

2019-07-03

# The “Yummy Mummy” Phenomenon: How Exposure to Celebrity Postpartum Thin-Ideals Impact Postpartum Women’s Eating Attitudes and Pathology

McPhee, Kyla

---

McPhee, K. (2019). The “Yummy Mummy” Phenomenon: How Exposure to Celebrity Postpartum Thin-Ideals Impact Postpartum Women’s Eating Attitudes and Pathology (Master's thesis, University of Calgary, Calgary, Canada). Retrieved from <https://prism.ucalgary.ca>.  
<http://hdl.handle.net/1880/110587>

*Downloaded from PRISM Repository, University of Calgary*

UNIVERSITY OF CALGARY

The “Yummy Mummy” Phenomenon: How Exposure to Celebrity Postpartum Thin-Ideals  
Impact Postpartum Women’s Eating Attitudes and Pathology

by

Kyla C. McPhee

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF SCIENCE

GRADUATE PROGRAM IN EDUCATIONAL PSYCHOLOGY

CALGARY, ALBERTA

JULY, 2019

© Kyla C. McPhee 2019

## **Abstract**

Although a large body of literature exists on the deleterious impact of exposure to the thin-ideal, researchers are only starting to investigate how celebrity representations of postpartum bodies influence postpartum women's mental and physical health. Considering pandemic levels of body dissatisfaction and rises in eating disorders in modern Western culture, further research is required to delineate factors associated with exposure to the postpartum thin-ideal. The current study utilized a factorial analysis of variance to examine the relationship between exposure to the postpartum thin-ideal and postpartum women's eating attitudes and pathology, body dissatisfaction, depressive symptoms, self-esteem, and internalization of the thin-ideal. Participants were 100 postpartum women recruited through Prolific Academic. The results of the study suggested that exposure to the postpartum thin-ideal may not significantly impact eating attitudes and pathology, depressive symptoms, self-esteem, body dissatisfaction, and internalization of the thin-ideal in postpartum women. However, sexual orientation, historical and/or current postpartum depression, parity status, and potentially a history of an eating disorder, were found to be factors related to eating attitudes and pathology, depressive symptoms, and body dissatisfaction in postpartum women. Further research could advance the existing literature on the impact of exposure to the postpartum thin-ideal and could also inform counsellors and health professionals about critical factors which influence the care of postpartum populations.

## **Preface**

The current thesis is original, unpublished, independent work by the author Kyla C. McPhee. The experiments reported in Chapter 2-4 were covered by Ethics Certificate number REB18-1923, issued by the University of Calgary Conjoint Faculties Research Ethics Board for the project “The ‘Yummy Mummy’ Phenomenon: How Exposure to Celebrity Postpartum Thin-Ideals Impact Postpartum Women’s Eating Attitudes and Pathology” on February 12, 2019.

## **Acknowledgements**

I would like to extend my deepest gratitude to the many individuals who have contributed, either direct or indirectly, to the completion of this thesis. First, I would like to thank my supervisor, Dr. Shelly Russell-Mayhew for her diligent and prompt guidance and expertise throughout the past year. Dr. Russell-Mayhew has taught me not only to be a better researcher and critical thinker but encouraged my passion for scholarly endeavours in a way that will support my academic and professional development throughout my career. I would also like to thank my doctoral mentor, Sarah Nutter, for her feedback and support throughout my writing process. I am so excited to see your future scholarly contributions as an academic!

Additionally, I would like to thank my partner, Cameron Taylor, for his unconditional love and encouragement. Whether reading my thesis, bringing me food, or simply providing me with the space and time that I need, thank you from the bottom of my heart. You are a truly kind and compassionate partner and I am honoured to be your companion, along with Lola, our cat. Likewise, during times of frustration and exhilaration, my family and friends always listened enthusiastically, as well as provided emotional support and reassurance.

Lastly, I would like to thank the Office of the Vice-President Research Grant for their financial assistance throughout my research. Without your support, I would not have been able to afford to conduct the research that I am so passionate about; thank you.

## Table of Contents

Abstract.....	ii
Preface.....	iii
Acknowledgements.....	iv
Table of Contents.....	v
List of Tables.....	viii
List of Abbreviations.....	ix
<b>Chapter One: Introduction.....</b>	<b>1</b>
Mass Media and the Thin-Ideal.....	2
The Postpartum Thin-Ideal.....	5
Weight and Body Concerns in the Postpartum Period.....	6
Definitions of Concepts and Terms.....	7
Body Dissatisfaction.....	8
Bouncing Back.....	8
Eating Disordered Attitudes and Pathology.....	8
Internalization of the Thin-Ideal.....	8
Mediating Variable.....	8
Moderating Variable.....	9
Postpartum Women.....	9
Thin-Ideal.....	9
Yummy Mummies.....	9
The Current Study.....	9
<b>Chapter Two: Literature Review.....</b>	<b>11</b>
The Thin-Ideal.....	11
Body Dissatisfaction.....	13
Eating Disorders.....	15
Eating Disorder Prevalence.....	15
Dieting and Eating Disorders.....	17
Low Self-Esteem.....	18
Sociocultural Factors Explaining the Relationship Between the Thin-Ideal and Eating Disorders.....	19
Media Priming.....	19
Negative Affect.....	20
Social Comparison Theory.....	21
Internalization of the Thin-Ideal.....	23
Summary.....	25
Celebrity Representations of the Postpartum Thin-Ideal.....	26
Bouncing Back Narratives.....	26
The Illusion of the Perfect Postpartum Body.....	28
Summary.....	30
The Postpartum Thin-Ideal and Postpartum Challenges.....	31
Postpartum Depression.....	31
Body Dissatisfaction in the Postpartum Period.....	33
Social Pressures and Support.....	34
Summary.....	35

Eating Disorders in the Postpartum Period.....	35
Summary.....	36
<b>Chapter Three: Methodology.....</b>	<b>38</b>
Research Questions and Hypotheses.....	38
Current Study and Extant Literature.....	39
Participants.....	40
Sample.....	40
Rationale for Prolific Academic.....	41
Recruitment Procedures.....	42
Measures.....	42
Demographics Questionnaire.....	42
Female in the Postpartum Period.....	43
Ethnicity.....	43
Literature Supporting Differences in Eating Disorders Based on Ethnicity.....	43
Literature Supporting no Differences in Eating Disorders Based on Ethnicity.....	44
Sexual Orientation.....	45
Age.....	45
Socioeconomic Status.....	46
Occupational Status and Future Employment Plans. ....	47
Months Since Childbirth.....	47
Parity Status.....	47
Postpartum Depression History.....	48
Eating Disorder History.....	48
Beck Depression Inventory-II.....	48
Rosenberg Self-Esteem Scale.....	49
General Dissatisfaction Subscale of the Body Attitudes Test.....	50
Eating Attitudes Test-26.....	51
Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised.....	52
Additional Items Examining Perceived Pressure to Lose Weight.....	53
Procedure.....	54
Data Analysis.....	56
Research Design.....	57
Descriptive Statistics.....	57
Assumptions of the Factorial Analysis of Variance.....	57
Factorial Analysis of Variance.....	58
Ethical Considerations.....	59
Online Research.....	59
Indirect Deception Protocol.....	59
Summary.....	60
<b>Chapter Four: Results.....</b>	<b>61</b>
Demographic Data.....	61
Descriptive Statistics.....	64
Management of Missing Data.....	64
Assumptions of the Factorial ANOVA.....	64

Correlations.....	65
Factorial Analyses of Variances.....	66
Eating Disordered Attitudes and Pathology.....	66
Depressive Symptoms.....	67
Self-Esteem.....	67
Body Dissatisfaction.....	68
Internalization of the Thin-Ideal.....	68
Summary.....	69
<b>Chapter Five: Discussion.....</b>	<b>70</b>
Eating Disordered Attitudes and Pathology.....	70
Increased Eating Disordered Attitudes and Pathology in Modern Society.....	71
Concerns About the Appropriateness of the EAT-26 With Postpartum	
Populations.....	72
Sexual Orientation and Eating Disordered Attitudes and Pathology.....	72
Depressive Symptoms.....	73
Historical and/or Current Postpartum Depression.....	74
Self-Esteem.....	74
History of an Eating Disorder.....	75
Historical and/or Current Postpartum Depression.....	76
Body Dissatisfaction.....	76
Concerns About the Appropriateness of the GD-BAT.....	77
Increased Body Dissatisfaction in Modern Society.....	77
Parity Status.....	78
Internalization of the Thin-Ideal.....	79
Possible Explanations for Null Results.....	80
Limitations.....	82
Small Sample Size and Statistical Power.....	82
Presentation of Media Stimuli.....	83
Lack of Social Comparison Measures.....	84
Lack of Relevant and Psychometrically Validated Inventories for Postpartum	
Populations.....	84
The Presence of Vulnerability Factors.....	84
The Use of Uncertainty Terms.....	85
Implications for Future Research.....	85
Theoretical Recommendations for Future Research.....	86
Methodological Recommendations for Future Research.....	87
General Recommendations for Counselling Psychologists.....	87
Summary and Conclusions.....	89
<b>References.....</b>	<b>91</b>
<b>Appendices.....</b>	<b>139</b>
Appendix A: Participant Recruitment.....	139
Appendix B: Demographics Questionnaire.....	140
Appendix C: Authorized Consent Form.....	143
Appendix D: Informed Consent Form.....	146
Appendix E: Counselling Services Information.....	149



## **List of Tables**

Table 4.1: Demographic Data.....	62
Table 4.2: Descriptive Statistics for Dependent Variables.....	65
Table 4.3: Correlation Matrix for Dependent Variables.....	65

## **List of Abbreviations**

AN: Anorexia Nervosa

ANOVA: Analysis of Variance

BD: Body Dissatisfaction

BDI-II: Beck Depression Inventory-II

BED: Binge Eating Disorder

BN: Bulimia Nervosa

EAT-26: Eating Attitudes Test-26

ED: Eating Disorder

GD-BAT: General Dissatisfaction Subscale of the Body Attitudes Test

PPD: Postpartum Depression

ProA: Prolific Academic

PW: Postpartum Women

RSES: Rosenberg Self-Esteem Scale

SATAQ-4: Social Attitudes Towards Appearance Questionnaire-4

SCT: Social Comparison Theory

SES: Socioeconomic Status

US: United States

## CHAPTER ONE: INTRODUCTION

Before the 1990's, celebrities tended to hide their postpartum bodies from the public sphere (Williams, 2013). However, a drastic cultural change commenced when Demi Moore posed nude while pregnant on the cover of *Vanity Fair* in 1991 (Cunningham, 2002). Numerous individuals followed suit resulting in a cascade of media coverage on pregnant and postpartum celebrities (Martindale, 2012). Media on postpartum celebrities (referred to as the *postpartum thin-ideal*) overwhelmingly focused on their success, or lack thereof, in returning to their pre-pregnancy body via rapid weight loss (i.e., *bouncing back*). Additional catchphrases verbally rewarding individuals who bounce back quickly include *yummy mummies*, *hot mamas*, and *skinny moms* (Chae, 2014; O'Brien Hallstein, 2011; Williams, 2013).

The advertising industry promptly appropriated and disseminated the yummy mummy vocabulary and its typical representation of contemporary mothers as attractive, fashionable, glamorous, confident, and image-conscious (O'Brien Hallstein, 2011). Descriptors of yummy mummies include mothers with "rock-hard abs, manicured nails, and killer highlights" and "dangerously sky-high heels, low-cut jeans, and designer diaper bags" (O'Donohoe, 2006, p. 16). Examples of yummy mummies who are well-known include Victoria Beckham, Gisele Bündchen, and Heidi Klum (Willmot, 2013). In addition, media such as *The Yummy Mummy's Survival Guide: How to Put the Mmmm Back Into Motherhood*, *Yummy Mummy Magazine*, and reality television show *Yummy Mummies*, currently airing on Netflix, have further reinforced these ideals (Davies, 2017; O'Donohoe, 2006).

The abovementioned lexicons generates power dynamics within beauty discourses, privileging thin bodies over all other types (Nash & Warin, 2017). Yet, discourse is not limited to language, but includes images which create social conventions and knowledge (Husbands,

2008). These images are powerful sources of cultural knowledge as they reinforce the idea that there is an ideal postpartum body (Gow, Lydecker, Lamanna, & Mazzeo, 2012; Nash, 2015).

Therefore, the thin-ideal will be explored with emphasis on mass medias influence on eating disorders (EDs), body dissatisfaction (BD), and internalization of the thin-ideal. Next, the postpartum thin-ideal will be considered with reference to weight and body concerns within the postpartum period. Considering the preponderance of literature connecting the thin-ideal to EDs and BD in females of all ages (Hammon, 2012), it is imperative to investigate how the postpartum thin-ideal impacts postpartum women (PW). Key concepts and terminology will be outlined below, followed by details of the current study.

### **Mass Media and the Thin-Ideal**

More than a quarter-century ago, adolescents described the ideal female as “5’7”, 110 pounds, a size 5, with long blonde hair and big blue eyes” (Nichter & Nichter, 1991, p. 260); this narrow description speaks to the pervasiveness and persistence of the thin-ideal, as well as other constructs of beauty portrayed in Western culture (Alleva, Veldhuis, & Martijn, 2016).

Although males are also susceptible to societal standards of appearance, the thin-ideal is most often marketed towards, and impactful for, females (Karazsia, Murnen, & Tylka, 2017; Perloff, 2014). Gender bias on the impact of the thin-ideal is most clearly reflected in the disproportionate prevalence rates of two of the most common EDs as approximately 75–90% of individuals with anorexia nervosa (AN) and bulimia nervosa (BN) are female (Karazsia et al., 2017; Udo & Grilo, 2018).

In addition, it is concerning to note that representations of the thin-ideal have become increasingly quixotic throughout the past several decades; females in the media have become slimmer, thinner than the average female, and often leaner than the criteria for AN (Grabe, Ward,

& Hyde, 2008; Knobloch-Westerwick & Romero, 2011). While models in 1973 weighed approximately 8% less than the average woman, this number skyrocketed to 23–33% less than the typical woman by 1991 (Fouts & Burggraf, 2000; Wiseman, Gunning, & Gray, 1993). Cultural standards of thinness have become so extreme that average weight women are considered large by modern expectations (Saraceni & Russell-Mayhew, 2007). These societal ideals influence how women conceptualize thinness. To demonstrate, research on weight loss identified that women only feel thin when they are 10% or more below their target weight (Saraceni & Russell-Mayhew, 2007).

Further, the diet industry within the 1990's in North America climbed sharply from approximately \$10 to \$36 billion per annum (Kilbourne, 1999). Current annual estimates for the diet industry range from \$66 to \$70 billion (Rabasca Roepe, 2018; Sifferlin, 2017). Consequently, thin-ideal media, such as diet and exercise propaganda, proliferated during this time frame (Nemeroff, Stein, Diehl, & Smilack, 1994). Many scholars noted a rise in EDs in conjunction with these occurrences suggesting a potential link between the thin-ideal and EDs (Hogan & Strasburger, 2008).

Although the thin-ideal is disseminated through various sociocultural channels, the most influential conduit is the mass media (Tiggemann, Polivy, & Hargreaves, 2009). Mass media may be particularly influential as it has the potential to reach millions of people concurrently (Klein & Shiffman, 2005). Examples of mass media include, but are not limited to, fashion runways, magazines, news, blogs, social media, movies, television, internet, cartoons, advertising, music videos, books, and radio (López-Guimerà, Levine, Sánchez-Carraceda, & Fauquet, 2010; Perloff, 2014; Williams, Christopher, & Sinski, 2017). Many academics have concurred that mass media reflects and moulds social norms, attitudes, values, and behaviours

(Bandura, 2001; Bryant & Oliver, 2009), with the thin-ideal being one of the most detrimental and ingrained conventions (Hausenblas et al., 2013).

The thin-ideal has become so entrenched in Western culture that slenderness is considered the main route to personal and social acceptance for most women (Jobsky, 2014). In the media, women who fit the thin prototype are praised, while women who are considered larger are denigrated and scrutinized (Williams, 2013). Thus, the media not only increasingly emphasizes the cultural value of thinness (Kindes, 2006), but implies that unrealistically thin bodies are representative of reality, as well as signify the epitome of feminine physique (Couch et al., 2016). Yet, few females can attain the thin-ideal, as the complexities of genetics and metabolism differ for each woman (Groesz, Levine, & Murnen, 2002; Levine & Murnen, 2009; Martindale, 2012).

Instead of including more diverse body types (Liechty, Coyne, Collier, & Sharp, 2018), the mass media provides solutions by outlining dietary and exercise instructions that celebrities have credited for their figures (Bissell & Zhuo, 2004; López-Guimerà et al., 2010). Therefore, many women not only use the media for entertainment purposes, but to gather information to evaluate and alter their physical appearance to more closely approximate the cultural ideal (Murtha-Berg, 2017). Consequently, both celebrities and non-celebrities have become obsessed with dieting, to the point of dieting being called a “national pastime” (Dennis, Pryor, & Brewerton, 2014, p. 475). Bodily perfection, hypervigilance to appearance, weight loss, and extreme dieting practices continue to be normalized and even encouraged in Western society (Hawkins, Richards, Granley, & Stein, 2004). These findings provide further evidence that societal fascination with the thin-ideal has contributed to the increased prevalence of EDs in the last several decades (Keel, 2010; Levine & Murnen, 2009).

Moreover, the thin-ideal insinuates that different body types are unacceptable, which may elicit BD in women who perceive their bodies to be different than the cultural ideal (Fox & Neiterman, 2015). An expansive body of literature has identified that exposure to the thin-ideal contributes to BD in females (Grabe et al., 2008). However, females who have prior appearance concerns, including BD, higher levels of internalization of the thin-ideal, and eating pathology, appear to be more strongly impacted by thin-ideal images (Dittmar, Halliwell, & Stirling, 2009; Ferguson, 2013). Several sociocultural factors provide potential pathways through which EDs and BD develop in women including: (a) media priming following exposure to the thin-ideal; (b) negative affect (e.g., anxiety, depression, anger, guilt, shame, insecurity, fatigue, and stress); (c) social comparison theory (SCT); and (d) internalization of the thin-ideal (Bradford & Petrie, 2008; Festinger, 1954; Hopper & Aubrey, 2016), which will be discussed further in chapter two.

### **The Postpartum Thin-Ideal**

The thin-ideal becomes increasingly more complex when considering sensitive developmental stages such as the postpartum period (Gow et al., 2012). Coverage of celebrities who bounce back rapidly post-birth are ubiquitous in the media within Canada, United States (US), United Kingdom, and Australia (Williams et al., 2017). Bouncing back has not only become an imperative for PW, but the media frequently depicts this process as easy, straightforward, and realistic (Williams, 2013). The underlying message in bouncing back narratives is that there is no excuse for all PW not to immediately return to their pre-pregnancy body, as celebrities do (Clark, Skouteris, Wertheim, Paxton, & Milgrom, 2009). Many PW have identified feeling intense pressure to bounce back (Montgomery et al., 2013) with 90% stating that celebrity representations of PW added to their anxiety to lose their postpartum weight (Mysko & Amadei, 2009).

Additionally, bouncing back is portrayed as the most significant component of the reproduction process (Upton & Han, 2003), escalating pressures for women in an already vulnerable and stressful phase (Bulik, 2013). PW identified factors including time, motivation, changes in their romantic relationship, social support, postpartum depression (PPD), and low self-esteem as significant challenges to weight loss in the postpartum period (Lovering, Rodgers, Edwards George, & Franko, 2018). Thus, the ease and importance of obtaining the postpartum thin-ideal has been socially constructed in the media, which few women have the resources to emulate (Gentile, 2011).

### **Weight and Body Concerns in the Postpartum Period**

Considering the media's preoccupation with weight, it is no surprise that women with EDs expressed concerns about their bodies in the postpartum period (Coker & Abraham, 2015). Women within each of the following ED categories were worried about excess weight in the postpartum period: 89% for AN, 91% for BN, 92% for purging disorder, and 71% for binge-eating disorder (BED; Bulik, 2013). Although the historical or current existence of an ED intensifies the fear of postpartum weight retention, women who have never had an ED may also be distressed about the bouncing back process (Mysko & Amadei, 2009).

Approximately 40% of women, who have never had an ED, stated that they were somewhat or very worried about weight gain during pregnancy (Bulik, 2013). Similarly, 72% of women expressed concern that they would not return to their pre-pregnancy body post-birth (Lovering, 2015). These statistics, from both clinical and general populations, reflect women's self-proclaimed biggest fear about pregnancy: Being unable to lose the weight they gained during pregnancy in the postpartum period (Watson, Fuller-Tyszkiewicz, Broadbent, & Skouteris, 2015).



However, the majority of PW do not bounce back instantaneously (Shloim, Rudolf, Feltbower, & Hetherington, 2014) and many experience permanent changes in their bodies (Coker & Abraham, 2015). Therefore, the chasm between the postpartum thin-ideal and PWs bodily expectations are substantial for the preponderance of PW (Clark et al., 2009). Consequently, PW expressed a host of psychological concerns including ED attitudes and pathology, BD, negative affect, heightened internalization of the thin-ideal, and low self-esteem (Fox & Neiterman, 2015).

Despite the detrimental impact of exposure to the thin-ideal (Hogan & Strasburger, 2008), it is important to note that it is only one factor in a complex array of predisposing psychological, social, biological, and genetic vulnerabilities that contribute to the development of an ED (Arroyo & Segrin, 2013; Kaye & Oberndorfer, 2010). For instance, parental dieting behaviours (Carney & Louw, 2006) and family dynamics (Leys, Kotsou, Goemanne, & Fossion, 2017), as well as heritable temperaments and personality characteristics may influence ED attitudes and behaviours (Hausenblas et al., 2013). Regardless of the omnipresence of the thin-ideal, not all women develop concerns about their weight and only a minority develop clinical symptoms of an ED (Tiggemann & McGill, 2004). Nevertheless, it is imperative to investigate the impact of the postpartum thin-ideal on PWs health and wellness to reduce maternal risks, as well as advance medical prevention and intervention strategies for PW. Specific approaches to reduce ED attitudes and pathology, BD, PPD, low self-esteem, and internalization of the thin-ideal could serve as protective mechanisms for PW.

### **Definitions of Concepts and Terms**

Relevant concepts and terminology that will be discussed in following chapters will be outlined below. The inclusion of these definitions is intended to aid readers in navigating and

comprehending the research topic. The following terms will be defined: (a) BD, (b) bouncing back, (c) ED attitudes and pathology, (d) internalization of the thin-ideal, (e) mediating variable, (f) moderating variable, (g) PW, (h) thin-ideal, and (i) yummy mummies.

### **Body Dissatisfaction (BD)**

BD occurs when a person experiences negative subjective appraisals and feelings towards their body and/or body parts (Shroff, Calogero, & Thompson, 2009).

### **Bouncing Back**

Bouncing back is a term used to describe how women feel they are socially required to return to their pre-pregnancy body instantaneously after birth (Roth, Homer, & Fenwick, 2012).

### **Eating Disordered Attitudes and Pathology**

ED attitudes consist of thoughts, feelings, beliefs, and concerns, while ED pathology are behaviours regarding food and eating (e.g., purging via vomiting and caloric restriction; Johnson & Bedford, 2004).

### **Internalization of the Thin-Ideal**

Internalization of the thin-ideal has been conceptualized as the degree to which an individual incorporates and accepts cultural standards and values of beauty as indicated by their attitudes towards their body and engagement in behaviors intended to approximate these values (Karazsia, van Dulmen, Wong, & Crowther, 2013; Suisman et al., 2012).

### **Mediating Variable**

A mediating variable explains the connection between the independent (i.e., predictor) and dependent (i.e., criterion) variables (Pelham, 2013).

## **Moderating Variable**

A moderating variable describes the strength and/or interaction of relationships among independent and dependent variables (Pelham, 2013).

## **Postpartum Women (PW)**

PW, as commonly defined in the literature, are females in the stage immediately following birth up until approximately one-year (Obeyd, 2010).

## **Thin-Ideal**

The thin-ideal is a phenomenon which depicts the ultra-slender female body type commonly represented in the media (Bozsik, Whisenhunt, Hudson, Bennett, & Lundgren, 2018).

## **Yummy Mummies**

Yummy mummies, as defined in the literature, are affluent women who are able to bounce back in the postpartum period within a few weeks after giving birth, often with the help of personal trainers or other financial resources (Nash, 2015).

## **The Current Study**

The purpose of the current study was to investigate the impact of exposure to celebrity representations of the postpartum thin-ideal on PWs eating attitudes and pathology, BD, depressive symptoms, self-esteem, and internalization of the thin-ideal. The outcomes of this research may serve as a foundation for future prevention and intervention strategies for women who struggle during the postpartum period. Four further chapters comprise the remainder of this thesis. Chapter two presents a review of the literature concerning the main topics of the current research: the thin-ideal, celebrity representations of the postpartum thin-ideal, and the vulnerability of the postpartum period. In addition, chapter two draws from the literature on exposure to the thin-ideal, the postpartum period, BD, and EDs, and aims to draw connections

between exposure to the postpartum thin-ideal and: (a) ED attitudes and pathology, (b) BD, (c) depressive symptoms, (d) low self-esteem, (e) internalization of the thin-ideal, and (f) combine these factors in an effort to increase our understanding of the impact of the postpartum thin-ideal on PW. Chapter three outlines the specific research questions, hypotheses, quantitative methods, and statistical analyses used for the current study. Chapter four summarizes the results of the quantitative analyses conducted for the current study. Lastly, chapter five reviews and discusses these results with reference to the current literature on the impact of the postpartum thin-ideal, as well as presents future research directions and general recommendations for counselling psychologists.

## **CHAPTER TWO: LITERATURE REVIEW**

As expressed in chapter one, the thin-ideal is a pervasive and ever evolving concept which contributes to BD and EDs in females of various developmental stages. Hence, the impact of exposure to the thin-ideal on BD and EDs will be examined below. In addition, sociocultural factors explaining the relationship between the thin-ideal and EDs will be delineated. Subsequently, celebrity representations of the postpartum thin-ideal will be introduced with emphasis on bouncing back narratives and the impracticality of obtaining the postpartum thin-ideal for the majority of PW. This will be followed by an exploration of the vulnerability of the postpartum period and how the postpartum thin-ideal contributes to BD; physical, emotional, and social challenges; and ED attitudes and pathology in PW.

### **The Thin-Ideal**

The thin-ideal is a phenomenon which depicts the ultra-slender female body type commonly represented in the media (Bozsik et al., 2018). A plethora of studies have demonstrated a strong and consistent positive relationship between exposure to the thin-ideal and EDs (Bissell & Zhuo, 2004; Engeln-Maddox, 2005; Ferguson, 2013; Grabe et al., 2008; Groesz et al., 2002; Harrison, 2000; Levine & Harrison, 2004; Levine & Smolak, 1996, 1998; Mills, Polivy, Herman, & Tiggemann, 2002; Stice & Shaw, 2002; Want, 2009). The more exposure an individual has to thin-ideal media, the more likely they are to develop ED pathology (McLean, Paxton, & Wertheim, 2016). Females who lived in households with televisions were three times more likely to develop symptoms of AN compared to those who lived in households without televisions (Carney & Louw, 2006). Similar results were found within adolescent populations, as regular consumers of thin-ideal media were seven times more likely to exhibit ED behaviours (López-Guimerà et al., 2010).

The association between the thin-ideal and EDs is so strong that many scholars have postulated there is a causal link (Hausenblas et al., 2013; Hawkins et al., 2004). Greater frequency of magazine consumption predicted a three-fold rise in extreme weight control behaviours within a five-year time frame (van den Berg, Neumark-Sztainer, Hannan, & Haines, 2007). In a seven-year follow-up study, females who expressed a desire to mimic the thin-ideal were 1.5 and 2.2 times more likely to begin purging and bingeing, respectively (Field et al., 2008). In addition, heightened preoccupation with slenderness and perceived social pressure was followed by the onset of ED symptoms in adolescent girls three years later (The McKnight Investigators, 2003).

One longitudinal study by the Harvard Eating Disorders Center provides strong evidence for the causal connection between exposure to the thin-ideal and the development of ED attitudes and pathology (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002). Becker et al. (2002) investigated the impact of introducing television to Fijian school girls with no previous exposure. Approximately 11% of Fijian school girls admitted to engaging in BN behaviours to control their weight in comparison to 0% three years prior (Becker et al., 2002). Additionally, pathological ED attitudes escalated from 13% to 29% (Becker et al., 2002). A similar study in the Ukraine found comparable results (Bilunka & Utermohlen, 2002). These findings strongly support the notion that mass media substantially impacts, changes, and shapes cultural norms within a relatively short period of time (López-Guimerà et al., 2010).

However, exposure to the thin-ideal most strongly predicts ED attitudes and pathology in women who are vulnerable (Lovering, 2015). Vulnerable women are individuals: (a) who believe they have a larger body size than the ideal; (b) with higher levels of BD, internalization of the thin-ideal, and ED attitudes and pathology; and (c) lower self-esteem (Ferguson, 2013;

Glauert, Rhodes, Byrne, Fink, & Grammer, 2009; Hausenblas et al., 2013). Nevertheless, further studies are warranted to explicate which factors mediate and moderate the relationship between exposure to the thin-ideal and EDs (Levine & Murnen, 2009).

### **Body Dissatisfaction (BD)**

BD occurs when a person experiences negative subjective appraisals and feelings towards their body and/or body parts (Shroff et al., 2009). BD may range from mild dislike of a particular body part to all-consuming hatred of one's entire body (Karazsia et al., 2017). There are several components of BD including cognitive-perceptual (e.g., I think I am fat), affective (e.g., I feel fat), attitudinal (e.g., people do not like me because I am fat), and behavioural (e.g., I need to diet because I am fat; Cash & Smolak, 2011). Therefore, BD is amenable to changes based on self-evaluations, social perceptions of beauty, criticisms from others, mood fluctuations, and social cues presented in the media (Cash, Morrow, Hrabosky, & Perry, 2004; Murtha-Berg, 2017).

Numerous studies have illustrated that exposure to the thin-ideal significantly increases women's BD (Homan, McHugh, Wells, Watson, & King, 2012; Perloff, 2014). Adolescent and adult females significantly and regularly reported higher BD immediately after observing media images consistent with the thin-ideal (Grabe et al., 2008; Groesz et al., 2002). Comparable results have been found in other Western cultures such as Canada, US, United Kingdom, and Australia (Bell & Dittmar, 2011). Accordingly, many scholars have concluded that exposure to thin-ideal media predicts elevations in BD (Grabe & Hyde, 2006; Harrison & Hefner, 2008; Knobloch-Westerwick & Crane, 2012; Scharrer, 2013; Tiggemann, 2014).

Meta-analyses have provided convincing evidence that BD may be a critical moderating variable (Alleva et al., 2016; Levine & Harrison, 2009) and/or causal risk factor (i.e., mediating

variable) for EDs in females (Grabe & Hyde, 2006; Groesz et al., 2002). However, a minority of studies show null results (Halliwell, Dittmar, & Howe, 2005) or decreased BD (Joshi, Herman, & Polivy, 2004; Mills et al., 2002; Wilcox & Laird, 2000). These results suggest that BD after exposure to thin-ideal images is not universal and that some populations may exhibit protective factors that could be used for intervention and prevention purposes (Grabe et al., 2008).

BD in females may emerge as early as age six, with a minority as young as five having demonstrated concern with their weight (Dohnt & Tiggemann, 2005, 2006). More recent literature on three and four-year-old girls found no direct negative effects on BD following brief exposure to appearance-related animated media (Hayes & Tantleff-Dunn, 2010). Yet, females as young as three may internalize stereotypes related to body type, as they typically ascribed more positive characteristics to thinner bodies (Harriger, Calogero, Witherington, & Smith, 2010). Some very young children were not only able to recognize socially preferred body types, but explicitly identified dieting as a method to obtain it (Dohnt & Tiggemann, 2006).

Regrettably, earlier emergence of BD may predispose individuals to further eating and weight concerns (Davison, Markey, & Birch, 2003). BD at age five predicted BD at age seven and ED attitudes and pathology at age nine (Davison et al., 2003). Subsequently, BD tends to heighten in pre-and early-adolescence (Hayes & Tantleff-Dunn, 2010). Nearly half of pre-adolescent girls stated that they often or always experienced BD (Hogan & Strasburger, 2008). In addition, over 50% of adolescent females with BD admitted to engaging in ED behaviours including caloric restriction, smoking cigarettes to reduce their appetite, consumption of diet pills, and purging via vomiting and laxatives (Neumark-Sztainer, 2005). In adult female populations, the lifetime prevalence of BD has been estimated to be 40–50% (Bearman, Presnell,



Martinez, & Stice, 2006), with other studies indicating upwards of 85% (Pruis & Janowsky, 2010).

### **Eating Disorders (EDs)**

EDs are serious mental health concerns marked by persistent disturbances in eating-related behaviours resulting in altered consumption or absorption of nutrition that significantly impairs physical or psychosocial functioning (American Psychiatric Association [APA], 2013). Core symptoms across ED categories include BD; preoccupation with food, weight, and body shape; and low self-esteem (APA; 2013; Karazsia et al., 2017; Loeber et al., 2016). EDs are often characterized by concomitant psychiatric (e.g., substance abuse, anxiety, depression, and obsessive-compulsive disorder), physical (e.g., electrolyte imbalances and nutritional deficiencies), emotional (e.g., shame and guilt), interpersonal (e.g., social isolation), and cognitive (e.g., intense fear of weight gain) concerns (Lovering, 2015; Wertheim, Paxton, & Blaney, 2009). In comparison to other mental health diagnoses, people with EDs have a higher incidence of suicide attempts, hospitalizations, and deaths, as well as lowered quality of life (Lovering, 2015; Mitchison, Hay, Slewa-Younan, & Mond, 2012). Mortality data has illustrated that individuals with EDs most often die as a result of suicide, yet, complications related to the ED may occur, typically in patients with AN (Fichter & Quadflieg, 2016). To demonstrate, the annual mortality rate for people with AN is 5.9%; 12 times the national average for females within the same age range (Little & Lowkes, 2000).

### **Eating Disorder (ED) Prevalence**

The lifetime prevalence of three of the most commonly diagnosed EDs in females is 0.9% for AN, 1.5% for BN, and 3.5% for BED (Udo & Grilo, 2018). Higher estimates cite an ED prevalence rate between 1.4–5% for AN (Tylka, 2004; Wade, Bergin, Tiggemann, Bulik, &

Fairburn, 2006) and 1.5–4.6% for BN (Corning, Krumm, & Smitham, 2006; Wade, Bulik, Prescott, & Kendler, 2004). Broadening the definition to include sub-threshold levels of EDs elevates the prevalence rate to 34–67% (Hoerr, Bokram, Lugo, Bivins, & Keast, 2002).

Recent changes in the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5)* have heightened lifetime prevalence rates for AN and BN (Lindvall Dahlgren, Wisting, & Rø, 2017). As the diagnostic category of eating disorder not otherwise specified was removed from the *DSM-5*, the prevalence of full-threshold EDs surged from 1.8% to 3.7% (Flament et al., 2015; Lindvall Dahlgren et al., 2017). However, the rise in ED prevalence may also reflect a heightened trend towards eating pathology in Western cultures, as many scholars have noted that the incidence of EDs have climbed markedly in the past 50 years (Mitchison et al., 2012; Udo & Grilo, 2018). In Australia, binge eating and purging amongst females approximately doubled with extreme dieting and fasting tripling between 1995–2005 leading many academics to believe that sub-clinical forms of EDs are increasingly common (Darby et al., 2009; Melioli et al., 2016; Mitchison et al., 2012). Thus, the difference between individuals with EDs and those with other forms of disordered eating patterns likely differ only based on the severity, not type of ED (Tylka & Subich, 2002).

Approximately 67% of women without EDs have problematic relationships with food and weight (Sullivan, 2010). A survey by the University of North Carolina and *Self* magazine found similar results, as 75% of women in both healthy and clinical populations reported ED attitudes and behaviours (Karras, 2008). Women reported calorie counting, fasting, using appetite suppressants, eating in secret, skipping meals, persistent dieting, addictions to food, purging via vomiting or laxatives/diuretics, excessive exercising, and starving themselves as a means of slimming in the short-term (McLaughlin, 2017; Mysko & Amadei, 2009; Tylka &

Subich, 2002). These examples demonstrate the diversity in extreme dieting and ED presentation that can impact an individual's functioning and well-being without necessarily meeting the diagnostic criteria of an ED (Rodgers, O'Flynn, Bourdeau, & Zimmerman, 2018).

### **Dieting and Eating Disorders (EDs)**

Diets often encourage women to lessen or abstain from certain types of foods, restrict or intermittently fast, or ingest only liquids (Mann et al., 2007; Thomas, Hyde, Karunaratne, Kausman, & Komesaroff, 2008). Approximately 31–80% of women admitted to dieting at some point in their lives, with 30–53% indicating they were currently dieting (International Food Information Council, 2009; McLaughlin, 2017). In addition, 90–100% of women expressed that they desired to lose weight (Corning et al., 2006; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). These figures are concerning, as studies have demonstrated that many dieters vacillate between asymptomatic, subclinical, and pathological ED patterns (Shisslak, Crago, & Estes, 1995).

Women may engage in dieting due to the common perception that it is an effective method for weight loss (Clark et al., 2009). Despite this perception, researchers have consistently illustrated that dieting is an ineffective method for prolonged weight loss as only 5% sustained their target goal long-term (Mann et al., 2007). Most women described dieting success for the short-term, 2–6 weeks, followed by weight gain once they started to eat normally again (Grogan, 1998). Weight gain may also occur as dieting tends to increase behaviours related to BN including yo-yo dieting, bingeing on days off, restricting on diet days, and use of diuretics (Mann et al., 2007). Subsequently, women often view their lack of dieting success as a personal failure leading to lower self-esteem, heightened depression and BD, and, for some, ED pathology (Bradford & Petrie, 2008; Markowitz, Friedman, & Arent, 2008; Martindale, 2012). Thus,

scholars have postulated that dieting may be an important antecedent to EDs (Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004; Polivy & Herman, 2002).

Despite the prevalence of unhealthy relationships with food and weight, research in community settings have revealed that only a minority of people with EDs are in treatment (Rogoza, Brytek-Matera, & Garner, 2016). Approximately 66–80% of individuals with diagnosable EDs do not seek formal treatment (Forrest, Smith, & Swanson, 2017; Sonnevile & Lipson, 2018). Many people justify ED behaviours under the guise of health and fitness (Mysko & Amadei, 2009). Negative attitudes towards high calorie foods and larger body sizes, as well as positive mindsets regarding dieting, rigorous exercise, and orthorexia nervosa have become normalized in Western cultures (Hicks & Brown, 2016; Martindale, 2012). Although orthorexia nervosa is not an official diagnostic category (APA, 2013), it is used to describe individuals who are preoccupied with healthy eating and food choices (Rogoza et al., 2016). Hence, in recent years, it has become more complicated to detect EDs (Håman, Lindgren, & Prell, 2017).

### **Low Self-Esteem**

Studies have revealed a robust relationship between low self-esteem and EDs (Heaton, 2010; Loeber et al., 2016). The association between low self-esteem and EDs is so strong that it predicted EDs immediately and four years later (Polivy & Herman, 2002; Posavac & Posavac, 2002). In addition, low self-esteem in adolescent girls prevised high scores on the Eating Attitudes Test-26 (EAT-26), suggesting that young girls with low self-esteem are significantly at risk for developing ED attitudes and pathology (Grogan, 1998). Hence, low self-esteem may be a critical moderating variable in the relationship between exposure to the thin-ideal, BD, and EDs (Mitchell, Petrie, Greenleaf, & Martin, 2012; Murray, Rieger, & Byrne, 2013). However,

the relationship between low self-esteem, BD, and EDs is likely multidirectional and complex (Gleaves, Williamson, Eberenz, Sebastien, & Barker, 1995).

Changes in BD or self-esteem may impact ED symptomology and vice versa (Obeyd, 2010; Tiggemann, 2003). In addition, media priming, negative affect, SCT, and internalization of the thin-ideal have all been found to influence BD and self-esteem (Mischner, van Schie, Wigboldus, van Baaren, & Engels, 2013; Noser & Zeigler-Hill, 2014). These findings are sobering, considering BD and low self-esteem are two of the most consistent predictors of the development of EDs and unhealthy weight loss practices including: extreme dieting; purging via vomiting, laxative, and/or diuretic use; excessive exercising; and caloric restriction (Calado, Lameiras, Sepulveda, Rodríguez, & Carrera, 2010; Grabe, Hyde, & Lindberg, 2007; Rodgers, McLean, & Paxton, 2015; Smolak & Levine, 2015; Smolak & Thompson, 2009).

### **Sociocultural Factors Explaining the Relationship Between the Thin-Ideal and Eating Disorders (EDs)**

Various sociocultural factors have been conceptualized to expound the relationship between the thin-ideal and EDs including media priming, negative affect, SCT, and internalization of the thin-ideal (Hawkins et al., 2004; Stice, 2001).

**Media priming.** Media priming refers to changes in peoples' immediate subsequent behaviours, thoughts, and judgments after exposure to media stimuli (Strasburger, Jordan, & Donnerstein, 2010). Media priming can have harmful consequences on its consumers such as increasing an individual's: (a) intake of unhealthy foods and drinks (Olafsdottir et al., 2014); (b) experimentation with tobacco and alcohol (Nunez-Smith et al., 2010); (c) aggressive behaviours (Gentile, Coyne, & Walsh, 2011); and (d) BD and eating disturbances in the short, as well as the long-term (Schooler & Trinh, 2011). Repeated exposure to thin-ideal media may prime

individuals to feel BD and negative affect due to the discrepancies between their body and the ideal (Hodgkinson, Smith, & Wittkowski, 2014). Experimental data have corroborated these findings as female participants exposed to thin-ideal images reported immediate (i.e., between 0–2 hours) increases in BD and negative affect (Hausenblas, Janelle, Gardner, & Focht, 2004). However, media priming not only cultivated BD and ED attitudes and pathology but triggered and reinforced thin-ideals in vulnerable individuals (Levine & Harrison, 2004).

When a concept is primed, other similar ideas or stereotypes are activated, causing a cascade of emotional and physical reactions such as those related to celebrity lifestyle, exercise, and dieting (Hopper & Aubrey, 2016; Roskos-Ewoldsen, Roskos-Ewoldsen, & Dillman Carpentier, 2009). Women were significantly more likely to initiate or increase their exercise regimes after exposure to thin-ideal images (Field, Camargo, Taylor, Berkey, & Colditz, 1999). Likewise, regular consumers of thin-ideal images were two to three times more likely to utilize media-recommended diet and exercise plans in comparison to non-regular consumers (López-Guimerà et al., 2010). Exposure to thin-ideal images may impact ED pathology through several mechanisms including: reinforcing thin-ideal norms on an individual and societal level, eliciting negative affect and BD, and encouraging ED attitudes and pathology (Glauert et al., 2009). Thus, media priming appears to operate in tandem with negative affect and internalization of the thin-ideal to contribute to BD and EDs in women.

**Negative affect.** The sociocultural factor of negative affect emphasizes that women are conditioned to constantly compare themselves to the thin archetype, resulting in persistent reminders of how their body deviates from the cultural ideal (Grabe et al., 2008). To demonstrate, women exposed to thin-ideal images expressed that they felt their bodies were too large and discrepant with the body type that they believed they should have (Harrison, Taylor, &

Marske, 2006). As women compared their bodies to the thin-ideal, a range of negative affect tended to ensue including depression, anxiety, and low self-esteem (Rodgers, Paxton, & McLean, 2014). Resultantly, some women engaged in self-regulatory behaviours such as caloric restriction, excessive exercising, or bingeing and purging to reduce discrepancies and cope with distress (Harrison et al., 2006).

Negative affect following exposure to thin-ideal media may persist for 15 minutes, two hours (Hausenblas et al., 2004), or two years (Hargreaves & Tiggemann, 2004). These results suggest that exposure to the thin-ideal not only has immediate consequences for viewers but may accumulate over time to contribute to longer-term emotional and body concerns which impact ED pathology (Hausenblas et al., 2013). Several studies have corroborated these assertions as exposure to thin-ideal media has been consistently associated with greater negative affect (Birkeland et al., 2005; Brown & Dittmar, 2005; Dittmar & Howard, 2004; Grabe & Hyde, 2006; Halliwell & Dittmar, 2004; Tiggemann & McGill, 2004). In addition, negative affect as a sociocultural factor compliments and supports the importance of other influences, such as media priming and SCT, as each can contribute to BD and EDs (Roskos-Ewoldsen et al., 2009).

**Social comparison theory (SCT).** Proponents of SCT have asserted that people compare and evaluate themselves against images that they perceive to be attainable and realistic (Bissell & Zhuo, 2004; Festinger, 1954). Many individuals believe social comparisons are a useful strategy to gain information about cultural ideals and the self, relative to others, for the purposes of self-improvement (Buunk & Gibbons, 2007; Martinot & Redersdorff, 2003). Subsequently, people attempt to elevate their social status by emulating the images that they have compared themselves against (Botta, 2000). Comparisons with others can be unconscious or conscious (Miller, 1984) and upward or downward (Smallwood, 2014). Upward comparisons

occur when individuals compare themselves to images that they consider better off than themselves, such as celebrities; downward comparisons transpire when individuals compare themselves to images that they consider worse off than themselves (Myers & Crowther, 2009).

As it relates to the current study, SCT would surmise that women utilize the thin-ideal as a standard for comparison (Chae, 2014). Thin-ideal media provide ample opportunities for social comparisons based on appearance, accomplishments, and lifestyle (Knobloch-Westerwick & Romero, 2011). In addition, thin-ideal images tend to include dietary and exercise plans implying that every woman can achieve the thin-ideal through these efforts (Dohnt & Tiggemann, 2006; Harrison et al., 2006). Thus, thin-ideal images would be expected to induce upward social comparisons resulting in BD, lower self-esteem, and, for some, ED pathology to compensate for perceived defects (Lovering, 2015; Wyssen et al., 2017).

Studies have corroborated these claims, as women who exhibited greater social comparisons with thin-ideal images demonstrated heightened BD, ED pathology, negative affect, and thin-ideal internalization (Knobloch-Westerwick & Romero, 2011; McLean et al., 2016; O'Brien et al., 2009; Trampe, Stapel, & Siero, 2007). Furthermore, several meta-analyses have revealed a moderate effect size between BD and social comparisons (Birkeland et al., 2005; Krones, Stice, Batres, & Orjada, 2005; Myers & Crowther, 2009; Schutz, Paxton, & Wertheim, 2002; van den Berg & Thompson, 2007). Thus, SCT has become an important theoretical framework to understand the relationship between exposure to the thin-ideal and EDs (Bessenoff & Del Priore, 2007; Krcmar, Giles, & Helme, 2008; Tiggemann et al., 2009).

Social comparisons may induce BD in females through greater internalization of the thin-ideal (Trampe et al., 2007). However, women with BD are also more likely to engage in social comparisons with thin-ideal images suggesting that BD and thin-ideal internalization may



reciprocally impact one another (Bessenoff, 2006; Shroff & Thompson, 2006). More recent research has provided empirical support that the internalization of the thin-ideal tends to precede social comparison and BD (Rodgers et al., 2015). These patterns held true for diverse populations including men (Hargreaves & Tiggemann, 2009), Caucasian females, African American females (Botta, 2000), adolescent females (Morrison, Kalin, & Morrison, 2004), college-aged females (Krcmar et al., 2008), and adult females (Dittmar & Howard, 2004). Therefore, internalization of the thin-ideal appears to influence BD via social comparisons both directly and indirectly (Cafri, Yamamiya, Brannick, & Thompson, 2005; Rodgers et al., 2015).

**Internalization of the thin-ideal.** As outlined in chapter one, internalization of the thin-ideal has been conceptualized as the degree to which an individual incorporates and accepts cultural standards and values of beauty as indicated by their attitudes towards their body and engagement in behaviors intended to approximate these values (Karazsia et al., 2013; Suisman et al., 2012). The more exposure an individual has to the media, the more likely they are to internalize stereotypes and beliefs related to the thin-ideal (Hawkins et al., 2004). Stereotypes associated with being slender include non-visible qualities such as popularity, elegance, wealth, confidence, youth, and will power (Grogan, 1998). Thin-ideal attributes are frequently extended to more positive personality ratings, greater perceived life and career success, and higher life satisfaction ratings (Carney & Louw, 2006). Therefore, the media not only privileges thin bodies, but extends this trait to assets that society desires (Husbands, 2008).

The thin-ideal not only pigeonholes slender body types, but disadvantages and implies that larger bodies have the opposite features (Carney & Louw, 2006). Negative representations within the media lead many individuals to erroneously believe that larger bodies are a reflection of character flaws such as laziness, indulgence, and lack of discipline (Lovering, 2015; Puhl,

Latner, King, & Luedicke, 2014). Accordingly, many thin-ideal myths are perpetuated in society including the idea that: (a) a woman's worth is dependent on her physical appearance; (b) all women should desire to imitate the thin-ideal; (c) females with different body types than the thin-ideal should feel BD; (c) all women can and should attain the thin-ideal through intense dietary and/or exercise efforts; and (d) that thinness or lack thereof, is a reflection of other deeper traits of willpower and personal characteristics (Rodgers et al., 2015).

In addition, Fouts and Burggraf (2000) discovered a positive correlation between the weight of a female character and the frequency of derogatory appearance comments made within the media. These comments and reactions further supported the problematic discourse on weight in several ways. First, negative comments towards larger women encouraged binary understandings of body types including thin as normal and ideal, and fat as abnormal and undesirable (LeBesco, 2011). Second, thin-ideal media communicated that larger body sizes are subject to (open) ridicule and humiliation (Heaton, 2010). Third, as negative comments tended to be followed by audience reactions such as laughter or amusement, that it is acceptable to mistreat and demean females with larger bodies for the purposes of humour (Heaton, 2010).

Regrettably, women living in larger bodies are disproportionately impacted by thin-ideal stereotypes, as weight-based discrimination (i.e., *weight bias*) increased by 66% between 1995–2006 in the US alone (Andreyeva, Puhl & Brownell, 2008). The consequences of weight bias include, but are not limited to, decreased quality of life, depression, lower self-esteem, anxiety, BD, and suicidality (Puhl et al., 2014). In addition, weight bias can lead to problematic eating patterns, as it may encourage binge eating, unhealthy weight loss methods, compulsive over-eating, and other ED pathology (Schvey, Puhl, & Brownell, 2011). Weight bias may exist in the workplace, institutional settings such as hospitals and schools, and within social relationships

(Puhl et al., 2014). Even some mental health therapists who specialize in treating people with EDs exhibit weight bias leading to pessimistic attitudes towards larger patients, unequal distribution of mental health care, and poorer patient outcomes (Puhl et al., 2014).

Furthermore, heightened internalization of the thin-ideal predicted elevations in BD, dieting patterns, and negative affect, after brief exposure to thin-ideal media (Dittmar et al., 2009; Karazsia et al., 2013). On the contrary, reductions in the internalization of the thin-ideal culminated in diminished BD and BN behaviours (Thompson & Stice, 2001). Thus, internalization of the thin-ideal has been proposed to mediate the relationship between the thin-ideal and EDs (Fitzsimmons-Craft et al., 2012; Rodgers et al., 2015), as well as BD and EDs (Karazsia et al., 2013; Smith, Hames, & Joiner Jr., 2013). The tripartite model of sociocultural influences (Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) and Stice's Dual-Pathway model (1994) further support these assertions (Rodgers, Chabrol, & Paxton, 2011).

## **Summary**

Exposure to the thin-ideal has been reliably linked to BD and EDs through media priming, negative affect, SCT, and internalization of the thin-ideal (Hawkins et al., 2004; Monro & Huon, 2005). Media may prime BD and negative affect specifically through upward social comparisons with cultural archetypes, as well as internalization of the thin-ideal (Clark et al., 2009; Rodgers et al., 2015). Negative affect states and BD subsequently lead women to engage in dieting, exercise, and, for some, ED pathology to compensate for their perceived inadequacies (Bessenoff, 2006; Stice, Mazotti, Weibel, & Agras, 2000). Hence, weight bias and the privileging of thin bodies echoes how profoundly internalized the thin-ideal has become, as well as signifies the external pressures that women of all sizes experience (Husbands, 2008).

## **Celebrity Representations of the Postpartum Thin-Ideal**

While non-celebrities tend to be at home recovering, caring for their child(ren), and learning how to adjust to motherhood, celebrities organize lavish postpartum debuts revealing their rapid weight loss post-birth (Mysko & Amadeï, 2009; Nash, 2015). Celebrities typically reveal their postpartum bodies within 2–6 weeks, but sometimes within days’ after birth (Obeyd, 2010). In response, the media reveres celebrities who bounce back the quickest and disparage those who take longer (Gentile, 2011). However, celebrities are no longer required to just bounce back to their pre-pregnancy bodies but are pressured to bounce back to an even better body than before they were pregnant (O’Brien Hallstein, 2011). For example, celebrity moms such as Gwen Stefani, Jessica Alba, and Heidi Klum were praised by the tabloids for having their best bikini bodies ever in the postpartum period (O’Brien Hallstein, 2011).

In addition, the quantity of bouncing back rhetoric has increased substantially since the 1990’s and more than doubled between 2003–2005 (Liechty et al., 2018; Mysko & Amadeï, 2009). Similar to the thin-ideal, the unequal representation of normal postpartum bodies leaves PW with the impression that the most common depiction is typical, realistic, and ideal (Williams et al., 2017). Many PW have reported comparing specific details of their weight and shape with postpartum celebrities (Bulik, 2013). Therefore, women are not only inundated by images of the postpartum thin-ideal (Husbands, 2008), but actively pursue bouncing back narratives to assess and process their postpartum experiences (Gow et al., 2012).

### **Bouncing Back Narratives**

Bouncing back is presented as a race in the media, implying that those who shed their postpartum weight the fastest are winners, positioning all other body types and responses as losers (Roth et al., 2012). One such example is the list of “Weight Winners” including Britney

Spears and Nicole Kidman who lost 12 and 18 pounds, respectively, immediately post-birth (Obeyd, 2010, p. 3). On the contrary, “Weight Losers” such as Kristy Alley and Jessica Simpson were repeatedly attacked in the media (Obeyd, 2010, p. 4). These messages insinuate that, once the baby is born, women should eliminate all traces of their pregnancy as quickly as possible (Martindale, 2012). PW have validated these pressures as they felt they no longer had an excuse for the excess weight on their body in the postpartum period (Lovering et al., 2018; Nash, 2015).

Even bouncing back messages that focused on a health benefit for the mother and baby, such as breastfeeding, situated this task as a weight loss tactic for PW (Roth et al., 2012). Several magazines positively discussed purge pumping which is an extreme weight loss behaviour that some PW engage in to expend an extra 600 calories per day (Bulik, 2012). Furthermore, some messages endorsed pretending to bounce back if rapid weight loss was not feasible (Roth et al., 2012). Body shaping underwear and postnatal girdles and corsets were positioned as tools for mothers who have less time to focus on diet and exercise (Roth et al., 2012). Images of body shaping accessories had less focus on weight loss, however, they still supported the idea that having a larger postpartum body is undesirable (Roth et al., 2012).

On the contrary, some messages referred to celebrities who refused to bounce back as they valued their postpartum bodies (Roth et al., 2012). However, in their analysis of 25 celebrity stories, Roth et al. (2012) could only report two women who displayed positive comments towards their postpartum bodies. Images of celebrities who refused to bounce back included a justification, such as breastfeeding, for why they were not conforming to the postpartum thin-ideal (Roth et al., 2012). Thus, having a larger postpartum body is framed through the postpartum thin-ideal as a troublesome, abnormal, and transitional stage that PW must endure for the sake of reproduction (Husbands, 2008; Obeyd, 2010).

Moreover, the overwhelming focus on appearance within bouncing back rhetoric neglects all other elements of motherhood such as health and adjustment (Liechty et al., 2018). Similar to how the quality of being thin is associated with positively rated traits, bouncing back has been presented as an indicator of successful femininity, motherhood, and womanhood (Hodgkinson et al., 2014; Nash, 2015). Accordingly, a pervasive culture of perfectionism is inculcated through bouncing back narratives creating an environment where PW are vulnerable to hyper-competition and envy (Douglas & Michaels, 2004).

### **The Illusion of the Perfect Postpartum Body**

Celebrities credit vigorous exercise, diets, and, for some, cosmetic surgery for their postpartum weight loss (Fox & Neiterman, 2015). The effort that is required for celebrities to bounce back includes at least 40–90 minutes of exercise per day, five days a week, starting 2–4 weeks' post-birth (Mysko & Amadeï, 2009). Yet, obstetricians and gynecologists have asserted that a physically active female with an uncomplicated delivery may be able to resume some level of activity 4–6 weeks' post-birth (Roy, 2014). Estimates become even longer when considering Caesarean section and complicated deliveries which can require 2–3 months or longer for a full recovery (Roy, 2014). The La Leche League International Health Advisory Council has recommended that women not purposely try to lose weight for the first two months post-birth, particularly if they are breastfeeding, as their bodies require at least 1800 calories per day for sufficient lactation (Heaton, 2010). Purposeful weight loss before these aforementioned periods puts PW at risk for health issues such as tearing of the perineum, lactation induced bone loss, dehydration, vaginal bleeding, accumulation of lactic acid in breast milk, impaired milk production, and energy deficiencies (Jenkin & Tiggemann, 1997; Larson-Meyer, 2002; Mitchell-Gielegheem, Mittelstaedt, & Bulik, 2002; Mysko & Amadeï, 2009).

Despite the fact that sources from the media do not have the authority or clinical evidence to create safe diet and exercise programs, many people continue to uncritically accept media weight loss strategies as credible, valid, and safe (Obeyd, 2010). The credibility of weight loss rhetoric in the media is further compounded by opinions from individuals such as nutritionists, fitness instructors, and weight loss consultants, who are conveyed as experts despite not having the medical training to comment on the complexities of weight management (Willmot, 2013). Therefore, the postpartum thin-ideal may encourage PW to engage in premature weight loss practices that influence physical and psychological well-being (Obeyd, 2010).

While some celebrities attribute their postpartum weight loss to exercise and dieting, others boast about the simplicities of bouncing back (Obeyd, 2010). For instance, Niki Taylor claimed that her stretch marks vanished immediately after giving birth to her twins, and Elle MacPherson stated that she returned to her pre-pregnancy weight without dieting or exercising (Williams, 2013). These bouncing back narratives imply contradictory messages: That bouncing back success is a product of intense self-discipline and restraint, but that PW should make this process appear effortless (Husbands, 2008).

In addition, celebrity representations of the postpartum thin-ideal disregards critical factors of celebrity lifestyle, resources, and advantages (Bedor & Tajima, 2012). Media depiction of postpartum celebrities' masks social and economic inequities as they fail to convey the array of staff that attend to their appearance and fitness including personal trainers, nannies, nutritionists, chauffeurs, nurses, chefs, stylists, and other assistants (Bulik, 2012; Mysko & Amadei, 2009). The inferred message is that every woman is capable of bouncing back with dietary restraint, exercise, or through surgery, which very few women have the resources or time to accomplish (Hodgkinson et al., 2014; Nash, 2015).

Although women of higher socioeconomic status (SES) may have access to some of these resources (Heaton, 2010; Husbands, 2008), women of middle and lower SES revealed that lack of time and money were substantial barriers to exercise and healthy eating (Walker & Sterling, 2007). Other barriers to healthy eating and exercise that PW have identified include lifestyle changes, role conflicts, fatigue, and physical and mental health concerns (Montgomery et al., 2011). Another aspect that is ignored in the media is that celebrities use their bodies and appearance to promote products and services (Martindale, 2012). Postpartum weight loss stories and methods sell, providing additional financial incentives for celebrities to bounce back immediately (Willmot, 2013). Celebrities may also be sponsored by corporations that financially benefit from their rapid weight gain and loss (Willmot, 2013).

Even celebrities admit that the tabloids are often not a reflection of their reality (Smolak & Murnen, 2007). Media images are heavily airbrushed and edited to appear flawless, presenting an image that is unrealistic and perfect (McLean et al., 2016). Further, the fashion industry tends to avoid discussing celebrities' experiences of BD (Gow et al., 2012), as well as the frequency and extent of digital manipulation (Engeln-Maddox, 2006). Despite the fact that many women expressed awareness of the misrepresentation of postpartum thin-ideals, nearly half admitted that they still compared themselves to celebrities (Liechty et al., 2018).

## **Summary**

The rampant coverage of bouncing back images enhances the visibility of PWs experiences and preferentially prioritizes appearance over mental and physical health. Although there are a variety of bouncing back messages, the underlying implication is that all PW should be able to emulate the postpartum thin-ideal (Hopper & Aubrey, 2016). However, the perfect postpartum body is a fantasy constructed by the media through images and commentaries that



outline the ease and importance of bouncing back. The illusion of the perfect postpartum body is not only damaging to PWs mental and physical health, but pathologizes the normal postpartum body as a symbol of lack of discipline and will power (Puhl et al., 2014). Therefore, the media has exploited PW by instilling low self-esteem, negative affect, and BD, then presenting weight loss tactics and surgery as a panacea for their insecurities, which few women have the resources to mimic (Nash, 2015).

### **The Postpartum Thin-Ideal and Postpartum Challenges**

Despite the significant body of literature on exposure to the thin-ideal and EDs, there is limited research on exposure to the postpartum thin-ideal and EDs (Liechty et al., 2018; Rodgers et al., 2018). The majority of PW have reported feeling unprepared for the emotional and physical difficulties of the postpartum period (Shloim et al., 2014). In conjunction to adjusting to motherhood and their post-birth body, PW are flooded with emotions and hormones (Williams, 2013). Mood swings, fatigue, sleep deprivation, memory concerns, stress, pain, altered bodily functions (e.g., urinary incontinence), social isolation, anxiety over child rearing practices, and feelings of being overwhelmed are expected, but temporary for most PW (Bulik, 2013; Mysko & Amadei, 2009). However, many PW will develop more serious concerns associated with PPD and BD (Walker, Timmerman, Kim, & Sterling, 2002).

### **Postpartum Depression (PPD)**

Although approximately 80% of PW experience depressive symptoms within the first two weeks' post-birth, an estimated 25% will develop more severe symptoms of PPD (Misri, 2006). The prevalence of PPD increases to 41% for women with a history of PPD (Downs, DiNallo, & Kirner, 2008). However, research has indicated that approximately 80% of PPD cases are undiagnosed (Sweeney & Fingerhut, 2013).

PPD causes physiological and neurological alterations that increase PWs sensitivity in an already stressful time (Brizendine, 2006). Symptoms may include, but are not limited to, anxiety, mood lability, reduced concentration, loss of interest in activities, sleep disturbances, exhaustion, ED pathology, social isolation, feelings of inadequacy and worthlessness, excessive guilt or shame, difficulty bonding with infant, struggles with self-care, and, for some, fear of harming their child or themselves (APA, 2013; Enney, 2012). Children with mothers who have PPD have exhibited higher levels of irritability, developmental delays, attachment insecurity, and interpersonal difficulties in childhood (Mazzeo et al., 2006).

Considering disordered eating can be a symptom of PPD or a root cause of distress during the postpartum period, the relationship between EDs and PPD is likely multidimensional (Rodgers et al., 2018). PPD may cause low self-esteem, negative affect, and BD leading to pessimistic or apathetic attitudes towards activities such as self-care (Birkeland et al., 2005; Sweeney & Fingerhut, 2013). As a result, PW may engage in disordered eating behaviours, such as caloric restriction or bingeing, to alleviate distress, further exacerbating PPD (Downs et al., 2008). Findings by Clark et al. (2009) revealed that PPD most often precedes BD in PW.

On the contrary, a large proportion of PW with EDs experience PPD (Coker & Abraham, 2015). Studies have revealed that 33–36% of PW with a past or current ED experience PPD (Carter, McIntosh, Joyce, Frampton, & Bulik, 2003). PW with a history of BN or BED were found to be three times more likely than the general population to develop PPD (Mazzeo et al., 2006). In addition, 66% of females with a history of AN reported PPD (Franko et al., 2001). Women with EDs may have additional psychosocial stressors such as BD, anxiety, and symptomatic behaviours that predispose them to PPD (Clark et al., 2009; Downs et al., 2008).

Furthermore, approximately 40% of women with EDs have a historical or current mood disorder such as depression, which also increases the risk of developing PPD (Franko & Spurrell, 2000).

### **Body Dissatisfaction (BD) in the Postpartum Period**

The majority of PW want to not only bounce back immediately to their pre-pregnancy body but lose even more weight than they had gained during pregnancy (Gjerdingen et al., 2009). PWs weight goals were approximately 12 pounds less than their pre-pregnancy weight (Lovering et al., 2018). However, most PW expressed shock and disappointment at the extent of their physical changes postpartum and the challenges of bouncing back (Shloim et al., 2014).

Approximately half of women in both healthy and clinical populations reported BD during the postpartum period (Bulik, 2013). Other research cites upwards of 75–82% of PW experience BD within the first few weeks post-birth (O'Donohoe, 2006). Although PW with and without EDs showed similar patterns of BD, PW with EDs reported higher BD at all time points (Coker & Abraham, 2015). Regrettably, BD in PW is associated with a multitude of concerns that may impact maternal and neonatal health including ED attitudes and pathology, PPD, reduced rates of breastfeeding, and a tendency to perceive sociocultural pressures and teasing by others (Crow, Agras, Crosby, Halmi, & Mitchell, 2008; Lovering et al., 2018).

In spite of ubiquitous BD in PW, there is a trend towards maligning PW who share how intensely they fear weight retention in the postpartum period (Mysko & Amadei, 2009). Many PW believe others will judge them for being concerned about their appearance rather than only the health of their baby (Hughes, 2009). Thus, PW not only experience intense pressure to live up to the postpartum thin-ideal but are shamed into keeping these concerns to themselves. Silence and shame extend to the medical field as 79% of mothers who had histories of EDs and BD stated that they had not revealed this to health professionals (Freizinger, Franko, Dacey,

Okun, & Domar, 2008; Kouba, Hällström, Lindholm, & Lindén Hirschberg, 2005). Women who have discussed their BD and EDs with their doctors have asserted they were surprised by their lack of education, how infrequently their doctors inquired about their BD and eating concerns, and how insensitively they responded to weight and body triggers (Mysko & Amadei, 2009). Likewise, professionals admitted that lack of knowledge and fear of appearing insensitive are significant barriers to discussing BD and EDs with patients (Heslehurst et al., 2013).

### **Social Pressures and Support**

In addition, many peers, family members, and strangers provide unsolicited advice, comments, or comparisons on weight in the postpartum period (Hodgkinson et al., 2014). Some PW described their male partners encouraging them to diet, resulting in anxiety, BD, and depression (Markey, Markey, & Birch, 2004; Pole, Crowther, & Schell, 2004). For PW with EDs, negative comments and jokes were perceived as derogatory and associated with negative psychological outcomes (Patel, Lee, Wheatcroft, Barnes, & Stein, 2005). Similar patterns were found across PW with and without EDs, as research on spousal support has emphasized the deleterious impact that weight-related comments from male partners can have on heterosexual women's BD (Huxley, Halliwell, & Clark, 2015).

Despite more frequently comparing themselves to peers (Fox & Neiterman, 2015), 90–96% of PW divulged that the media was the primary source of the pressure they felt to bounce back (O'Donohoe, 2006; Sullivan, 2010). Within social circles, PW are frequently verbal about their body comparisons (Williams et al., 2017). Under the semblance of support, PW often respond with unhelpful compliments or by redirecting criticisms towards themselves (Mysko & Amadei, 2009). Accordingly, conversations focused on bouncing back and the postpartum thin-

ideal add to the detrimental discourse on weight, BD, and ED attitudes and pathology in the postpartum period (Bulik, 2012).

## **Summary**

In addition to physiological, neurological, and interpersonal challenges, many PW experience PPD and BD. Therefore, the postpartum thin-ideal presents a significant risk for the development of EDs, PPD, and BD in PW (Clark et al., 2009; Rallis, Skouteris, Wertheim, & Paxton, 2007). Furthermore, medical and social support networks may increase the shame PW feel about their bodies under the facade of helpful and prescriptive comments.

## **Eating Disorders (EDs) in the Postpartum Period**

An increasing number of PW are engaging in unhealthy dieting, exercise, and ED pathology (Bedor & Tajima, 2012) with some disclosing their symptoms started in the postpartum period (Franzen & Gerlinghoff, 1997). Approximately 55% of PW indicated that they had dieted within 12 months' post-birth (Sullivan, 2010). Although weight goals in the postpartum period can cause anguish for all women, those with EDs may experience heightened distress and BD, particularly if their target weight is below their pre-pregnancy weight (Rodgers et al., 2018).

In addition to disruptions in mealtimes and self-care due to caring for a newborn (Stein & Fairburn, 1996), PW are often home alone, which can increase their risk of (re)engaging in ED behaviours (Bulik, 2013). Women with AN exhibited a significant reduction in ED behaviours during pregnancy followed by a relapse six months' post-birth (Larsson & Andersson-Ellström, 2003). PW with BN displayed a similar pattern with 94% relapsing in the postpartum period (Rocco et al., 2005). Unfortunately, the majority of PW with EDs return to previous ED symptomology in the first four months, either to similar or heightened levels (Coker & Abraham,

2015; Franko et al., 2001). PW with EDs may struggle to nourish their bodies post-birth, as many have stated they no longer felt they had a reason to discontinue their ED behaviours (Bulik, 2013; Rodgers et al., 2018). Encouragingly, PW who have recovered from an ED displayed significantly less symptoms of depression in comparison to women with active EDs (Troop, Serpell, & Treasure, 2001).

The presence of an ED in the postpartum period has many negative ramifications for the mother, child, and family. PW who restrained their dietary intake were more likely to restrict the feeding behaviours of their newborns and made fewer reinforcing comments during feeding (Shloim et al., 2014). Approximately 15% of PW with BN admitted to limiting their newborns nutritional intake in an attempt to slim them down within the first-year post-birth (Little & Lowkes, 2000). Some mothers with EDs expressed critical comments regarding weight and eating with their children as early as two years of age (Polivy & Herman, 2002). Feeding patterns in infancy have been associated with longer-term childhood outcomes including future enjoyment of food, satiety responsiveness, appetite regulation, feeding difficulties, fussiness, abnormalities in weight and growth, and EDs in childhood and beyond (Hetherington, Cecil, Jackson, & Schwartz, 2011; Polivy & Herman, 2002). As environment plays a key role in the development of EDs, these maternal-infant interactions may trigger a developmental predisposition to ED pathology (Little & Lowkes, 2000).

### **Summary**

The impact of the thin-ideal is vast and presents significant physical and mental health risks for women of all ages, sizes, and developmental stages (Hammon, 2012). Thin-ideal media primes BD, negative affect, and low self-esteem through social comparisons with others, as well

as internalization of the thin-ideal, leading some women to engage in problematic dieting, exercising, and ED practices to compensate for their perceived inadequacies (Clark et al., 2009).

Literature has proposed that internalization of the thin-ideal mediates the relationship between: (a) exposure to the thin-ideal and BD, (b) exposure to the thin-ideal and EDs, and (c) BD and EDs; while social comparison may only mediate the relationship between exposure to the thin-ideal and BD (Dittmar et al., 2009). In addition, low self-esteem appears to be an important moderator in the development of EDs (Hawkins et al., 2004). Due to the complexities of the interactions between the variables under consideration, it may be useful to incorporate reciprocal effect loops to explain the non-linear nature of sociocultural factors which contribute to EDs (Baskin & Galligan, 2018); this model would suggest that improvement in all pathways are required to produce positive, long-term outcomes (Rodgers et al., 2015).

Despite the negative impact, celebrity representations of the postpartum thin-ideal and bouncing back narratives continue to proliferate in Western society, setting up unrealistic standards that most PW cannot emulate (Nash, 2015). In conjunction, the postpartum period is marked by exhaustion, lack of honest conversations about BD, and social isolation further contributing to the dearth of social and medical support needed during this sensitive time (Mysko & Amadei, 2009). Resultantly, the postpartum period may be a critical time for intervention regarding ED attitudes and pathology, PPD, BD, self-esteem, and internalization of the thin-ideal (Bulik, 2013; Hawkins et al., 2004).

### CHAPTER THREE: METHODOLOGY

The literature review in the previous chapter highlighted key factors that influence BD and EDs through theoretical examination of media priming, negative affect, SCT, and internalization of the thin-ideal. Extant research suggests that PW may have distinct needs, compared to non-PW, in regard to their emotional and physical health, as well as their overall well-being. Thus, chapter two emphasized the importance of further understanding how the postpartum thin-ideal impacts PWs eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal.

The current study was designed to advance previous literature regarding the influence of the postpartum thin-ideal on PWs eating attitudes and pathology. Specific research questions and hypotheses will be outlined below with emphasis on how the current study adds to the extant literature. Subsequently, a description of participants, measures, and study procedure will be presented. Lastly, the analytic strategy and ethical considerations will be explored.

#### Research Questions and Hypotheses

The study was conducted under the overarching research question: *How does exposure to celebrity representations of the postpartum thin-ideal in the media impact PWs eating attitudes and pathology?* The study also investigated how exposure to celebrity representations of the postpartum thin-ideal in the media impact PWs: (a) *depressive symptoms*, (b) *self-esteem*, (c) *BD*, and (d) *internalization of the thin-ideal*. These research questions were constructed to assess the idiosyncratic prevention and intervention needs of PW and address knowledge gaps in the postpartum research.

In addition to the research questions, five specific hypotheses were made. It was hypothesized that exposure to celebrity representations of the postpartum thin-ideal would:



- a) increase PWs ED attitudes and pathology,
- b) intensify depressive symptoms in PW,
- c) negatively impact PWs self-esteem,
- d) heighten BD in PW, and
- e) enhance internalization of the thin-ideal in PW.

### **Current Study and Extant Literature**

The current study expanded upon the existing literature in five important ways. First, the study employed an experimental design to investigate the relationship between the postpartum thin-ideal and PWs eating attitudes and pathology. Despite the expansive body of research supporting a robust, causal relationship between exposure to the thin-ideal and EDs, experimental research on the thin-ideal and EDs within the postpartum period is lacking (Coyne et al., 2018). In addition, to the best of the researcher's knowledge, experimental research specifically examining how the postpartum thin-ideal influences PWs eating attitudes and pathology has not been conducted. Second, the study investigated the influence of the postpartum thin-ideal on PWs eating attitudes and pathology. Although non-experimental research has examined the association between the thin-ideal in the postpartum period and EDs, the research has been limited (Coyne et al., 2018). Therefore, both experimental and non-experimental research on the postpartum thin-ideal is warranted.

Third, previous literature has often collapsed the postpartum and pregnancy stages under the definition of the perinatal period (Liechty et al., 2018). By disaffiliating the postpartum from the pregnancy period, the differential influences of the thin-ideal on these periods can be elucidated, and intervention and prevention strategies can be better targeted towards each stage. Fourth, research on the impact of media and EDs have constructed consistent language (i.e., thin-

ideal) to describe the phenomenon under investigation. No parallel terminology has been found by the researcher to describe the thin-ideal within the postpartum period. Thus, by coining the term postpartum thin-ideal, the literature can more clearly communicate and differentiate important factors for women within this developmental stage. Lastly, the study considered the influence of the postpartum thin-ideal on PWs eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal, which have not been investigated in tandem in previous research. Therefore, the present study helps to: (a) clarify the empirical status of the postpartum thin-ideal on PW; (b) identify vulnerabilities within PW and the postpartum period; and (c) raise specific recommendations and implications of this research for treatment, intervention, and prevention purposes.

### **Participants**

Participant sample, rationale for choosing Prolific Academic (ProA) over Amazon's Mechanical Turk (MTurk), and recruitment procedures will be described below. Participant demographics for the current study will be discussed further in chapter four.

### **Sample**

For the current study, 102 PW were recruited from a larger sample of 191 women from ProA; a crowdsourcing platform used to recruit participants for academic research purposes (Peer, Brandimarte, Samat, & Acquisti, 2017). G\*Power 3.1, a tool to calculate statistical power, estimated a minimum of 100 participants to reach a significance level of  $p < .05$ , effect size of  $d > .25$ , and a power of  $\geq .95$  with two conditions (Faul, Erdfelder, Buchner, & Lang, 2009). Due to the limitations of the pre-screening categories on ProA, the researcher could only restrict the eligibility of the study to females, fluent in English, over the age of 18. Therefore, to confine the study to PW only, the researcher excluded all non-PW from the dataset.

## **Rationale for Prolific Academic (ProA)**

Although the most commonly used crowdsourcing platform is MTurk (Woods, Velasco, Levitan, Wan, & Spence, 2015), ProA was chosen for several reasons. First, literature has established that ProA is comparable to MTurk in producing high quality, reliable data (Peer et al., 2017). Second, despite the literature supporting the reliability and validity of MTurk (Crump, McDonnell, & Gureckis, 2013; Simcox & Fiez, 2014), there are several limitations that ProA can address. Some MTurk participants have become highly active, completing one or more behavioural studies on a daily basis (Peer et al., 2017). Veteran survey takers may reduce the effect size of the research findings through prior exposure to similar or same tasks (Chandler, Paolacci, Peer, Mueller, & Ratliff, 2015). In addition, less active MTurk participants may miss out on surveys, skewing the sample towards non-naive participants (Stewart et al., 2015). Further, research on ProA has found that their participants tend to be naiver than MTurks (Peer et al., 2017). Additionally, MTurk does not enable researchers to restrict the visibility of the study based on demographics, making it more difficult to recruit eligible participants (Woods et al., 2015). However, ProA permits researchers to specify eligibility criteria such as fluency in English, age, and gender (Woods et al., 2015).

In comparison to MTurk, ProA participants have demonstrated less dishonesty and cheating, as well as similar rates of passing attention checking questions and attrition (Peer et al., 2017). Moreover, ProA endorses an ethical reward system for participants requiring payment of at least \$6.50 United States Dollars per hour (Prolific, 2018), while MTurk has no standard payment rates. Standard payment rates ensure participants are fairly compensated for their participation. Lastly, MTurk can only access US populations, while ProA samples from English

speaking participant pools around the world (Woods et al., 2015). By utilizing ProA, the researcher can broaden the scope of the study to various countries.

### **Recruitment Procedures**

Participant recruitment took place in March 2019 and lasted six days. Eligible participants read a brief description (Appendix A) through ProA and completed the study through Qualtrics; an American based company which aids researchers in creating online experiments. Participants were randomly assigned to the intervention or control condition. Upon completion of the study, compensation was automatically provided through ProA via Qualtrics. The current study took approximately 30-minutes to complete providing participants with a compensation of \$3.25 United States Dollars.

### **Measures**

Participants were asked to complete a demographics questionnaire and a compilation of five measures including the: Beck Depression Inventory-II (BDI-II), Rosenberg Self-Esteem Scale (RSES), General Dissatisfaction Subscale of the Body Attitudes Test (GD-BAT), EAT-26, and Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised (SATAQ-4R). The demographics questionnaire and each measure are outlined below.

### **Demographics Questionnaire**

Participants completed a demographics questionnaire (Appendix B) to confirm eligibility and to support the understanding of significant maternal factors which may impact eating attitudes and pathology in the postpartum period. To ensure participants were eligible for the study, they were asked if they are fluent in English and a female in the postpartum period. To aid in understanding relevant maternal circumstances, which may moderate eating attitudes and pathology in PW, participants were asked their: ethnicity, sexual orientation, age, SES,

occupational status and future employment plans (i.e., if, and when, she is returning to work), months since childbirth, parity status (i.e., number of children), PPD history, ED history, and ED treatment history (López-Guimerà et al., 2010; Obeyd, 2010).

**Female in the postpartum period.** Consistent with previous research, the postpartum period was defined as up until one-year post-birth (Obeyd, 2010) to ensure that participants in all stages of the postpartum period were captured in the study.

**Ethnicity.** Participants were asked about their ethnicity, as cultural ideals may influence body and eating attitudes and behaviours, as well as the interrelationship between these factors (Walker et al., 2002). Although EDs have been documented in a variety of cultures and countries (Ramirez, Trujillo-Chivacuán, & Perez, 2018), research on EDs and ethnicity is equivocal (Harrison & Hefner, 2008; Levine & Smolak, 2010). There are two main arguments within the ED and ethnicity literature: (a) individuals of different ethnicities demonstrate disparate ED prevalence rates and presentations, or (b) that ED prevalence and presentation do not differ depending on ethnicity.

***Literature supporting differences in eating disorders based on ethnicity.*** Some scholars argue that people of different ethnicities have distinctive risk factors, prevalence rates, and clinical presentations of EDs (Ramirez et al., 2018). Considering the majority of celebrity postpartum representations are Caucasian women (Coyne et al., 2018), SCT would predict that similar individuals would be more likely to compare themselves to idealized images in the media. Literature examining sociocultural factors provide strong evidence that Caucasian women are at an increased risk for developing BD and EDs in comparison to other ethnicities (Ferguson, 2013).

However, recent literature has attributed cultural bias in research to design concerns. Randomized controlled trials often lack diversity as they tend to sample young adolescent or adult Caucasian females (Mellor et al., 2013; Ramirez et al., 2018). Cultural prejudices claiming that EDs are a Caucasian/White disorder contribute to systemic bias within the mental health system (Hammon, 2012). A case vignette comparing identical clinical presentations and descriptions of an ED revealed that clinicians were significantly less likely to diagnose an ED in a client who is African American in contrast to Hispanic or Caucasian participants (Gordon, Brattole, Wingate, & Joiner, 2006). Furthermore, low power due to small sample sizes in studies could inflate ethnic differences (Cafri et al., 2005).

On the contrary, some studies discovered higher prevalence rates of BN and BED among African American and Latina women in comparison to Caucasian women (Marques et al., 2011; Udo & Grilo, 2018). More recent data has established that lifetime prevalence of AN is significantly lower for Latina and African American women than for Caucasian populations (Udo & Grilo, 2018). Therefore, differences in ED prevalence and presentation based on ethnicity appear to emphasize disparate ED types rather than frequency or severity.

***Literature supporting no differences in eating disorders based on ethnicity.*** Many academics purport that there are no significant differences in EDs depending on ethnicity (Karazsia et al., 2017; Tiggemann, 2011). Meta-analytic data support this supposition, as results often reveal slight or no differences in EDs and BD, suggesting more similarities among ethnicities than differences (Cafri et al., 2005; Grabe & Hyde, 2006). A systematic review and synthesis of literature further substantiates this proposition as it discovered that, despite differences across Western and non-Western cultures, ED pathology is prevalent worldwide (Easter et al., 2015; Lai, Tang, & Tse, 2006).

**Sexual orientation.** Participants were asked about their sexual orientation, as identifying as heterosexual has been found to be a predictor for BD and EDs in females (Grogan, 1998). However, contemporary conceptualizations of sexual orientation suggest sexuality is more fluid and less binary than previous categorizations such as heterosexual, bisexual, and gay (Luoto, Krams, & Rantala, 2018). In addition, there is a scarcity of research on EDs and sexual orientation (Essayli, Murakami, & Latner, 2018). Therefore, it is unclear how sexual orientation impacts the variables under consideration in the current study.

**Age.** Age was included as a moderating variable due to inconsistencies in the literature. Some researchers argue that older (i.e., 51–94 years of age) and younger (i.e., 18–34) women experience similar ED and BD prevalence rates (Gleaves, Pearson, Ambwani, & Morey, 2014; Mitchison et al., 2012), as each group may choose more age-relevant images as a means to compare themselves (Hammon, 2012). However, these statistics often ignore women in the middle-aged years (i.e., 35–50; Johnson & Bedford, 2004).

Contrastingly, some scholars have asserted that younger females are at a greater risk for experiencing BD, depressive symptoms, and EDs in the postpartum period (López-Guimerà et al., 2010; Obeyd, 2010). Although BN and BED tend to decrease with age, AN may slightly increase suggesting that age differences in EDs, like ethnicity, may differ based on type rather than frequency or severity (Udo & Grilo, 2018). In addition, the presence of midlife and aging women who fit the postpartum thin-ideal have increased substantially within the media in recent years (e.g., *Cougar Town*, *Desperate Housewives*, and *10 Years Younger in 10 Days*; Hefner et al., 2014). Lack of diverse age representation in postpartum thin-ideal images may impact how PW of differing ages respond to media (Heaton, 2010).

In conjunction with normal developmental changes such as menopause and the natural progression of aging (Slevec & Tiggemann, 2011), it is becoming more common for older women to reproduce (Paulson, 2016). Advancements in fertility treatments have broadened the reproductive age for women to well into their 40's (Paulson, 2016). PW in their 30's and 40's, have identified feeling pressure to look younger and thinner as the middle-aged and older postpartum celebrities do, which may be unhealthy or unobtainable for many PW (Hefner et al., 2014). Medical literature further supports the notion that media representations of female fertility are not feasible for most women (Ledger, 2012). Regrettably, EDs in midlife women have increased by 500% in the past 10 years, hinting at an escalating trend towards EDs in middle-aged women (Epstein, 2009; Hefner et al., 2014; Kozar & Damhorst, 2009).

**Socioeconomic status (SES).** Similarly, SES was included as a moderating variable as the literature has demonstrated ambiguity in regard to how the postpartum thin-ideal impacts PW with differing incomes. While some research indicates that SES is unlikely to have a significant effect on BD and eating attitudes and pathology (Mitchell-Gielegheim et al., 2002), others argue that high-and low-income mothers are differentially impacted by postpartum thin-ideals (Williams, 2013). High income women reported more competition and comparisons to economically and socially privileged peers and celebrities (Williams, 2013). Considering the majority of celebrity postpartum media images involve upper-class women (Coyne et al., 2018), SCT would anticipate that similar individuals would be more likely to compare themselves to postpartum thin-ideals. Conversely, some studies have discovered that EDs are more common amongst lower SES populations, potentially due to higher rates of stress, lack of resources, and/or chronic financial strains (Marcus, Bromberger, Wei, Brown, & Kravitz, 2007; Walker et



al., 2002). Therefore, it is uncertain how SES will impact the variables being examined in the current study.

**Occupational status and future employment plans.** Participants were asked about occupational status and future employment plans, as females who are employed or planning to return to work post-birth have a higher probability of experiencing BD, ED behaviours, and PPD (Lawrie, Sullivan, Davies, & Hill, 2006; Obeyd, 2010). In comparison to previous generations, contemporary PW are more likely to return to work as well as re-engage in employment quickly post-birth (Bedor & Tajima, 2012). Accordingly, many PW have expressed feeling pressure and concern about their appearance as their return date approaches, signifying that future employment plans may aggravate psychological distress in PW (Williams et al., 2017).

**Months since childbirth.** Participants were asked about months since childbirth as research has specified that PW express the most BD at six months, as well as in the later stages of the postpartum period (7–12 months; Rallis et al., 2007). Results may point to critical periods for intervention and prevention purposes.

**Parity status.** Participants were asked about parity status, as experiences of previous pregnancies and births may influence how women approach their subsequent postpartum periods (Fox & Neiterman, 2015). While some research found similar rates of BD and EDs for experienced and first-time mothers (Nash, 2015), others have revealed women who are primiparas may be more impacted by postpartum thin-ideals than those that are multiparas (Walker et al., 2002). First-time mothers demonstrated significant increases in ED attitudes and behaviours within the first three months postpartum to an extent greater than their pre-conception levels (Stein & Fairburn, 1996). In addition, a minority of first-time mothers developed clinically significant symptoms of an ED within the postpartum period (Stein & Fairburn, 1996).

**Postpartum depression (PPD) history.** Participants were asked if they are currently experiencing or have a history of PPD, as these individuals are at an increased risk for experiencing BD, low mood, and ED symptomology (Downs et al., 2008; Rocco et al., 2005).

**Eating disorder (ED) history.** Women with active or historical EDs are more likely to develop PPD, low self-esteem, BD, exacerbated ED attitudes and pathology, and internalization of the thin-ideal (Clark et al., 2009). Consequently, participants were asked whether they have a historical or current ED and if they have received ED treatment in the past. The researcher inquired about engagement in past ED treatment as these individuals may have received intervention and prevention strategies that mitigate the factors under examination.

### **Beck Depression Inventory-II (BDI-II)**

The BDI-II was used to assess PPD, as it has been established as a valid and reliable measure of depressive symptoms with both clinical and non-clinical postpartum populations (Ji et al., 2011). The BDI-II contains 21-items asking participants to rate the intensity of their symptoms over the past two weeks (Manian, Schmidt, Bornstein, & Martinez, 2013). For example, the item that assesses sadness ranges from 0 (*I do not feel sad*) to 3 (*I am so sad or unhappy that I can't stand it*; Manian et al., 2013). The item on suicidal thoughts or wishes was excluded from the current study, as participants who expressed these concerns could not be adequately supported by the researcher due to the online nature of the study. Therefore, the BDI-II for the current study contained 20-items culminating in a possible score of 0–60, with higher scores indicating greater symptoms of depression (Brodey et al., 2016).

In comparison to other PPD measures such as the Perinatal Depression Inventory-14 (Brodey et al., 2016), the BDI-II has demonstrated good internal consistency for clinical and non-clinical adult populations ( $\alpha = .88$  and  $\alpha = .94$ ; Arnau, Meagher, Norris, & Bramson, 2001;

Carvalho Bos et al., 2009). A meta-analysis comparing PW and non-PW demonstrated similar rates of PPD as cited in the general population, suggesting that the BDI-II is a valid measure of PPD in PW (Gaynes et al., 2005). Further literature has underscored that self-report measures related to depressive symptoms perform sufficiently in comparison to diagnostic interviews (Chaudron et al., 2010).

Despite these findings, scholars have identified artificial inflation of BDI-II scores as a potential concern due to depression and the perinatal period having similar somatic symptoms (Manian et al., 2013). The use of the perinatal term obfuscates differences between women within this period, as somatic symptoms are more common for pregnant than PW (Setse et al., 2009). In addition, PW demonstrated lower somatic symptoms on the BDI-II in comparison to controls with and without depression implying that it is a valid and useful clinical tool to identify PPD in PW (Haas et al., 2005).

One caveat warrants consideration as both non-depressed and depressed PW reported elevated sleep and eating disturbances (Pereira et al., 2014). Considering the normative lifestyle changes which accompany (new) motherhood including multiple feedings during the night and shifts in self-care and eating patterns, similarities between non-depressed and depressed PW were expected by many scholars (Pereira et al., 2014). Thus, sleep and eating disturbances in PW should be interpreted with caution (Gjerdingen, Crow, McGovern, Miner, & Center, 2011).

### **Rosenberg Self-Esteem Scale (RSES)**

The RSES was administered to participants as low self-esteem is an aetiological factor in the development of EDs (Costarelli & Patsai, 2012). The RSES is the most widely used measure of self-esteem and consists of 10-items that focus on constructs such as self-worth and self-acceptance (Rosenberg, 1965). Participants respond to each item on a four-point Likert scale

varying from 0 (*strongly agree*) to 3 (*strongly disagree*) or 0 (*strongly disagree*) to 3 (*strongly agree*), resulting in a possible score of 0–30, with lower scores indicating lower self-esteem (Heaton, 2010). The original RSES was validated on over 5000 junior and senior high students from 10 New York high schools, with adequate internal consistency ( $\alpha = .77$  to  $\alpha = .88$ ), test-retest reliability ( $r = .82$  for one week and  $r = .95$  for two weeks), and concurrent validity in comparison to the Lerner Self-Esteem Scale ( $r = .72$ ; Rallis et al., 2007). The RSES has also been validated with postpartum populations ( $\alpha = .90$ ; Heaton, 2010).

### **General Dissatisfaction Subscale of the Body Attitudes Test (GD-BAT)**

The BAT is considered an appropriate measure for research and clinical purposes, due to the ease and practicality of administration (Probst, Van Coppenolle, & Vandereycken, 1997). As BD has been identified as one of the strongest predictors for ED attitudes and pathology (Smolak & Levine, 2015), all other factors of the BAT (i.e., negative appreciation of body size, lack of familiarity with one's own body, and rest) expect for the GD-BAT were excluded (Probst, Vandereycken, Van Coppenolle, & Vanderlinden, 1995). The GD-BAT consists of four-items presented on a six-point Likert scale with values of 0 (*never*), 1 (*rarely*), 2 (*sometimes*), 3 (*often*), 4 (*usually*), and 5 (*always*), resulting in a possible score of 0–20 with higher scores implying greater BD (Danielsen, Bratberg, Rø, 2012).

The GD-BAT demonstrated good concurrent validity with similar measures including the Body Shape Questionnaire ( $r = .67$  for clinical populations and  $r = .93$  for non-clinical populations), the Body Dissatisfaction subscale of the Eating Disorder Inventory ( $r = .73$  for clinical populations and  $r = .80$  for non-clinical populations), and the Body Attitudes Questionnaire ( $r = .75$  for clinical and  $r = .64$  for non-clinical populations; Probst, Pieters, & Vanderlinden, 2008). The GD-BAT has also illustrated good internal consistency ( $\alpha = .88$ ;

Probst et al., 2008) and test-retest reliability ( $r = .92$  for clinical populations and  $r = .82$  for non-clinical populations). Further, the BAT has demonstrated the ability to discriminate between clinical populations pre- and post-treatment (Probst et al., 2008). Lastly, the BAT has been validated in Spanish, Italian, Japanese, Czech, and Hungarian populations (Probst et al., 2008).

### **Eating Attitudes Test-26 (EAT-26)**

The EAT-26 is a well-known 26-item self-report measure that evaluates attitudes (thoughts, feelings, beliefs, and concerns) and behaviours regarding food and eating (Carney & Louw, 2006; Johnson & Bedford, 2004). Items are presented on a six-point Likert scale with values of 0 (*never, sometimes, rarely*), which are considered asymptomatic, 1 (*often*), 2 (*usually*), and 3 (*always*; Van Camp, 2003). EAT-26 scores range from 0–78 with results of 20 or higher indicating greater ED risk (Johnson & Bedford, 2004).

The EAT-26 has demonstrated the ability to discriminate between people with EDs and controls within the general population, which makes it a useful screening tool for both clinical and non-clinical populations (Gleaves et al., 2014; Rogoza et al., 2016). In addition, the EAT-26 has been empirically validated with adolescent, adult (18–34 years of age), undergraduate, middle aged (35–50 years of age), and older adult (51–94 years of age) female populations (Gleaves et al., 2014; Johnson & Bedford, 2004). Nevertheless, the EAT-26 is slightly more reliable in adult and clinical samples than adolescent and non-clinical samples (Gleaves et al., 2014). Studies on the EAT-26 have revealed a mean internal consistency of  $\alpha = .86$  and test-retest reliability of  $r = .87$  (Gleaves et al., 2014).

The original factors developed by Garner, Olmstead, Bohr, and Garfinkel (1982) stated the three subscales were Dieting, Food Preoccupation, and Oral control. Other researchers have suggested the EAT-26 is comprised of four factors (Koslowsky et al., 1992), five factors

(Koslowsky et al., 1992), or seven factors (Park & Beaudet, 2007). Further researchers have proposed alternative factor structures such as: (a) Dieting, Bulimia and Food Preoccupation, and Oral Control (Costarelli & Patsai, 2012) or (b) Food Preoccupation, Image Preoccupation, and External Focus/Social Pressure (Johnson & Bedford, 2004). Scholars have postulated that the moderate to strong correlations between factors may signify general abnormal eating habits underlying all factor structures (Rogoza et al., 2016).

#### **Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised (SATAQ-4R)**

The SATAQ-4 was used to assess internalization of the thin-ideal, as it has been proposed to mediate the relationship between the thin-ideal and EDs (Rodgers et al., 2015). More specifically, the SATAQ-4 assesses inter- and intra-personal factors related to the onset and maintenance of EDs including general internalization, pressures, information, and athletic internalization (Schaefer, Harriger, Heinberg, Soderberg, & Thompson, 2017). The SATAQ-4 consists of 22-items on a five-point Likert scale ranging from 1 (*definitely disagree*) to 5 (*definitely agree*) with higher scores suggestive of greater internalization of the thin-ideal (Schaefer et al., 2017). All subscales for the SATAQ-4 have demonstrated exceptional reliability and internal consistency ranging from  $\alpha = .92$  to  $\alpha = .96$  in postpartum and non-PW (Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007; Schaefer et al., 2017).

However, the SATAQ-4 has some limitations. First, definitions of internalization differ within the literature with some including behavioural and cognitive dimensions, and others only cognitive (Schaefer et al., 2017). Second, the SATAQ-4 does not assess social pressures experienced from significant others such as romantic partners, which researchers have indicated may be a noteworthy source of support or distress (Huxley et al., 2015; Lovering et al., 2018). Third, although the internalization of Muscular/Athletic subscales may expose problematic

attitudes regarding food and exercise, these ideals may be more relevant to male BD (Schaefer et al., 2017). Women tend to express a desire to lose weight rather than to gain weight and muscle (Grogan & Wainwright, 1996). Thus, women and men may respond differently based on gender specific concerns on the Muscular/Athletic subscales (Schaefer et al., 2015). Based on the limitations of the SATAQ-4, the Muscular/Athletic subscales were excluded from the research. Accordingly, the consistency (cognitive dimensions only) and precision (targeting internalization of the thin-ideal instead of muscle building and athleticism) of the SATAQ-4 were increased in relation to the specific research questions and objectives of the study.

**Additional items examining perceived pressure to lose weight.** The SATAQ-4 assesses three appearance related pressures including family, peers, and media (Schaefer et al., 2017). Yet, previous literature has demonstrated that significant others including romantic and intimate partners, coaches, and/or teachers may influence thin-ideal internalization, BD, and eating pathology (Schaefer et al., 2017). Social support, in particular marital/spousal, may act as a buffer or source of stress for PW (Walker et al., 2002). Therefore, the researcher incorporated one additional source of pressure (significant others including romantic/intimate partners, coaches, and/or teachers) to broaden the sociocultural appearance-related influences.

The intrapersonal subscale in the current study was unchanged and included five items. Likewise, family, peer, and media subscales remained the same, with four items per subscale. The significant other subscale employed the same sentence structure as items from the peer, family, and media pressure subscales, with only the source of pressure varying. Therefore, the SATAQ-4 was revised (SATAQ-4R) for the current study to consist of 21-items, as five items from the Muscular/Athletic subscale were removed and four items for significant others added.

## Procedure

Eligible participants were recruited through the online platform ProA and provided with an authorized consent form (Appendix C). The initial consent form was referred to as “authorized”, rather than informed, as the true purpose and specific hypotheses were withheld from participants until completion of the study. Participants were initially informed that the purpose of the study was to investigate broad factors related to media, postpartum health, and postpartum consumerism.

Deception in psychological research has been deemed acceptable if there are no other methods to study the phenomenon under investigation, the study will significantly contribute to scientific knowledge, the deception is not expected to induce significant physical harm or emotional distress, and the deception is fully explained as soon as the study protocol permits (Boynton, Portnoy, & Johnson, 2013). Within the deception literature, there are two distinct methods: (a) indirect deception which transpires when participants agree to delay full disclosure of the study’s purpose, goals, and hypotheses; and (b) direct deception which is the presentation of deliberate misinformation to participants such as falsified study directions, staged manipulations, and false feedback (Boynton et al., 2013). Therefore, an indirect deception protocol was implemented to reduce the likelihood that participants would infer the true nature of the study, as this may have changed their responses.

In the current study, the use of indirect rather than direct deception diminished the risk of emotional distress in participants. Furthermore, the authorized consent asked participants to agree to the deception until completion of the study. Considering the paucity of research on the postpartum thin-ideal and EDs, the findings are anticipated to significantly contribute to postpartum and ED literature, as well as enhance intervention and prevention strategies to



mitigate maternal and neonatal risks during the postpartum period. Additionally, full disclosure of the study's purpose, nature of the deception employed, and specific hypotheses were provided after completion of the study in an informed consent form (Appendix D). Participants were informed that their responses would remain confidential, as no identifying information were collected in the study at any time point. Lastly, empirical research has discovered that indirect deception has negligible ill effects on participants, if any at all (Boynton et al., 2013). The adverse effects of interpersonal deception such as negative mood or attitudes towards psychological research were alleviated during the debriefing procedure (Boynton et al., 2013).

Participants were first given a demographics questionnaire which included mediating variables to explain the relationship between the postpartum thin-ideal and ED attitudes and pathology (i.e., females in the postpartum period). In addition, the demographics questionnaire comprised of moderating variables which were hypothesized to strengthened or diminished the relationship (Karazsia et al., 2013) between the postpartum thin-ideal and ED attitudes and pathology such as ethnicity, sexual orientation, age, SES, occupational status and future employment plans, months since childbirth, parity status, PPD history, ED history, and ED treatment history. Subsequently, participants were randomly assigned to either the intervention or control condition and given a compilation of measures to complete which were composed of the dependent variables (i.e., depressive symptoms, self-esteem, BD, ED attitudes and pathology, and internalization of the thin-ideal). Although participants were not required to view media stimuli for a specified period of time, it was estimated that the exposure time for each participant ranged from one to two minutes. All participants followed the same procedure including order of measures, the only difference was the condition to which they were assigned. Questionnaires and measures were prepared through Qualtrics.

Participants placed in the intervention condition were exposed to photographs of postpartum celebrities with accompanying text which may include praise, criticism, method used, effectiveness of method, amount of weight lost, and weight loss time frame (Gow et al., 2012). Participants placed in the control condition were exposed to neutral media images. Neutral media images for food, diet, or appearance-based products were excluded from the study to avoid introducing stimuli that might be expected to heighten eating pathology or BD (Hawkins et al., 2004). To keep the focus on the postpartum period, avoid priming BD and ED attitudes and behaviours, and aide in the communicated purpose of the study (i.e., postpartum consumerism), the neutral stimuli consisted of photographs and accompanying captions of baby products with no people featured (Hopper & Aubrey, 2011). The images in each condition were displayed in random order to control for order effects (Hopper & Aubrey, 2016). Each condition included nine photographs as the impact of media on BD had the greatest effect size when one to nine stimuli were presented (Groesz et al., 2002).

Following completion of the dependent measures, participants were provided with an informed consent and contact information for counselling services (Appendix E). Participant data were downloaded from Qualtrics as an excel file and saved on the researcher's password protected laptop. The data were subsequently analyzed using SPSS 18.2 statistical software.

### **Data Analysis**

The aforementioned hypotheses were examined using a factorial analysis of variance (ANOVA). Preparatory data analyses included examination of the descriptive statistics and assumptions of the factorial ANOVA model. Data were analyzed using SPSS 18.2 statistical software. Details of the research design, descriptive statistics, assumptions of the factorial ANOVA, and the factorial ANOVA are included below.

## **Research Design**

The current study employed an experimental research design with two conditions (i.e., intervention and control) and an indirect deception protocol. Random assignment was included to designate participant condition and order of images in each condition. The use of a factorial ANOVA allowed for an examination of the statistical significance of main and interaction effects between two groups across multiple categorical independent variables (Pelham, 2013). A factorial ANOVA has a distinct advantage over similar analyses (e.g., independent sample *t*-test), as it can control for experiment-wise error rate which occurs when a significant effect is found by chance as a result of running multiple statistical tests (Pelham, 2013).

## **Descriptive Statistics**

Prior to conducting analyses, the data were examined using descriptive statistics. Descriptive statistics are utilized to summarize and describe observations for numerical or categorical data and typically include the mean, range of dataset, standard deviation (SD), skewness, kurtosis, histograms, and z-scores (Pelham, 2013). Descriptive statistics for participants in the current study will be detailed further in chapter four.

## **Assumptions of the Factorial Analysis of Variance (ANOVA)**

Assumptions of the factorial ANOVA were examined to confirm that the suggested analyses were suitable for the current study. Concerns regarding the violation of assumptions have been debated in the literature. While some scholars argue that violations of assumptions produce invalid parametric statistical tests, others declare that, as long as there are not multiple and compounded violations, that the factorial ANOVA test is relatively unaffected (Blanca, Alarcón, Arnua, Bono, & Bendayan, 2017). Despite these inconsistencies, most scholars have advised researchers to consider how violations of assumptions may lead to inaccurate

conclusions from the data (Kerlinger & Lee, 2000). Therefore, the researcher chose to align the current design with more conservative literature regarding violations of assumptions.

The assumption of normality was tested by examining descriptive statistics, plots, and outliers. Violations of the assumption of normality can lead to inflated Type I errors (Blanca et al., 2017), which occur when a factorial ANOVA test reveals significant differences between groups when in reality there are no differences (i.e., false rejection of the null hypothesis; Kerlinger & Lee, 2000). Outliers were identified through z-scores as data points greater than  $\pm 3.30$  SDs from the mean and were subsequently winsorized (Tapper, Jiga-Boy, Maio, & Haddock, 2013). Levene's test was conducted to assess the assumption of homogeneity of variance. Violations of the assumption of homogeneity of variance can augment Type II errors (Kerlinger & Lee, 2000), which transpire when a factorial ANOVA test reveals no significant differences between groups, when in reality there are differences (i.e., false acceptance of the null hypothesis; Kerlinger & Lee, 2000). The continuity and equal intervals of measures assumption was met as the dependent variables were all interval. The assumption of independence of observations was met as participants were randomly assigned to one of the two conditions.

### **Factorial Analysis of Variance (ANOVA)**

The current study utilized a factorial ANOVA to compare the intervention and control conditions on each of the hypothesized moderating variables (ethnicity, sexual orientation, age, SES, occupational status, future employment plans, months since childbirth, parity status, PPD history, ED history, and ED treatment history) on the dependent variables (ED attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal). A main or interaction effect was observed when the *F*-statistic for the factorial ANOVA reached

significance ( $p < .05$ ). Tukey's post-hoc test was used to examine which variables contributed to the statistical significance of the data. Results of the data analyses are presented in chapter four.

### **Ethical Considerations**

The study was approved by the University of Calgary Conjoint Faculties Research Ethics Board. Two primary ethical concerns warrant discussion. First, the study included potentially sensitive questions in an online format, therefore, formal debriefing was not achievable. Second, an indirect deception protocol was employed to diminish the likelihood that participants would deduce the true nature of the study, as this may have influenced participant responses and results.

### **Online Research**

Some participants may have experienced discomfort with the types of questions asked in the questionnaires. Several strategies were utilized to alleviate discomfort in participants. The authorized consent indicated that some of the questions in the study may evoke negative feelings. Participants were also informed that their contribution was voluntary as they could refuse to answer any question and had the right to withdraw at any point during the study. Following completion of the measures, participants were provided with the opportunity to provide fully informed consent, as well as reminded about their voluntary participation and right to withdraw. Lastly, contact information for the researcher, supervisory committee, University of Calgary Conjoint Faculties Research Ethics Board, and counselling services were provided to ensure participants had the resources to access support, if needed.

### **Indirect Deception Protocol**

As the participants were not initially fully informed of the purpose and hypotheses, the study involved an indirect deception protocol through withholding information. The indirect deception protocol provided a plausible reason for the introduction of photographs and

accompanying captions of baby products with no people featured as participants were told that the study was intended to investigate media, postpartum health, and postpartum consumerism. Special considerations were employed to respect the rights and privacy of the participants. First, participants were informed during the authorized consent that some information may be withheld until the completion of the study. Therefore, participants provided consent to the deception protocol until full disclosure could be accomplished during the informed consent. Subsequently, participants were provided with an informed consent which fully disclosed the purpose, hypotheses, and nature of deception. Finally, participants were provided the opportunity to withdraw their data when presented with the informed consent.

### **Summary**

The purpose of the current study was to assess whether exposure to celebrity representations of the postpartum thin-ideal impacts PWs eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal. It was hypothesized that participants who were exposed to celebrity representations of the postpartum thin-ideal would manifest heightened ED attitudes and pathology, depressive symptoms, BD, and internalization of the thin-ideal, in addition to lowered self-esteem compared to PW who viewed neutral media images. Such findings would support the theory that exposure to postpartum thin-ideals contributes to the development of ED attitudes and patterns in PW through critical moderating variables such as low self-esteem, PPD, internalization of the thin-ideal, and BD.

## CHAPTER FOUR: RESULTS

As discussed in chapter three, the current study investigated the impact of the postpartum thin-ideal on PWs eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal. Results of the study are outlined below in three sections. First, the demographics of the sample will be described, followed by an examination of the descriptive statistics. Lastly, the results of the factorial ANOVAs will be examined.

### Demographic Data

One-hundred and ninety-one participants were recruited for the current study. Due to ProAs limited pre-screening options, both non-PW and PW were recruited. Therefore, 89 participants were deemed ineligible as they were not within the postpartum period. Consequently, 102 participants completed the study. Of these participants, two were excluded from the analyses due to incomplete data (i.e., > 85% of the data were missing). Thus, a total of 100 PW comprised the dataset for analyses; these participants were randomly assigned to either the intervention ( $n = 49$ ) or control condition ( $n = 51$ ). The majority of participants identified as European (72%), with the remaining participants identifying as: Other North American (15%); Mixed (4%); Asian (3%); African (3%); North American Aboriginal (2%); and Latin, Central, and South American (1%). For sexual orientation, 86% of participants identified as heterosexual, 12% as bisexual, and 2% as gay. Participants ranged in age from 18–42 years, with a mean age of 28.02 years ( $SD = 6.87$ ). Participants expressed incomes within the following ranges: lower-middle (40%), upper-middle (31%), lower (28%), and high (1%).

While 77% of participants stated that they are planning on returning to work, 12% expressed that they are not returning to work, and 11% stated that they did not work before their pregnancy. Furthermore, 15% of participants were planning to return to work between 0–6

months post-birth, 46% between 6–12 months post-birth, 18% in more than one year, and 21% stated not applicable, as they did not work before their pregnancy. Of the participants who did not work before their pregnancy, two articulated that they would start work between 0–6 months post-birth and 6–12 months post-birth.

Participants varied in the number of months since they have given birth from 0–12 months ( $M = 6.44$ ,  $SD = 2.77$ ). Participants disclosed both primiparas (48%) and multiparas (52%) statuses including one (35%), two (12%), and three or more (5%) children. When asked about PPD, 31% of participants expressed current or historical experiences of PPD and 69% disclosed none. When asked about ED history, 22% of participants stated they had a history of an ED and 78% selected that they did not have a history of an ED. In addition, 7% of participants currently had an ED, while 93% selected that they did not currently have an ED. Lastly, 11% of participants had attended treatment for an ED, whereas 89% had no such experiences. Demographic data is presented below in Table 4.1.

Table 4.1

*Demographic Data*

Demographic Variable	Percentage
Ethnicity	
North American Aboriginal	2
Other North American	15
European	72
Caribbean	0
Latin, Central, and South American	1
African	3
Asian	3
Oceania	0
Pacific Island	0
Mixed	4
Sexual Orientation	
Heterosexual	86
Gay	2
Bisexual	12



	Other	0
Age		
	Younger Adult (18-34 years)	85
	Middle Adult (35-50 years)	15
	Older Adult (51-94 years)	0
Socioeconomic Status		
	Lower Income	28
	Lower-Middle Income	40
	Upper-Middle Income	31
	High Income	1
Occupational Status		
	Yes	77
	No	12
	Not Applicable	11
Future Employment Plans		
	Between 0-6 Months Post-Birth	15
	Between 6-12 Months Post-Birth	46
	In More Than 1 Year	18
	Not Applicable	21
Months Since Childbirth		
	Between 0-6 months post-birth	50
	Between 6-12 months post-birth	50
Parity Status		
	Primiparas	48
	None	48
	Multiparas	52
	One	35
	Two	12
	Three or More	5
Postpartum Depression History		
	Yes	31
	No	69
Eating Disorder History		
	Yes	22
	No	78
Current Eating Disorder		
	Yes	7
	No	93
Eating Disorder Treatment History		
	Yes	11
	No	89

---

## **Descriptive Statistics**

Before conducting descriptive statistics, the data were examined for missing variables. Subsequently, the total scores for each of the dependent variables were computed, followed by an examination of the assumptions of the factorial ANOVA. Lastly, correlational data for the dependent variables will be presented.

### **Management of Missing Data**

Two cases with more than 85% of the data missing were excluded from the analyses as imputing more than 20% of data values for any one case is not recommended (D. Nordstokke, personal communication, March 2017). Multiple imputations in cases with extensive missing data have been found to substantially impact the approximations of the degrees of freedom, which consequently skews the *F*-statistic within the factorial ANOVA (van Ginkel & Kroonenberg, 2014). Moreover, the two participants who were excluded from the analyses did not answer any of the items on the measures, therefore, their total scores for each of the dependent variables could not be computed (Pelham, 2013). No other data were missing from the 100 participants.

### **Assumptions of the Factorial ANOVA**

An examination of z-scores for each of the variables identified four potentially influential outliers, with z-scores greater than  $\pm 3.30$  SDs from the mean (Field, 2009). Outliers were corrected using the winsorizing method, which attenuates outliers to correspond with a z-score below  $\pm 3.30$  ( $z = 3.28$ ; Field, 2009). Levene's test was conducted for each factorial ANOVA to evaluate the assumption of homogeneity of variance. The mean, SD, range, and values for skewness and kurtosis are presented in Table 4.2. Values for skewness and kurtosis were within

the acceptable range of  $\pm 2$  and  $\pm 3$ , respectively, suggesting the distributions were approaching normal (Pelham, 2013).

Table 4.2

*Descriptive Statistics for Dependent Variables*

Variable	Mean $\pm$ SD	Range	Skewness	Kurtosis
BDI-II	16.44 $\pm$ 10.03	0-44	0.86	0.29
RSES	17.12 $\pm$ 5.68	1-30	-0.025	-0.22
GD-BAT	11.79 $\pm$ 4.78	1-20	-0.15	-0.71
EAT-26	8.84 $\pm$ 8.90	0-38	1.67	2.79
SATAQ-4R	57.08 $\pm$ 15.82	24-97	0.19	-0.49

*Note.* BDI-II = Beck Depression Inventory-II; RSES = Rosenberg Self-Esteem Scale; GD-BAT = General Dissatisfaction Subscale of the Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; SATAQ-4R = Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised.

### Correlations

Next, correlations were examined to assess the associations between dependent variables. Examining the correlations matrix (Table 4.3) revealed that the dependent variables are moderately to strongly associated with one another suggesting that they conceptually belong in the same model (D. Nordstokke, personal communication, March 2017). However, the dependent variables were not so highly correlated that they would be considered multicollinear (i.e.,  $r = |.85|$ ), suggesting that these measures examine independent constructs (Pelham, 2013).

Table 4.3

*Correlations Matrix for Dependent Variables*

	BDI-II	RSES	GD-BDAT	EAT-26	SATAQ-4R
BDI-II	-				
RSES	-.72*	-			
GD-BAT	.48*	-.50*	-		
EAT-26	.41*	-.36*	.30*	-	
SATAQ-4R	.48*	-.53*	.55*	.56*	-

*Note.* BDI-II = Beck Depression Inventory-II; RSES = Rosenberg Self-Esteem Scale; GD-BAT = General Dissatisfaction Subscale of the Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; SATAQ-4R = Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised.

\*Denotes correlations significant at the  $p = .01$  level.

## **Factorial Analyses of Variances (ANOVAs)**

The final analyses included 100 adult females in the postpartum period who were fluent in English. A total of five factorial ANOVAs were conducted to investigate the combined influence of the moderating variables (ethnicity, sexual orientation, age, SES, occupational status, future employment plans, months since childbirth, parity status, PPD history, ED history, current ED, and ED treatment history) on the dependent variables (ED attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal) between two conditions (control and intervention). The results of each analysis will be outlined below.

### **Eating Disordered Attitudes and Pathology**

It was hypothesized that exposure to celebrity representations of the postpartum thin-ideal would increase PWs ED attitudes and pathology. Levene's test was non-significant ( $F(8, 91) = 2.89, p = .055$ ) suggesting the variances were homogenous. However, considering Levene's test was approaching significance, the results of the factorial ANOVA should be interpreted with caution, as significant differences between groups may have been obfuscated by inflated Type II error rates (Kerlinger & Lee, 2000). A factorial ANOVA test of between subjects revealed a non-significant main effect for condition,  $F(1, 73) = 2.34, p = .131, \eta^2 = .03$ . These findings suggest that, within the current study, exposure to celebrity representations of the postpartum thin-ideal may not immediately influence PWs ED attitudes and pathology.

Although the ANOVA was not significant, main differences were found between subjects on the moderating variable of sexual orientation,  $F(2, 73) = 3.97, p = .023, \eta^2 = .01$ . Post-hoc comparisons using Tukey's HSD test revealed that PW who identified as bisexual ( $M = 17.58, SD = 12.03$ ) were significantly more likely to report higher EAT-26 scores in comparison to PW who identified as heterosexual ( $M = 7.74, SD = 7.79$ ) at  $p < .001$ . Differences were approaching

significance between PW who identified as bisexual ( $M = 17.58$ ,  $SD = 12.03$ ) and those that identified as gay ( $M = 3.50$ ,  $SD = 4.95$ ) at  $p = 0.051$ . No significant differences were found between PW who identified as heterosexual and those who identified as gay.

### **Depressive Symptoms**

It was further hypothesized that exposure to celebrity representations of the postpartum thin-ideal would intensify depressive symptoms in PW. Levene's test was non-significant ( $F(8, 91) = 1.46$ ,  $p = .296$ ) indicating that the variances were homogenous. A factorial ANOVA test of between subjects revealed a non-significant main effect for condition,  $F(1, 73) = .72$ ,  $p = .398$ ,  $\eta^2 = .01$ . These results suggest that, within the current sample, exposure to celebrity representations of the postpartum thin-ideal may not influence PWs depressive symptoms. However, significant differences were found between subjects on the variable of historical or current PPD,  $F(1, 73) = 8.47$ ,  $p = .005$ ,  $\eta^2 = .10$ . PW with historical or current PPD ( $M = 23.26$ ,  $SD = 11.97$ ) scored significantly higher on measures of depressive symptoms than PW who did not report historical or current PPD ( $M = 13.38$ ,  $SD = 7.25$ ) at  $p = .005$ .

### **Self-Esteem**

Moreover, it was hypothesized that exposure to celebrity representations of the postpartum thin-ideal would negatively impact PWs self-esteem. Levene's test was non-significant ( $F(8, 91) = .89$ ,  $p = .642$ ) indicating that the variances were homogenous. A factorial ANOVA test of between subjects revealed a non-significant main effect for condition,  $F(1, 73) = .41$ ,  $p = .524$ ,  $\eta^2 = .01$ . These results suggest that exposure to celebrity representations of the postpartum thin-ideal may not influence PWs self-esteem within the current study.

Differences were approaching significance between subjects on the variable of ED history,  $F(1, 73) = 3.73$ ,  $p = .057$ ,  $\eta^2 = .05$ . With lower RSES scores indicative of lower self-

esteem, PW in this sample with a history of an ED ( $M = 13.41$ ,  $SD = 5.76$ ) were more likely to exhibit lower self-esteem than participants without a history of an ED ( $M = 18.17$ ,  $SD = 5.23$ ) at  $p = .057$ . Moreover, differences were approaching significance between subjects on the variable of historical or current PPD,  $F(1, 73) = 3.44$ ,  $p = .068$ ,  $\eta^2 = .05$ . PW with historical or current PPD ( $M = 14.00$ ,  $SD = 6.39$ ) were more likely to report lower self-esteem than PW without historical or current PPD ( $M = 18.52$ ,  $SD = 4.74$ ) at  $p = .068$ .

### **Body Dissatisfaction (BD)**

In addition, it was hypothesized that exposure to celebrity representations of the postpartum thin-ideal would heighten BD in PW. Levene's test was non-significant ( $F(8, 91) = .63$ ,  $p = .858$ ) indicating that the variances were homogenous. A factorial ANOVA test of between subjects revealed a non-significant main effect for condition,  $F(1, 73) = .13$ ,  $p = .722$ ,  $\eta^2 < .01$ . These results insinuate that, within the current sample, exposure to celebrity representations of the postpartum thin-ideal may not immediately influence PWs BD.

However, significant differences were found between subjects on the variable of parity status,  $F(3, 73) = 3.48$ ,  $p = .020$ ,  $\eta^2 = .13$ . Post-hoc comparison using Tukey's HSD test revealed that primiparas PW ( $M = 12.48$ ,  $SD = 4.51$ ), PW with one other child ( $M = 11.69$ ,  $SD = 4.35$ ), and PW with two other children ( $M = 12.42$ ,  $SD = 5.42$ ) were significantly more likely to report greater BD than PW with three or more children ( $M = 4.40$ ,  $SD = 3.13$ ) at  $p < .01$ .

### **Internalization of the Thin-Ideal**

Lastly, it was hypothesized that exposure to celebrity representations of the postpartum thin-ideal would enhance internalization of the thin-ideal in PW. Levene's test was non-significant ( $F(8, 91) = 1.23$ ,  $p = .41$ ) implying that the variances were homogenous. A factorial

ANOVA test of between subjects revealed a non-significant main effect for condition,  $F(1, 73) = .62, p = .433, \eta^2 = .01$ . No other significant differences were found.

### **Summary**

The current study recruited 100 eligible participants from ProA. Participants were PW ranging in age from 18–42. A total of five factorial ANOVAs were used to test the five hypotheses of the research. The overarching hypothesis, which suggested that exposure to celebrity representations of the postpartum thin-ideal would increase PWs ED attitudes and pathology, was not supported. The supplementary research questions, which anticipated that exposure to celebrity representations of the postpartum thin-ideal would intensify depressive symptoms in PW, negatively impact PWs self-esteem, heighten BD in PW, and enhance internalization of the thin-ideal in PW, were also not supported.

However, bisexual PW within the sample displayed heightened ED attitudes and pathology in comparison to PW who identified as heterosexual and potential PW who identified as gay. In addition, PW who reported historical or current PPD disclosed significantly greater depressive symptoms. Although only approaching significance, PW with lower self-esteem were more likely to report a history of an ED. Likewise, PW with lower self-esteem were more likely to express historical or current PPD. Lastly, PW with three or more children were significantly more likely to report lower BD than PW with zero, one, or two other children. The results outlined in chapter four will be interpreted and explored with reference to the existing literature in chapter five.

## **CHAPTER FIVE: DISCUSSION**

The current study investigated the impact of the postpartum thin-ideal on PWs eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal. Participants were 100 PW recruited through ProA. Participants completed a demographics questionnaire and five self-report measures. After considering the extant literature in chapter two, five specific hypotheses were proposed in chapter three, with the results of the analyses reported in chapter four. The information presented below is intended to discuss and interpret the results outlined in chapter four with reference to the previous literature. Each of the five hypotheses will be outlined below, followed by limitations of the study and implications for future research and counselling.

### **Eating Disordered Attitudes and Pathology**

The overarching hypothesis of the study, that exposure to celebrity representations of the postpartum thin-ideal would increase PWs ED attitudes and pathology, was not supported. These findings suggest that, for the current study, exposure to celebrity representations of the postpartum thin-ideal may not exacerbate PWs ED attitudes and pathology. Considering the majority of research supports the robust relationship between exposure to the thin-ideal and heightened ED attitudes and pathology (Becker et al., 2002; Bilunka & Utermohlen, 2002; Bulik, 2012; Dittmar et al., 2009; Ferguson, 2013; Glauert et al., 2009; Levine & Harrison, 2004; López-Guimerà et al., 2010; Lovering, 2015; McLean et al., 2016), the present findings are incongruent with existing literature.

Several explanations may account for the lack of significant differences on ED attitudes and pathology between conditions in the current study including: (a) small sample size and statistical power, (b) increased ED attitudes and pathology in modern society, (c) concerns about



the appropriateness of the EAT-26 for postpartum populations, (d) presentation of media stimuli, (e) lack of social comparison measures, and (f) the presence of vulnerability factors within the current sample. Sample size and statistical power, presentation of media stimuli, lack of social comparison measures, and vulnerability factors will be discussed further in the limitations section. Significant differences on ED attitudes and pathology between sexual orientations within the current study will also be outlined below.

### **Increased Eating Disordered Attitudes and Pathology in Modern Society**

The results of the current study may also signify an increasing trend toward heightened ED attitudes and pathology within contemporary society. Existing literature supports this assertion as ED attitudes and pathology have risen markedly within the past 50 years (Darby et al., 2009; Melioli et al., 2016; Mitchison et al., 2012; Tylka & Subich, 2002; Udo & Grilo, 2018). The scores found on the EAT-26 in this study with PW may be reflective of a more general trend with women. For example, approximately 75% of women from both healthy and clinical populations reported ED attitudes and pathology (Karras, 2008; Sullivan, 2010) and EDs have become more difficult to detect (Håman et al., 2017) in part because of the current cultural trends of extreme dieting and exercise (Dennis et al., 2014).

Literature on fitspiration and orthorexia nervosa further substantiates these inferences (Dunn & Bratman, 2016; Håman et al., 2017; Koven & Abry, 2015). Fitspiration refers to the modern media trend of focusing on toned, muscular bodies, healthy eating, and intense exercise rather than the typical thin-ideal (Holland & Tiggemann, 2016; Montayne, 2017). The images used within fitspiration media have been found to contain similar content as thin-ideal media (Boepple & Thompson, 2016; Boepple, Ata, Rum, & Thompson, 2016; Tiggemann & Zaccardo, 2015). Progressively, scholars are emphasizing the negative impact that both fitspiration and

thin-ideal media can have on females ED attitudes and pathology, as indicated by the EAT-26 (Stoneking, 2018). Therefore, the present findings imply that novel and more current research is imperative to update ED prevalence rates within the general female postpartum population.

### **Concerns About the Appropriateness of the EAT-26 With Postpartum Populations**

As the EAT-26 was not designed for postpartum populations, this measure may not have been appropriate for the population under examination. Although previous studies have investigated ED attitudes and pathology in young females (i.e., 18–35 years) and college samples using the EAT (e.g., Boyadjieva & Steinhausen, 1996; Sanders & Heiss, 1998) and EAT-26 (e.g., Siervo, Boschi, Papa, Bellini, & Falconi, 2005), to the best of the researcher's knowledge, no prior studies have utilized the EAT-26 with postpartum populations. Future investigations could compare non-PW and PW with and without EDs to discern whether the EAT-26 is a valid indicator of ED attitudes and pathology in postpartum populations.

### **Sexual Orientation and Eating Disordered Attitudes and Pathology**

Although significant differences between ED attitudes and pathology were not discovered between conditions, significant differences were found on the variable of sexual orientation. PW in the current study who identified as bisexual reported significantly greater ED attitudes and pathology in comparison to PW who identified as heterosexual. In addition, bisexual PW in the current study reported higher ED attitudes and pathology than PW who identified as gay, although these differences were only approaching significance. These results suggest that bisexual PW within the current study may have been more vulnerable to increased ED attitudes and pathology in comparison to participants who identified as heterosexual, and potentially, in comparison to participants who identified as gay.

Considering previous literature has indicated that identifying as heterosexual may be a risk factor for increased ED attitudes and pathology (Grogan, 1998; Huxley et al., 2015), the current findings are contrary to established research. Follow-up investigation on the relationship between various sexual orientations and ED attitudes and pathology is required to confirm or contest these results as there may be something unique about the postpartum period. Additionally, current conceptualizations of sexuality are much broader than the typical categorizations of heterosexual, gay, and bisexual (Luoto et al., 2018). Prior research may be less relevant to current understandings of sexuality, which are more fluid and less binary (Meyer-Bahlburg, Leibowitz, & Leibowitz, 2018). Novel research with more modern classifications of sexual orientations is necessary for the progression of ED and postpartum literature.

### **Depressive Symptoms**

A supplementary research question, that exposure to celebrity representations of the postpartum thin-ideal would intensify depressive symptoms in PW, was not supported. These results suggest that exposure to celebrity representations of the postpartum thin-ideal may not increase PWs depressive symptoms, within the current sample. These findings are incongruent with preceding research, which has demonstrated a strong link between exposure to the thin-ideal and negative affect (Birkeland et al., 2005; Dittmar & Howard, 2004; Dittmar et al., 2009; Grabe & Hyde, 2006; Halliwell & Dittmar, 2004; Hawkins et al., 2004; Hodgkinson et al., 2014; Karazsia et al., 2013; Tiggemann & McGill, 2004). Small sample size, presentation of media stimuli, lack of social comparison measures, and the presence of vulnerability factors (discussed further in limitations) may have accounted for the lack of significant differences on depressive symptoms between conditions in the current study.

## **Historical and/or Current Postpartum Depression (PPD)**

Although differences between depressive symptoms were not discovered between conditions, significant differences were found between subjects on the variable of historical and/or current PPD. PW with historical and/or current PPD, within the current study, reported significantly higher depressive symptoms than PW without historical and/or current PPD. These results imply that the BDI-II may be able to discern PPD within postpartum populations. Prior literature supports this claim as several researchers have espoused the validity of the BDI-II with postpartum populations (e.g., Gaynes et al., 2005; Haas et al., 2005; Ji et al., 2011). However, it has been postulated that the BDI-II overrepresents depressive symptoms in PW, due to the similarities between the somatic symptoms of depression and childbirth (Conradt, Manian, & Bornstein, 2012). Therefore, further research is warranted to confirm or disconfirm the utility of the somatic items (e.g., sleep and eating disturbances) in the BDI-II for postpartum populations.

Furthermore, previous literature has indicated that approximately 25% of PW in the general population divulge current PPD (Misri, 2006), with this number increasing to 41% for PW with a history of PPD (Downs et al., 2008). The slightly higher prevalence rate of PPD within the current study (i.e., 31%) could be accounted for by including both historical and current PPD within the same item. Follow-up investigation could separate PW with a history and PW with current PPD to better understand the relationship between BDI-II scores and depressive symptoms within the postpartum period.

## **Self-Esteem**

An additional hypothesis, which expected that exposure to celebrity representations of the postpartum thin-ideal would negatively impact PWs self-esteem, was not supported. These results suggest that exposure to celebrity representations of the postpartum thin-ideal may not

reduce PWs self-esteem within the current study. As low self-esteem has been identified as an important moderating variable in the relationship between exposure to the thin-ideal, BD, and EDs (Fox & Neiterman, 2015; Loeber et al., 2016; Rodgers et al., 2015; Smolak & Levine, 2015), the present results are incompatible with previous research. Lack of significant differences on self-esteem following exposure to the postpartum thin-ideal may be explained by concerns about the appropriateness of the RSES for postpartum populations, small sample size and statistical power, presentation of media stimuli, lack of social comparison measures, and the presence of vulnerability factors within the current sample (see limitations section).

Although the RSES has been utilized in prior research to evaluate self-esteem in PW (e.g., Kang, Lee, & Kang, 2014; Loto et al., 2010; Sharifzadeh, Navininezhad, & Keramat, 2018), to the best of the researcher's knowledge, no empirical studies have been conducted on the psychometric properties of the RSES with postpartum populations. As some literature has indicated that PWs self-esteem may be greatly impacted by their parenting self-efficacy (Loto et al., 2010), PW and non-PW may experience different sources of self-esteem. Future research should investigate whether the RSES is a valid measure of self-esteem in postpartum populations.

### **History of an Eating Disorder (ED)**

Although significant differences on self-esteem were not found between conditions, differences were approaching significance for PW with a history of an ED; thus, these findings must be interpreted with caution. PW, in the current study, with a history of an ED reported lower self-esteem than PW without a history of an ED. Considering greater ED attitudes and pathology, as indicated by EAT-26 scores, predicted low self-esteem (Grogan, 1998) and women

with a history of an ED demonstrated lower self-esteem in comparison to women with no such history (Clark et al., 2009), these results are congruent with previous literature.

Prior studies have examined self-esteem in postpartum populations; however, these studies have focused on the association between self-esteem and PPD (e.g., Beck, 2001; Franck et al., 2016; Lee & Koo, 2015). Although the postpartum period has been implicated as a fragile stage for self-esteem (Beck, 2001; Franck et al., 2016) and literature suggests that EDs within postpartum populations are increasing (Bedor & Tajima, 2012), the researcher could find no studies investigating the association between a history of an ED and self-esteem in postpartum populations. Future exploration on self-esteem in PW, with and without a history of an ED is required to support or disconfirm the present findings.

### **Historical and/or Current Postpartum Depression (PPD)**

In addition, differences in self-esteem between PW were approaching significance on the variable of historical and/or current PPD; hence, these results should be interpreted carefully. Within the current study, PW with historical and/or current PPD disclosed lower self-esteem than PW without historical and/or current PPD. The current results are concordant with prior research, as PPD may impact low self-esteem (Birkeland et al., 2005). Considering historical and/or current PPD were assessed within the same item in the current study, follow-up investigation could separate these factors to better understand the relationship between historical PPD and current PPD on self-esteem.

### **Body Dissatisfaction (BD)**

A fourth hypothesis, that exposure to celebrity representations of the postpartum thin-ideal would heighten BD in PW, was also not supported. These results imply that, within the current sample, exposure to celebrity representations of the postpartum thin-ideal may not

amplify PWs BD. These results are congruent with the minority of studies which have found null or no increases in BD following exposure to the thin-ideal (Halliwell et al., 2005; Joshi et al., 2004; Mills et al., 2002; Wilcox & Laird, 2000). Nevertheless, the current results are contradictory to the majority of literature which has demonstrated a robust, significant relationship between exposure to the thin-ideal and increased BD in females of various ages (Murtha-Berg, 2017; Perloff, 2014). Concerns about the appropriateness of the GD-BAT, increased BD in contemporary society, small sample size and statistical power, presentation time of media stimuli, lack of social comparison measures, and the presence of vulnerability factors may have impacted the current results (see limitations section).

### **Concerns About the Appropriateness of the GD-BAT**

As all subscales of the BAT except for the GD-BAT were excluded from the current study, it is possible that the brevity of this measure was not adequate to assess the multiple underlying components of BD (i.e., cognitive-perceptual, affective, attitudinal, and behavioural; Cash & Smolak, 2011). Future scholars could replicate the current study with all subscales of the BAT to test this assumption. Additionally, although the BAT has been utilized in prior literature to assess BD (e.g., Exterkate, Vriesendorp, & de Jong, 2009; Huri, Sahin, Akel, Slepecky, & Kotianova, 2017; Preti et al., 2007; Probst et al., 1995; Probst et al., 1997), the researcher could find no parallel literature on the BAT with postpartum populations. Further research assessing the utility of the BAT with postpartum populations is recommended.

### **Increased Body Dissatisfaction (BD) in Modern Society**

As the thin, non-pregnant female body has become the ideal for which PW feel that they need to emulate (Hopper & Aubrey, 2016), the current findings may reflect ubiquitous BD within postpartum populations. Previous estimates are concordant with this assertion as 40–85%

of PW, from both healthy and clinical populations, reported BD (Bearman et al., 2006; Bulik, 2013; O'Donohoe, 2006; Pruis & Janowsky, 2010). In addition, bodily perfection, hypervigilance to appearance, weight loss, and extreme dieting practices have contributed to pandemic levels of BD in contemporary Western society (Bordo, 2003; Hawkins et al., 2004). Although PWs average weight goals were approximately 12 pounds less than their pre-pregnancy weight (Gjerdingen et al., 2009; Lovering et al., 2018), the majority of PW expressed shock and disappointment at the extent of their physical changes postpartum and the challenges of bouncing back (Shloim et al., 2014). In conjunction with the omnipresence of celebrity postpartum thin-ideals within the media (Nash, 2015), the disparity between the postpartum thin-ideal and PWs bodily expectations (Clark et al., 2009; Fox & Neiterman, 2015) may contribute to enhanced BD in modern PW. Novel and more current research are necessary to confirm or dispute whether BD is on the rise within postpartum populations.

### **Parity Status**

Although significant differences were not found between conditions, significant differences on BD were found between subjects on the variable of parity status. PW with three or more children reported significantly less BD than primiparas PW, PW with one other child, and PW with two other children. These results suggest that, within the current study, PW with three or more children may have experienced less BD than other PW following exposure to the postpartum thin-ideal. Prior literature supports the present findings, as multiparas' mothers have demonstrated less BD following exposure to postpartum thin-ideals in comparison to primiparas mothers' (Walker et al., 2002). Scholars have also revealed that PW with fewer children tend to express higher levels of BD (Gjerdingen et al., 2009). However, previous literature has most often examined BD between primiparas and multiparas' mothers (Walker et al., 2002). Further



literature with a variety of multiparas' statuses is paramount to support or refute the current findings.

### **Internalization of the Thin-Ideal**

The final hypothesis, that exposure to celebrity representations of the postpartum thin-ideal would enhance internalization of the thin-ideal in PW, was not supported. These results suggest that, within the current study, exposure to celebrity representations of the postpartum thin-ideal may not heighten PWs internalization of the thin-ideal. These results are contrary to the existing literature, as exposure to the thin-ideal has been reliably linked to internalization of the thin-ideal (Dittmar et al., 2009; Fox & Neiterman, 2015; Hawkins et al., 2004; Karazsia et al., 2013; Monro & Huon, 2005). A variety of reasons may account for the lack of significant differences on internalization of the thin-ideal between conditions including concerns about the use of the SATAQ-4R with postpartum populations and the shortcomings specific to this study discussed in the limitations section.

Although many versions of the SATAQ have been used with PW (e.g., Lovering et al., 2018; O'Bryne, 2017; Rakhovskaya & Warren, 2014), to the best of the researcher's knowledge, the SATAQ-4 has not been empirically validated with postpartum populations. The SATAQ-4 differed from the SATAQ-3 in many ways (Schaefer et al., 2015). First, the SATAQ-3 only assessed appearance-related pressures and ideals from the media, whereas the SATAQ-4 expanded the sociocultural influences to peers and family (Schaefer et al., 2015). Second, items within the SATAQ-3 between the Internalization-General and Internalization-Athlete subscales did not specifically reference core attributes related to internalization of the thin-ideal and internalization of the muscular-ideal, respectively (Schaefer et al., 2015). Therefore, it is arguable whether the SATAQ-3 could distinguish between internalization of the thin-ideal and

internalization of the muscular-ideal (Schaefer et al., 2015). Third, scholars have indicated that subsequent versions of the SATAQ-3 have not been psychometrically validated (Karazsia & Crowther, 2008; Schaefer et al., 2015). Therefore, future research could validate or disconfirm the utility of the SATAQ-4 with PW.

In addition, the current study excluded the Muscular/Athletic subscale from the SATAQ-4. Follow-up investigation could replicate the current study with the Muscular/Athletic items to ascertain if they are useful to assess in postpartum populations. Considering current fitspiration and orthorexia nervosa trends (Håman et al., 2017; Robinson et al., 2017), as well as the pervasive representation of celebrity postpartum thin-ideals (Nash, 2015), these results could significantly contribute to the literature on internalization of the postpartum thin-ideal. The current study also added four items to the SATAQ-4R on significant others to broaden the sociocultural appearance-related influences. The researcher conducted internal consistency with all of the measurement items ( $\alpha = .92$ ), as well as the four additional items ( $\alpha = .94$ ) to assess the reliability of the SATAQ-4R. Given that a value of  $\alpha \geq .70$  is considered good reliability (Pelham, 2013), the SATAQ-4R appears to have exceptional reliability. However, additional studies are necessary to support the future inclusion or exclusion of significant others on the SATAQ-4 and to expand the literature on partner support within the postpartum period.

### **Possible Explanations for Null Results**

Considering the current results are contrary to the hypotheses proposed, several explanations will be explored to account for the unanticipated outcomes. First, Knoph et al. (2013) discovered that 40% and 30% of PW with pre-pregnancy EDs demonstrated remission at 18 and 36 months postpartum, respectively. In a similar study, 33% of PW no longer met criteria for BN and 4% had improved clinical symptoms (Morgan, Lacey, & Sedgwick, 1999).

Remission was the most common course across different ED categories for PW with pre-pregnancy EDs, except for PW with BN as approximately 70% were not remitted (Knoph et al., 2013). Consequently, remission of EDs in the postpartum period may be dependent on ED category, rather than severity or frequency of symptoms (Knoph et al., 2013). Given these previous findings, the results of the current study may reflect an absence of PW with BN in the current sample. Future investigations comparing ED symptoms across types within the postpartum period could significantly progress the ED and postpartum literature.

Second, one population-based study revealed that young women who became mothers experienced diminished ED attitudes and pathology in comparison to women who remained childless (von Soest & Wichstrøm, 2008). Literature suggests that there may be something unique about the pregnancy and postpartum periods, as some women experience a natural decline in ED attitudes and pathology (Carter et al., 2003; Easter et al., 2015; Knoph et al., 2013; Lai et al., 2006; Stein & Fairburn, 1996; von Soest & Wichstrom, 2008) and/or remission (Bulik et al., 2007; Crow et al., 2008). Follow-up investigation could compare PW who demonstrate reduced and/or remitted ED symptomology against PW with continued ED pathology to delineate the factors which contribute to improvements in ED attitudes and practices.

Third, it is plausible that ED attitudes and pathology in PW may be expressed at a later time than the definition used in the current study for the postpartum period (i.e., up until one-year post-birth; Obeyd, 2010; Tierney, McGlone, & Furber, 2013). Due to the demands of caring for a newborn, PW may experience a shift in priorities from their appearance to the health and well-being of themselves, their child, and family (Easter et al., 2015). More literature is required to investigate if a delay in ED presentation, whether due to shifting priorities or other reasons, is a feasible rationale for the current null results.

Fourth, prior literature has revealed that some women experience a new appreciation for their body functionality (i.e., creating and feeding human life) during pregnancy and the postpartum period (Alleva et al., 2016). Body functionality encompasses everything that the body is able to do including physical capabilities, physiological and sensory health (e.g., sight), recreational activities, body language and communication, and self-care (Alleva et al., 2016). After one-week of intervention training focused on body functionality, PW experienced reductions in BD following exposure to thin-ideal images (Alleva et al., 2016). Training PW to consider body functionality may serve as an individual-level strategy to reframe how PW view their body (Alleva, Martijn, Van Breukelen, Jansen, & Karos, 2015; Alleva et al., 2016). For instance, by reframing the body positively, actively, and instrumentally rather than as a passive object of physical beauty (Fredrickson & Roberts, 1997). Follow-up research is necessary to elucidate whether PW in the current sample were more inclined to express functionally-focused versus appearance-focused orientations towards their body (Roberts & Waters, 2004).

### **Limitations**

The results of the present study must be considered in reference to several limitations. Specifically, six key limitations were identified: (a) sample size and statistical power, (b) presentation of media stimuli, (c) lack of social comparison measures, (d) lack of psychometrically validated and relevant inventories for postpartum populations, (e) the presence of vulnerability factors, and (f) the use of uncertainty terms. Each limitation will be outlined below.

#### **Small Sample Size and Statistical Power**

Considering previous quantitative experimental research on exposure to the thin-ideal tended to have at least 150 participants (e.g., Clark et al., 2009; Coyne et al., 2018; Crow et al.,

2008; Harrison et al., 2006; Hopper & Aubrey, 2016; Smallwood, 2014), the sample size of the current study was relatively small. Although G\*Power 3.1 estimated a minimum of 100 participants to reach a significance level of  $p < .05$  and effect size of  $d > .25$  with two conditions (Faul et al., 2009), the relatively small sample size may still have resulted in low statistical power and inflated Type I and Type II error rates (Maxwell, Kelley, & Rausch, 2008; Pelham, 2013). Low statistical power may have led to false acceptance of the null hypothesis, as no significant differences were found on any of the five hypotheses. Additional research, with a larger sample size of PW, is required to reproduce and/or dispute the current results.

### **Presentation of Media Stimuli**

As meta-analytic data has indicated that the impact of media had the greatest effect size on BD when one to nine stimuli were presented (Groesz et al., 2002), it is unlikely that the number of media stimuli impacted the current findings on BD. However, to the best of the researcher's knowledge, no meta-analyses have been conducted on the number of stimuli presented and effect size for the variables of ED attitudes and pathology, depressive symptoms, self-esteem, and internalization of the thin-ideal. Better understanding the number of stimuli required for the greatest effect size in postpartum populations on the abovementioned variables through meta-analyses would be a logical next step.

In addition, the researcher did not require participants to view media stimuli for a specified period of time which may have impacted the results. No literature on media presentation time and effect size were found by the researcher for any of the variables under consideration. Therefore, follow-up research on media stimuli exposure time frames is necessary to expand the literature on exposure to the postpartum thin-ideal and ED attitudes and pathology.

### **Lack of Social Comparison Measures**

Given that prior literature has emphasized that women who exhibited greater social comparisons with thin-ideal images demonstrated higher BD, ED pathology, negative affect, thin-ideal internalization, as well as lowered self-esteem (Clark et al., 2009; McLean et al., 2016; Rodgers et al., 2015; Thompson et al., 1999), the lack of social comparison measures may have impacted the interpretation of the current findings. Future scholars could incorporate social comparison measures to delineate whether it is a necessary factor to trigger increased BD, ED attitudes and pathology, negative affect, and internalization of the postpartum thin-ideal, as well as diminished self-esteem following exposure to the postpartum thin-ideal.

### **Lack of Relevant and Psychometrically Validated Inventories for Postpartum Populations**

Although the RSES and SATAQ have been used with postpartum populations, empirical validation with PW has not been accomplished. Furthermore, neither the EAT-26 nor the GD-BAT have been used in prior research with PW; thus, imploring the question of whether they are valid and reliable measures for postpartum populations. Prior literature has highlighted that there are relatively few studies that examine the attitudinal, cognitive, or social factors which impact PW; these studies were also less likely to have used measures which have been validated in postpartum populations (Baskin & Galligan, 2018). Thus, the development of psychometrically valid and relevant inventories for postpartum populations could significantly impact the literature on exposure to the postpartum thin-ideal.

### **The Presence of Vulnerability Factors**

Considering females with prior appearance concerns (i.e., vulnerability factors) seem to be more strongly impacted by thin-ideal images (Dittmar et al., 2009; Ferguson, 2013; Glauert et al., 2009; Hausenblas et al., 2013), PW within the current study may not have possessed

vulnerability factors to exacerbate the variables under examination following exposure to postpartum thin-ideals. Future research could compare PW with and without vulnerability factors to better understand the relationship that their presence has on ED attitudes and pathology, PPD, self-esteem, BD, and internalization of the postpartum thin-ideal. Research focused on analyses of vulnerable individuals rather than the impact on the general postpartum population would shift the literature trends away from more traditional sociocultural models to more diathesis-stress models of EDs (Ferguson, Winegard, & Winegard, 2011). On the contrary, future research examining resiliency factors (e.g., higher self-esteem) may elucidate objectives for clinical interventions (Hawkins et al., 2004).

### **The Use of Uncertainty Terms**

Furthermore, the self-report items contained uncertainty terms (e.g., often, much of the time, and sometimes). Uncertainty terms pertain to adjectives and adverbs that do not have fixed understandings and are thus, open to interpretation (Holtgraves, 2017). The degree of social desirability has been found to impact the under and/or over estimation of self-reports when answering questions with uncertainty terms (Holtgraves, 2017). In addition, the presence of uncertainty terms may exacerbate social desirability in participants (Holtgraves, 2017). Future research could compare self-reports with and without uncertainty terms to examine the influence on social desirability within postpartum populations.

### **Implications for Future Research**

Further literature is required to replicate or dispute, as well as to address the limitations of, the current study. The results of the current study may also signify important variables for future exploration. Prospective research will be outlined below according to theoretical and methodological recommendations.

## **Theoretical Recommendations for Future Research**

As none of the inventories used in the current study (i.e., EAT-26, BDI-II, RSES, SATAQ-4R, and GD-BAT) were specifically designed for postpartum populations, future researchers could seek to empirically validate the use of these inventories with PW.

Alternatively, prospective scholars could modify the items within the EAT-26, BDI-II, RSES, SATAQ-4R, and GD-BAT to explicitly reference PWs experiences. Modification and psychometric validation of relevant items for PW could assist scholars in better understanding the impact of exposure to the postpartum thin-ideal on ED attitudes and pathology, PPD, self-esteem, BD, and internalization of the postpartum thin-ideal. Prospective researchers could also experiment with the number of images and time frame that postpartum thin-ideals are presented to determine the most effective methodological design to study the postpartum thin-ideal in PW. Follow-up exploration utilizing measures of social comparison and vulnerability factors could expound whether they are necessary to activate heightened ED attitudes and pathology, BD, negative affect, and internalization of the postpartum thin-ideal, as well as lower self-esteem.

Lastly, the current findings may support previous literature which claims that EDs and BD are increasingly common in PW within contemporary Western culture (Mitchison et al., 2012; Mysko & Amadei, 2009; Udo & Grilo, 2018). Research comparing older and newer prevalence rates of EDs and BD could test these suppositions and significantly advance the literature on the postpartum thin-ideal. Other important variables to consider in future research include: (a) the impact of sexual orientation on ED attitudes and pathology in PW; (b) the utility of the somatic items within the BDI-II for postpartum populations; (c) the relationship between low self-esteem and a history of an ED in PW; (d) the differential impact of a historical or



current PPD on self-esteem; and (e) factors which contribute to increased BD in primiparas PW, PW with one other child, and PW with two other children.

### **Methodological Recommendations for Future Research**

Given that brief presentation of thin-ideal images have been found to predict heightened BD, ED attitudes and pathology, negative affect, and internalization of the thin-ideal (Dittmar et al., 2009; Karazsia et al., 2013), small sample size and statistical power, lack of pre-test measures, and absence of randomization of measurement items may account for the lack of significant findings. Subsequent investigations should increase the sample size of PW to reduce the likelihood of Type I and II errors (Kerlinger & Lee, 2000). As the current study only utilized post-test measures, future researchers could employ pre- and post-test designs to better evaluate the immediate implications of brief exposure to the postpartum thin-ideal, as well as compare these findings to the cumulative impact of repeated exposure (Hawkins et al., 2004). Although the current study used random assignment of participants to conditions, as well as randomized the order of media images, prospective researchers could improve the methodological design by presenting the measurement items in random order to prevent order effects (Hopper & Aubrey, 2016).

### **General Recommendations for Counselling Psychologists**

There are a number of recommendations for counselling psychologists including the identification of vulnerable PW and psychoeducation. Although follow-up research is required, health professionals could utilize screening measures to identify PW most vulnerable to heightened ED attitudes and pathology, PPD, BD, and internalization of the postpartum thin-ideal, as well as low self-esteem, following exposure to the postpartum thin-ideal. As previous literature has identified that the majority of EDs go unrecognized and untreated by health care

professionals (Forrest et al., 2017; Harris, 2010; Sonnevile & Lipson, 2018), better tools to identify susceptible PW may improve the mental and physical health outcomes of PW. Furthermore, as both patients and medical professionals have expressed discomfort in discussing EDs and BD (Heslehurst et al., 2013), more routine screening and regular inquiries within postpartum populations may reduce some barriers, discomfort, and stigma within health contexts (Harris, 2010). Enhanced sensitivity training on how to discuss EDs and BD for medical professionals could also serve to reduce obstacles for PW who struggle with ED attitudes and pathology and BD.

Moreover, psychoeducation intended to challenge bouncing back narratives may serve to buffer the negative impact of exposure to the postpartum thin-ideal. Recommendations for psychoeducation emphasize focusing on realistic expectations about weight, shape, the dangers of purposeful weight loss, and BD during the postpartum period (Clark et al., 2009; Coyne et al., 2018; Skouteris et al., 2016). Existing research has also highlighted the usefulness of psychoeducational interventions during pregnancy to improve depressive symptoms and BD in PW (Skouteris et al., 2016).

Psychoeducation may also include media literacy which refers to “awareness of media use, analysis of content and intentions, and action in the form of activism toward media or advocacy using media” (Groesz et al., 2002, p. 13). A large body of literature supports the notion that media literacy can significantly diminish the deleterious impacts of exposure to the thin-ideal (McLean et al., 2016). Thus, educating PW on how to reduce media intake, be selective about media, and create broader definitions of beauty may help to shield PW from the psychological impacts of the postpartum thin-ideal (Liechty et al., 2018). It may also be important to extend psychoeducational interventions to partners as previous literature has

indicated that partner support can attenuate or exacerbate psychological distress in the postpartum period (Huxley et al., 2015; Lovering et al., 2018). In conclusion, prevention and intervention strategies which increase diagnostic accuracy and psychoeducation within postpartum populations may not only improve postpartum care for women but could reduce maternal mental and physical health risks which may negatively impact the development of the child and family (Baskin & Galligan, 2018).

### **Summary and Conclusions**

The current study represents the beginning of an exploration into the impact of exposure to the postpartum thin-ideal. PW took part in a survey measuring their eating attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal. The results of the study suggested that exposure to the postpartum thin-ideal may not significantly impact ED attitudes and pathology, depressive symptoms, self-esteem, BD, and internalization of the thin-ideal in PW within the current study. However, sexual orientation, historical and/or current PPD, parity status, and possibly a history of an ED, were found to be potential factors related to ED attitudes and pathology, depressive symptoms, and BD in PW.

Considering EDs and BD may be increasing in prevalence in recent years (Mitchison et al., 2012; Mysko & Amadei, 2009; Udo & Grilo, 2018) and the ubiquitous presence of the postpartum thin-ideal (Williams et al., 2017), it is imperative that scholars further investigate the impact of the postpartum thin-ideal on PW. Further research may not only advance the existing literature on the impact of exposure to the postpartum thin-ideal but could inform counsellors and health professionals of critical factors which influence the care of postpartum populations. Consequently, ED prevention and intervention strategies specifically designed for postpartum

populations could improve the mental and physical health of PW who struggle with the adverse effects of exposure to the postpartum thin-ideal.

## References

- Alleva, J. M., Martijn, C., Van Breukelen, G. J. P., Jansen, A., & Karos, K. (2015). Expand your horizon: A programme that improves body image and reduces self-objectification by training women to focus on body functionality. *Body Image, 15*, 81–89.  
doi:10.1016/j.bodyim.2015.07.001
- Alleva, J. M., Veldhuis, J., & Martijn, C. (2016). A pilot study investigating whether focusing on body functionality can protect women from the potential negative effects of viewing thin-ideal media images. *Body Image, 17*, 10–13. doi:10.1016/j.bodyim.2016.01.007
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5<sup>th</sup> ed.). Washington, DC: Author.
- Andreyeva, T., Puhl, A. M., & Brownell, K. D. (2008). Changes in perceived weight discrimination among Americans, 1995–1996 through 2004–2006. *Obesity, 16*, 1129–1134. doi:10.1038/oby.2008.35
- Arnau, R. C., Meagher, M. W., Norris, M. P., & Bramson, R. (2001). Psychometric evaluation of the Beck Depression Inventory-II with primary care medical patients. *Health Psychology, 20*, 112–119. doi:10.1037//0278-6133.20.2.112
- Arroyo, A., & Segrin, C. (2013). Family interactions and disordered eating attitudes: The mediating roles of social competence and psychological distress. *Communication Monographs, 80*, 399–424. doi:10.1080/03637751.2013.828158
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology, 3*(3), 265–299. doi:10.1207/s1532785xmep0303\_03

- Baskin, R., & Galligan, R. (2018). Disordered eating and the perinatal period: A systematic review and best evidence synthesis of mental health and psychosocial correlates. *European Eating Disorders Review*, 1–19. doi:10.1002/erv.2675
- Bearman, S. K., Presnell, K., Martinez, E., & Stice, E. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Adolescence*, 35(2), 217–229. doi:10.1007/s10964-005-9010-9
- Beck, C. T. (2001). Predictors of postpartum depression: An update. *Nursing Research*, 50(5), 275–285. doi:10.1097/00006199-200109000-00004
- Becker, A. E., Burwell, R. A., Gilman, S. E., Herzog, D. B., & Hamburg, P. (2002). Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls. *British Journal of Psychiatry*, 180(6), 509–514. doi:10.1192/bjp.180.6.509
- Bedor, E., & Tajima, A. (2012). No fat moms! Celebrity mothers' weight loss narratives in People Magazine. *Journal of Magazine & New Media Research*, 13(2), 1–26. Retrieved from <https://aejmc magazine.arizona.edu/Journal/Summer2012/BedorTajima.pdf>
- Bell, B. T., & Dittmar, H. (2011). Does media type matter? The role of identification in adolescent girls' media consumption and the impact of different thin-ideal media on body image. *Sex Roles*, 65(7), 478–490. doi:10.1007/s11199-011-9964-x
- Bessenoff, G. R. (2006). Can the media affect us? Social comparison, self-discrepancy, and the thin ideal. *Psychology of Women Quarterly*, 30(3), 239–251. doi:10.1111/j.1471-6402.2006.00292.x

- Bessenoff, G. R., & Del Priore, R. E. (2007). Women, weight, and age: Social comparison to magazine images across the lifespan. *Sex Roles, 56*(3), 215–222. doi:10.1007/s11199-006-9164-2
- Bilunka, O. O., & Utermohlen, V. (2002). Internalization of Western standards of appearance, body dissatisfaction and dieting in urban educated Ukrainian females. *European Eating Disorders Review, 10*(2), 120–137. doi:10.1002/erv.431
- Birkeland, R., Thompson, J. K., Herbozo, S., Roehrig, M., Cafri, G., & van den Berg, P. (2005). Media exposure, mood, and body image dissatisfaction: An experimental test of person versus product priming. *Body Image, 2*(1), 53–61. doi:10.1016/j.bodyim.2004.11.002
- Bissell, K. L., & Zhuo, P. (2004). Must-see TV or ESPN: Entertainment and sports media exposure and body-image distortion in college women. *Journal of Communications, 54*(1), 5–21. doi:10.1111/j.1460-2466.2004.tb02610.x
- Blanca, M. J., Alarcón, R., Arnua, J., Bono, R., & Bendayan, R. (2017). Non-normal data: Is ANOVA still a valid option? *Psicothema, 29*(4), 552–557. doi:10.7334/psicothema2016.383
- Boepple, L., & Thompson, J. K. (2016). An exploration of appearance and health messages present in pregnancy magazines. *Journal of Health Psychology, 22*(14), 1862–1868. doi:10.1177/1359105316639435
- Boepple, L., Ata, R. N., Rum, R., & Thompson, J. K. (2016). Strong is the new skinny: A content analysis of fitpiration websites. *Body Image, 17*, 132–135. doi:10.1016/j.bodyim.2016.03.001
- Bordo, S. (2003). *Unbearable weight: Feminism, Western culture, and the body*. Berkeley: University of California Press.

- Botta, R. A. (2000). The mirror of television: A comparison of Black and White adolescents' body image. *Journal of Communication*, 50(3), 144–159. doi:10.1093/joc/50.3.144
- Boyadjieva, S., & Steinhausen, H.-C. (1996). The eating attitudes test and the eating disorder inventory in four Bulgarian clinical and nonclinical samples. *International Journal of Eating Disorders*, 19(1), 93–98. doi:10.1002/(SICI)1098-108X(199601)19:1<93::AID-EAT11>3.0.CO2-R
- Boynton, M. H., Portnoy, D. B., & Johnson, B. T. (2013). Exploring the ethics and psychological impact of deception in psychological research. *IRB: Ethics & Human Research*, 35(2), 7–13. Retrieved from <https://www-jstor-org.ezproxy.lib.ucalgary.ca/stable/pdf/41806156.pdf?refreqid=excelsior%3Aa54389e77811209ffdf26fe55eff7fc2>
- Bozsik, F., Whisenhunt, B. L., Hudson, D. L., Bennett, B., & Lundgren, J. D. (2018). Thin is in? Think again: The rising importance of muscularity in the thin ideal female body. *Sex Roles*, 79(9), 609–615. doi:10.1007/s11199-017-0886-0
- Bradford, J. W., & Petrie, T. A. (2008). Sociocultural factors and the development of disordered eating: A longitudinal analysis of competing hypotheses. *Journal of Counseling Psychology*, 55(2), 246–262. doi:10.1037/0022-0167.55.2.246
- Brizendine, L. (2006). *The female brain*. New York: Broadway Books.
- Brodey, B. B., Goodman S. H., Baldasaro, R. E., Brooks-DeWeese, A., Elliot Wilson, M., Brodey, I. S. B., & Doyle, N. M. (2016). Development of the Perinatal Depression Inventory (PDI)-14 using item response theory: A comparison of the BDI-II, EPDS, PDI, and PHQ-9. *Archives of Women's Mental Health*, 19(2), 307–316. doi:10.1007/s00737-015-0553-9



- Brown, A., & Dittmar, H. (2005). Think "thin" and feel bad: The role of appearance schema activation, attention level, and thin-ideal internalization for young women's responses to ultra-thin media ideals. *Journal of Social and Clinical Psychology, 24*(8), 1088–1113. doi:10.1521/jscp.2005.24.8.1088
- Bryant, J., & Oliver, M. B. (2009). *Media effects: Advances in theory and research* (3<sup>rd</sup> ed.). New York: Routledge.
- Bulik, C. M. (2012). *The woman in the mirror: How to stop confusing what you look like with who you are*. New York, NY: Walker & Company.
- Bulik, C. M. (2013). *Midlife eating disorders: Your journey to recovery*. New York, NY: Walker & Company.
- Bulik, C. M., Von Holle, A., Hamer, R., Berg, C. K., Torgersen, L., Magnus, P., ... Reichborn-Kjennerud, T. (2007). Patterns of remission, continuation and incidence of broadly defined eating disorders during early pregnancy in the Norwegian mother and child cohort study (MoBa). *Psychological Medicine, 37*(8), 1109–1118. doi:10.1017/s0033291707000724
- Buunk, A. P., & Gibbons, F. X. (2007). Social comparison: The end of a theory and the emergence of a field. *Organizational Behavior and Human Decision Processes, 102*(1), 3–21, doi:10.1016/j.obhdp.2006.09.007
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. *Clinical Psychology: Science and Practice, 12*(4), 421–433. doi:10.1093/clipsy/bpi053

- Calado, M., Lameiras, M., Sepulveda, A. R., Rodríguez, Y., & Carrera, M. V. (2010). The mass media exposure and disordered eating behaviours in Spanish secondary students. *European Eating Disorders Review*, 18(5), 417–427. doi:10.1002/erv.1024
- Carney, T., & Louw, J. (2006). Eating disordered behaviors and media exposure. *Social Psychiatry and Psychiatric Epidemiology*, 41(12), 957–966. doi:10.1007/s00127-006-0120-9
- Carter, F. A., McIntosh, V. V. W., Joyce, P. R., Frampton, C. M., & Bulik, C. M. (2003). Bulimia nervosa, childbirth, and psychopathology. *Journal of Psychosomatic Research*, 55(4), 357–361. doi:10.1016/s0022-3999(02)00641-4
- Carvalho Bos, S., Pereira, A. T., Marques, M., Maia, B., Soares, M. J., Valente, J., . . . Azevedo, M. H. (2009). The BDI-II factor structure in pregnancy and postpartum: Two or three factors? *European Psychiatry*, 24(5), 334–340. doi:10.1016/j.eurpsy.2008.10.003
- Cash, T. F., & Smolak, L. (2011). Understanding body images: Historical and contemporary perspectives. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (2<sup>nd</sup> ed., pp. 3–11). New York, NY: The Guildford Press.
- Cash, T. F., Morrow, J. A., Hrabosky, J. I., & Perry, A. A. (2004). How has body image changed? A cross-sectional investigation of college women and men from 1983 to 2001. *Journal of Consulting and Clinical Psychology*, 72(6), 1081–1089. doi:10.1037/0022-006x.72.6.1081
- Chae, J. (2014). Interest in celebrities' post-baby bodies and Korean women's body image disturbance after childbirth. *Sex Roles*, 71(11), 419–435. doi:10.1007/s11199-014-0421-5

- Chandler, J., Paolacci, G., Peer, E., Mueller, P., & Ratliff, K. A. (2015). Non-naive participants can reduce effect sizes. *Psychological Science*, 26(7), 1131–1139.  
doi:10.1177/0956797615585115
- Chaudron, L. H., Szilagyi, P. G., Tang, W., Anson, E., Talbot, N. L., Wadkins, H. I. M., ... Wisner, K. L. (2010). Accuracy of depression screening tools for identifying postpartum depression among urban mothers. *Paediatrics*, 125(3), e609–e617.  
doi:10.1542/peds.2008-3261
- Clark, A., Skouteris, H., Wertheim, E. H., Paxton, S. J., & Milgrom, J. (2009). The relationship between depression and body dissatisfaction across pregnancy and the postpartum: A prospective study. *Journal of Health Psychology*, 14(1), 27–35.  
doi:10.1177/1359105308097940
- Coker, E., & Abraham, S. (2015). Body weight dissatisfaction before, during and after pregnancy: A comparison of women with and without eating disorders. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 20(1), 71–79.  
doi:10.1007/s40519-014-0133-4
- Conradt, E., Manian, N., & Bornstein, M. H. (2012). Screening for depression in the postpartum using the Beck Depression Inventory II: What logistic regression reveals. *Journal of Reproductive and Infant Psychology*, 30(5), 427–435.  
doi:10.1080/02646838.2012.743001
- Corning, A. F., Krumm, A. J., & Smitham, L. A. (2006). Differential social comparison processes in women with and without eating disorder symptoms. *Journal of Counseling Psychology*, 53(3), 338–349. doi:10.1037/0022-0167.53.3.338

- Costarelli, V., & Patsai, A. (2012). Academic examination stress increases disordered eating symptomology in female university students. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 17(3), e164–e169. doi:10.1007/bf03325343
- Couch, D., Thomas, S. L., Lewis, S., Warwick Blood, R., Holland, K., & Komesaroff, P. (2016). Obese people's perceptions of the thin ideal. *Social Science & Medicine*, 148, 60–70. doi:10.1016/j.socscimed.2015.11.034
- Coyne, S. M., Liechty, T., Collier, K. M., Sharp, A. D., Davis, E. J., & Kroff, S. L. (2018). The effect of media on body image in pregnant and postpartum women. *Health Communication*, 33(7), 793–799. doi:10.1080/10410236.2017.1314853
- Crow, S. J., Agras, W. S., Crosby, R., Halmi, K., & Mitchell, J. E. (2008). Eating disorder symptoms in pregnancy: A prospective study. *International Journal of Eating Disorders*, 41(3), 277–279. doi:10.1002/eat.20496
- Crump, M. J. C., McDonnell, J. V., & Gureckis, T. M. (2013). Evaluating Amazon's Mechanical Turk as a tool for experimental behavioral research. *PloS One*, 8(3), e57410. doi:10.1371/journal.pone.0057410
- Cunningham, H. (2002). Prodigal bodies: Pop culture and post-pregnancy. *Michigan Quarterly Review*, 41(3), 428–454. Retrieved from <http://hdl.handle.net/2027/spo.act2080.0041.314>
- Danielsen, M., Bratberg, G. H., & Rø, Ø. (2012). A pilot study of a new assessment of physical activity in eating disorder patients. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 17(1), e70–e77. doi:10.1007/bf03325332
- Darby, A., Hay, P., Mond, J., Quirk, F., Buttner, P., & Kennedy, L. (2009). The rising prevalence of comorbid obesity and eating disorder behaviors from 1995 to 2005. *International Journal of Eating Disorders*, 42(2), 104–108. doi:10.1002/eat.20601

- Davies, R. (Director). (2017). *Yummy mummies* [Television series]. Australia: Seven Network.
- Davison, K. K., Markey, C. N., & Birch, L. L. (2003). A longitudinal examination of patterns in girls' weight concerns and body dissatisfaction from ages 5 to 9 years. *International Journal of Eating Disorders*, 33(3), 320–332. doi:10.1002/eat.10142
- Dennis, A. B., Pryor, T., & Brewerton, T. D. (2014). Integrated treatment principles and strategies for patients with eating disorders, substance use disorder, and addictions. In T. D. Brewerton & A. B. Dennis (Eds.), *Eating disorders, addictions, and substance use disorders* (pp. 461–489). New York, NY: Springer.
- Dittmar, H., & Howard, S. (2004). Thin-ideal internalization and social comparison tendency as moderators of media models' impact on women's body-focused anxiety. *Journal of Social and Clinical Psychology*, 23(6), 768–791. doi:10.1521/jscp.23.6.768.54799
- Dittmar, H., Halliwell, E., & Stirling, E. (2009). Understanding the impact of thin media models on women's body-focused affect: The roles of thin-ideal internalization and weight related self-discrepancy activation in experimental exposure effects. *Journal of Social and Clinical Psychology*, 28(1), 43–72. doi:10.1521/jscp.2009.28.1.43
- Dohnt, H., & Tiggemann, M. (2005). Peer influences on body dissatisfaction and dieting awareness in young girls. *British Journal of Developmental Psychology*, 23(1), 103–116. doi:10.1348/026151004x20658
- Dohnt, H., & Tiggemann, M. (2006). Body image concerns in young girls: The role of peers and media prior to adolescence. *Journal of Youth and Adolescence*, 35(2), 141–151. doi:10.1007/s10964-005-9020-7
- Douglas, S. J., & Michaels, M. W. (2004). *The mommy myth: The idealization of motherhood and how it has undermined women*. New York, NY: The Free Press.

- Downs, D. S., DiNallo, J. M., & Kirner, T. L. (2008). Determinants of pregnancy and postpartum depression: Prospective influences of depressive symptoms, body image satisfaction, and exercise behavior. *Annals of Behavioral Medicine*, 36(1), 54–63. doi:10.1007/s12160-008-9044-9
- Dunn, T. M., & Bratman, S. (2016). On orthorexia nervosa: A review of the literature and proposed diagnostic criteria. *Eating Behaviors*, 21, 11–17.  
doi:10.1016/j.eatbeh.2015.12.006
- Easter, A., Solmi, F., Bye, A., Taborelli, E., Corfield, F., Schmidt, U., ... Micali, N. (2015). Antenatal and postnatal psychopathology among women with current and past eating disorders: Longitudinal patterns. *European Eating Disorders Review*, 23(1), 19–27.  
<http://doi.org/10.1002/erv.2328>
- Engeln-Maddox, R. (2005). Cognitive responses to idealized media images of women: The relationship of social comparison and critical processing to body image disturbance in college women. *Journal of Social and Clinical Psychology*, 24(8), 1114–1138.  
doi:10.1521/jscp.2005.24.8.1114
- Engeln-Maddox, R. (2006). Buying a beauty standard or dreaming of a new? Expectations associated with media ideals. *Psychology of Women Quarterly*, 30(3), 258–266.  
doi:10.1111/j.1471-6402.2006.00294.x
- Enney, K. (2012). *Postpartum depression (PPD) and its impact on child development: An exploration of the attachment, emotional, social, and cognitive outcomes of children exposed to PPD* (Unpublished doctoral dissertation). Alliant International University, Los Angeles.

- Epstein, R. H. (2009, July 13). *When eating disorders strike in midlife*. The New York Times. Retrieved from <http://www.nytimes.com/ref/health/healthguide/esneating-disorders-ess.html>
- Essayli, J. H., Murakami, J. M., & Latner, J. D. (2018). Perceived sexual orientation of men and women with eating disorders and obesity. *Journal of Homosexuality*, 66(6), 735–745. doi:10.1080/00918369.2018.1484228
- Exterkate, C. C., Vriesendorp, P. F., & de Jong, C. A. J. (2009). Body attitudes in patients with eating disorders at presentation and completion of intensive outpatient day treatment. *Eating Behaviors*, 10(1), 16–21. doi:10.1016/j.eatbeh.2008.10.002
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. doi:10.3758/brm.41.4.1149
- Ferguson, C. J. (2013). In the eye of the beholder: Thin-ideal media affects some, but not most, viewers in a meta-analytic review of body dissatisfaction in women and men. *Psychology of Popular Media Culture*, 2(1), 20–37. doi:10.1037/a0030766
- Ferguson, C. J., Winegard, B., & Winegard, B. M. (2011). Who is the fairest one of all? How evolution guides peer and media influences on female body dissatisfaction. *Review of General Psychology*, 15(1), 11–28. doi:10.1037/a0022607
- Festinger, L. (1954) A theory of social comparison processes. *Human Relations* 7(2), 117–40. doi:10.1177/001872675400700202
- Fichter, M. M., & Quadflieg, N. (2016). Mortality in eating disorders – Results of a large prospective clinical longitudinal study. *International Journal of Eating Disorders*, 49(4), 391–401. doi:10.1002/eat.22501

- Field, A. (2009). *Discovering statistics using SPSS* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Field, A. E., Camargo, C. A., Taylor, C. B., Berkey, C. S., & Colditz, G. A. (1999). Relation of peer and media influences to the development of purging behaviors among preadolescent and adolescent girls. *Archives of Pediatrics & Adolescent Medicine*, 153(11), 1184–1189. doi:10.1001/archpedi.153.11.1184
- Field, A. E., Javaras, K. M., Anjea, P., Kitos, N., Camargo, C. A., Jr., Taylor, C. B., & Laird, N. M. (2008). Family, peer, and media predictors of becoming eating disordered. *Archives of Pediatric & Adolescent Medicine*, 162(6), 574–579. doi:10.1001/archpedi.162.6.574
- Fitzsimmons-Craft, E. E., Harney, M. B., Koehler, L. G., Danzi, L. E., Riddell, M. K., & Bardone-Cone, A. M. (2012). Explaining the relation between thin ideal internalization and body dissatisfaction among college women: The roles of social comparison and body surveillance. *Body Image*, 9(1), 43–49. doi:10.1016/j.bodyim.2011.09.002
- Flament, M. F., Buchholz, A., Henderson, K., Obeid, N., Maras, D., Schubert, N., . . . Goldfield, G. (2015). Comparative distribution and validity of DSM-IV and DSM-5 diagnoses of eating disorders in adolescents from the community. *European Eating Disorders Review*, 23(2), 100–110. doi:10.1002/erv.2339
- Forrest, L. N., Smith, A. R., & Swanson, S. A. (2017). Characteristics of seeking treatment among U.S. adolescents with eating disorders. *International Journal of Eating Disorders*, 50(7), 826–833. doi:10.1002/eat.22702
- Fouts, G., & Burggraf, K. (2000). Television situation comedies: Female weight, male negative comments, and audience reactions. *Sex Roles*, 42(9), 925–932. doi:10.1023/A:1007054618340



- Fox, B., & Neiterman, E. (2015). Embodied motherhood: Women's feelings about their postpartum bodies. *Gender & Society*, 29(5), 670–693. doi:10.1177/0891243215591598
- Franck, E., Vanderhasselt, M.-A., Goubert, L., Loeys, T., Temmerman, M., & De Raedt, R. (2016). The role of self-esteem instability in the development of postnatal depression: A prospective study testing a diathesis-stress account. *Journal of Behavior Therapy and Experimental Psychiatry*, 50, 15–22. doi:10.1016/j.jbtep.2015.04.010
- Franko, D. L., & Spurrell, E. B. (2000). Detection and management of eating disorders during pregnancy. *Obstetrics & Gynecology*, 95(6), 942–946. doi:10.1097/00006250-200006000-00033
- Franko, D. L., Blais, M. A., Becker, A. E., Selwyn Delinsky, S., Greenwood, D. N., Flores, A. T., . . . Herzog, D. B. (2001). Pregnancy complications and neonatal outcomes in women with eating disorders. *American Journal of Psychiatry*, 158(9), 1461–1466. doi:10.1176/appi.ajp.158.9.1461
- Franzen, U., & Gerlinghoff, M. (1997). Parenting by patients with eating disorders: Experiences with a mother-child group. *Eating Disorders*, 5(1), 5–14. doi:10.1080/10640269708249199
- Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21(2), 173-206. doi:10.1111/j.1471-6402.1997.tb00108.x
- Freizinger, M., Franko, D. L., Dacey, M., Okun, B., & Domar, A. D. (2010). The prevalence of eating disorders in fertile women. *Fertility and Sterility*, 93(1), 72–78. doi:10.1016/j.fertnstert.2008.09.055

Garner, D. M., Olmstead, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine*, 12(4), 871–878.

doi:10.1017/s0033291700049163

Gaynes, B. N., Gavin, N., Meltzer-Brody, S., Lohr, K. N., Swinson, T., Gartlehner, G., . . .

Miller, W. C. (2005) Perinatal depression: Prevalence, screening accuracy, and screening outcomes: Evidence/report/technology assessment. *PsychEXTRA Dataset*, 119.

doi:10.1037/e439372005-001

Gentile, D. A., Coyne, S., & Walsh, D. A. (2011). Media violence, physical aggression, and relational aggression in school age children: A short-term longitudinal study. *Aggressive Behavior*, 37(2), 193–206. doi:10.1002/ab.20380

Gentile, K. (2011). What about the baby? The new cult of domesticity and media images of pregnancy. *Studies in Gender and Sexuality*, 12(1), 38–58.

doi:10.1080/15240657.2011.536056

Gjerdingen, D., Crow, S., McGovern, P., Miner, M., & Center, B. (2011). Changes in depressive symptoms over 0–9 months postpartum. *Journal of Women's Health*, 20(3), 381–386.

doi:10.1089/jwh.2010.2355

Gjerdingen, D., Fontaine, P., Crow, S., McGovern, P., Center, B., & Miner, M. (2009).

Predictors of mothers' postpartum body dissatisfaction. *Women & Health*, 49(6–7), 491–504. doi:10.1080/03630240903423998

Glauert, R., Rhodes, G., Byrne, S., Fink, B., & Grammer, K. (2009). Body dissatisfaction and the effects of perceptual exposure on body norms and ideals. *International Journal of Eating Disorders*, 42(5), 443–452. doi:10.1002/eat.20640

- Gleaves, D. H., Pearson, C. A., Ambwani, S., & Morey, L. C. (2014). Measuring eating disorder attitudes and behaviours: A reliability generalization study. *Journal of Eating Disorders*, 2(6), 1–12. doi:10.1186/2050-2974-2-6
- Gleaves, D. H., Williamson, D. A., Eberenz, K. P., Sebastien, S. B., & Barker, S. E. (1995). Clarifying body-image disturbance: Analysis of a multidimensional model using structural modeling. *Journal of Personality Assessment*, 64(3), 478–493. doi:10.1207/s15327752jpa6403\_7
- Gordon, K. H., Brattole, M. M., Wingate, L. R., & Joiner, T. E., Jr (2006). The impact of client race on clinician detection of eating disorders. *Behavior Therapy*, 37(4), 319–325. doi:10.1016/j.beth.2005.12.002
- Gow, R. W., Lydecker, J. A., Lamanna, J. D., & Mazzeo, S. E. (2012). Representations of celebrities' weight and shape during pregnancy and postpartum: A content analysis of three entertainment magazine websites. *Body Image*, 9(1), 172–175. doi:10.1016/j.bodyim.2011.07.003
- Grabe, S., & Hyde, J. S. (2006). Ethnicity and body dissatisfaction among women in the United States: A meta-analysis. *Psychological Bulletin*, 132(4), 622–640. doi:10.1037/0033-2909.132.4.622
- Grabe, S., Hyde, J. S., & Lindberg, S. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly*, 31(2), 164–175. doi:10.1111/j.1471-6402.2007.00350.x
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134(3), 460–476. doi:10.1037/0033-2909.134.3.460

- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31(1), 1–16. doi:10.1002/eat.10005
- Grogan, S. (1998). *Body image: Understanding body dissatisfaction in men, women, and children*. New York, NY: Routledge.
- Grogan, S., & Wainwright, N. (1996). Growing up in the culture of slenderness: Girls' experiences of body dissatisfaction. *Women's Studies International Forum*, 19(6), 665–673. doi:10.1016/s0277-5395(96)00076-3
- Haas, J. S., Jackson, R. A., Fuentes-Afflick, E., Stewart, A. L., Dean, M. L., Brawarsky, P., & Escobar, G. J. (2005). Changes in the health status of women during and after pregnancy. *Journal of General Internal Medicine*, 20(1), 45–51. doi:10.1111/j.1525-1497.2004.40097.x
- Halliwell, E., & Dittmar, H. (2004). Does size matter? The impact of model's body size on women's body-focused anxiety and advertising effectiveness. *Journal of Social and Clinical Psychology*, 23(1), 104–122. doi:10.1521/jscp.23.1.104.26989
- Halliwell, E., Dittmar, H., & Howe, J. (2005). The impact of advertisements featuring ultra-thin or average-size models on women with a history of eating disorders. *Journal of Community & Applied Social Psychology*, 15(5), 406–413. doi:10.1002/casp.831
- Håman, L., Lindgren, E.-C., & Prell, H. (2017). “If it’s not Iron its f\*cking biggest Ironman”: Personal trainers’ views on health norms, orthorexia and deviant behaviours. *International Journal of Qualitative Studies on Health and Well-Being*, 12(sup2), 1–10. doi:10.1080/17482631.2017.1364602

- Hammon, S. A. (2012). *Body dissatisfaction, disordered eating behaviors and body image quality of life in African American women with HIV* (Unpublished master's thesis). University of North Texas, Texas.
- Hargreaves, D. A., & Tiggemann, M. (2004). Idealized media images and adolescent body image: "Comparing" boys and girls. *Body Image, 1*(4), 351–361.  
doi:10.1016/j.bodyim.2004.10.002
- Hargreaves, D. A., & Tiggemann, M. (2009). Muscular ideal media images and men's body image: Social comparison processing and individual vulnerability. *Psychology of Men & Masculinity, 10*(2), 109–119. doi:10.1037/a0014691
- Harriger, J. A., Calogero, R. M., Witherington, D. C., & Smith, J. E. (2010). Body size stereotyping and internalization of the thin ideal in preschool girls. *Sex Roles, 63*(9), 609–620. doi:10.1007/s11199-010-9868-1
- Harris, A., A. (2010). Practical advice caring for women with eating disorders during the perinatal period. *Journal of Midwifery & Women's Health, 55*(6) 579–586.  
doi:10.1016/j.jmwh.2010.07.008
- Harrison, K. (2000). The body electric: Thin-ideal media and eating disorders in adolescents. *Journal of Communication, 50*(3), 119–143. doi:10.1093/joc/50.3.119
- Harrison, K., & Hefner, V. (2008). Media, body image, and eating disorders. In S. L. Calvert & B. J. Wilson (Eds.), *The handbook of children, media, and development* (pp. 381–406). Boston: Blackwell.
- Harrison, K., Taylor, L. D., & Marske, A. L. (2006). Women's and men's eating behavior following exposure to ideal-body images and text. *Communication Research, 33*(6), 507–529. doi:10.1177/0093650206293247

- Hausenblas, H. A., Campbell, A., Menzel, J. E., Doughty, J., Levine, M., & Thompson, J. K. (2013). Media effects of experimental presentation of the ideal physique on eating disorder symptoms: A meta-analysis of laboratory studies. *Clinical Psychology Review*, 33(1), 168–181. doi:10.1016/j.cpr.2012.10.011
- Hausenblas, H. A., Janelle, C. M., Gardner, R. E., & Focht, B. C. (2004). Viewing physique slides: Affective responses of women at high and low drive for thinness. *Journal of Social and Clinical Psychology*, 23(1), 45–60. doi:10.1521/jscp.23.1.45.26985
- Hawkins, N., Richards, P. S., Granley, H. M., & Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating Disorders*, 12(1), 35–50. doi:10.1080/10640260490267751
- Hayes, S., & Tantleff-Dunn, S. (2010). Am I too fat to be a princess? Examining the effects of popular children's media on young girl's body image. *British Journal of Developmental Psychology*, 28(2), 413–426. doi:10.1348/026151009X424240
- Heaton, S. N. (2010). *The relationship between exposure to media and body dissatisfaction, self-esteem, and body esteem for first time postpartum mothers* (Unpublished doctoral dissertation). Wright Institute Graduate School of Psychology, California.
- Hefner, V., Woodward, K., Figge, L., Bevan, J. L., Santora, N., & Baloch, S. (2014). The influence of television and film viewing on midlife women's body image, disordered eating, and food choice. *Media Psychology*, 17(2), 185–297. doi:10.1080/15213269.2013.838903
- Heslehurst, N., Russell, S., Brandon, H., Johnston, C., Summerbell, C., & Rankin, J. (2013). Women's perspectives are required to inform the development of maternal obesity

- services: A qualitative study of obese pregnant women's experiences. *Health Expectations*, 18(5), 969–981. doi:10.1111/hex.12070
- Hetherington, M. M., Cecil, J. E., Jackson, D. M., & Schwartz, C. (2011). Feeding infants and young children. From guidelines to practice. *Appetite*, 57(3), 791–795. doi:10.1016/j.appet.2011.07.005
- Hicks, S., & Brown, A. (2016). Higher Facebook use predicts greater body image dissatisfaction during pregnancy: The role of self-comparison. *Midwifery*, 40, 132–140. doi:10.1016/j.midw.2016.06.018
- Hodgkinson, E. L., Smith, D. M., & Wittkowski, A. (2014). Women's experiences of their pregnancy and postpartum body image: A systematic review and meta-synthesis. *BMC Pregnancy and Childbirth*, 14(1), 330–341. doi:10.1186/1471-2393-14-330
- Hoerr, S. L., Bokram, R., Lugo, B., Bivins, T., & Keast, D. R. (2002). Risk for disordered eating relates to both gender and ethnicity for college students. *Journal of the American College of Nutrition*, 21(4), 307–314. doi:10.1080/07315724.2002.10719228
- Hogan, M. J., & Strasburger, V. C. (2008). Body image, eating disorders, and the media. *Adolescent Medicine*, 19, 521–546. Retrieved from <https://pdfs.semanticscholar.org/e705/e9227eea15b35eb7a7da82b4568743e818c4.pdf>
- Holland, G., & Tiggemann, M. (2016). “Strong beats skinny every time”: Disordered eating and compulsive exercise in women who post fitspiration on Instagram. *International Journal of Eating Disorders*, 50(1), 76–79. doi:10.1002/eat.22559
- Holtgraves, T. (2017). Social desirability and the interpretation of uncertainty terms in self-report questionnaires. *Applied Cognitive Psychology*, 31(6), 623–631. doi:10.1002/acp.3364

- Homan, K., McHugh, E., Wells, D., Watson, C., & King, C. (2012). The effect of viewing ultra-fit images on college women's body dissatisfaction. *Body Image*, 9(1), 50–56.  
doi:10.1016/j.bodyim.2011.07.006
- Hopper, K. M., & Aubrey, J. S. (2011). Examining the impact of celebrity gossip magazine coverage of pregnant celebrities on pregnant women's self-objectification. *Communication Research*, 40(6), 767–788. doi:10.1177/0093650211422062
- Hopper, K. M., & Aubrey, J. S. (2016). Bodies after babies: The impact of depictions of recently post-partum celebrities on non-pregnant women's body image. *Sex Roles*, 74(1–2), 24–34. doi:10.1007/s11199-015-0561-2
- Hughes, S. (2009, November 9). *The baby weight obsession: Lose it too quickly you're a selfish witch. Keep it on and you're a sloppy failure*. Retrieved from <http://www.dailymail.co.uk/femail/article-1224542/The-baby-weight-obsession-Lose-quickly-youre-selfish-witch-Keep-youre-sloppy-failure.html>
- Huri, M., Sahin, S., Akel, S., Slepecky, M., & Kotianova, A. (2017). Turkish version of Body Attitudes Test: Its reliability and validity. *European Psychiatry*, 41, S559–S560.  
doi:10.1016/j.eurpsy.2017.01.808
- Husbands, L. (2008). Blogging the maternal: Self-representations of the pregnant and postpartum body. *Atlantis*, 32(2), 68–79. Retrieved from <http://journals.msvu.ca/index.php/atlantis/article/view/579/569>
- Huxley, C. J., Halliwell, E., & Clarke, V. (2015). An examination of the tripartite influence model of body image: Does women's sexual identity make a difference? *Psychology of Women Quarterly*, 39(3), 337–348. doi:10.1177/0361684314554917



- International Food Information Council. (2009). *2009 food and health survey: Consumer attitudes toward food, nutrition, and health*. Retrieved from <http://www.ific.org/research/upload/FINAL-DRAFT-F-H-OPINION-LEADER-WEBCAST-05-20-09.pdf>
- Jacobi, C., Hayward, C., de Zwaan, M., Kraemer, H. C., & Agras, W. S. (2004). Coming to terms with risk factors for eating disorders: Application of risk terminology and suggestions for a general taxonomy. *Psychological Bulletin*, *130*(1), 19–65.  
doi:10.1037/0033-2909.130.1.19
- Jenkin, W., & Tiggemann, M. (1997). Psychological effects of weight retained after pregnancy. *Women & Health*, *25*(1), 89–98. doi:10.1300/j013v25n01\_06
- Ji, S., Long, Q., Newport, D. J., Na, H., Knight, B., Zach, E. B., . . . Stowe, Z. N. (2011). Validity of depression rating scales during pregnancy and the postpartum period: Impact of trimester and parity. *Journal of Psychiatric Research*, *45*(2), 213–219.  
doi:10.1016/j.jpsychires.2010.05.017
- Jobsky, A. (2014). *The body-image meaning-transfer model: An investigation of the sociocultural impact on individuals' body-image*. Hamburg, Germany: Anchor Academic Publishing.
- Johnson, C. S., & Bedford, J. (2004). Eating attitudes across age and gender groups: A Canadian study. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, *9*(1), 16–23. doi:10.1007/bf03325040
- Joshi, R., Herman C. P., & Polivy, J. (2004). Self-enhancing effects of exposure to thin body images. *International Journal of Eating Disorders*, *35*(3), 333–341.  
doi:10.1002/eat.10253

- Kang, Y.-R., Lee, J.-S., & Kang, M.-C. (2014). Adult attachment styles, self-esteem, and depressive symptoms: A comparison between postpartum and nonpostpartum women in Korea. *Personal Relationships, 21*(4), 546–556. doi:10.1111/pere.12047
- Karazsia, B. T., & Crowther, J. H. (2008). Psychological and behavioral correlates of the SATAQ-3 with males. *Body Image, 5*(1), 109–115. doi:10.1016/j.bodyim.2007.08.004
- Karazsia, B. T., Murnen, S. K., & Tylka, T. L. (2017). Is body dissatisfaction changing across time? A cross-temporal meta-analysis. *Psychological Bulletin, 143*(3), 293–320. doi:10.1037/bul0000081
- Karazsia, B. T., van Dulmen, M. H. M., Wong, K., & Crowther, J. H. (2013). Thinking meta-theoretically about the role of internalization in the development of body dissatisfaction and body change behaviors. *Body Image, 10*(4), 433–441. doi:10.1016/j.bodyim.2013.06.005
- Karras, T. (2008, April 20). *Disordered eating: The disorder next door*. Retrieved from <https://www.self.com/story/eating-disorder-risk>
- Kaye, W. H., & Oberndorfer, T. (2010). Appetitive regulation in anorexia nervosa and bulimia nervosa. In W. S. Agras (Ed.), *The oxford handbook of eating disorders* (pp. 75–102). New York, NY: Oxford University Press.
- Keel, P. K. (2010). Epidemiology and course of eating disorders. In W. S. Agras (Ed.), *The Oxford handbook of eating disorders* (pp. 25–32). New York, NY: Oxford University Press.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4<sup>th</sup> ed.). Belmont, CA: Cengage Learning.

- Kilbourne, J. (1999). *Deadly persuasion: Why women and girls must fight the addictive power of advertising*. New York: Free.
- Kindes, M. V. (2006). Preface. In M. V. Kindes (Ed.), *Body image: New research* (pp. vii-xii). New York, NY: Nova Science Publishers.
- Klein, H., & Shiffman, K. S. (2005). Thin is 'in' and stout is 'out': What animated cartoons tell viewers about body weight. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 10(2), 107–116. doi:10.1007/bf03327532
- Knobloch-Westerwick, S., & Crane, J. (2012). A losing battle: Effects of prolonged exposure to thin-ideal images on dieting and body satisfaction. *Communication Research*, 39(1), 79–102. doi:10.1177/0093650211400596
- Knobloch-Westerwick, S., & Romero, J. P. (2011). Body ideals in the media: Perceived attainability and social comparison choices. *Media Psychology*, 14(1), 27–48. doi:10.1080/15213269.2010.547833
- Knoph, C., Von Holle, A., Zerwas, S., Torgensen, L., Tambs, K., Stoltenberg, C., . . . Reichborn-Kjennerud, T. (2013). Course and predictors of maternal eating disorders in the postpartum period. *International Journal of Eating Disorders*, 46(4), 355–368. doi:10.1002/eat.22088
- Koslowsky, M., Scheinberg, Z., Bleich, A., Mark, M., Apter, A., Danon, Y., & Solomon, Z. (1992). The factor structure and criterion validity of the short form of the Eating Attitudes Test. *Journal of Personality Assessment*, 58(1), 27–35. doi:10.1207/s15327752jpa5801\_3

- Kouba, S., Hällström, T., Lindholm, C., & Lindén Hirschberg, A. (2005). Pregnancy and neonatal outcomes in women with eating disorders. *Obstetrics & Gynecology*, 105(2), 255–260. doi:10.1097/01.AOG.0000148265.90984.c3
- Koven, N. S., & Abry, A. W. (2015). The clinical basis of orthorexia nervosa: Emerging perspectives. *Neuropsychiatric Disease and Treatment*, 11, 385–394. doi:10.2147/NDT.S61665
- Kozar, J. M., & Damhorst, M. L. (2009). Comparison of the ideal and real body as women age: Relationships to age identity, body satisfaction and importance, and attention to models in advertising. *Clothing and Textiles Research Journal*, 27(3), 197–210. doi:10.1177/0887302x08326351
- Krcmar, M., Giles, S., & Helme, D. (2008). Understanding the process: How mediated and peer norms affect young women's body esteem. *Communication Quarterly*, 56(2), 111–130. doi:10.1080/01463370802031844
- Krones, P. G., Stice, E., Batres, C., & Orjada, K. (2005). In vivo social comparison to a thin-ideal peer promotes body dissatisfaction: A randomized experiment. *International Journal of Eating Disorders*, 38(2), 134–142. doi:10.1002/eat.20171
- Lai, B. P.-Y., Tang, C. S.-K., & Tse, W. K.-L. (2006). A longitudinal study investigating disordered eating during the transition to motherhood among Chinese women in Hong Kong. *International Journal of Eating Disorders*, 39(4), 303–311. doi:10.1002/eat.20266
- Larson-Meyer, D. E. (2002). Effect of postpartum exercise on mothers and their offspring: A review of the literature. *Obesity Research*, 10(8), 841–853. doi:10.1038/oby.2002.114

- Larsson, G., & Andersson-Ellström, A. (2003). Experiences of pregnancy-related body shape changes and of breast-feeding in women with a history of eating disorders. *European Eating Disorders Review*, 11(2), 116–124. doi:10.1002/erv.497
- Lawrie, Z., Sullivan, E. A., Davies, P. S. W., & Hill, R. J. (2006). Media influence on the body image of children and adolescents. *Eating Disorders*, 14(5), 355–364.  
doi:10.1080/10640260600952506
- LeBesco, K. (2011). Neoliberalism, public health, and the moral perils of fatness. *Critical Public Health*, 21(2), 153–164. doi:10.1080/09581596.2010.529422
- Ledger, W. (2012). The older patient. In K. Sharif & A. Coomarasamy (Eds.), *Assisted reproduction techniques: Challenges and management options* (pp. 142–145). West Sussex, UK: Wiley-Blackwell.
- Lee, J.-S., & Koo, H. J. (2015). The relationship between adult attachment and depression in Korean mothers during the first 2 years postpartum: A moderated mediation model of self-esteem and maternal efficacy. *Personality and Individual Differences*, 79, 50–56.  
doi:10.1016/j.paid.2015.01.021
- Levine, M. P., & Smolak, L. (1996). Media as a context for the development of disordered eating. In L. Smolak (Ed.), *The developmental psychopathology of eating disorders: Implications for research, prevention, and treatment* (pp. 235–257). Mahwah, NJ: Erlbaum.
- Levine, M. P., & Smolak, L. (1998). The mass media and disordered eating: Implications for primary prevention. In W. Vandereyken & G. Noordenbos (Eds.), *The prevention of eating disorders* (pp. 23–56). Bath, UK: Athlone Press.

- Levine, M. P., & Smolak, L. (2010). Cultural influences on body image and the eating disorders. In W. S. Agras (Ed.), *Oxford handbook of eating disorders* (pp. 223–246). New York: Oxford University Press.
- Levine, M. P., & Harrison, K. (2004). The role of mass media in the perpetuation and prevention of negative body image and disordered eating. In J. K. Thompson (Ed.), *Handbook of eating disorders and obesity* (pp. 695–717). New York: John Wiley.
- Levine, M. P., & Harrison, K. (2009). Effects of media on eating disorders and body image. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (pp. 490–515). New York, NY: Routledge.
- Levine, M. P., & Murnen, S. K. (2009). “Everybody knows that mass media are/are not [pick one] a cause of eating disorders”: A critical review of evidence for a causal link between media, negative body image, and disordered eating in females. *Journal of Social and Clinical Psychology*, 28(1), 9–42. doi:10.1521/jscp.2009.28.1.9
- Leys, C., Kotsou, I., Goemanne, M., & Fossion, P. (2017). The influence of family dynamics on eating disorders and their consequences on resilience: A mediation model. *The American Journal of Family Therapy*, 45(2), 123–132. doi:10.1080/01926187.2017.1303654
- Liechty, T., Coyne, S. M., Collier, K. M., & Sharp, A. D. (2018). “It’s just not very realistic”: Perceptions of media among pregnant and postpartum women. *Health Communication*, 33(7), 851–859. doi:10.1080/10410236.2017.1315680
- Lindvall Dahlgren, C., Wisting, L., & Rø, Ø. (2017). Feeding and eating disorders in the DSM-5 era: A systematic review of prevalence rates in non-clinical male and female samples. *Journal of Eating Disorders*, 5(1), 1–10. doi:10.1186/s40337-017-0186-7

- Little, L., & Lowkes, E. (2000). Critical issues in the care of pregnant women with eating disorders and the impact on their children. *Journal of Midwifery & Women's Health*, 45(4), 301–307. doi:10.1016/s1526-9523(00)00031-3
- Loeber, S., Burgmer, R., Wyssen, A., Leins, J., Rustemeier, M., Munsch, S., & Herpertz, S. (2016). Short-term effects of media exposure to the thin-ideal in female inpatients with an eating disorder compared to female inpatients with a mood or anxiety disorder or women with no psychiatric disorder. *International Journal of Eating Disorders*, 49(7), 708–715. doi:10.1002/eat.22524
- López-Guimerà, G., Levine, M. P., Sánchez-carraceda, D., & Fauquet, J. (2010). Influence of mass media on body image and eating disordered attitudes and behaviors in females: A review of effects and processes. *Media Psychology*, 13(4), 387–416. doi:10.1080/15213269.2010.525737
- Loto, O. M., Adewuya, A. O., Ajenifuja, O. K., Orji, E. O., Ayandiran, E. O., Owolabi, A. T., & Ade-Ojo, I. P. (2010). Cesarean section in relation to self-esteem and parenting among new mothers in southwestern Nigeria. *Acta Obstetrica et Gynecologica Scandinavica*, 89(1), 35–38. doi:10.3109/00016340903280966
- Lovering, M. E. (2015). *Exploring the influence of sociocultural factors on body dissatisfaction in postpartum women* (Unpublished doctoral dissertation). Northeastern University, Boston Massachusetts.
- Lovering, M. E., Rodgers, R. F., Edwards George, J., & Franko, D. L. (2018). Exploring the tripartite influence model of body dissatisfaction in postpartum women. *Body Image*, 24, 44–54. doi:10.1016/j.bodyim.2017.12.001

- Luoto, S., Krams, I., & Rantala, M. J. (2018). A life history approach to the female sexual orientation spectrum: Evolution, development, causal mechanisms, and health. *Archives of Sexual Behavior*. doi:10.1007/s10508-018-1261-0
- Manian, N., Schmidt, E., Bornstein, M. H., & Martinez, P. (2013). Factor structure and clinical utility of BDI-II factors scores in postpartum women. *Journal of Affective Disorders*, 149(1–3), 259–268. doi:10.1016/j.jad.2013.01.039
- Mann, T., Tomiyama, A. J., Westling, E., Lew, A-M., Samuels, B., & Chatman, J. (2007). Medicare’s search for effective obesity treatments: Diets are not the answer. *American Psychologist*, 62(3), 220–223. doi:10.1037/0003-066X.62.3.220
- Marcus, M. D., Bromberger, J. T., Wei, H.-L., Brown, C., & Kravitz, H. M. (2007). Prevalence and selected correlates of eating disorder symptoms among a multiethnic community sample of midlife women. *Annals of Behavioral Medicine*, 33(3), 269–277. doi:10.1007/bf02879909
- Markey, C. N., Markey, P. M., & Birch, L. L. (2004). Understanding women’s body satisfaction: The role of husbands. *Sex Roles*, 51(3), 209–216. doi:10.1023/B:SERS.0000037764.40569.2b
- Markowitz, S., Friedman, M. A., & Arent, S. M. (2008). Understanding the relation between obesity and depression: Causal mechanisms and implications for treatment. *Clinical Psychology: Science and Practice*, 15(1), 1–20. doi:10.1111/j.1468-2850.2008.00106.x
- Marques, L., Alegria, M., Becker, A. E., Chen, C.-N., Fang, A., Chosak, A., & Diniz, J. B. (2011). Comparative prevalence, correlates of impairment, and service utilization for eating disorders across US ethnic groups: Implications for reducing ethnic disparities in



- health care access for eating disorders. *International Journal of Eating Disorders*, 44(5), 412–420. doi:10.1002/eat.20787
- Martindale, A. (2012). *The pregnant and postpartum body as constructed in People magazine, 2000-2007: A content analysis* (Unpublished master's thesis). Colorado State University, Colorado.
- Martinot, D., & Redersdorff, S. (2003). Impact of comparisons with out-group members on women's self-esteem: Role of the stereotypical connotation of the performance context. *International Journal of Psychology*, 38(6), 348–358. doi:10.1080/00207590344000015
- Maxwell, S. E., Kelley, K., & Rausch, J. R. (2008). Sample size planning for statistical power and accuracy in parameter estimation. *Annual Review of Psychology*, 59(1), 537–563. doi:10.1146/annurev.psych.59.103006.093735
- Mazzeo, S. E., Slof-Op't Landt, M. C. T., Jones, I., Mitchell, K., Kendler, K. S., Neale, M C., . . . Bulik, C. M. (2006). Associations among postpartum depression, eating disorders, and perfectionism in a population-based sample of adult women. *International Journal of Eating Disorders*, 39(3), 202–211. doi:10.1002/eat.20243
- McLaughlin, E. (2017). *Seeking an operational definition of dieting: A daily diary study* (Unpublished doctoral dissertation). University of New Mexico, New Mexico.
- McLean, S. A., Paxton, S. J., & Wertheim, E. H. (2016). The role of media literacy in body dissatisfaction and disordered eating: A systematic review. *Body Image*, 19, 9–23. doi:10.1016/j.bodyim.2016.08.002
- Melioli, T., Bauer, S., Franko, D. L., Moessner, M., Ozer, F., Chabrol, H., & Rodgers, R. F. (2016). Reducing eating disorder symptoms and risk factors using the internet: A meta-

- analytic review. *International Journal of Eating Disorders*, 49(1), 19–31.  
doi:10.1002/eat.22477
- Mellor, D., Waterhouse, M., Mamat, N. H. B., Xu, X., Cochrane, J., McCabe, M., & Ricciardelli, L. (2013). Which body features are associated with female adolescents' body dissatisfaction? A cross-cultural study in Australia, China and Malaysia. *Body Image*, 10(1), 54–61. doi:10.1016/j.bodyim.2012.10.002
- Meyer-Bahlburg, H. F. L., Leibowitz, S., & Leibowitz, S. (2018). Gender diversity meets the 21<sup>st</sup> century: Social media and peer influences on adolescent gender identity formation. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57(10), S73.  
doi:10.1016/j.jaac.2018.07.308
- Miller, C. T. (1984). Self-schemas, gender, and social comparison: A clarification of the related attributes hypothesis. *Journal of Personality and Social Psychology*, 46(6), 1222–1229.  
doi:10.1037//0022-3514.46.6.1222
- Mills, J. S., Polivy, J., Herman, C. P., & Tiggemann, M. (2002). Effects of exposure to thin media images: Evidence of self-enhancement among restrained eaters. *Personality and Social Psychology Bulletin*, 28(12), 1687–1699. doi:10.1177/014616702237650
- Mischner, I. H. S., van Schie, H. T., Wigboldus, D. H. J., van Baaren, R. B., & Engels, R. C. M. E. (2013). Thinking big: The effect of sexually objectifying music videos on bodily self-perception in young women. *Body Image*, 10(1), 26–34.  
doi:10.1016/j.bodyim.2012.08.004
- Misri, S. K. (2006). *Pregnancy blues: What every woman needs to know about depression during pregnancy*. New York, NY: Random House.

- Mitchell-Gielegghem, A., Mittelstaedt, M. E., & Bulik, C. M. (2002). Eating disorders and childbearing: Concealment and consequences. *Birth*, 29(3), 182–191. doi:10.1046/j.1523-536x.2002.00186.x
- Mitchell, S. H., Petrie, T. A., Greenleaf, C. A., & Martin, S. B. (2012). Moderators of the internalization-body dissatisfaction relationship in middle school girls. *Body Image*, 9(4), 431–440. doi:10.1016/j.bodyim.2012.07.001
- Mitchison, D., Hay, P., Slewa-Younan, S., & Mond, J. (2012). Time trends in population prevalence of eating disorder behaviors and their relationship to quality of life. *PLoS ONE*, 7(11), e48450. doi:10.1371/journal.pone.0048450
- Monro, F., & Huon, G. (2005). Media-portrayed idealized images, body shame, and appearance anxiety. *International Journal of Eating Disorders*, 38(1), 85–90. doi:10.1002/eat.20153
- Montayne, A. (2017). *Fitspiration images, body image, disordered eating, and compulsive exercise* (Unpublished master's thesis). Southern Illinois University Edwardsville, Edwardsville, IL.
- Montgomery, K. S., Aniello, T. D., Phillips, J. D., Kirkpatrick, T., Catledge, C., Braveboy, K., . . . Hatmaker-Flanigan, E. (2013). Experiences accompanying postpartum weight loss: Benefits, successes, and wellbeing. *Health Care for Women International*, 34(7), 577–591. doi:10.1080/07399332.2012.736568
- Montgomery, K. S., Bushee, T. D., Phillips, J. D., Kirkpatrick, T., Catledge, C., Braveboy, K., . . . Douglas, G. M. (2011). Women's challenges with postpartum weight loss. *Maternal and Child Health Journal*, 15(8), 1176–1184. doi:10.1007/s10995-010-0681-9
- Morgan, J. F., Lacey, J. H., & Sedgwick, P. M. (1999). Impact of pregnancy on bulimia nervosa. *British Journal of Psychiatry*, 174(2), 135–140. doi:10.1192/bjp.174.2.135

- Morrison, T. G., Kalin, R., & Morrison, M. A. (2004). Body-image evaluation and body-image investment among adolescents: A test of sociocultural and social comparison theories. *Adolescence*, 39(155), 571–572. Retrieved from <http://content.ebscohost.com/ContentServer.asp?T=P&P=AN&K=106638214&S=R&D=rzh&EbscoContent=dGJyMMTo50SeprE4y9f3OLCmr1GeprdSsae4SbSWxWXS&ContentCustomer=dGJyMPGut0%2BzrrFIuePfgeyx44Dt6fIA>
- Murray, K., Rieger, E., & Byrne, D. (2013). A longitudinal investigation of the mediating role of self-esteem and body importance in the relationship between stress and body dissatisfaction in adolescent females and males. *Body Image*, 10(4), 544–551. doi:10.1016/j.bodyim.2013.07.011
- Murtha-Berg, E. (2017). *Brief exposure to images of friends via social media leads to higher momentary risk for eating psychopathology among college women who internalize the thin-ideal* (Unpublished doctoral thesis). University of North Dakota, North Dakota.
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118(4), 683–698. doi:10.1037/a0016763
- Mysko, C., & Amadeï, M. (2009). *Does this pregnancy make me look fat? The essential guide to loving your body before and after baby*. Deerfield Beach, FL: Health Communications.
- Nash, M. (2015). Shape of motherhood: Exploring postnatal body image through photographs. *Journal of Gender Studies*, 24(1), 18–37. doi:10.1080/09589236.2013.797340
- Nash, M., & Warin, M. (2017). Squeezed between identity politics and intersectionality: A critique of ‘thin privilege’ in fat studies. *Feminist Theory*, 18(1), 69–87. doi:10.1177/1464700116666253

- Nemeroff, C. J., Stein, R. I., Diehl, N. S., & Smilack, K. M. (1994). From the Cleavers to the Clintons: Role choices and body orientation as reflected in magazine and article content. *International Journal of Eating Disorders*, 16(2), 167–176. doi:10.1002/1098-108X(199409)16:2<167::AID-EAT2260160208>3.0.CO2-D
- Neumark-Sztainer, D. (2005). *I'm like so fat!* New York, NY: Guilford Press.
- Nichter, M., & Nichter, M. (1991). Hype and weight. *Medical Anthropology*, 13(3), 249–284. doi:10.1080/01459740.1991.9966051
- Noser, A., & Zeigler-Hill, V. (2014). Investing in the ideal: Does objectified body consciousness mediate the association between appearance contingent self-worth and appearance self-esteem in women? *Body Image*, 11(2), 119–125. doi:10.1016/j.bodyim.2013.11.006
- Nunez-Smith, M., Wolf, E., Huang, H. M., Chen, P. G., Lee, L., Emanuel, E. J., & Gross, C. P. (2010). Media exposure and tobacco, illicit drugs, and alcohol use among children and adolescents: A systematic review. *Substance Abuse*, 31(3), 174–192. doi:10.1080/08897077.2010.495648
- O'Brien Hallstein, D. L. (2011). She gives birth, she's wearing a bikini: Mobilizing the postpregnant celebrity mom body to manage the post-second wave crisis in femininity. *Women's Studies in Communication*, 34(2), 111–138. doi:10.1080/07491409.2011.619471
- O'Brien, K. S., Caputi, P., Minto, R., Peoples, G., Hooper, C., Kell, S., & Sawley, E. (2009). Upward and downward physical appearance comparisons: Development of scales and examination of predictive qualities. *Body Image*, 6(3), 201–206. doi:10.1016/j.bodyim.2009.03.003

- O'Donohoe, S. (2006). Yummy mummies: The clamor of glamour in advertising to mothers. *Advertising & Society Review*, 7(3), 1–36. doi:10.1353/asr.2007.0017
- Obeyd, M. (2010). *Beyond the bump: The impact of pregnant and postpartum weight loss coverage in celebrity-based tabloid magazines* (Unpublished master's thesis). California State University, Fullerton.
- Olafsdottir, S., Berg, C., Eiben, G., Lanfer, A., Reisch, L., Ahrens, W., . . . Lissner, L. (2014). Young children's screen activities, sweet drink consumption and anthropometry: Results from a prospective European study. *European Journal of Clinical Nutrition*, 68(2), 223–228. doi:10.1038/ejcn.2013.234
- Park, J., & Beaudet, M. P. (2007). Eating attitudes and their correlates among Canadian women concerned about their weight. *European Eating Disorders Review*, 15(4), 311–320. doi:10.1002/erv.741
- Patel, P., Lee, J., Wheatcroft, R., Barnes, J., & Stein, A. (2005). Concerns about body shape and weight in the postpartum period and their relation to women's self-identification. *Journal of Reproductive and Infant Psychology*, 23(4), 347–364. doi:10.1080/02646830500273657
- Paulson, R. J. (2016). Every last baby out of every last egg: The appropriate goal for fertility treatment in women older than 40 years. *Fertility and Sterility*, 105(6), 1443–1444. doi:10.1016/j.fertnstert.2016.03.035
- Paxton, S. J., McLean, S. A., Gollings, E. K., Faulkner, C., & Wertheim, E. H. (2007). Comparison of face-to-face and internet interventions for body image and eating problems in adult women: An RCT. *International Journal of Eating Disorders*, 40(8), 692–704. doi:10.1002/eat.20446

- Peer, E., Brandimarte, L., Samat, A., & Acquisti, A. (2017). Beyond the Turk: Alternative platforms for crowdsourcing behavioral research. *Journal of Experimental Social Psychology, 70*, 153–163. doi:10.1016/j.jesp.2017.01.006
- Pelham, B. W. (2013). *Intermediate statistics: A conceptual course*. Thousand Oaks, CA: Sage Publications.
- Pereira, A. T., Marques, M., Soares, M. J., Maia, B. R., Bos, S., Valente, J., . . . Macedo, A. (2014). Profile of depression symptoms in women in the perinatal and outside the perinatal period: Similar or not? *Journal of Affective Disorders, 166*, 71–78. doi:10.1016/j.jad.2014.04.008
- Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles, 71*(11), 363–377. doi:10.1007/s11199-014-0384-6
- Pole, M., Crowther, J. H., & Schell, J. (2004). Body dissatisfaction in married women: The role of spousal influence and marital communication patterns. *Body Image, 1*(3), 267–278. doi:10.1016/j.bodyim.2004.06.001
- Polivy, J., & Herman, C. P. (2002). Causes of eating disorders. *Annual Review of Psychology, 53*(1), 187–213. doi:10.1146/annurev.psych.53.100901.135103
- Posavac, S. S., & Posavac, H. D. (2002). Predictors of women's concern with body weight: The roles of perceived self-media ideal discrepancies and self-esteem. *Eating Disorders: The Journal of Treatment and Prevention, 10*(2), 153–160. doi:10.1002/erv.462
- Preti, A., Pinna, C., Nocco, S., Pilia, S., Mulliri, E., Micheli, V., . . . Masala, C. (2007). Rural/Urban differences in the distribution of eating disorder symptoms among

- adolescents from community samples. *Australian & New Zealand Journal of Psychiatry*, 41(6), 525–535. doi:10.1080/00048670701332292
- Probst, M., Pieters, G., & Vanderlinden, J. (2008). Evaluation of body experience questionnaires in eating disorders in female patients (AN/BN) and nonclinical participants. *International Journal of Eating Disorders*, 41(7), 657–665. doi:10.1002/eat.20531
- Probst, M., Van Coppenolle, H., & Vandereycken, W. (1997). Further experience with the Body Attitude Test. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 2(2), 100–104. doi:10.1007/bf03339956
- Probst, M., Vandereycken, W., Van Coppenolle, H., & Vanderlinden, J. (1995). The Body Attitude Test for patients with an eating disorder: Psychometric characteristics of a new questionnaire. *Eating Disorders*, 3(2), 133–144. doi:10.1080/10640269508249156
- Prolific. (2018). *Pricing*. Retrieved from <https://prolific.ac/researchers#pricing>
- Pruis, T. A., & Janowsky, J. S. (2010). Assessment of body image in younger and older women. *The Journal of General Psychology*, 137(3), 225–238. doi:10.1080/00221309.2010.484446
- Puhl, R. M., Latner, J. D., King, K. M., & Luedicke, J. (2014). Weight bias among professionals treating eating disorders: Attitudes about treatment and perceived patient outcomes. *International Journal of Eating Disorders*, 47(1), 65–75. doi:10.1002/eat.22186
- Rabasca Roepe, L., (2018, March). Will it adapt to changing attitudes? Executive summary. *The Diet Industry*. Retrieved from <http://businessresearcher.sagepub.com/sbr-1946-105904-2881576/20180305/the-diet-industry>



- Rakhovskaya, L. M., & Warren, C. S. (2014). Ethnic identity, thin-ideal internalization, and eating pathology in ethnically diverse college women. *Body Image, 11*(4), 438–445. doi:10.1016/j.bodyim.2014.07.003
- Rallis, S., Skouteris, H., Wertheim, E. H., & Paxton, S. J. (2007) Predictors of body image during the first year postpartum: A prospective study. *Women & Health, 45*(1), 87–104. doi:10.1300/j013v45n01\_06
- Ramirez, A. L., Trujillo-Chivacuán, E., & Perez, M. (2018). Considerations in the treatment of eating disorders among ethnic minorities. In L. K. Anderson, S. B. Murray, & W. H. Kaye (Eds.), *Clinical handbook of complex and atypical eating disorders* (pp. 344–362). New York, NY: Oxford University Press.
- Roberts, T., & Waters, P. L. (2004). Self-objectification and that “not so fresh feeling”. *Women & Therapy, 27*(3–4), 5–21. doi:10.1300/J015v27n03\_02
- Robinson, L., Prichard, I., Nikolaidis, A., Drummond, C., Drummond, M., & Tiggemann, M. (2017). Idealised media images: The effect of fitspiration imagery on body satisfaction and exercise behaviour. *Body Image, 22*, 65–71. doi:10.1016/j.bodyim.2017.06.001
- Rocco, P. L., Orbitello, B., Perini, L., Pera, V., Ciano, R. P., & Balestrieri, M. (2005). Effects of pregnancy on eating attitudes and disorders: A prospective study. *Journal of Psychosomatic Research, 59*(3), 175–179. doi:10.1016/j.jpsychores.2005.03.002
- Rodgers, R. F., Paxton, S. J., & McLean, S. A. (2014). A biopsychosocial model of body image concerns and disordered eating in early adolescent girls. *Journal of Youth and Adolescence, 43*(5), 814 – 823. doi:10.1007/s10964-013-0013-7
- Rodgers, R. F., McLean, S. A., & Paxton, S. J. (2015). Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction:

- Implications for the tripartite influence model. *Developmental Psychology*, 51(5), 706–713. doi:10.1037/dev0000013
- Rodgers, R. F., O’Flynn, J. L., Bourdeau, A., & Zimmerman, E. (2018). A biopsychosocial model of body image, disordered eating, and breastfeeding attitudes among postpartum women. *Appetite*, 126, 163–168. doi:10.1016/j.appet.2018.04.007
- Rodgers, R., Chabrol, H., & Paxton, S. J. (2011). An exploration of the tripartite influence model of body dissatisfaction and disordered eating among Australian and French college women. *Body Image*, 8(3), 208–215. doi:10.1016/j.bodyim.2011.04.009
- Rogoza, R., Brytek-Matera, A., & Garner, D. M. (2016). Analysis of the EAT-26 in a non-clinical sample. *Archives of Psychiatry and Psychotherapy*, 18(2), 54–58. doi:10.12740/APP/63647
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Roskos-Ewoldsen, D. R., Roskos-Ewoldsen, B., & Dillman Carpentier, F. (2009). Media priming: An updated synthesis. In J. Bryant and M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (3<sup>rd</sup> ed., pp. 74–93). New York, NY: Routledge/Taylor & Francis.
- Roth, H., Homer, C., & Fenwick, J. (2012). “Bouncing back”: How Australia’s leading women’s magazines portray the postpartum ‘body’. *Women and Birth*, 25(3), 128–134. doi:10.1016/j.wombi.2011.08.004
- Roy, B. A. (2014). Postpartum exercise. *American College of Sports Medicine’s Health & Fitness Journal*, 18(6), 3–4. doi:10.1249/FIT.0000000000000071

- Sanders, N. M., & Heiss, C. J. (1998). Eating attitudes and body image of Asian and Caucasian college women. *Eating Disorders*, 6(1), 15–27. doi:10.1080/10640269808249244
- Saraceni, R., & Russell-Mayhew, S. (2007). Cultural expectations of thinness in women: A partial replication and update of magazine content. *Eating and Weight Disorders – Studies on Anorexia, Bulimia, and Obesity*, 12(3), e68–e74. doi:10.1007/BF03327646
- Schaefer, L. M., Burke, N. L., Thompson, J. K., Dedrick, R. F., Heinberg, L. J., Calogero, R. M., . . . Swami, V. (2015). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4). *Psychological Assessment*, 27(1), 54–67. doi:10.1037/a0037917
- Schaefer, L. M., Harriger, J. A., Heinberg, L. J., Soderberg, T., & Thompson, J. K. (2017). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire-4-Revised (SATAQ-4R). *International Journal of Eating Disorders*, 50(2), 104–117. doi:10.1002/eat.22590
- Scharrer, E. L. (2013). Representations of gender in the media. In K. E. Dill (Ed.), *The Oxford handbook of media psychology* (pp. 267–284). New York: Oxford University Press.
- Schooler, D., & Trinh, S. (2011). Longitudinal associations between television viewing patterns and adolescent body satisfaction. *Body Image*, 8(1), 34–42. doi:10.1016/j.bodyim.2010.09.001
- Schutz, H. K., Paxton, S. J., & Wertheim, E. H. (2002). Investigation of body comparison among adolescent girls. *Journal of Applied Social Psychology*, 32(9), 1906–1937. doi:10.1111/j.1559-1816.2002.tb00264.x
- Schvey, N. A., Puhl, R. M., & Brownell, K. D. (2011). The impact of weight stigma on caloric consumption. *Obesity*, 19(10), 1957–1962. doi:10.1038/oby.2011.204

- Setse, R., Grogan, R., Pham, L., Cooper, L. A., Strobino, D., Powe, N. R., & Nicholson, W. (2009). Longitudinal study of depressive symptoms and health-related quality of life during pregnancy and after delivery: The health status in pregnancy (HIP) study. *Maternal and Child Health Journal*, 13(5), 577–587. doi:10.1007/s10995-008-0392-7
- Sharifzadeh, M., Navininezhad, M., & Keramat, A. (2018). Investigating the relationship between self-esteem and postpartum blues among delivered women. *Journal of Research in Medical and Dental Sciences*, 6(3), 357–362. doi:10.24896/jrmds.20186355
- Shisslak, C. M., Crago, M., & Estes, L. S. (1995). The spectrum of eating disturbances. *International Journal of Eating Disorders*, 18(3), 209–219. doi:10.1002/1098-108x(199511)18:3<209::aid-eat2260180303>3.0.co;2-e
- Shloim, N., Rudolf, M., Feltbower, R., & Hetherington, M. (2014). Adjusting to motherhood. The importance of BMI in predicting maternal well-being, eating behaviour and feeding practice within a cross cultural setting. *Appetite*, 81, 261–268. doi:10.1016/j.appet.2014.06.011
- Shroff, H. P., Calogero, R. M., & Thompson, J. K. (2009). Assessment of body image. In D. Allison & M. Baskin (Eds.), *Handbook of assessment methods for eating behaviors and weight-related problems: Measures, theory, and research* (2<sup>nd</sup> ed., pp. 115–136). Thousand Oaks, CA: Sage Publications.
- Shroff, H., & Thompson, J. K. (2006). The tripartite influence model of body image and eating disturbance: A replication with adolescent girls. *Body Image*, 3(1), 17–23. doi:10.1016/j.bodyim.2005.10.004
- Siervo, M., Boschi, V., Papa, A., Bellini, O., & Falconi, C. (2005). Application of the SCOFF, Eating Attitudes Test 26 (EAT 26) and eating inventory (TFEQ) questionnaires in young

- women seeking diet-therapy. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 10(2), 76–82. doi:10.1007/bf03327528
- Sifferlin, A. (2017, June). The weight loss trap: Why your diet isn't working. *Time*, 189(21). Retrieved from <http://time.com/magazine/us/4793878/june-5th-2017-vol-189-no-21-u-s/>
- Simcox, T., & Fiez, J. A. (2014). Collecting response times using Amazon Mechanical Turk and Adobe Flash. *Behavior Research Methods*, 46(1), 95–111. doi:10.3758/s13428-013-0345-y
- Skouteris, H., McPhie, S., Hill, B., McCabe, M., Milgrom, J., Kent, B., . . . Lachal, J. (2016). Health coaching to prevent excessive gestational weight gain: A randomized-control trial. *British Journal of Health Psychology*, 21(1), 31–51. doi:10.1111/bjhp.12154
- Slevec, J. H., & Tiggemann M. (2011). Predictors of body dissatisfaction and disordered eating in middle-aged women. *Clinical Psychological Review*, 31(4), 515–524. doi:10.1016/j.cpr.2010.12.002
- Smallwood, R. R. (2014). *Health and wellness of the postpartum women based on cultural and personal perceptions of mediated representations of pregnancy* (Unpublished doctoral dissertation). University of Alabama, Alabama.
- Smith, A. R., Hames, J. L., & Joiner, T. E., Jr. (2013). Status update: Maladaptive Facebook usage predicts increases in body dissatisfaction and bulimic symptoms. *Journal of Affective Disorders*, 149(1–3), 235–240. doi:10.1016/j.jad.2013.01.032
- Smolak, L., & Levine, M. P. (2015). *The Wiley handbook of eating disorders*. West Sussex, UK: Wiley. doi:10.1002/9781118574089.ch1

- Smolak, L., & Murnen, S. K. (2007). Feminism and body image. In V. Swami & A. Furnham (Eds.), *The body beautiful: Evolutionary and socio-cultural perspectives* (pp. 236–258). doi:10.1057/9780230596887\_12
- Smolak, L., & Thompson, J. K. (2009). Body image, eating disorders, and obesity in children and adolescents: Introduction to the second edition. In L. Smolak & J. K. Thompson (Eds.), *Body image, eating disorders, and obesity in youth: Assessment, prevention, and treatment* (2<sup>nd</sup> ed., pp. 3–14). Washington, DC: American Psychological Association.
- Sonneville, K. R., & Lipson, S. K. (2018). Disparities in eating disorder diagnosis and treatment according to weight status, race/ethnicity, socioeconomic background, and sex among college students. *International Journal of Eating Disorders*, 51(6), 518–526. doi:10.1002/eat.22846
- Stein, A., & Fairburn, C. G. (1996). Eating habits and attitudes in the postpartum period. *Psychosomatic Medicine*, 58(4), 321–325. doi:10.1097/00006842-199607000-00004
- Stewart, N., Ungemach, C., Harris, A. J. L., Bartels, D. M., Newell, B. R., Paolacci, G., & Chandler, J. (2015). The average laboratory samples a population of 7,300 Amazon Mechanical Turk workers. *Judgment and Decision making*, 10(5), 479–491. Retrieved from <http://ezproxy.lib.ucalgary.ca/login?url=https://search-proquest-com.ezproxy.lib.ucalgary.ca/docview/1759527522?accountid=9838>
- Stice, E. (1994). Review of evidence for a sociocultural model of bulimia nervosa and an exploration of mechanisms of action. *Clinical Psychology Review*, 14(7), 633–661. doi:10.1016/0272-7358(94)90002-7

- Stice, E. (2001). A prospective test of the dual pathway model of bulimic pathology: Mediating effects of dieting and negative affect. *Journal of Abnormal Psychology, 110*(1), 124–135. doi:10.1037//0021-843x.110.1.124
- Stice, E., & Shaw, H. E. (2002). Role of body dissatisfaction in the onset and maintenance of eating pathology: A synthesis of research findings. *Journal of Psychosomatic Research, 53*(5), 985–993. doi:10.1016/S0022-3999(02)00488-9
- Stice, E., Mazotti, L., Weibel, D., & Agras, W. S. (2000). Dissonance prevention program decreases thin-ideal internalization, body dissatisfaction, dieting, negative affect, and bulimic symptoms: A preliminary experiment. *International Journal of Eating Disorders, 27*(2), 206–217. doi:10.1002/(sici)1098-108x(200003)27:2<206::aid-eat9>3.0.co;2-d
- Stoneking, F. R. (2018). *The effects of viewing thinspiration and fitspiration* (Unpublished master's thesis). American University, Washington, DC.
- Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2010). Health effects of media on children and adolescents. *Pediatrics, 125*(4), 756–767. doi:10.1542/peds.2009-2563
- Suisman, J. L., O'Connor, S. M., Sperry, S., Thompson, J. K., Keel, P. K., Burt, S. A., . . . Klump, K. L. (2012). Genetic and environmental influences on thin-ideal internalization. *International Journal of Eating Disorders, 45*(8), 942–948. doi:10.1002/eat.22056
- Sullivan, S. (2010). *I'm not fat, I'm pregnant: An examination of the prevalence and causation of pregorexia in Ireland* (Unpublished undergraduate thesis). Dublin Business School, Ireland.
- Sweeney, A. C., & Fingerhut, R. (2013). Examining relationships between body dissatisfaction, maladaptive perfectionism, and postpartum depression symptoms. *Journal of Obstetrics, Gynecological & Neonatal Nursing, 42*(5), 551–561. doi:10.1111/1552-6909.12236

- Tapper, K., Jiga-Boy, G. M., Maio, G. R., & Haddock, G. (2013). Development and assessment of the HealthValues Healthy Eating Programme: An exploratory analysis. *The Lancet*, 382, S96. doi:10.1016/s0140-6736(13)62521-0
- The McKnight Investigators. (2003). Risk factors for onset of eating disorders in adolescent girls: Results of the McKnight Longitudinal Risk Factor Study. *American Journal of Psychiatry*, 160(2), 248–254. doi:10.1176/ajp.160.2.248
- Thomas, S. L., Hyde, J., Karunaratne, A., Kausman, R., & Komesaroff, P. A. (2008). “They all work...when you stick to them”: A qualitative investigation of dieting, weight loss, and physical exercise, in obese individuals. *Nutrition Journal*, 7(1), 34–40. doi:10.1186/1475-2891-7-34
- Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science*, 10(5), 181–183. doi:10.1111/1467-8721.00144
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The sociocultural attitudes towards appearance scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, 35(3), 293–304. doi:10.1002/eat.10257
- Tierney, S., McGlone, C., & Furber, C. (2013). What can qualitative studies tell us about the experiences of women who are pregnant that have an eating disorder? *Midwifery*, 29(5), 542–549. doi:10.1016/j.midw.2012.04.013



- Tiggemann, M. (2003). Media exposure, body dissatisfaction and disordered eating: Television and magazines are not the same! *European Eating Disorders Review*, 11(5), 418–430.  
doi:10.1002/erv.502
- Tiggemann, M. (2011). Sociocultural perspectives on human appearance and body image. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (2<sup>nd</sup> ed., pp. 12–19). New York: Guilford Press.
- Tiggemann, M. (2014). The status of media effects on body image research: Commentary on articles in the themed issue on body image and media. *Media Psychology*, 17(2), 127–133. doi:10.1080/15213269.2014.891822
- Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology*, 23(1), 23–44. doi:10.1521/jscp.23.1.23.26991
- Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. *Body Image*, 15, 61–67.  
doi:10.1016/j.bodyim.2015.06.003
- Tiggemann, M., Polivy, J., & Hargreaves, D. (2009). The processing of thin ideals in fashion magazines: A source of social comparison or fantasy? *Journal of Social and Clinical Psychology*, 28(1), 73–93. doi:10.1521/jscp.2009.28.1.73
- Trampe, D., Stapel, D. A., & Siero, F. W. (2007). On models and vases: Body dissatisfaction and proneness to social comparison effects. *Journal of Personality and Social Psychology*, 92(1), 106–118. doi:10.1037/0022-3514.92.1.106

- Troop, N. A., Serpell, L., & Treasure, J. L. (2001). Specificity in the relationship between depressive and eating disorder symptoms in remitted and non-remitted women. *International Journal of Eating Disorders*, 30(3), 306–311. doi:10.1002/eat.1089
- Tylka, T. L. (2004). The relation between body dissatisfaction and eating disorder symptomatology: An analysis of moderating variables. *Journal of Counseling Psychology*, 51(2), 178–191. doi:10.1037/0022-0167.51.2.178
- Tylka, T. L., & Subich L. M. (2002). Exploring young women’s perceptions of the effectiveness and safety of maladaptive weight control techniques. *Journal of Counseling and Development*, 80(1), 101–110. doi:10.1002/j.1556-6678.2002.tb00172.x
- Udo, T., & Grilo, C. M. (2018). Prevalence and correlates of DSM-5-defined eating disorders in a Nationally representative sample of U.S. adults. *Biological Psychiatry*, 84(5), 345–354. doi:10.1016/j.biopsych.2018.03.014
- Upton, R. L., & Han, S. S. (2003). Maternity and its discontents: “Getting the body back” after pregnancy. *Journal of Contemporary Ethnography*, 32(6), 670–692. doi:10.1177/0891241603257596
- Van Camp, K. (2003). *Eating disordered behaviour among female marathon runners* (Unpublished master’s thesis). D’Youville College, Buffalo, NY.
- van den Berg, P., & Thompson, J. K. (2007). Self-schema and social comparison explanations of body dissatisfaction: A laboratory investigation. *Body Image*, 4(1), 29–38. doi:10.1016/j.bodyim.2006.12.004
- van den Berg, P., Neumark-Sztainer, D., Hannan, P. J., & Haines, J. (2007). Is dieting advice from magazines helpful or harmful? Five-year associations with weight control behaviors

- and psychological outcomes in adolescents. *Pediatrics*, 119(1), e30–e37.  
doi:10.1542/peds.2006-0978
- van Ginkel, J. R., & Kroonenberg, P. M. (2014). Analysis of variance of multiple imputed data. *Multivariate Behavioral Research*, 49(1), 78–91. doi:10.1080/00273171.2013.855890
- von Soest, T., & Wichstrøm, L. (2008). The impact of becoming a mother on eating problems. *International Journal of Eating Disorders*, 41(3), 215–223. doi:10.1002/eat.20493
- Wade, T. D., Bergin, J. L., Tiggemann, M., Bulik, C. M., & Fairburn, C. G. (2006). Prevalence and long-term course of lifetime eating disorders in an adult Australian twin cohort. *Australian and New Zealand Journal of Psychiatry*, 40(2), 121–128. doi:10.1080/j.1440-1614.2006.01758.x
- Wade, T. D., Bulik, C. M., Prescott, C. A., & Kendler, K. S. (2004). Sex influences on shared risk factors for bulimia nervosa and other psychiatric disorders. *Archives of General Psychiatry*, 61(3), 251–256. doi:10.1001/archpsyc.61.3.251
- Walker, L. O., & Sterling, B. S. (2007). The structure of thriving/distress among low-income women at 3 months after giving birth. *Family & Community Health*, 30(1), S95–S103. doi:10.1097/00003727-200701001-00012
- Walker, L., Timmerman, G. M., Kim, M., & Sterling, B. (2002). Relationships between body image and depressive symptoms during postpartum in ethnically diverse, low income women. *Women & Health*, 36(3), 101–121. doi:10.1300/j013v36n03\_07
- Want, S. C. (2009). Meta-analytic moderators of experimental exposure to media portrayals of women on female appearance satisfaction: Social comparisons as automatic processes. *Body Image*, 6(4), 257–269. doi:10.1016/j.bodyim.2009.07.008

- Watson, B., Fuller-Tyszkiewicz, M., Broadbent, J., & Skouteris, H. (2015). The meaning of body image experiences during the perinatal period: A systematic review of the qualitative literature. *Body Image, 14*, 102–113. doi:10.1016/j.bodyim.2015.04.005
- Wertheim, E. H., Paxton, S. J., & Blaney, S. (2009). Body image in girls. In L. Smolak & J. K. Thompson (Eds.), *Body image, eating disorders, and obesity in youth: Assessment, prevention, and treatment* (2<sup>nd</sup> ed., pp. 47–76). Washington, DC: American Psychological Association.
- Wilcox, K., & Laird, J. D. (2000). The impact of media images of super-slender women on women's self-esteem: Identification, social comparison, and self-perception. *Journal of Research in Personality, 34*(2), 278–286. doi:10.1006/jrpe.1999.2281
- Williams, B. M. (2013). *"This is not what motherhood looks like": Mothers' interpretations of cultural representations of the celebrity pregnant and post-partum body* (Unpublished master's thesis). University of Louisville, Louisville, Kentucky. doi:10.18297/etd/1576
- Williams, B. M., Christopher, K., & Sinski, J. (2017). "Who doesn't want to be this hot mom?": Celebrity mom profiles and mothers' accounts of their postpartum bodies. *SAGE Open, 7*(3), 1–12. doi:10.1177/2158244017720562
- Willmot, A. (2013). *Pregnant in heels: A critical analysis of the ideal, maternal body in celebrity magazines* (Unpublished master's thesis). Queen's University, Ontario, Canada.
- Wiseman, C. V., Gunning, F. M., & Gray, J. J. (1993). Increasing pressure to be thin: 19 years of diet products in television commercials. *Eating Disorders, 1*(1), 52–61. doi:10.1080/10640269308248266
- Woods, A. T., Velasco, C., Levitan, C. A., Wan, X., & Spence, C. (2015). Conducting perception research over the internet: A tutorial review. *PeerJ, 3*, e1058. doi:10.7717/peerj.1058

Wyssen, A., Debbeler, L., Meyer, A. H., Coelho, J. S., Humbel, N., Schuck, K., . . . Munsch, S. (2017). Cognitive distortions associated with imagination of the thin ideal: Validation of the Thought-Shape Fusion Body Questionnaire (TSF-B). *Frontiers in Psychology*, 8, 2194–2204. doi:10.3389/fpsyg.2017.02194

## **Appendix A**

### **Participant Recruitment**

#### **Study Title**

Postpartum Health, Consumerism, and Media: The Impact on Postpartum Women

#### **Description**

You are invited to take part in a 60-minute online research study that examines broad factors related to media, postpartum health, and postpartum consumerism. You will be asked to complete a demographics questionnaire. Following, you will view a series of media images related to postpartum health and postpartum consumerism. After this, you will be asked to complete general questions related to media, postpartum health, and postpartum consumerism. This study will take approximately 60-minutes to complete and you will be compensated \$6.50 USD for your participation.

## **Appendix B**

### **Demographics Questionnaire**

1. Are you fluent in English?  
(Yes/No)
2. Are you a female in the postpartum period (defined as up until one-year post-birth)?  
(Yes/No)
3. What ethnicity do you identify with?
  - a. North American Aboriginal Origins (Indigenous, First Nations, Inuit, Métis)
  - b. Other North American Origins (American, Canadian)
  - c. European Origins (British Isles, French, Western Europe, Northern Europe, Eastern Europe, Southern Europe)
  - d. Caribbean Origins
  - e. Latin, Central, and South American Origins
  - f. African Origins (Central and West Africa, North Africa, South and East Africa)
  - g. Asian Origins (West Central Asian and Middle Eastern, South Asian, East and Southeast Asian)
  - h. Oceania (Australia and New Zealand)
  - i. Pacific Island Origins (Fiji, Hawaii, Polynesia, Somoan, Maori)
  - j. Mixed Origins
4. What sexual orientation do you identify with?
  - a. Heterosexual
  - b. Homosexual
  - c. Bisexual

- d. Other: \_\_\_\_\_
5. What is your current age?
- \_\_\_\_\_ years
6. What socioeconomic status best reflects your current life?
- a. Lower Income (household income of less than 30,000 per year)
  - b. Lower-Middle Income (household income between 30,000 – 49,999)
  - c. Upper-Middle Income (household income between 50,000 – 99,999)
  - d. High Income (household income of over 100,000)
7. Are you planning to return to work?
- a. Yes
  - b. No
  - c. Not applicable (did not work before pregnancy)
8. If yes to question 7, when are you planning to return to work?
- a. Between 0-6 months post-birth
  - b. Between 6-12 months post-birth
  - c. In more than 1 year
  - d. Not applicable (select if answered 'No' for question 7)
9. How many months has it been since you gave birth?
- \_\_\_\_\_ months
10. How many other children or previous births do you have (not including the most recent birth)?
- \_\_\_\_\_



11. For the purpose of the current study, postpartum depression is defined as the onset of mood and other symptoms (e.g., depression, anxiety, panic attacks, psychosis including hallucinations or delusions, difficulty bonding with infant) during pregnancy or in the first four weeks post-birth (APA, 2013).

Do you currently have or have a history of postpartum depression?

(Yes/No)

12. Do you have a history of an eating disorder?

(Yes/No)

13. Do you currently have an eating disorder?

(Yes/No)

14. Have you ever received treatment for an eating disorder?

(Yes/No)

## Appendix C

### Authorized Consent Form

---

**Name of Researcher, Faculty, Department, & Email:**

Kyla McPhee, MSc in Counselling Psychology, Werklund School of Education, kcmcphee@ucalgary.ca

**Supervisory Committee:**

Shelly Russell-Mayhew, PhD, R. Psych, Associate Professor, Werklund School of Education, mkrussel@ucalgary.ca

Sarah Nutter, PhD Student, Werklund School of Education, snutter@ucalgary.ca

**Title of Project:**

Postpartum Health, Consumerism, and Media: The Impact on Postpartum Women

---

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Participation is completely voluntary, anonymous, and confidential. You are free to discontinue participation at any time during the study without loss of benefits or penalty.

**Purpose of the Study**

You are invited to take part in a 30-minute online research study that examines broad factors related to media, postpartum health, and postpartum consumerism.

**What Will I Be Asked To Do?**

You will be asked to complete a demographics questionnaire. Following, you will view a series of media images related to postpartum health and postpartum consumerism. After this, you will be asked to complete general questions related to media, postpartum health, and postpartum consumerism. This study will take approximately 30-minutes to complete and you will be compensated \$3.25 USD for your participation.

**What Type of Personal Information Will Be Collected?**

No identifying information will be collected at any time in this study and all participants shall remain anonymous. Should you agree to participate, you will be asked to confirm that you are fluent in English and a female in the postpartum period (up until one-year post birth). In addition, you will be asked to provide your Prolific Academic identification number, ethnicity, sexual orientation, age, approximate household income, occupational status, future employment plans, months since childbirth, number of other children or previous births, and information on your mental health and eating history.

**Are there Risks or Benefits if I Participate?**

There is a potential that you may feel a range of emotions including discomfort with subject material and questions. If any negative feelings persist and you wish to seek mental health services, please feel free to contact any of the counselling services provided in the debriefing package or call:

***Postpartum Support International – Available 24/7 Internationally***  
***Call: 1-800-944-4773 (4PPD) or Text: 503-894-9453***

Participants may develop a deeper understanding of themselves in relation to their media consumption, postpartum health, and postpartum consumerism. The results of this study will enhance the literature and counselling services by contributing to a more complex understanding of how media impacts women in the postpartum period. In addition, you will be paid \$3.25 USD for your participation.

**What Happens to the Information I Provide?**

Participation is completely voluntary, anonymous, and confidential. The data will be kept as digital files on a password protected laptop for the researcher (Kyla McPhee) and her supervisors (Dr. Shelly Russell-Mayhew and Sarah Nutter) to access. No identifying information will be collected at any time in this study and all participants shall remain anonymous. Only group data will be used for analyses in this study and only group data will be summarized for any presentation or publication of results.

You are free to discontinue participation at any time during the study. Once you indicate your agreement to participate at the bottom of this page, you will be enrolled in the study. If you close your browser before finishing the survey and clicking “submit,” this will indicate that you wish to withdraw from the study and your data will be destroyed. Once you have completed the study and clicked submit, it will not be possible to withdraw your data because it is collected anonymously and cannot be linked to you. Once you have enrolled in the study you will receive payment, whether or not you complete it.

This study is being conducted in partial fulfillment of Kyla McPhee’s master’s thesis. The results of the study may be included in conference presentations or journal publications. Anonymous data will be saved for two years and may be used for additional studies in accordance with the Social Science and Humanities Research Council research data archiving policy. However, there are no future studies planned at this time.

---

***Consent***

By submitting the completed or partially-completed survey you are indicating that: (1) you understand to your satisfaction the information provided to you about your participation in this research project, and (2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time without penalty. If you choose to withdraw from the study, you will still receive full payment. You should feel free to ask for clarification or new information throughout your participation.

**Questions/Concerns**

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

Kyla McPhee  
Graduate Programs in Education, Werklund School of Education, kcmcphee@ucalgary.ca  
or  
Dr. Shelly Russell-Mayhew  
Graduate Programs in Education, Werklund School of Education, mkrussel@ucalgary.ca

If you have any concerns about the way you have been treated as a participant, please contact the Research Ethics Analyst, Research Services Office, University of Calgary at (403) 220-6289/220-8640; email [cfreb@ucalgary.ca](mailto:cfreb@ucalgary.ca). A copy of this consent form has been given to you to keep for your records.

The investigator has kept a copy of the consent form.

## Appendix D

### Informed Consent Form

---

**Name of Researcher, Faculty, Department, & Email:**

Kyla McPhee, MSc in Counselling Psychology, Werklund School of Education, kcmcphee@ucalgary.ca

**Supervisory Committee:**

Shelly Russell-Mayhew, PhD, R. Psych, Associate Professor, Werklund School of Education, mkrussel@ucalgary.ca

Sarah Nutter, PhD Student, Werklund School of Education, snutter@ucalgary.ca

**Title of Project:**

The “Yummy Mummy” Phenomenon: How Exposure to Celebrity Postpartum Thin-Ideals Impact Postpartum Women’s Eating Attitudes and Pathology

---

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Participation is completely voluntary, anonymous, and confidential. You are free to discontinue participation at any time during the study without loss of benefits.

**Purpose of the Study**

You were informed that the purpose of this study was to examine broad factors related to media, postpartum health, and postpartum consumerism. You were asked to complete a demographics questionnaire, following which, you viewed a series of images with accompanying text containing either media representations of celebrities in the postpartum period or baby products with no people featured. After this, you were asked to complete questions related to media, postpartum health, and postpartum consumerism. What you did not know at the beginning of this study was that we randomly assigned you to view one of two sets of images and how this relates to the true purpose of the study.

The true purpose of the study was to assess whether exposure to celebrities in the postpartum period impacts postpartum women’s: (a) depressive symptoms, (b) self-esteem, (c) body dissatisfaction, (d) eating disordered attitudes and practices, and (e) internalization of societal norms. It was hypothesized that exposure to celebrities in the postpartum period would heighten depressive symptoms, eating disordered attitudes and practices, body dissatisfaction, and degree to which you accept social standards of beauty, as well as lower self-esteem. However, we could not tell you the specific nature of our interest as it may have impacted your responses. Given the pressures that postpartum women experience to conform to standards of beauty which are unrealistic, it is important to better understand the specific concerns and needs of postpartum women. Specifically, it is of interest to us to understand how images of celebrities in the postpartum period influence how women feel after birth. As a result, mental health prevention and intervention strategies may be better targeted towards women in the postpartum period.

After reading about the true nature of the study and that partial-deception was used, we would like to give you the opportunity to decide whether you would like to have your data included in this study.

You may choose to withdraw from the study at this point without penalty or loss of compensation. If you choose to withdraw from the study, your survey responses will be deleted. If you press “submit” you are agreeing to allow your responses to be included in the study and the information you provided will remain anonymous. No one except the researcher (Kyla McPhee) and her supervisors (Dr. Shelly Russell-Mayhew and Sarah Nutter) will have access to the data. Only group data will be used for analyses in this study and only group data will be summarized for any presentation or publication of results.

There is a potential that while answering questions in this study that you may feel a range of emotions including discomfort with subject material. If any negative feelings persist and you wish to seek mental health services, please feel free to contact any of the counselling services provided in the debriefing package or call:

***Postpartum Support International*** – Available 24/7 Internationally  
*Call: 1-800-944-4773 (4PPD) or Text: 503-894-9453*

This study is being conducted in partial fulfillment of Kyla McPhee’s master’s thesis. The results of the study may be included in conference presentations or journal publications. Anonymous data will be saved for two years and may be used for additional studies in accordance with the Social Science and Humanities Research Council (SSHRC) research data archiving policy. However, there are no future studies planned at this time.

Your participation in this study is greatly appreciated.

---

### ***Consent***

By clicking on the consent button below, you are submitting the survey and indicating that: (1) you understand to your satisfaction the information provided to you about your participation in this research project, and (2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators or involved institutions from their legal and professional responsibilities. You should feel free to ask for clarification or new information throughout your participation.

### **Questions/Concerns**

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

Kyla McPhee  
Graduate Programs in Education, Werklund School of Education, [kcmcphee@ucalgary.ca](mailto:kcmcphee@ucalgary.ca)  
Or  
Dr. Shelly Russell-Mayhew  
Graduate Programs in Education, Werklund School of Education, [mkrussel@ucalgary.ca](mailto:mkrussel@ucalgary.ca)

If you have any concerns about the way you have been treated as a participant, please contact the Research Ethics Analyst, Research Services Office, University of Calgary at (403) 220-6289/220-8640; email [cfreb@ucalgary.ca](mailto:cfreb@ucalgary.ca). A copy of this consent form has been given to you to keep for your records. The investigator has kept a copy of the consent form.

## Appendix E

### Counselling Services Information

### Counselling, Eating Disorder, and Postpartum Depression Support Resources

Some participants may have experienced discomfort by answering questions. If that is the case, you are encouraged to seek professional assistance. This may be from your family physician and/or mental health care provider, or from any of the counselling or support resources listed below. If it is a medical emergency, dial 911 or go to your nearest emergency department.

<b>Free Canadian Counselling, Eating Disorder, and Postpartum Depression Resources</b>	
<b>Resource</b>	<b>Contact Information</b>
Canada Suicide Prevention Service <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	1-833-456-4566
The Lifeline Canada Foundation <ul style="list-style-type: none"> <li>Province specific services can be found on the website</li> <li>Options for deaf and hard of hearing individuals</li> </ul>	<a href="https://thelifelinecanada.ca/help/crisis-centres/canadian-crisis-centres/">https://thelifelinecanada.ca/help/crisis-centres/canadian-crisis-centres/</a>
St. Paul & District Crisis Centre <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Alberta and Northeastern Saskatchewan</li> </ul>	1-800-263-3045
National Suicide Hotline/National Hope Helpline <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	1-800-SUICIDE (1-800-784-2433)
Mental Health Crisis Service <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Manitoba</li> </ul>	1-888-310-4593
Chimo Helpline <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in New Brunswick</li> </ul>	1-800-667-5005
Mental Health Crisis Centre <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Newfoundland and Labrador</li> </ul>	1-888-737-4668
NWT Help Line <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Northwest Territories</li> </ul>	1-800-661-0844
Mental Health Mobile Crisis Line <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Nova Scotia and surrounding area</li> </ul>	1-888-429-8167
Nunavut Kamatsiaqtut Help Line <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Arctic Quebec</li> </ul>	1-800-265-3333
ConnexOntario Mental Health Help Line <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Ontario</li> </ul>	1-866-531-2600
Telehealth Ontario <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Ontario</li> </ul>	1-866-797-0000
Island Helpline <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Prince Edward Island</li> </ul>	1-800-218-2885
Quebec National Crisis Line	1-866-APPELLE (277-3553)



<ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Quebec</li> </ul>	
Northeast Outreach and Support Services <ul style="list-style-type: none"> <li>Available 24/7 to individuals residing in Saskatchewan</li> </ul>	1-800-611-6349
Yukon Distress and Support Line <ul style="list-style-type: none"> <li>Open from 7pm – 3am Pacific Standard Time nightly to individuals residing in the Yukon</li> </ul>	1-844-533-3030
National Eating Disorder Information Centre Hotline <ul style="list-style-type: none"> <li>Open from 9am – 9pm Eastern Standard Time Canada wide</li> </ul>	1-866-633-4220
Postpartum Support International <ul style="list-style-type: none"> <li>Available 24/7 internationally</li> </ul>	Call: 1-800-944-4773 (4PPD) Text: 503-894-9453

<b>Free United States Counselling, Eating Disorder, and Postpartum Depression Resources</b>	
<b>Resource</b>	<b>Contact Information</b>
National Suicide Prevention Lifeline <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	1-800-273-8255 (TALK) 1-800-799-4889 (Deaf and hard of hearing)
National Suicide Hotline/National Hope Helpline <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	1-800-SUICIDE (1-800-784-2433)
National Crisis Text Line <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	Text HOME to 741741 from anywhere in the USA, anytime, about any type of crisis.
The Lifeline Canada Foundation <ul style="list-style-type: none"> <li>Population specific (e.g., veteran's, graduate students) can be found on the website</li> </ul>	<a href="https://thelifelinecanada.ca/help/crisis-centres/united-states-national-suicide-prevention-hotline/">https://thelifelinecanada.ca/help/crisis-centres/united-states-national-suicide-prevention-hotline/</a>
IMAlive Chat <ul style="list-style-type: none"> <li>Availability depends on volunteer and call volumes</li> </ul>	<a href="https://www.imalive.org/">https://www.imalive.org/</a> Click Chat Now
National Eating Disorder Association Hotline <ul style="list-style-type: none"> <li>Available Monday-Thursday 9am – 9pm Eastern Standard Time and Friday 9am – 5pm</li> </ul>	1-800-931-2237
National Postpartum Depression Hotline <ul style="list-style-type: none"> <li>Available 24/7 nationwide</li> </ul>	1-800-PPD-MOMS (1-800-773-6667)
Postpartum Health Alliance of Northern California <ul style="list-style-type: none"> <li>Available 9 am – 9 pm Pacific Standard Time</li> </ul>	1-888-773-7090
Postpartum Support International <ul style="list-style-type: none"> <li>Available 24/7 internationally</li> </ul>	Call: 1-800-944-4773 (4PPD) Text: 503-894-9453
Get connected with local services through 211	Call: 211 Website: <a href="http://www.211.org">http://www.211.org</a>