Model Predicting Reappraisal (M)	
	Coefficient	Standard Error
Constant	5.8666***	.33
Internalized Homophobia	0811	.05
Social Desirability	0965***	.03
Outness	.0723	.06
Multiple Forms of Discrimination	.0489	.03
Stigma	0100	.01
Summary of Model Predicting Mediator	$R^2$	$2^{2} = .08^{***}$
	Model Pred	icting Curiosity (Y)
Constant	2.5379***	.33
Internalized Homophobia	0594*	.03
Social Desirability	0543***	.01
Outness	.0364	.03
Multiple Forms of Discrimination	.0389*	.02
Stigma	.0347**	.01
Stigma <sup>2</sup>	0004**	.00
Reappraisal	.1666***	.03
Summary of Model Predicting Outcome	$R^2$	2 = .23***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0017	004, .000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0017	004, .000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0017	004, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 58. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Fairness through Reappraisal in LGB individuals (N = 309)

	Model Predicting Reappraisal (M)	
	Coefficient	Standard Error
Constant	5.8666***	.33
Internalized Homophobia	0811	.05
Social Desirability	0965***	.03
Outness	.0723	.06
Multiple Forms of Discrimination	.0489	.03
Stigma	0100	.01
Summary of Model Predicting Mediator	$R^2$	$^{2} = .08^{***}$
	Model Pred	licting Fairness (Y)
Constant	3.0762***	.34
Internalized Homophobia	0652*	.03
Social Desirability	0606***	.01
Outness	.0386	.03
Multiple Forms of Discrimination	.0565**	.02
Stigma	.0295*	.01
Stigma <sup>2</sup>	0004**	.00
Reappraisal	.1578***	.03
Summary of Model Predicting Outcome	$R^2$	2 = .25***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0016	004, .000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0016	004, .000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0016	004, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

\*p<.05, \*\*p<.01, \*\*\*p<.001

261

Table 59. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Honesty through Reappraisal in LGB individuals (N = 309)

	Model Predicting Reappraisal (M)	
	Coefficient	Standard Error
Constant	5.8666***	.33
Internalized Homophobia	0811	.05
Social Desirability	0965***	.03
Outness	.0723	.06
Multiple Forms of Discrimination	.0489	.03
Stigma	0100	.01
Summary of Model Predicting Mediator	$R^2$	$2 = .08^{***}$
	Model Pred	licting Honesty (Y)
Constant	2.7037***	.33
Internalized Homophobia	0140	.03
Social Desirability	0493***	.01
Outness	.0913**	.03
Multiple Forms of Discrimination	.0200	.02
Stigma	.0291*	.01
Stigma <sup>2</sup>	0004**	.00
Reappraisal	.1719***	.03
Summary of Model Predicting Outcome	$R^2$	2 = .25***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0018	004, .000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0018	004, .000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0018	004, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 60. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Kindness through Reappraisal in LGB individuals (N = 309)

	Model Predicting Reappraisal (M)	
	Coefficient	Standard Error
Constant	5.8666***	.33
Internalized Homophobia	0811	.05
Social Desirability	0965***	.03
Outness	.0723	.06
Multiple Forms of Discrimination	.0489	.03
Stigma	0100	.01
Summary of Model Predicting Mediator	$R^2$	2 = .08***
	Model Pred	icting Kindness (Y)
Constant	2.7099***	.37
Internalized Homophobia	0357	.03
Social Desirability	0759***	.02
Outness	.0697*	.03
Multiple Forms of Discrimination	.0626**	.02
Stigma	.0323*	.01
Stigma <sup>2</sup>	0004*	.00
Reappraisal	.1516***	.03
Summary of Model Predicting Outcome	$R^2$	2 = .22***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	0015	004, .000
LGB with Moderate Levels of Stigma (Xval = 36.6)	0015	004, .000
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0015	004, .000

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 61. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Multiple Mediators in LGB individuals (N = 309)

	В	Standard Error	95% Confidence Interval
Through Cognitive Flexibility	004	.001	007,002*
Through Reappraisal	002	.001	004, .000
Through Social Support	001	.001	002, .000*
Through Suppression	.001	.001	001, .002
Through Brooding	.001	.001	001, .002

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

Table 62. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Multiple Mediators in LGB individuals (N = 309)

	В	Standard Error	95% Confidence Interval
Through Cognitive Flexibility	007	.002	010,003*
Through Reappraisal	002	.001	004, .000
Through Social Support	001	.001	002, .000*
Through Suppression	000	.000	001, .000
Through Brooding	.000	.001	001, .002

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

	Model Predicting Cognitive Flexibility (M)			
—	Coefficient		Standard Error	
Constant	5.0762***		.18	
Internalized Homophobia	1059***		.03	
Social Desirability	0415**		.01	
Outness	.1033**		.03	
Multiple Forms of Discrimination	.0034		.02	
Stigma	0142***		.00	
Summary of Model Predicting Mediator	$R^2 = .20^{***}$			
	Model Predicting Prudence (Y)			
Constant	2.9890***		.40	
Internalized Homophobia	.0619		.03	
Social Desirability	0826***		.02	
Outness	0033		.04	
Multiple Forms of Discrimination	.0267		.02	
Stigma	0056		.00	
Cognitive Flexibility	.2978***		.07	
Summary of Model Predicting Outcome	$R^2 = .17^{***}$			
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Prudence through Cognitive Flexibility	0042	.00	007,002	

Table 63. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Cognitive Flexibility in LGB individuals (N = 309)

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate. \*p<.05, \*\*p<.01, \*\*\*p<.001

	Model Predicting Cognitive Flexibility (M)				
—	Coefficient		Standard Error		
Constant	5.0762***		.18		
Internalized Homophobia	1059***		.03		
Social Desirability	0415**		.01		
Outness	.1033**		.03		
Multiple Forms of Discrimination	.0034		.02		
Stigma	0142***		.00		
Summary of Model Predicting Mediator		$R^2 = .$	20***		
	Model Predicting Judgment (Y)				
Constant	2.5901***		.32		
Internalized Homophobia	0095		.03		
Social Desirability	0380**		.01		
Outness	0454		.03		
Multiple Forms of Discrimination	.0572***		.02		
Stigma	0072*		.00		
Cognitive Flexibility	.4559***		.05		
Summary of Model Predicting Outcome		$R^2 = .$	30***		
	В	SE	95% Confidence Interval		
Indirect Effect of Stigma on Judgment through Cognitive Flexibility	0065	.00	010,003*		

Table 64. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Cognitive Flexibility in LGB individuals (N = 309)

	Model Predicting Brooding (M)			
	Coefficie	nt	Standard Error	
Constant	1.4906**	**	.18	
Internalized Homophobia	.0609*		.03	
Social Desirability	.0444**	:	.01	
Outness	0752*		.03	
Multiple Forms of Discrimination	.0887**	*	.02	
Stigma	.0105**	*	.00	
Summary of Model Predicting Mediator		$R^2 = A$	25***	
	Mo	ng Prudence (Y)		
Constant	4.3825**	**	.24	
Internalized Homophobia	.0255		.03	
Social Desirability	0985**	*	.02	
Outness	.0334		.04	
Multiple Forms of Discrimination	.0207		.02	
Stigma	0107**	k	.00	
Brooding	.0791		.07	
Summary of Model Predicting Outcome		$R^2 = A$	11***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Prudence through Brooding	.0008	.00	001, .003	

Table 65. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Brooding in LGB individuals (N = 309)

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

	Mode	Model Predicting Brooding (M)		
	Coefficient	Standard Error		
Constant	1.4906***		.18	
Internalized Homophobia	.0609*		.03	
Social Desirability	.0444**		.01	
Outness	0752*		.03	
Multiple Forms of Discrimination	.0887***		.02	
Stigma	.0105***		.00	
Summary of Model Predicting Mediator		$R^2 = .$	25***	
	Model Predicting Judgment (Y)			
Constant	4.8496***		.21	
Internalized Homophobia	0601*		.03	
Social Desirability	0585***		.02	
Outness	.0044		.03	
Multiple Forms of Discrimination	.0555**		.02	
Stigma	0140***		.00	
Brooding	.0368		.06	
Summary of Model Predicting Outcome		$R^2 = .$	13***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Judgment through Brooding	.0004	.00	001, .002	

Table 66. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Brooding in LGB individuals (N = 309)

	Model Predicting Suppression (M)			
	Coefficie	nt	Standard Error	
Constant	3.7779**	*	.36	
Internalized Homophobia	.1287*		.06	
Social Desirability	0088		.03	
Outness	0932		.06	
Multiple Forms of Discrimination	0231		.04	
Stigma	.0104		.01	
Summary of Model Predicting Mediator		$R^2 =$	.04*	
	Мо	del Predicti	ng Prudence (Y)	
Constant	4.3218**		.25	
Internalized Homophobia	.0242		.03	
Social Desirability	0946**	*	.02	
Outness	.0319		.04	
Multiple Forms of Discrimination	.0288		.02	
Stigma	0103**	k	.00	
Suppression	.0473		.03	
Summary of Model Predicting Outcome		$R^2 = .$	11***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Prudence through Suppression	.0005	.00	000, .002	

Table 67. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Suppression in LGB individuals (N = 309)

	Model I	Model Predicting Suppression (M)		
	Coefficient		Standard Error	
Constant	3.7779***		.36	
Internalized Homophobia	.1287*		.06	
Social Desirability	0088		.03	
Outness	0932		.06	
Multiple Forms of Discrimination	0231		.04	
Stigma	.0104		.01	
Summary of Model Predicting Mediator		$R^{2} =$	04.*	
	Model	Predictir	ng Judgment (Y)	
Constant	5.0508***		.22	
Internalized Homophobia	0528		.03	
Social Desirability	0572***		.02	
Outness	0019		.03	
Multiple Forms of Discrimination	.0579**		.02	
Stigma	0133***		.00	
Suppression	0387		.03	
Summary of Model Predicting Outcome		$R^2 = .$	13***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Judgment through Suppression	0004	.00	002, .000	

Table 68. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Suppression in LGB individuals (N = 309)

	Model Predicting Social Support (M)			
	Coefficien	t	Standard Error	
Constant	37.8671		2.03	
Internalized Homophobia	-1.1485		.31	
Social Desirability	3900		.16	
Outness	4630		.35	
Multiple Forms of Discrimination	.4630		.20	
Stigma	0510		.03	
Summary of Model Predicting Mediator	$R^2 = .21^{***}$			
	Model Predicting Prudence (Y)			
Constant	3.9855		.32	
Internalized Homophobia	.0459		.03	
Social Desirability	0897		.02	
Outness	.0053		.04	
Multiple Forms of Discrimination	.0340		.02	
Stigma	0092		.00	
Social Support	.0136		.00	
Summary of Model Predicting Outcome		$R^2 = .$	12***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Prudence through Social Support	0007	.00	002,.001	

Table 69. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Social Support in LGB individuals (N = 309)

	Model Predicting Social Support (M)				
	Coefficient		Standard Error		
Constant	37.8671***	1	2.03		
Internalized Homophobia	1.1485***	:	.30		
Social Desirability	3900*		.16		
Outness	1.6271***		.35		
Multiple Forms of Discrimination	4630*		.20		
Stigma	0510		.03		
Social Support	.0197***		.01		
Summary of Model Predicting Mediator		$R^2 = .$	20***		
	Model Predicting Judgment (Y)				
Constant	4.1596***		.27		
Internalized Homophobia	0352		.03		
Social Desirability	0492**		.02		
Outness	0303		.03		
Multiple Forms of Discrimination	.0679***		.02		
Stigma	0127		.00		
Social Support	.0197***		.01		
Summary of Model Predicting Outcome		$R^2 = .$	17***		
	В	SE	95% Confidence Interval		
Indirect Effect of Stigma on Judgment through Social Support	0010	.00	002, .000		

Table 70. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Social Support in LGB individuals (N = 309)

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

\*p<.05, \*\*p<.01, \*\*\*p<.001

273

	Mode	Model Predicting Reappraisal (M)		
	Coefficien	Standard Error		
Constant	5.8666***	:	.33	
Internalized Homophobia	0811		.05	
Social Desirability	0965***		.03	
Outness	.0723		.06	
Multiple Forms of Discrimination	.0489		.03	
Stigma	0100		.01	
Summary of Model Predicting Mediator		$R^2 = .$	08***	
	Model Predicting Prudence (Y)			
Constant	3.4247***	:	.30	
Internalized Homophobia	.0452		.03	
Social Desirability	0773***		.02	
Outness	.0142		.04	
Multiple Forms of Discrimination	.0187		.02	
Stigma	0080*		.00	
Reappraisal	.1834***		.04	
Summary of Model Predicting Outcome		$R^2 = .$	18***	
	В	SE	95% Confidence Interva	
Indirect Effect of Stigma on Prudence through Reappraisal	0018	.00	004, .000	

Table 71. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Prudence through Reappraisal in LGB individuals (N = 309)

	Model F	Model Predicting Reappraisal (M)			
	Coefficient		Standard Error		
Constant	5.8666***		.33		
Internalized Homophobia	0811		.05		
Social Desirability	0965***		.03		
Outness	.0723		.06		
Multiple Forms of Discrimination	.0489		.03		
Stigma	0100		.01		
Summary of Model Predicting Mediator		$R^2 = .$	08***		
	Model Predicting Judgment (Y)				
Constant	3.8554		.26		
Internalized Homophobia	0433		.03		
Social Desirability	0396**		.02		
Outness	0113		.03		
Multiple Forms of Discrimination	.0500**		.02		
Stigma	0119***		.00		
Reappraisal	.1788***		.03		
Summary of Model Predicting Outcome		$R^2 = .$	21***		
	В	SE	95% Confidence Interval		
Indirect Effect of Stigma on Judgment through Reappraisal	0018	.00	004, .000		

Table 72. Bootstrapping Analyses to Examine the Indirect Effects of Perceived Interpersonal LGB-Related Stigma on Judgment through Reappraisal in LGB individuals (N = 309)

Table 73. Bootstrapping Analyses to Examine the Indirect Effects of Three Levels of Stigma on Mental Distress through Multiple Mediators in LGB individuals (N = 305)

		Lo	)W		Mod	erate		Hig	gh
	Θ	SE	95% CI	Θ	SE	95% CI	Θ	SE	95% CI
Through Appreciation of Beauty & Excellence	.007	.010	005, .038	001	.005	017, .005	009	.010	032, .008
Through Curiosity	036	.021	091,006*	006	.007	024, .006	.021	.012	.004, .051*
Through Fairness	.015	.015	005, .058	007	.008	030, .003	022	.014	057, .000
Through Honesty	.003	.011	012, .034	001	.005	017, .004	000	.014	027, .027
Through Kindness	.004	.010	013, .027	.000	.003	005, .009	003	.008	022, .013

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  (Theta) = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

\*= statistically significant confidence interval (CI) at the < .05 level.

Table 74. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Curiosity in LGB individuals (N = 305)

	Model Predicting Curiosity (M)			
	Coefficient	Standard Error		
Constant	3.4462***	.30		
Internalized Homophobia	0723**	.03		
Social Desirability	0698***	.01		
Outness	.0475	.03		
Multiple Forms of Discrimination	.0480**	.02		
Stigma	.0360**	.01		
Stigma <sup>2</sup>	0005**	.00		
Summary of Model Predicting Mediator	$R^2$	2 = .15***		
	Model Predictin	ng Mental Distress (Y)		
Constant	38.3207***	8.79		
Internalized Homophobia	.1285	.31		
Social Desirability	.3773*	.17		
Outness	-1.3112***	.35		
Multiple Forms of Discrimination	1.1471***	.20		
Stigma	.1827	.16		
Stigma <sup>2</sup>	0006	.00		
Curiosity	-10.4165*	4.63		
Curiosity <sup>2</sup>	1.0800	.63		
Summary of Model Predicting Outcome	$R^2$	2 = .31***		
	Theta $(\Theta)$	95% Confidence Interval		
LGB with Low Levels of Stigma (Xval = 22.7)	0357	091,006*		
LGB with Moderate Levels of Stigma (Xval = 36.7)	0059	024, .006		
LGB with High Levels of Stigma ( $Xval = 50.8$ )	.0205	.004, .051*		

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 75. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Appreciation of Beauty and Excellence in LGB individuals (N = 305)

	Model Predicting Appreciation of Beauty and Excellence (M				
	Coefficient	Standard Error			
Constant	3.1277***	.38			
Internalized Homophobia	0386	.03			
Social Desirability	0607**	.02			
Outness	.1169**	.04			
Multiple Forms of Discrimination	.1019***	.02			
Stigma	.0346*	.02			
Stigma <sup>2</sup>	0005*	.00			
Summary of Model Predicting Mediator	$R^2$	= .14***			
	Model Predictin	ng Mental Distress (Y)			
Constant	20.7380***	5.90			
Internalized Homophobia	.3419	.32			
Social Desirability	.5552**	.17			
Outness	-1.4232***	.36			
Multiple Forms of Discrimination	.9852***	.21			
Stigma	.0712	.16			
Stigma <sup>2</sup>	.0008	.00			
Appreciation of Beauty and Excellence	-3.1212	2.94			
Appreciation of Beauty and Excellence <sup>2</sup>	.4708	.41			
Summary of Model Predicting Outcome	$R^2$	= .27***			
	Theta $(\Theta)$	95% Confidence Interval			
LGB with Low Levels of Stigma ( $Xval = 22.7$ )	.0070	005, .038			
LGB with Moderate Levels of Stigma ( $Xval = 36.7$ )	0013	017, .005			
LGB with High Levels of Stigma ( $Xval = 50.8$ )	0085	032, .008			

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 76. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Fairness in LGB individuals (N = 305)

	Model Predicting Fairness (M)		
	Coefficient	Standard Error	
Constant	3.9728***	.31	
Internalized Homophobia	0778**	.03	
Social Desirability	0765***	.01	
Outness	.0482	.03	
Multiple Forms of Discrimination	.0630***	.02	
Stigma	.0301*	.01	
Stigma <sup>2</sup>	0005**	.00	
Summary of Model Predicting Mediator	$R^2$	= .19***	
	Model Predicti	ng Mental Distress (Y)	
Constant	36.5409***	8.57	
Internalized Homophobia	.3574	.32	
Social Desirability	.5966***	.17	
Outness	-1.4771***	.35	
Multiple Forms of Discrimination	.9897***	.21	
Stigma	.0981	.16	
Stigma <sup>2</sup>	.0006	.00	
Fairness	-12.2722**	4.40	
Fairness <sup>2</sup>	1.6820**	.58	
Summary of Model Predicting Outcome	$R^2$	= .29***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.7)	.0152	005, .058	
LGB with Moderate Levels of Stigma (Xval = 36.7)	0069	030, .003	
LGB with High Levels of Stigma ( $Xval = 50.8$ )	0219	057, .000	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 77. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Honesty in LGB individuals (N = 305)

	Model Predicting Honesty (M)		
	Coefficient	Standard Error	
Constant	3.6807***	.30	
Internalized Homophobia	0295	.03	
Social Desirability	0670***	.01	
Outness	.1070***	.03	
Multiple Forms of Discrimination	.0291	.02	
Stigma	.0304*	.01	
Stigma <sup>2</sup>	0004**	.00	
Summary of Model Predicting Mediator	$R^2$	= .16***	
	Model Predictir	ng Mental Distress (Y)	
Constant	51.5120***	9.93	
Internalized Homophobia	.2774	.31	
Social Desirability	.4713**	.17	
Outness	-1.3872***	.36	
Multiple Forms of Discrimination	1.0634***	.20	
Stigma	.1049	.16	
Stigma <sup>2</sup>	.0002	.00	
Honesty	-17.9136***	4.91	
Honesty <sup>2</sup>	2.1975***	.64	
Summary of Model Predicting Outcome	$R^2$	= .30***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.7)	.0032	012, .034	
LGB with Moderate Levels of Stigma ( $Xval = 36.7$ )	0014	017, .004	
LGB with High Levels of Stigma ( $Xval = 50.8$ )	0003	027, .027	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 78. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Kindness in LGB individuals (N = 305)

	Model Predicting Kindness (M)		
	Coefficient	Standard Error	
Constant	3.5385***	.33	
Internalized Homophobia	0486	.03	
Social Desirability	0908***	.02	
Outness	.0820*	.03	
Multiple Forms of Discrimination	.0700***	.02	
Stigma	.0334*	.02	
Stigma <sup>2</sup>	0004*	.00	
Summary of Model Predicting Mediator	$R^2$	= .18***	
	Model Prediction	ng Mental Distress (Y)	
Constant	29.6606***	7.43	
Internalized Homophobia	.3005	.32	
Social Desirability	.5103**	.18	
Outness	-1.4450***	.36	
Multiple Forms of Discrimination	1.0279***	.21	
Stigma	.1176	.16	
Stigma <sup>2</sup>	.0003	.00	
Kindness	-7.7237*	3.83	
Kindness <sup>2</sup>	1.0084	.52	
Summary of Model Predicting Outcome	$R^2$	= .28***	
	Theta ( $\Theta$ )	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.7)	.0024	013, .027	
LGB with Moderate Levels of Stigma ( $Xval = 36.7$ )	.0002	005, .009	
LGB with High Levels of Stigma ( $Xval = 50.8$ )	0026	022, .013	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 79. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Prudence and Judgment in LGB individuals (N = 305)

	В	Standard Error	95% Confidence Interval
Through Prudence	002	.006	015, .011
Through Judgment	.003	.009	014, .022

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

\*= statistically significant confidence interval (CI) at the < .05 level.

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Table 80. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Prudence in LGB individuals
(N = 305)

	Model Predicting Prudence (M)			
-	Coefficient		Standard Error	
Constant	4.5010*	***	.22	
Internalized Homophobia	.0313	5	.03	
Social Desirability	0959*	**	.02	
Outness	.0273	5	.04	
Multiple Forms of Discrimination	.0271		.02	
Stigma	0099*	**	.00	
Summary of Model Predicting Mediator		$R^2 = .$	.11***	
	Mode	el Predicting l	Mental Distress (Y)	
Constant	14.2172	***	3.24	
Internalized Homophobia	.2841		.32	
Social Desirability	.5532*	*	.18	
Outness	-1.4300*	***	.35	
Multiple Forms of Discrimination	1.0088*	**	.21	
Stigma	.1446**	**	.03	
Prudence	.1462	2	.55	
Summary of Model Predicting Outcome		$R^2 = .$	26***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Mental Distress through Prudence	0015	.01	015, .011	

Table 81. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Mental Distress through Judgment in LGB individuals
(N = 305)

	Model Predicting Judgment (M)			
—	Coefficient		Standard Error	
Constant	4.9131	***	.19	
Internalized Homophobia	057	1	.03	
Social Desirability	0577*	***	.02	
Outness	.0006	5	.03	
Multiple Forms of Discrimination	.0577*	**	.02	
Stigma	0137*	***	.00	
Summary of Model Predicting Mediator		$R^2 = .$	.13***	
	Mod	el Predicting l	Mental Distress (Y)	
Constant	15.8791	***	3.72	
Internalized Homophobia	.2770	)	.32	
Social Desirability	.5274*	**	.17	
Outness	-1.4259	***	.35	
Multiple Forms of Discrimination	1.0246*	***	.21	
Stigma	.1404*	**	.04	
Judgment	204	3	.63	
Summary of Model Predicting Outcome		$R^2 = .$	.27***	
	В	SE	95% Confidence Interval	
Indirect Effect of Stigma on Mental Distress through Judgment	.0028	.01	014, .022	

Table 82. Bootstrapping Analyses to Examine the Indirect Effects of Three Levels of Stigma on Well-Being through Multiple Mediators in LGB individuals (N = 305)

		Lo	W		Mod	erate		Hi	gh
	Θ	SE	95% CI	Θ	SE	95% CI	Θ	SE	95% CI
Through Appreciation of	.039	.033	019, .113	007	.018	044, .027	052	.021	104,018*
Beauty & Excellence									
Through Curiosity	.079	.042	.011, .172*	.014	.018	019, .051	048	.023	099,009*
Through Fairness	.020	.022	013, .078	008	.010	034, .006	040	.019	085,011*
Through Honesty	.048	.038	016, .134	012	.019	051, .023	074	.027	135,029*
Through Kindness	.047	.034	008, .127	.002	.015	028, .033	043	.020	089,011*
Through Kindness	.047	.034	008, .127	.002	.015	028, .033	043	.020	089,011*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  (Theta) = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

\*= statistically significant confidence interval (CI) at the < .05 level.

Table 83. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Appreciation of Beauty and Excellence in LGB individuals (N = 309)

	Model Predicting Appreciat	tion of Beauty and Excellence (M)
	Coefficient	Standard Error
Constant	3.1495***	.38
Internalized Homophobia	0388	.03
Social Desirability	0617***	.02
Outness	.1184**	.04
Multiple Forms of Discrimination	.1013***	.02
Stigma	.0339	.02
Stigma <sup>2</sup>	0005*	.00
Summary of Model Predicting Mediator	$R^2$	= .14***
	Model Predic	ting Well-Being (Y)
Constant	32.0836***	6.12
Internalized Homophobia	6150	.33
Social Desirability	3793*	.18
Outness	1.7104***	.37
Multiple Forms of Discrimination	4790*	.22
Stigma	.2890	.17
Stigma <sup>2</sup>	0038*	.00
Appreciation of Beauty and Excellence	8825	3.06
Appreciation of Beauty and Excellence <sup>2</sup>	.5365	.43
Summary of Model Predicting Outcome	$R^2$	= .27***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma ( $Xval = 22.6$ )	.0393	019, .113
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0069	044, .026
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0520	104,020*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 84. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Fairness in LGB individuals (N = 309)

	Model Predicting Fairness (M)		
	Coefficient	Standard Error	
Constant	3.9601***	.31	
Internalized Homophobia	0780**	.03	
Social Desirability	0759***	.01	
Outness	.0494	.03	
Multiple Forms of Discrimination	.0642***	.02	
Stigma	.0303*	.01	
Stigma <sup>2</sup>	0005**	.00	
Summary of Model Predicting Mediator	$R^2$	<sup>2</sup> = .18***	
	Model Predic	cting Well-Being (Y)	
Constant	6.6042	9.05	
Internalized Homophobia	5698	.34	
Social Desirability	3542	.18	
Outness	1.9378***	.37	
Multiple Forms of Discrimination	3767	.22	
Stigma	.2551	.17	
Stigma <sup>2</sup>	0033	.00	
Fairness	12.6505	4.65	
Fairness <sup>2</sup>	-1.2736*	.62	
Summary of Model Predicting Outcome	$R^2$	<sup>2</sup> = .27***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	.0195	013, .078	
LGB with Moderate Levels of Stigma (Xval = 36.6)	0075	034, .006	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0396	085,011*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 85. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Honesty in LGB individuals (N = 309)

	Model Predicting Honesty (M)		
	Coefficient	Standard Error	
Constant	3.7070***	.30	
Internalized Homophobia	0285	.03	
Social Desirability	0665***	.01	
Outness	.1036**	.03	
Multiple Forms of Discrimination	.0287	.02	
Stigma	.0300*	.01	
Stigma <sup>2</sup>	0004**	.00	
Summary of Model Predicting Mediator	$R^2$	2 = .16***	
	Model Predic	cting Well-Being (Y)	
Constant	5650	9.83	
Internalized Homophobia	6298*	.31	
Social Desirability	2007	.17	
Outness	1.5222***	.35	
Multiple Forms of Discrimination	3458	.20	
Stigma	.2113	.15	
Stigma <sup>2</sup>	0026	.00	
Honesty	13.8309**	4.86	
Honesty <sup>2</sup>	-1.0873	.63	
Summary of Model Predicting Outcome	$R^2$	2 = .37***	
	Theta $(\Theta)$	95% Confidence Interval	
LGB with Low Levels of Stigma (Xval = 22.6)	.0476	016, .134	
LGB with Moderate Levels of Stigma ( $Xval = 36.6$ )	0119	051, .023	
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0743	135,029*	

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 86. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Kindness in LGB individuals (N = 309)

	Model Predicting Kindness (M)	
	Coefficient	Standard Error
Constant	3.5588***	.33
Internalized Homophobia	0480	.03
Social Desirability	0905***	.02.
Outness	.0801**	.03
Multiple Forms of Discrimination	.0701***	.02
Stigma	.0330*	.02
Stigma <sup>2</sup>	0004*	.00
Summary of Model Predicting Mediator	$R^2$	<sup>2</sup> = .17***
	Model Predic	cting Well-Being (Y)
Constant	13.4597	7.59
Internalized Homophobia	6063	.32
Social Desirability	2084	.18
Outness	1.7727***	.37
Multiple Forms of Discrimination	4498*	.21
Stigma	.2245	.16
Stigma <sup>2</sup>	0031	.00
Kindness	8.6412*	3.91
Kindness <sup>2</sup>	6401	.53
Summary of Model Predicting Outcome	$R^2$	2 = .30***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0470	008, .127
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0020	028, .033
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0426	089,011*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 87. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Curiosity in LGB individuals (N = 309)

	Model Predicting Curiosity (M)	
	Coefficient	Standard Error
Constant	3.4710***	.30
Internalized Homophobia	0730**	.03
Social Desirability	0704***	.01
Outness	.0479	.03
Multiple Forms of Discrimination	.0471**	.02
Stigma	.0356**	.01
Stigma <sup>2</sup>	0004**	.00
Summary of Model Predicting Mediator	$R^2$	2 = .15***
	Model Predic	cting Well-Being (Y)
Constant	2.4089	8.81
Internalized Homophobia	4083	.31
Social Desirability	2001	.17
Outness	1.8182***	.35
Multiple Forms of Discrimination	4476*	.20
Stigma	.1629	.16
Stigma <sup>2</sup>	0024	.00
Curiosity	13.7084**	4.63
Curiosity <sup>2</sup>	1.1358	.63
Summary of Model Predicting Outcome	$R^2$	2 = .36***
	Theta $(\Theta)$	95% Confidence Interval
LGB with Low Levels of Stigma (Xval = 22.6)	.0793	.011, .172*
LGB with Moderate Levels of Stigma (Xval = 36.6)	.0141	019, .051
LGB with High Levels of Stigma ( $Xval = 50.7$ )	0476	099,009*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples.  $\Theta$  = Instantaneous indirect effect of X on Y through M at a specific value of X (Xval).

Table 88. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Prudence and Judgment in LGB individuals (N = 309)

	В	Standard Error	95% Confidence Interval
Through Prudence	021	.010	046,006*
Through Judgment	049	.015	086,024*

Note: The confidence intervals are bias-corrected; 5000 bootstrap samples. All individual paths are specified as linear, so the indirect effect is constant. SE for indirect effect is the second order delta (Sobel, 1982) estimate.

\*= statistically significant confidence interval (CI) at the < .05 level.

Table 89. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Prudence in LGB individuals (N = 309)

	Model Predicting Prudence (M)		
	Coeffici	ient	Standard Error
Constant	4.5004*	***	.22
Internalized Homophobia	.0303	3	.03
Social Desirability	0950*	<**	.02
Outness	.0275	5	.04
Multiple Forms of Discrimination	.0277	7	.02
Stigma	0098	**	.00
Summary of Model Predicting Mediator		$R^2 = 1$	11***
	Mo	odel Predictin	g Well-Being (Y)
Constant	33.7460	***	3.47
Internalized Homophobia	8344	<b> </b> *	.34
Social Desirability	3674	4	.19
Outness	2.0980*	***	.38
Multiple Forms of Discrimination	2382	2	.22
Stigma	038	8	.04
Prudence	2.0785*	***	.59
Summary of Model Predicting Outcome		$R^2 = 1$	26***
	В	SE	95% Confidence Interva
Indirect Effect of Stigma on Well-Being through Prudence	0205	.01	046,006*

Table 90. Bootstrapping Analyses to Examine the Indirect Effects of Stigma on Well-Being through Judgment in LGB individuals (N = 309)

Model Predicting Judgment (M)		
Coeffici	ent	Standard Error
4.9045*	**	.19
0578	*	.03
0569*	**	.02
.0017	,	.03
.0588*	*	.02
0137*	**	.00
	$R^2 = .$	.13***
Model Predicting Well-Being (Y)		
25.3550*	***	3.87
5622	2	.33
3590	*	.18
2.1490*	**	.37
3933	3	.22
0099	)	.04
3.6182*	**	.65
	$R^2 = .$	.26***
В	SE	95% Confidence Interva
0494	.01	086,024*
	Coeffici 4.9045* 0578 0569* .0017 .0588* 0137* <u>Mo</u> 25.3550* 5622 3590 2.1490* 3933 0099 3.6182*	Coefficient $4.9045^{***}$ $0578^*$ $0569^{***}$ $.0017$ $.0588^{**}$ $0137^{***}$ $R^2 =$ Model Predictin $25.3550^{***}$ $5622$ $3590^*$ $2.1490^{***}$ $3933$ $0099$ $3.6182^{***}$ $R^2 =$ B         SE

Outcome Variable	Differs between LGB and heterosexual individuals?	Related to interpersonal LGB-related stigma?	What is the relationship nature (if applicable)?	What are the mediators of the relationship between interpersonal LGB- related stigma and the character strength?	Was it found as a mediator of the relationship between interpersonal stigma and mental distress?	Was it found as a mediator of the relationship betweer interpersonal stigma and well-being?
Appreciation of Beauty & Excellence	No	Yes	Curvilinear; Negative	<ol> <li>Cognitive Flexibility</li> <li>Brooding</li> </ol>	No	Yes
Curiosity	No	Yes	Curvilinear; Negative	Cognitive Flexibility	Yes	Yes
Fairness	No	Yes	Curvilinear; Negative	<ol> <li>Cognitive Flexibility</li> <li>Social Support</li> </ol>	No	Yes
Honesty	No	Yes	Curvilinear; Negative	Cognitive Flexibility	No	Yes
Kindness	No	Yes	Curvilinear; Negative	<ol> <li>Cognitive Flexibility</li> <li>Brooding</li> <li>Suppression</li> </ol>	No	Yes
Prudence	No	Yes	Linear; Negative	N/A	No	Yes
Judgment	No	Yes	Linear; Negative	N/A	No	Yes
Bravery	No	No	N/A	N/A	No	No
Love	No	No	N/A	N/A	No	No
Teamwork	No	No	N/A	N/A	No	No
Creativity	No	No	N/A	N/A	No	No

\* Note: significant results are marked in bold.

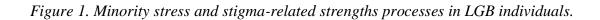
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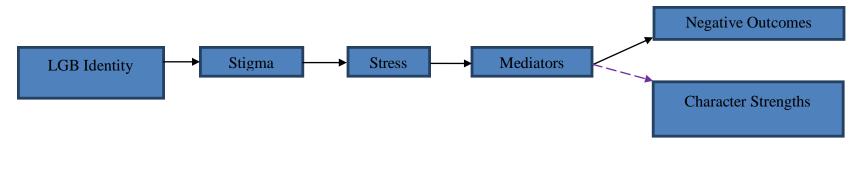
Outcome Variable	Differs between LGB and heterosexual individuals?	Related to interpersonal LGB-related stigma?	What is the relationship nature (if applicable)?	What are the mediators of the relationship between interpersonal LGB- related stigma and the character strength?	Was it found as a mediator of the relationship between interpersonal stigma and mental distress?	Was it found as a mediator of the relationship between interpersonal stigma and well-being?
Forgiveness	No	No	N/A	N/A	No	No
Gratitude	No	No	N/A	N/A	No	No
Hope	No	No	N/A	N/A	No	No
Humor	No	No	N/A	N/A	No	No
Perseverance	No	No	N/A	N/A	No	No
Leadership	No	No	N/A	N/A	No	No
Love of Learning	No	No	N/A	N/A	No	No
Humility	No	No	N/A	N/A	No	No
Perspective	No	No	N/A	N/A	No	No
Self- Regulation	No	No	N/A	N/A	No	No
Social Intelligence	No	No	N/A	N/A	No	No
Spirituality	No	No	N/A	N/A	No	No
Zest	No	No	N/A	N/A	No	No

Table 91. Summary of Findings of the Current Study (Continued)

\* Note: significant results are marked in bold.

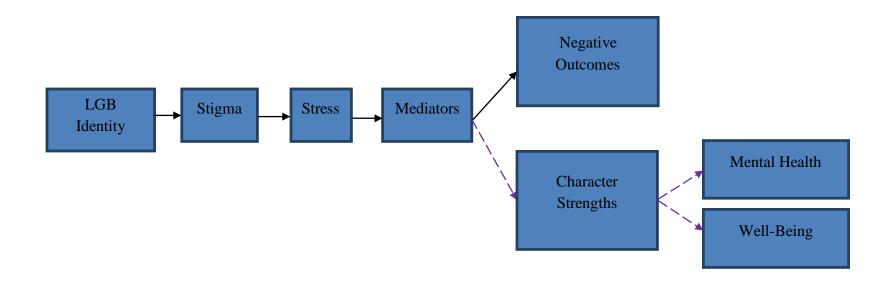
## APPENDIX FIGURES





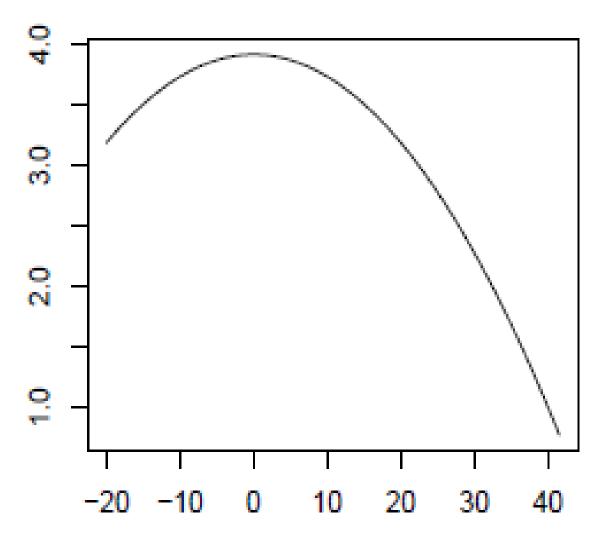
Note: The dashed arrow represents the stigma-related strengths trajectory.

Figure 2. Minority Stress, Stigma-Related Strengths, Mental Health, and Well-being Processes in LGB Individuals.



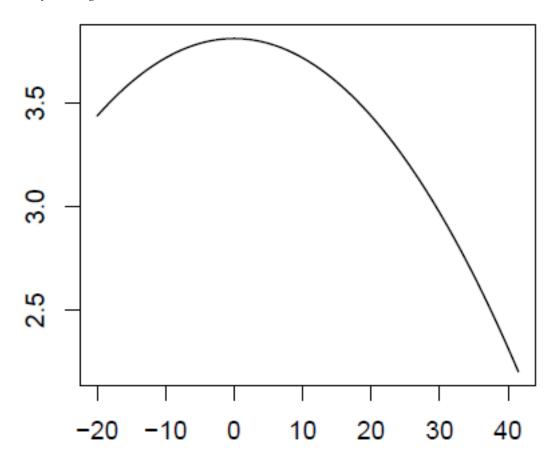
Note: The dashed arrows represent the stigma-related strengths trajectory.

*Figure 3. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma*<sup>2</sup> *and Appreciation of Beauty and Excellence among LGB Individuals.* 



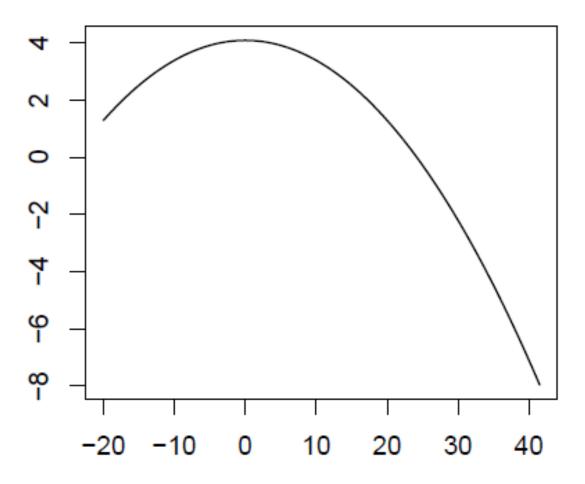
Note: X axis represents stigma; Y axis represents appreciation of beauty and excellence.

*Figure 4. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma*<sup>2</sup> *and Curiosity among LGB Individuals.* 



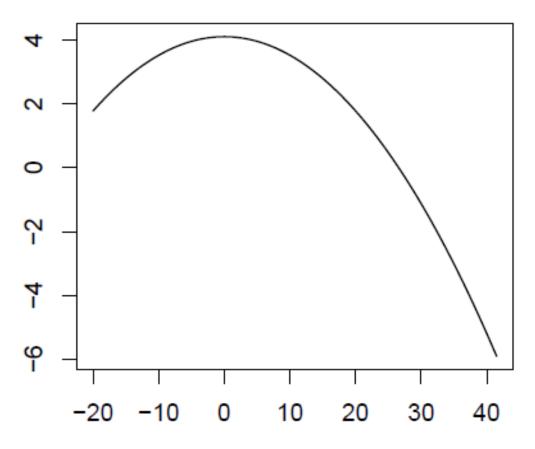
Note: X axis represents stigma; Y axis represents curiosity.

*Figure 5. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma*<sup>2</sup> *and Fairness among LGB Individuals.* 



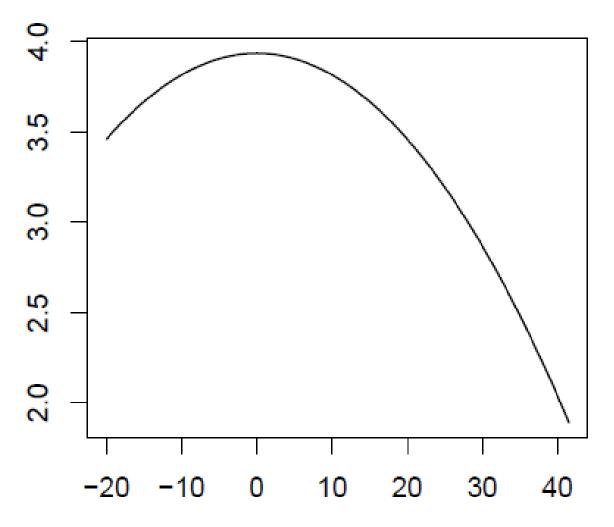
Note: X axis represents stigma; Y axis represents fairness.

*Figure 6. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma*<sup>2</sup> *and Honesty among LGB Individuals.* 



Note: X axis represents stigma; Y axis represents honesty.

*Figure 7. Curvilinear (Inverted U-Shaped) Relationship between the Quadratic Term Stigma*<sup>2</sup> *and Kindness among LGB Individuals.* 



Note: X axis represents stigma; Y axis represents kindness.

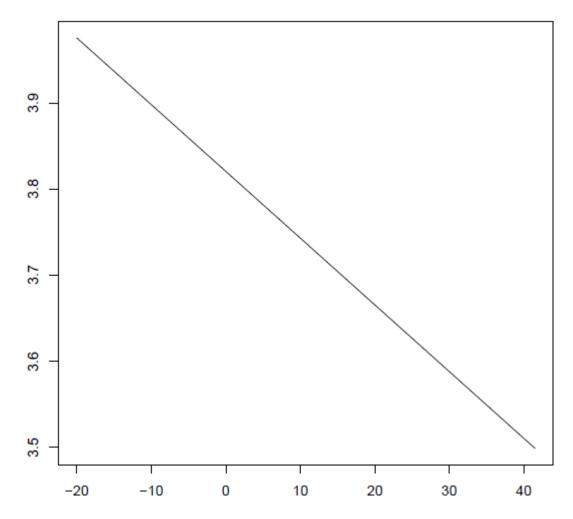


Figure 8. Linear (Negative) Relationship between Stigma and Prudence among LGB Individuals.

Note: X axis represents stigma; Y axis represents prudence.

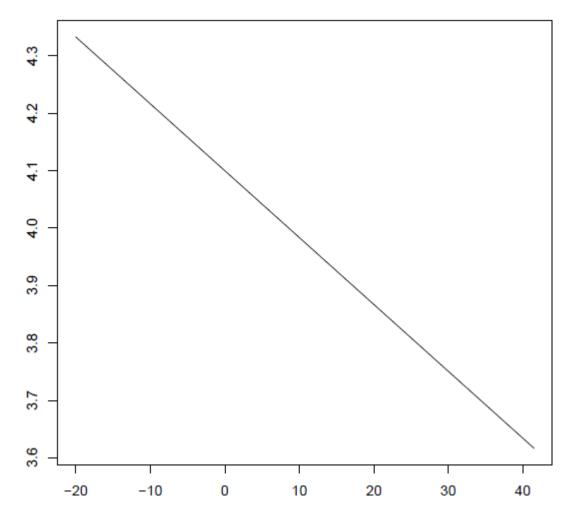


Figure 9. Linear (Negative) Relationship between Stigma and Judgment among LGB Individuals.

Note: X axis represents stigma; Y axis represents judgment.