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# Body Image Mediating The Relationship Between Personality Factors, Emotionality And Extraversion, And Psychological Well-Being In A Gender-Diverse And Queer Sample

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Body Image Mediating the Relationship between Personality Factors, Emotionality and  
Extraversion, and Psychological Well-being in a Gender-Diverse and Queer Sample

by

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Presented in Partial Fulfillment of the Requirements of  
Senior Independent Study Thesis

Supervised by

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### **Abstract**

Research has examined the relationship between personality factors, body image, and psychological well-being. Some researchers look at how the three variables interact and relate to each other. Previous research shows how different levels of Emotionality and Extraversion influence one's body image and psychological well-being (Allen & Celestino, 2018; Kokko et al., 2013; Lie et al., 2015; Swami et al., 2008). One's body image also influences their psychological well-being. Additionally, personality factors, such as high Emotionality and low Extraversion can lead to someone having worse body image and worse well-being (Allen & Celestino, 2018). In a questionnaire that was made up of previously existing measures, participants were asked about Emotionality, Extraversion, body image, and psychological well-being. The current study examined the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being in a gender-diverse and queer sample. Being gender inclusive within the current research allows more people within the population to be represented within the research rather than focusing on the gender binary.

*Keywords:* Emotionality, Extraversion, body image, psychological-well-being

## Introduction

People of all gender identities are impacted by body ideals that can negatively affect their body image. When people are exposed to body ideals, especially on social media, it increases their body dissatisfaction and decreases their psychological well-being (Sherlock & Wagstaff, 2018). Those with negative body image tend to self-report worse psychological well-being (Becker et al., 2019). In turn, people with worse psychological well-being self-report more symptoms of anxiety and depression (Oswalk et al., 2018). However, some populations may be more likely to experience negative body image and related negative effects on psychological well-being. Non-binary and transgender individuals tend to have worse body satisfaction and gender congruence and report higher rates of depression and anxiety compared to cisgender people (Jones et al., 2019; Rutherford et al., 2020).

Personality factors also have a relationship with body image and psychological well-being. Of the six personality factors in the HEXACO model, Emotionality and Extraversion, have the strongest relationships with body image and psychological well-being compared to the remaining four personality factors (Anglim & Grant, 2016; Arshad & Rafique, 2016). Higher levels of Emotionality are associated with negative body appreciation and lower psychological well-being (Kokk et al., 2013, Swami et al., 2008). Higher levels of Extraversion are associated with positive body appreciation and higher psychological well-being (Li et al., 2015; Swami et al., 2008). The current research examines how body image mediates the relationship between personality factors (specifically Emotionality and Extraversion) and psychological well-being. Most research on personality factors, body image, and psychological well-being has been conducted with cisgender women and cisgender men, rather than transgender women, transgender men, non-binary individuals, and genderqueer individuals. Due to the lack of

research with gender diverse participants, the current study includes participants of multiple genders. The goal of the current research is to examine the relationship between personality factors, body image, and psychological well-being within a queer and gender diverse sample.

### **Models of Personality**

Personality can be defined as a characteristic set of emotional patterns, behaviors, and cognitions (Ashton & Lee, 2005). There are two approaches to conceptualize personality: qualitative and quantitative. The Qualitative (or structural) approach looks at personality as a reflection of the whole-person; it uses specific questionnaires and tests to determine a person's personality traits (Winter & Barenbaum, 1999). For example, the Big-5 model and HEXACO are questionnaires that determine personality traits. The Quantitative (or analytical) views the sum of an individual's traits; in this approach, it is important to understand how different parts of one's personality interact (Winter & Barenbaum, 1999). Gordon Allport attempted to straddle both of these approaches, but most of his work ended up focusing on the quantitative approach. Allport argued that characteristics or a blend of characteristics make a person unique (Winter & Barenbaum, 1999). Raymond Cattell used an approach to personality that was description-based and an identification of traits through factor analysis and classification (Revelle, 2009). The significance of Cattell's work influenced the most widely used models, the Big-5 model and HEXACO. Overall, research has focused on two main approaches to personality, but there are multiple models which examine personality factors.

There are multiple models of personality, and currently the most widely adopted model is the Big-5 model. The Big-5 personality factors are Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (McCrae & Costa, 1995). The goal of developing the Big-5 personality model was to understand the relationship between behavior and personality

(Poropat, 2009). Early research using this model began with lexical descriptions of human behavior (i.e., active, meaning someone who is always busy with something or, curious, where someone always wants to know information) and developed into an idea that personality characteristics are likely to be encoded into language as one word and embodied within groups of people (McCrae & Costa, 2004). For example, there are implied meanings and an underlying understanding of Extraversion, that means one is sociable and outgoing. This led to the five main personality traits in the Big-5 model.

A more recent model, the HEXACO, was developed using a lexical approach similar to the Big-5; HEXACO builds off of the Big-5 personality model. The HEXACO contains the same five traits (Neuroticism is termed Emotionality) but differs from the Big-5 because it contains the factor Honesty-Humility (Ashton & Lee, 2005). The HEXACO personality dimensions are Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O); together, their abbreviations spell HEXACO. Each factor is made up of traits that indicate high or low levels of said factor and is on a spectrum (Ashton & Lee, 2009). This model was developed into a self and observer report form known as the HEXACO Personality Inventory-Revised (HEXACO-PI-R; Ashton & Lee, 2009). It assesses the six personality factors, which each contain four facets, or more specific personality characteristics and personality-descriptive adjectives that are within each personality trait (Ashton & Lee, 2007).

### ***Personality Factors***

Honesty-Humility was included in the HEXACO because research found six-factors, rather than five, in lexical studies of personality structure that recurred across many languages (Ashton & Lee, 2005). Honesty-Humility is the only personality factor represented in the



HEXACO that is not represented in the Big-5 model. The Honesty-Humility factor is defined by words such as unassuming, fair, and sincere versus pretentious, sly, and greedy (Ashton & Lee, 2005). The factor is broken into four different facets: sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2007). Those who score high in Honesty-Humility avoid manipulating others for personal gain, are not tempted to break the rules, are uninterested in wealth and luxuries, and do not feel a special entitlement to their social status (Ashton & Lee, 2007). People who score low in Honesty-Humility will flatter others to get what they want, will break the rules to benefit themselves, be motivated by material gain, and have a sense of self-importance (Ashton & Lee, 2007).

Emotionality is a personality factor that is commonly known as Neuroticism. The term Emotionality is used instead of Neuroticism because it has fewer negative connotations (Ashton & Lee, 2007). It is defined by words such as emotional, oversensitive, and anxious versus self-assured, stable, and independent (Ashton & Lee, 2009). The factor is broken into four different facets: fearfulness, anxiety, dependence, and sentimentality (Ashton & Lee, 2009). People who score low in Emotionality do not shy away from physical danger, worry less in stressful situations, share little concerns with others, and feel emotionally detached from people (Ashton et al., 2014). Those who score high in Emotionality experience fear of physical danger, anxiety in response to stress, need emotional support from others, and feel empathy and attachments with others (Ashton et al., 2014).

The third personality factor in the HEXACO model is Extraversion. It is defined by terms such as outgoing, sociable, and active versus shy, withdrawn, and reserved (Ashton & Lee, 2009). The factor is broken into four different facets: social self-esteem, social boldness, sociability, and liveliness (Ashton & Lee, 2009). Those who score high on Extraversion feel

positivity towards themselves, are confident when confronting groups of people, enjoy social interactions and gatherings, and have much enthusiasm and energy (Ashton et al., 2014). People who score low on Extraversion consider themselves unpopular, are awkward when they are the center of attention, are indifferent to social activities, and are less optimistic and lively than other people (Ashton et al., 2014).

Agreeableness is the fourth personality factor in the HEXACO model. It is defined by terms such as tolerant, peaceful, and gentle versus ill-tempered, quarrelsome, and stubborn (Ashton & Lee, 2009). The factor is broken into four different facets: forgivingness, gentleness, flexibility, and patience (Ashton et al., 2014). People who score low on Agreeableness hold grudges against people who harmed them, are critical of others, stubborn, and are angry in response to mistreatment (Ashton et al., 2014). Those who score high on Agreeableness forgive the wrongs they suffered, are sparse in judging people, are more willing to cooperate and compromise with others, and easily control their temper (Ashton et al., 2014).

The fifth personality factor of the HEXACO model is Conscientiousness. It is defined by terms such as organized, disciplined, and precise versus negligent, reckless, and absentminded (Ashton & Lee, 2009). The factor is broken into four different facets: organization, diligence, perfectionism, and prudence (Ashton et al., 2014). Those who score high in Conscientiousness organize their time and surroundings, work in a disciplined way to achieve their goals, strive for perception and accuracy, and make careful decisions (Ashton et al., 2014). People who score low in Conscientiousness are unconcerned with their schedules and surroundings, avoid challenging goals, are acceptable of work with some errors, and make impulse decisions (Ashton et al., 2014)

Openness to Experience is the sixth personality factor in the HEXACO model. It is defined by terms such as creative, unconventional, and innovative versus unimaginative, conventional, and shallow (Ashton & Lee, 2009). The factor is broken into four different facets: organization, diligence, perfectionism, and prudence (Ashton et al., 2014). Those who score low in Openness to Experience are unimpressed by works of art, have little intellectual curiosity, avoid creative outputs, and are not attracted to unconventional or radical ideas (Ashton et al., 2014). People who score high in Openness to Experience are absorbed in the beauty of nature and art, ask questions about various topics, utilize their imagination in everyday life, and are interested in unusual people and ideas (Ashton et al., 2014).

Previous research shows that all Big Five personality factors are related to body image and psychological well-being, two components of the current research. For example, Allen and Walter (2016) found that negative body image was associated with higher levels of Emotionality and lower levels of Extraversion. Their findings for Openness and Conscientiousness were unspecific; Agreeableness was not related to body image (Allen & Walter, 2016). Emotionality is a negative predictor of psychological well-being, while Extraversion and Conscientiousness are positive predictors (Arshad & Rafique, 2016). Additionally, Agreeableness and Openness are not significant predictors of psychological well-being (Arshad & Rafique, 2016). The current research focuses on two personality factors: Extraversion and Emotionality rather than all six factors of the HEXACO model. These two factors are important and have the largest associations with body image and psychological well-being. Greater ideal-weight discrepancy is significantly associated with higher Emotionality and lower Extraversion; and higher body appreciation is significantly associated with Emotionality and Extraversion (Swami et al., 2013). Emotionality and Extraversion are the two personality factors that have the most consistent and largest

correlations with psychological well-being (Anglim & Grant, 2016). Other personality traits are correlated and associated with these factors, but Extraversion and Emotionality are the most prominent in research (Allen & Robson, 2020).

### ***Emotionality, Extraversion, and Psychological Well-being***

Previous research has examined the relationship between Emotionality and psychological well-being. Of the personality factors, Emotionality has been found to be the most consistent and largest correlates of psychological well-being, followed by Extraversion (Anglim & Grant, 2016). Most research finds that low levels of Emotionality are correlated with higher psychological well-being (Kokko et al., 2013). Conversely, high levels of Emotionality are associated with lower psychological well-being (Kokko et al., 2013). Emotionality's association with psychological well-being is related to the current research because it examines the relationship between body image, personality, and psychological well-being. The findings from previous studies indicate that negative body image is connected to higher levels of Emotionality and lower levels of psychological well-being.

Additional research has examined the relationship between Extraversion and psychological well-being. Those who have higher Extraversion tend to have higher psychological well-being than those who have lower Extraversion (Li et al., 2015). When asked to act extraverted, people's well-being increases while those who are instructed to act introverted report decreased well-being (Margolis & Lyubomirsky, 2020). Of the four facets of Extraversion previously discussed, the correlation between liveliness and well-being is primarily responsible for the association between Extraversion and well-being (Margolis et al., 2020). This finding illustrates how the facets of personality factors influence one's well-being. Extraversion's association with higher psychological well-being is related to the current research because it

examines how body image mediates the relationship between the personality factors (e.g., Extraversion and Emotionality) and psychological well-being (Li et al., 2015). The current research asks, is positive body image related to higher levels of Extraversion and psychological well-being?

### ***Emotionality, Extraversion, and Body Image***

Emotionality is also strongly associated with body image. Higher Emotionality is associated with poorer body appreciation (Swami et al., 2008). If one is more emotional, oversensitive, and anxious they may perceive their body image as worse than those who are more self-assured, stable, and independent (Ashton & Lee, 2009). Emotionality's relationship with body image is related to the current research because it is examining how body image, personality, and psychological well-being are related. The current research examines if poorer psychological well-being is connected to higher levels of Emotionality and negative body image.

In addition to examining Emotionality in relation to body image, Extraversion is also an important personality factor to consider when discussing body image. Extraversion has a significant association with body image (Swami et al., 2008). Higher levels of Extraversion are associated with more positive body appreciation (Swami et al., 2008). If one is more outgoing, sociable, and active they may perceive their body image more positively than those who are shy, withdrawn, and reserved (Ashton & Lee, 2009). Extraversion's relationship with positive body image is related to the current research because it examines how body image relates to personality and psychological well-being. The current research asks if higher levels of psychological well-being are related to positive body image and higher levels of Extraversion.

Personality is a characteristic set of emotional patterns, behaviors, and cognitions (Ashton & Lee, 2005). There are many models of personality, but the HEXACO model is a more recent model, based primarily on the Big-5 model. There are six personality factors within the HEXACO model: Honesty-Humility, Extraversion, Emotionality, Agreeableness, Conscientiousness, and Openness. Of the six factors in the HEXACO model, Emotionality and Extraversion are focused on in the current study. The current study examines the effect of personality factors on psychological well-being, with body image as a mediator of this relationship. These two personality factors are important to examine because they have been identified by previous research as having the strongest relationships with psychological well-being and body image compared to the other four personality factors (Anglim & Grant, 2016; Arshad & Rafique, 2016).

### **Body Image in Relation to Personality and Well-being**

Body image is defined as a person's feelings, perceptions, and thoughts on their body (Allen & Celestino, 2018). It includes multiple facets. First, body (dis)satisfaction is someone's subjective judgment of their physical appearance. A second facet, body image investment, is someone being absorbed with their physical appearance. Body image discrepancy is the difference between ideal and actual body shape. Additionally, appearance evaluation is a facet of body image that describes how someone perceives their physical attractiveness. Finally, appearance orientation is the time one spends and the importance one places on their appearance (Allen & Celestino, 2018). These five facets (body (dis)satisfaction, body image investment, body image discrepancy, appearance evaluation, and appearance orientation) make up what we know as body image. Cisgender women, cisgender men, transgender women, transgender men, non-binary individuals, and gender-queer individuals are all influenced by aspects of body

image. Cisgender individuals are those whose gender identity corresponds with their assigned sex at birth (Bradford & Catalpa, 2019). Transgender individuals are those whose gender identity does not correspond with their assigned sex at birth; non-binary and gender-queer individuals have gender identities that are neither man or women, and outside of the gender binary (Bradford & Catalpa, 2019). Everyone, regardless of their gender are impacted by body image.

Most research on body image has been conducted with women, rather than men, because body image is typically associated with women, both in popular knowledge and in empirical research. Women are upheld to body types that are perfectly thin, athletic and/or curvy, and if one does not fulfill society's perfect image of a woman, women's self-perception of their body image changes (Betz et al., 2019). When viewing idealized thin, athletic, or curvy bodies, women hold more social comparison, which predicts lower body appreciation, lower body esteem, and more body surveillance (Betz et al., 2019). Women with negative body image self-perception tend to self-report worse sleep patterns, less enjoyment with physical activity, consumption of less nutrient-dense foods, and lower quality of life (Becker et al., 2019). Meanwhile, women who report positive body image tend to self-report better sleep patterns, more enjoyment with physical activity, consumption of more nutrient-dense foods, and higher quality of life (Becker et al., 2019). Much of the research on body image has been conducted with cisgender women, especially since body image is typically associated with women in empirical research and popular knowledge. There is a lack of research on body image in relation to men and very limited research on body image in relation to gender minorities.

Although most research on body image has been conducted with women, men are also affected by body image ideals. Society expects men to be muscular, much like society expects women to be thin; this allows men to become focused on the muscularity aspect of their body

image (Murnen & Karazsia, 2017). In one study, U.S., Ukrainian, and Ghanaian undergraduate men all reported the desire to be more muscular (Frederick et al., 2007). When men rate their ideal and current muscularity it is associated with men's role in society; men desire to be more muscular to increase their dominance and appear attractive to women (Frederick et al., 2007). Men who have negative body image are significantly associated to sexual dissatisfaction (van den Brink et al., 2018). This demonstrates that men's body image affects not only their social relationships, but also their physical relationships. Ideal self-perceptions and actual measures of thinness and muscularity are predictors of hubristic and authentic pride (Mackowiak et al., 2019). Overall, men are strongly affected by body image just as women are; they are focused on muscularity rather than thinness compared to women, but research displays that men, similarly to women, are influenced by their self-perceived body image.

Most of the research in the area of body image focuses on the gender binary of cisgender men and women. There is limited research on body image and transgender, non-binary, and gender-queer individuals, compared to cisgender women and men. Because of this, the current research focuses on how personality, body image, and psychological well-being are related in gender diverse participants (men, women, transgender, non-binary, and gender-queer individuals). When examining body image, researchers need to consider those whose gender identity is not within the gender binary of cisgender men and women. Because there is the thin-ideal for women and the muscular ideal for men, non-binary and transgender individuals are faced with the pressure to conform to gender binary body ideals (Betz et al., 2019; Murnen & Karazsia, 2017). Non-binary individuals report higher levels of body and gender satisfaction on sex-specific body parts compared to binary transgender individuals (Jones et al., 2019). Cisgender people report higher levels of body satisfaction and gender congruence compared to



non-binary and binary transgender individuals; there is no difference in satisfaction and congruence between non-binary and binary transgender people (Jones et al., 2019). Cisgender men and women are more satisfied with their body image compared to gender-queer and transgender individuals. Because transgender, non-binary, and gender-queer individuals are less satisfied with their bodies, this could lead to worse mental health and eating disorders.

Transgender and non-binary people tend to report poorer mental health and a higher risk for eating disorder pathology compared to cisgender women and men (Romano & Lipson, 2021). Non-binary and transgender individuals also tend to display an overvaluation of the thin ideal and weight over-perception (reporting one's weight as higher than one's actual weight), which is associated with worse mental health and higher eating disorder pathology (Romano & Lipson, 2021). In relation to body image, cisgender individuals are more satisfied with their body image and less susceptible to eating disorder pathology compared to transgender and non-binary people. Overall, transgender, non-binary, and gender-queer individuals are greatly impacted by body image and many aspects of life influence one's perception of their body image.

Many sources of social media display many ideal body types which influence people's body image. On social media, people tend to present themselves, look at other people's posts, and spend time viewing and analyzing their own and others' social media pages. Decreased subjective well-being is a result of people presenting themselves negatively on social media (Bij de Vaate et al., 2020). Students tend to use social media to accumulate and maintain bridging social capital, more frequently due to the Covid-19 pandemic, which is positively associated with psychological well-being. However, when one uses social media for a substantial amount of time, it leads to worse psychological well-being (Ostic et al., 2021) More time spent online is negatively associated with self-esteem (Sherlock & Wagstaff, 2019). People who spend more

time online presenting themselves increase their body image dissatisfaction (Bij de Vaate et al., 2020). Additionally, those who spend time viewing and analyzing social media tend to have decreased psychological well-being and appearance and body image (Bij de Vaate et al., 2020).

Instagram, a social media platform centered around image sharing with captions, features more in body image discussions than any other application or platform. Poorer psychological well-being is associated with those who use Instagram and experience Instagram anxiety (anxiety symptoms related to using the application) or engage in social comparison. Additionally, social comparison and Instagram anxiety predict depression and anxiety (Mackson et al., 2019). For women, more time spent online is positively correlated with trait anxiety, physical appearance anxiety, body image disturbance, and depressive symptoms (Sherlock & Wagstaff, 2019). When examining Instagram images related to beauty, fitness, or travel, fitness and beauty images decreased self-rated attractiveness and correlated with depressive symptoms, body dissatisfaction, and anxiety (Sherlock & Wagstaff, 2018). High levels of exposure to ideal body types on social media affects women's sense of self and body image (Sherlock & Wagstaff, 2018). Although most studies on social media and body image focus on cisgender women, people of all genders are all influenced by aspects of body image. This could suggest that exposure to social media affects everyone's sense of self and body image.

There are certainly several moderators of the effect of social media on body image. At a macro-level, culture may be one moderator (Lee et al., 2014). At the micro- or intradividual-level, personality may also be a moderator of the effect of social media on personality. Those who are higher in Extraversion and Emotionality are more likely to use social media (Marengo et al., 2020). People with higher levels of Extraversion are associated with posting regular content and posts that utilize social words (words that are utilized in a social function); they also tend to

provide feedback to others, comment frequently, and share content publicly (Bowden-Green et al., 2020). Higher levels of Emotionality have a strong positive association with addictive social media use (Marengo et al., 2020).

In addition to social media and psychological well-being, body image has a relationship with personality factors. Out of the five or six contemporary personality factors, Emotionality and Extraversion hold the strongest relationships with body image (Swami et al., 2013). Those who have negative body image are associated with higher levels of Emotionality and lower levels of Extraversion (Allen & Walter, 2016). This demonstrates that if, for example, one is more emotional and anxious, their perception of their body image may be worse than those who are self-assured and stable (Ashton & Lee, 2009). Additionally, if, for example, one is more withdrawn and reserved, their self-perception of body image may be worse than those who are more sociable and outgoing (Ashton & Lee, 2009). The level of Emotionality and Extraversion influences individual's body image perception. Since those who are higher in Extraversion and Emotionality spend more time on social media, they may come into contact with more images of bodies (Marengo et al., 2020). As previously stated, one's levels of Extraversion and Emotionality can influence their perception of body image (Allen & Walter, 2016). By spending more time online and being exposed to many body ideals, one can infer that those with higher Emotionality and/or lower Extraversion may have worse psychological well-being and worse perception of their body image (Allen & Walter, 2016; Sherlock & Wagstaff, 2018). Overall, social media has a relationship with personality, body image, and psychological well-being.

Body image is defined as someone's feelings, perceptions, and thoughts on their body (Allen & Celestino, 2018). Most research on body image has been conducted with cisgender women, rather than cisgender men, transgender women, transgender men, or non-binary

individuals. However, everyone is influenced by aspects of body image. People with negative body image tend to self-report worse quality of life, sexual dissatisfaction, and higher risk for eating disorder pathology (Becker et al., 2019; van den Brink et al., 2018; Romano & Lipson, 2021). Overall, cisgender people report a higher level of gender congruence and body satisfaction compared to non-binary and transgender individuals (Jones et al., 2019).

Additionally, social media plays a role in people's self-perception of body image. Body image is influenced by many factors and has a relationship with personality factors and psychology well-being, which is focused on in the current study.

### **Psychological Well-being in Relation to Personality and Body Image**

Psychological well-being is defined as satisfaction with life, affect balance, a sense of coherence, and a positive life attitude (Rothman et al., 2003). There are various ways to measure well-being. Researchers have contemplated if psychological well-being has specific processes or components (Diener et al., 1985). Some research finds connections between high-quality life and good physical health (Suominen et al., 2000) Other researchers have proposed that psychological well-being is a cognitive process that indicates well-being (Stephens et al., 1999). While still other researchers argue that well-being is a spiritual process which leads to purposefulness in life and better overall life functioning (Ryff & Singer, 1998). Social, self-processes, and meaningful connections to others are important to psychological well-being. Overall, psychological well-being is made up of several components: social, self, spiritual, cognitive, physical, and affective processes (Rothman et al., 2003). Many aspects of life can influence one's psychological well-being, such as body image and personality factors. Cisgender women, cisgender men, transgender women, transgender men, non-binary individuals, and

gender-queer individuals are all affected by psychological well-being. Everyone, regardless of their gender are impacted by their psychological well-being.

Women are impacted by their psychological well-being in various ways. Compared to men, women are higher in personal growth and positive relations (Matud et al., 2019). However, women who are exposed to sexist events tend to have decreased self-esteem, poorer psychological well-being, and increased self-doubt (Oswald et al., 2018). Additionally, women who experience protective paternalism (attitudes that justify the patriarchy by viewing women as not fully functioning adults) are more likely to have lower psychological well-being, self-esteem, and increased self-doubt (Oswald et al., 2018). With bisexual women, sexist and antibisexual discrimination experiences are related to more psychological distress. Bisexual women's resilience and involvement in LGBTQ and feminist activities are related to greater psychological well-being (Watson et al., 2018). Women with higher job status also tend to have greater well-being than those who work in lower-status jobs (Matud et al., 2019). Working women also have higher psychological well-being than nonworking women; women in families with dual earners perceive lower social support compared to women in single-earner families (Sinha, 2018). Overall, sexist experiences, discrimination, and occupation status all tend to influence women's psychological well-being and their quality of life.

Although there is much research on women and psychological well-being, men are also affected by their psychological well-being. In comparison to women, men tend to be higher in self-acceptance and autonomy (Matud et al., 2019). Men with higher job levels also report greater well-being than less qualified workers (Matud et al., 2019). Additionally, men's psychological well-being can be predicted by body image. Men who consider themselves overweight report lower self-acceptance than men who consider themselves as underweight

(Tager et al., 2006). When men have higher levels of normative male alexithymia (i.e., the emotional restrictiveness Western men face) it is associated with worse psychological well-being (Guvensel et al., 2018). Men who report pressure, exclusions, dominance, criticism, and conflicts within their friendships with other men tend to report lower levels of psychological well-being (Guvensel et al., 2018). In one study, men who lived with HIV and HIV-related stigmas were more likely to experience anxiety and depressive symptoms through increased levels of internalized homophobia (Skinta et al., 2018). Self-compassion and internalized homophobia interact to help explain men's negative emotional states related to HIV-stigma and living with HIV (Skinta et al., 2018). Men of all sexualities are impacted by psychological well-being, but they may have different reasons as to why and how things impact their well-being.

Most of the research in the area of psychological well-being focuses on the gender binary of cisgender women and men. Recently, there has been more research on psychological well-being with transgender, non-binary, and gender-queer individuals, compared to cisgender women and men. Because of this, the current research focuses on how personality, body image, and psychological well-being are related in gender diverse participants (women, men, non-binary, transgender, and gender-queer individuals). Transgender and non-binary individuals report higher rates of anxiety and depression compared to cisgender individuals (Rutherford et al., 2020). But non-binary and transgender individuals report wanting help for anxiety and depression more than cisgender women and men (Rutherford et al., 2020). Non-binary individuals report experiencing lower self-esteem and more depression and anxiety than transgender individuals (Thoren et al., 2019). However, conflicting research findings demonstrate that genderqueer and non-binary individuals do not differ significantly from cisgender individuals in regard to psychological well-being (Warren et al., 2016). Previous

research found that transgender women have the highest levels of psychological stressors including social support, anxiety, and depression (Warren et al., 2016). Psychological, social, and gender affirmations (i.e., interactions with one's environment that value and recognize one's gender expression and identity) are significant predictors of higher self-esteem and lower depression for transgender women (Glynn et al., 2016). Additionally, transgender men fall between transgender women and genderqueer and non-binary individuals in psychological well-being (Warren et al., 2016). Based on previous research there are conflicting findings on whether non-binary individuals or transgender women tend to have worse psychological well-being. It is important to continue research with gender diverse participants because we can better understand how people of all genders experience psychological well-being.

Aspects of body image and stigmas of certain bod types influence people's psychological well-being. When women are exposed to many ideal body types on social media, it decreases their psychological well-being and increases their body dissatisfaction (Sherlock & Wagstaff, 2018). Women with higher Body Mass Indexes (BMIs) tend to have a higher frequency of depression than women with lower BMIs (Kim et al., 2007). Additionally, women with higher BMIs show greater eating disordered attitudes and lower quality of life (Kim et al., 2007). Body acceptance from others, body appreciation, body pride, and BMI are all significant predictors of psychological well-being for both men and women (Swami et al., 2018). Additionally, students who reported themselves as less attractive have lower life satisfaction and lower self-esteem. Girls tend to be more dissatisfied with their physical appearance and weight compared to boys, which influences their psychological well-being, self-esteem, and life satisfaction (Delfabbro et al., 2011). Overall, positive body image is positively associated with life satisfaction and positive emotions, as well as psychological well-being (Swami et al., 2018). Psychological well-being has

a strong relationship with social media and body image; personality factors also influence one's psychological well-being.

In addition to body image, psychological well-being has a relationship with personality factors. Specifically, Extraversion and Emotionality are the largest correlates of psychological well-being (Anglim & Grant, 2016). Those who have higher levels of Extraversion and lower levels of Emotionality are correlated with higher psychological well-being (Kokko et al., 2013; Li et al., 2015). This demonstrates that if, for example, one is sociable and outgoing, their psychological well-being would be predicted to be better than those who are more reserved and withdrawn (Ashton & Lee, 2009). Additionally, if one is more self-assured and stable, their psychological well-being may be better than those who are more anxious and emotional (Ashton & Lee, 2009). Overall, personality, body image, and psychological well-being are related to each other.

Psychological well-being is defined as a positive life attitude, a sense of coherence, affect balance, and satisfaction with life. (Roothman et al., 2003). Most of the research on psychological well-being has been conducted with cisgender women and cisgender men rather than transgender women, transgender men, or non-binary individuals. However, everyone is impacted by their psychological well-being. People with worse psychological well-being tend to self-report more symptoms of anxiety and depression (Oswalk et al., 2018). Overall, cisgender people reported lower rates of anxiety and depression compared to transgender and non-binary individuals (Rutherford et al., 2020). Additionally, the usage of social media and negative body image negatively affects people's psychological well-being (Mackson et al., 2019; Schivinski et al., 2020; Swami et al., 2018). Body image and personality both have a relationship with psychological well-being and can influence it for the better or for the worse.



## **Current Study**

The current research examines how body image mediates the relationship between personality factors (Emotionality and Extraversion) and psychological well-being with gender diverse participants. It replicates Allen and Celestino's research (2018), where they explored the associations between dimensions of personality and components of body image with cisgender women and cisgender men. They also explored if aspects of body image mediated the association between personality factors and physical and mental health (Allen & Celestino, 2018). Allen and Celestino predicted that Extraversion, Conscientiousness, and Neuroticism would relate to self-reported physical and mental health through variances shared with body image. Additionally, they predicted that components of body image would mediate between personality factors and mental and physical health (Allen & Celestino, 2018).

Similarly, to the previous research, the current study examines how body image mediates the relationship between personality factors and psychological well-being. While Allen and Celestino looked at Neuroticism, Extraversion, and Conscientiousness, the current research is examining Emotionality and Extraversion because they have the strongest relationships with both body image and psychological well-being, as shown in previous research (Anglim & Grant, 2016; Arshad & Rafique, 2016). In addition, the current research incorporates cisgender women, cisgender men, transgender women, transgender men, non-binary individuals, and gender-queer individuals, whereas previous research only examined cisgender women and cisgender men. The current study examines how body image mediates the relationship between personality factors and psychological well-being, the specific hypotheses are:

H1: Emotionality will be negatively correlated with body image and psychological well-being, such that higher levels of Emotionality will be associated with negative body image and worse psychological well-being.

H2: Extraversion will be positively correlated with body image and psychological well-being, such that lower levels of Extraversion will be associated with negative body image and worse psychological well-being.

H3: The direct effect of Emotionality on psychological well-being will be mediated by body image shame.

H4: The direct effect of Extraversion on psychological well-being will be mediated by body image shame.

H5: The patterns of results described in H1-H4 should be the same for Queer-identified participants as for all participants.

## **Method**

### **Participants and Procedure**

A power analysis was conducted using G\*Power software (Faul et al., 2009) with three predictor variables, and alpha of 0.05, a power of 0.90, and medium effect size ( $ES = .15$ ), the recommended number of participants for the study was 99.

The participants of the study were a combination of students at the College of Wooster who are members of Queer support groups and individuals a part of Queer support groups on Facebook. Participants first gave informed consent and then answered items on Emotionality, Extraversion, body image, and psychological well-being. All items are described below.

Proceeding the last question, the participants were asked about their demographics. They were asked about their age, gender, sexuality, U.S. citizenship, height, weight, and ethnicity or

race. They all took the questionnaire on the website, Qualtrics. The original number of participants were 109, but I removed 9 participants because they did not complete the survey (e.g., only answering one question). The final number of participants was  $n = 100$ . Of those who reported, participants ranged in age from 18 to 74 ( $M_{\text{age}} = 26.97$ ,  $SD = 10.776$ ). For gender, 11 of the participants were men, 66 were women, 13 non-binary or genderqueer individuals, 4 transgender individuals, 2 agender individuals, and 2 who preferred not to say what gender they identify. Eighty-two of the participants were United States citizens, 14 were not, and 2 preferred not to say. Eighty-five of the participants were White or European; 1 participant identified as Black or African American; 3 identified as Latinx or Hispanic American; 2 described themselves as East Asian; 1 participant identified as South Asian; and 5 participants described their ethnicity/ race as other. Twenty-nine of the participants identified as straight/heterosexual; 2 identified as gay; 11 participants were lesbians; 22 identified as bisexual; 9 participants identified as pansexual; 18 identified as queer; 5 preferred to self-describe; and 2 participants preferred not to say.

## **Measures**

Participants were given a 58-item questionnaire about Emotionality and Extraversion, body image, and psychological well-being. Participants were asked to complete the following measures: HEXACO, Male Body Attitudes Scale (MBAS), and 36-item Short Form Health Survey (SF-36). Cronbach's alphas for each measure are displayed in Table 1.

### ***Emotionality and Extraversion***

Participants completed a 20-item portion of the HEXACO to measure Emotionality and Extraversion (Ashton & Lee, 2009). They answered ten questions on emotionality. For example,

“I sometimes can’t help worrying about the little things.” There were also ten questions on extraversion. An example is, “In social situations, I’m usually the one who makes the first

**Table 1**

*Summary of Cronbach’s Alphas*

Measure	Cronbach’s Alpha
Emotionality	.82
Extraversion	.82
Body Image	.89
Psychological Well-Being	.90

first move.” All items were answered on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). Higher scores indicate higher emotionality and extraversion. Some of the items have to be reversed scored due to how they are asked (e.g., “I worry a lot less than most people do” and “I feel I am an unpopular person.”).

### ***Body Image***

Participants completed the muscularity, body fat, and height subscales of the *Male Body Attitude Scale (MBAS)* (Tylka et al., 2005). They answered 24 questions; eight were on muscularity (“I think I have too little muscle on my body”), two ask about height (“I wish I were taller”), twelve focused on body fat (“I think my body should be leaner.”). All items were answered on a 6-point Likert-type scale (1 = *Never* to 6 = *Always*). Higher scores reflect more negative body attitudes. Some items had to be reversed scored due to how they are asked (e.g., “I feel satisfied with the definition in my abs (i.e., stomach muscles”).

### ***Psychological Well-being***

Participants completed four of eight subscales of the *36-item Short Form Health Survey* (SF-36): role limitations due to emotional problems, energy/fatigue, emotional well-being, and social functioning (Ware & Sherbourne, 1992). They answered 14 questions. Three items on role limitations due to emotional problems (“During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?” “Cut down the amount of time you spent on work or other activities”). The three questions are answered with “Yes” or “No”. There are nine items that are answered on a 6-point Likert-type scale (1 = *All of the time* to 6 = *None of the time*). Four of those items ask questions similar to, “Did you have a lot of energy?”. Five of those items were on emotional well-being (“During the past 4 weeks: Did you feel worn out?”). Additionally, there are two items on social functioning (“During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?”). These items are answered on a 6-point Likert-type scale (1 = *Not at all* to 5 = *Extremely*).

### **Results**

In this study, I examined how psychological well-being relates to and is predicted by personality factors, Emotionality and Extraversion, and body image. I hypothesized that higher levels of Emotionality and lower levels of Extraversion would predict lower psychological well-being. Additionally, I predicted that lower levels of Emotionality and higher levels of Extraversion would predict higher psychological well-being.

A one-way ANOVA was conducted to examine psychological well-being in gender categories. The test showed that there were no differences in well-being across gender identity

categories,  $F(5, 92) = 2.361, p = .05, \eta^2 = 0.11$ . I then ran bivariate correlations between each of the variables (H1 and H2). Table 2 displays means and standard deviations for each measure as well as the correlations of each relationship with all the participants included. The results show that Emotionality had a significant weak to moderate negative correlation with psychological well-being. Specifically, as Emotionality levels increase, psychological well-being decreases. Extraversion had a moderate negative correlation with body image (i.e., as Extraversion levels increases, body image dissatisfaction decreases) and a moderate positive correlation with psychological well-being (i.e., as Extraversion levels increase, psychological-well-being also increases).

**Table 2**

*Intercorrelations Between Variables for All Participants*

Measure	M	SD	Emotionality	Extraversion	Body Image	Psychological Well-Being
Emotionality	3.59	.65	-	-.60	.08	-.35**
Extraversion	2.75	.69		-	-.40**	.42**
Body Image	3.39	.80			-	-.38**
Psychological Well-being	42.41	20.24				-

*Note:* Table 2 displays the means and standard deviations for each measure used in the questionnaire and correlations between each measure that was used with all the participants.  $N = 100$  Each number with \*\* indicates the correlations is significant at the 0.01 level.

Next, I ran bivariate correlations with just queer participants (sexuality and gender). Table 3 displays means and standard deviations as well as the correlations of each relationship with just queer participants (based on gender and sexuality). The pattern of results is the same as previously reported. Emotionality had a significant weak to moderate negative correlation with psychological well-being. Specifically, as Emotionality levels increase, psychological well-being decreases. Extraversion had a moderate negative correlation with body image (as Extraversion levels increases, body image dissatisfaction decreases) and a moderate positive correlation with psychological well-being (as Extraversion levels increase, psychological-well-being also increases).

**Table 3**

*Intercorrelations Between Variables for Queer Participants*

Measure	M	SD	Emotionality	Extraversion	Body Image	Psychological Well-Being
Emotionality	3.68	.65	-	-.02	.14	-.33**
Extraversion	2.77	.73		-	-.41**	.51**
Body Image	3.38	.84			-	-.38**
Psychological Well-being	37.94	18.39				-

*Note:* Table 3 displays correlations between each measure that was used with just queer participants. N = 68. Each number with \*\* indicates the correlations is significant at the 0.01 level.

**Table 4***Regression Coefficients of Well-Being with All Participants*

Measure	<i>B</i>	$\beta$	<i>SE</i>
Emotionality	-9.66	-.308*	2.64
Extraversion	9.00	.306*	2.69
Body Image	-5.91	-2.55*	2.32
Model summary	$R^2 = .324, F(3, 96) = 15.36, p < .001$		

*Note:*  $N = 100$ . \* $p < .05$ . Table 4 displays the linear regression model predicting psychological well-being with all participants.

Emotionality, Extraversion, and body image were entered into a regression model predicting psychological well-being. A linear regression model was conducted for all participants ( $n = 100$ ). This model was statistically significant  $R^2 = .324, F(3, 96) = 15.36, p < .001$ . Looking at individual predictors, higher levels of Emotionality and body image were significantly associated with a decrease in psychological well-being (see Table 4). Additionally, higher levels of Extraversion were significantly associated with an increase in psychological well-being (see Table 4).

The same factors were entered into a regression model predicting psychological well-being. A linear regression model was conducted for just queer participants ( $n = 68$ ). This model was statistically significant  $R^2 = .396, F(3, 65) = 14.22, p < .001$ . Looking at individual predictors, higher levels of Emotionality were significantly associated with a decrease in psychological well-being; higher levels of Extraversion were significantly associated with an increase in psychological well-being (see Table 5). Additionally, body image was not significantly associated with psychological well-being.



**Table 5***Regression Coefficients of Well-Being with Queer Participants*

Measure	B	$\beta$	SE
Emotionality	-8.63	-.30*	2.77
Extraversion	11.59	.46*	2.64
Body Image	-3.08	-.141	2.34
Model summary	$R^2 = .396, F(3, 65) = 14.22, p < .001$		

*Note:* N = 68. \* $p < .05$ . Table 6 displays the linear regression model predicting psychological well-being with all participants.

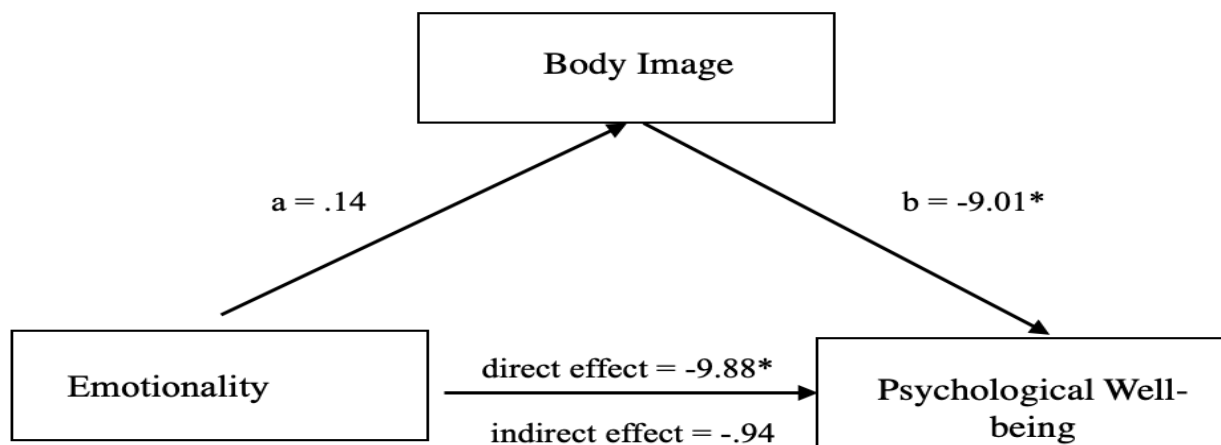
### Mediation Analysis

To investigate the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being (H3 and H4), mediation analyses was performed using PROCESS for all participants and queer participants. The outcome variable for analysis was psychological well-being. The predictor variables were personality factors Emotionality or Extraversion. The mediator variable for the analyses was body image. Figure 1 displays the first mediation analysis which looked at Emotionality, body image and psychological well-being for all participants. The results show that Emotionality negatively predicted well-being ( $b = -9.88, SE = 2.23, p < .001$ ), indicating as one scores higher on Emotionality they are more likely to have worse well-being. Emotionality did not affect body image ( $b = .104, SE = .13, p = .41$ ) and body image negatively affected psychological well-being ( $b = -9.01, SE = 2.23, p < .001$ ), which shows that those with negative body image are more likely to have worse well-being. The indirect effect of Emotionality on psychological well-being

was found not to be statistically significant, ( $IE = -.94$ , [95% CI: -3.06, 1.23]), meaning that body image did not mediate the direct effect of Emotionality on psychological well-being for all participants.

### Figure 1

*Mediation of Emotionality, Body Image, and Psychological Well-being for all Participants*



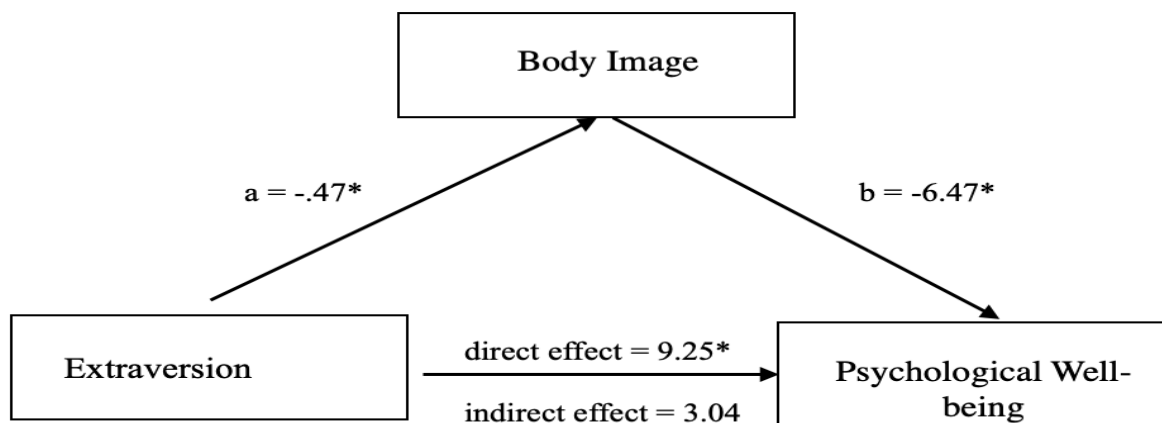
*Note:* Figure 1 displays the direct and indirect effects of Emotionality on Well-Being for all participants. \* Significant value of  $p < .05$

The second mediation analysis (Figure 2) looked at Extraversion, body image and psychological well-being for all participants. The results show that Extraversion positively predicted well-being ( $b = 9.25$ ,  $SE = 2.86$ ,  $p = .0017$ ), which indicates that those who score higher in Extraversion are more likely to have better psychological well-being. Extraversion negatively predicted body image ( $b = -.47$ ,  $SE = .12$ ,  $p < .001$ ), which indicates that those who are higher in Extraversion have less negative body image. Body image negatively predicted psychological well-being ( $b = -6.47$ ,  $SE = 2.45$ ,  $p = .0097$ ), which indicates that those with more negative body image tend to have worse well-being. The indirect effect of Extraversion on

psychological well-being via body image was found to be statistically significant, ( $IE = 3.04$ , [95% CI: .794, 5.89]), meaning body image mediates the effect of Extraversion on psychological well-being for all participants.

## Figure 2

*Mediation of Extraversion, Body Image, and Psychological Well-Being for all Participants*



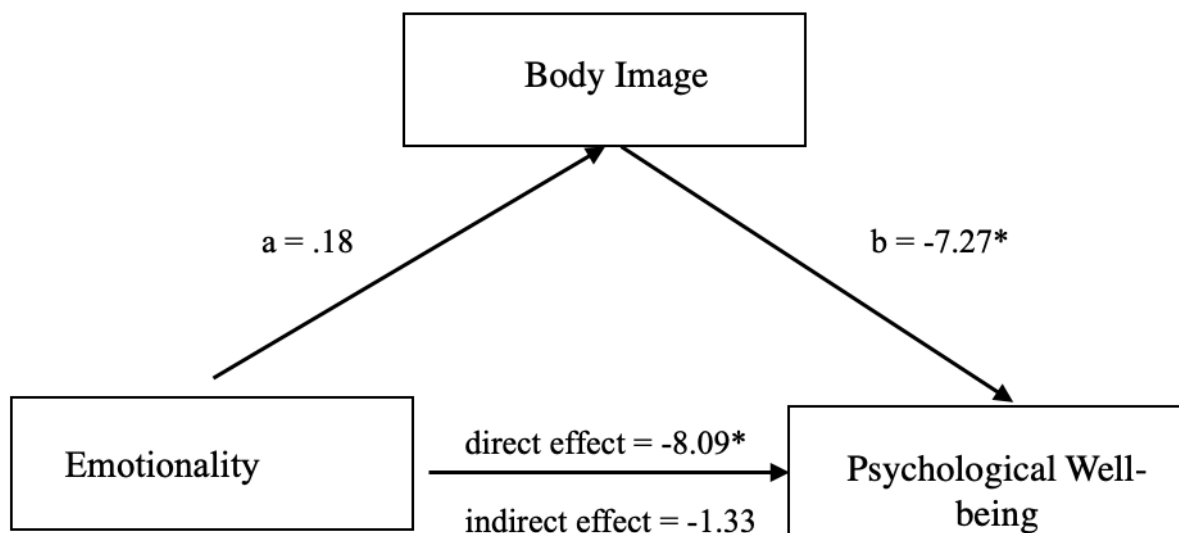
*Note:* Figure 2 displays the direct and indirect effects of Extraversion on Well-Being for all participants. \* Significant value of  $p < .05$

Figure 3 displays the third mediation analysis that looked at Emotionality, body image and psychological well-being for queer participants. The results show that Emotionality negatively predicted well-being ( $b = -8.09$ ,  $SE = 3.12$ ,  $p = .012$ ) indicating as one scores higher on Emotionality they are more likely to have worse well-being. Emotionality did not predict body image in this model ( $b = .18$ ,  $SE = .16$ ,  $p = .25$ ). However, body image negatively predicted psychological well-being ( $b = -7.27$ ,  $SE = 2.41$ ,  $p = .0037$ ) which shows that those with negative body image are more likely to have worse well-being. The indirect effect of Emotionality on psychological well-being was not statistically significant, ( $IE = -1.33$ , [95% CI: -3.54, .8475]),

meaning body image did not mediate the effect of Emotionality on psychological well-being for queer participants.

### Figure 3

*Mediation of Emotionality, Body Image, and Psychological Well-Being for Queer Participants*



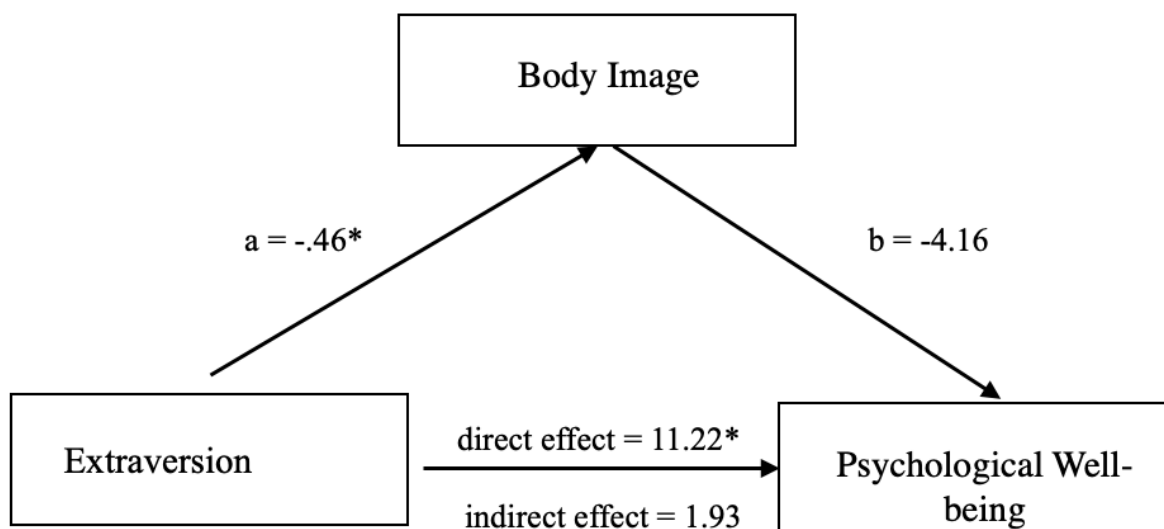
*Note:* Figure 3 displays the direct and indirect effects of Emotionality on Well-Being for queer participants. \* Significant value of  $p < .05$

The fourth mediation analysis (Figure 4) looked at Extraversion, body image and psychological well-being for queer participants. The results show that Extraversion positively predicted well-being ( $b = 11.22$ ,  $SE = 2.81$ ,  $p < .001$ ) which indicates that those who score higher in Extraversion are more likely to have better psychological well-being. Extraversion negatively predicted body image ( $b = -.46$ ,  $SE = .13$ ,  $p < .001$ ) which indicates that those who were higher in Extraversion had less negative body image. Body image did not affect psychological well-being ( $b = -4.16$ ,  $SE = 2.46$ ,  $p = .1$ ). The indirect effect of Extraversion on psychological well-

being was not statistically significant, ( $IE = 1.93$ , [95% CI: -0.28, 4.69]), meaning body image does not mediate the effect of Extraversion on psychological well-being for queer participants.

#### Figure 4

*Mediation of Extraversion, Body Image, and Psychological Well-Being for Queer Participants*



*Note:* Figure 4 displays the direct and indirect effects of Extraversion, on Well-Being for queer participants. \* Significant value of  $p < .05$

### Discussion

The current research examined the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being within a gender-diverse sample. The purpose of the research was to examine if body image mediated the relationship between personality factors and psychological well-being. The results showed that Emotionality and body image were negatively related to psychological well-being while Extraversion was positively related to well-being. The findings indicate that Emotionality and body image were both

significantly and negatively correlated with psychological well-being; Extraversion was significantly and positively correlated with psychological well-being. The pattern of results was the same when analyzing all participants and just queer participants (H5). Additionally, Emotionality and body image both negatively predicted well-being while Extraversion positively predicted well-being for all participants. However, when looking at just queer participants, Emotionality negatively predicted well-being and Extraversion positively predicted well-being. Body image did not significantly predict psychological well-being when examining just queer participants.

The results also showed that body image mediated the relationship between Extraversion and psychological well-being; this relationship was only found when all the participants were included. The findings did not support Hypothesis 3, that body image would mediate the relationship between Emotionality and psychological well-being, as body image did not mediate the relationship between Emotionality and psychological well-being for all participants. Additionally, when examining just queer participants, body image did not mediate the relationship between Emotionality and well-being, nor did it mediate the relationship between Extraversion and well-being. The findings of the current research indicate that body image only mediates the relationship between Extraversion and psychological well-being when all participants were included.

Much of the research on personality factors, body image, and psychological well-being has been conducted with cisgender men and women (Allen & Celestino, 2018; Murnen & Karazisia, 2017). The current research differs from previous research because the study is queer inclusive: people of all genders and sexualities took part in the research. It is important to look at queer samples because a sizable portion of the human population identifies as queer in one or

more ways; by excluding queer individuals researchers are excluding a portion of the population that is not represented in research (Fraser, 2018). This study attempted to be gender and sexuality inclusive when analyzing personality factors, body image, and psychological well-being.

Previous research has examined the relationship between Emotionality and psychological well-being. Higher levels of Emotionality tend to be associated with negative body appreciation and lower psychological well-being (Kokk et al., 2013; Swami et al., 2008). Lower levels of Emotionality tend to be correlated with more positive body image and higher psychological well-being (Kokk et al., 2013; Swami et al., 2008). The current findings fit with the previous research. The results show that Emotionality is negatively correlated with psychological well-being, meaning that those who score higher in Emotionality tend to have worse well-being.

Additional research has examined the relationship between Extraversion and psychological well-being. Higher levels of Extraversion tend to be associated with positive body image and higher psychological well-being (Lie et al., 2015; Swami et al., 2008). Lower levels of Extraversion tend to be correlated with negative body image and worse psychological well-being (Lie et al., 2015; Swami et al., 2008). The current study also fits with this previous research. The current study found that Extraversion was positively correlated with psychological well-being, meaning that those who scored higher in Extraversion tended to have more positive well-being.

Several studies have also found that body image is related to psychological well-being. People with negative body image tend to self-report sexual dissatisfaction, worse quality of life, and higher risk for eating disorders (Becker et al., 2019; van den Brink et al., 2018; Romano & Lipson, 2021). In other words, negative body image is associated with worse psychological well-being. The current research fits into these findings. The results show that body image was

negatively correlated with psychological well-being. This means that those who had a negative sense of body image also tended to have lower well-being.

Past research has examined how personality factors and body image predict psychological well-being. Emotionality negatively predicts body image and mental health (Allen & Celestino, 2018). The current study findings fit into the previous research because higher Emotionality negatively predicted psychological well-being. The results were the same for all participants and queer participants. Previous research has shown that Extraversion positively predicts body image and mental health (Allen & Celestino, 2018). The current study results fit into the previous research because Extraversion positively predicted psychological well-being. The outcomes were the same for queer participants and all participants. Additionally, previous research has found a negative relationship between body image and psychological well-being and that queer individuals tend to have more negative body image and worse psychological well-being (van den Brink et al., 2018; Jones et al., 2019; Romano & Lipson, 2021). The current findings somewhat fit into previous research. Body image only negatively predicted psychological well-being for all participants; body image was not a significant predictor of psychological well-being for queer participants. Based on previous findings one might think that when analyzing just queer participants that body image would negatively predict well-being; However, the findings contradict this prediction.

The purpose of the current study was to examine if body image mediates the relationship between personality factors (Emotionality and Extraversion) and psychological well-being. In previous research body image mediated the relationship between Emotionality and mental health (Allen & Celestino, 2018). The current study contradicts the past research. When examining all participants and examining just queer participants, body image did not mediate the relationship



between Emotionality and psychological well-being. Previous research has shown that body image also mediated the relationship between Extraversion and mental health (Allen & Celestino, 2018). The current findings only fit into the past research when all participants are analyzed. When examining all participants, body image mediates the relationship between Extraversion and psychological well-being. However, when analyzing just queer participants, body image did not mediate the relationship between Extraversion and psychological well-being. The differences in findings could be attributed to multiple factors: limitation to the current study, lack of participants, and the fact that the current study examined queer participants while previous research only examined cisgender individuals.

### **Limitations**

The current study has limitations. The goal of the research was to examine the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being in a gender-diverse sample. Personality factors and body image tend to have more straightforward measurements. There are various ways to measure psychological well-being. It is made up of many components: affective processes, physical, cognitive, spiritual, self, and social (Roothman et al., 2003). The current study measured psychological well-being with a self-report survey, which could lead to participants choosing answers that fit within societal norms rather than what they actually feel. Ways to examine well-being include looking at people's job-related well-being, physical health well-being, social-well-being, emotional well-being, life satisfaction, and much more (Roothman et al., 2003) The current study measures psychological well-being in relation to mental health and how it influences work, normal life, and participants' relationships to themselves and others

The Covid-19 pandemic contributed to the limitations of the current study. Data was collected at the height of the Omicron variant coronavirus surge; stress, anxiety, and isolation were a part of people's everyday lives. The stress and anxiety around the pandemic may have influenced people's psychological well-being. Specifically, the scores of the participant's psychological well-being, on average, may be lower during the pandemic versus if the current study took place outside of a pandemic (Swami et al., 2021). Although much of the world is opening up from pandemic lockdowns, many people are still at home spending much time on social media. By spending more time on social media, they may see people talking about their bodies. High levels of exposure to ideal body types on social media affects individual's body image and sense of self (Sherlock & Wagstaff, 2018). Therefore, participants may have self-reported worse body image was a result of the Covid-19 pandemic.

The current study did not address social media, which contributes to people's body image and psychological well-being. More time on social media can lead to smartphone addiction and is associated with worse psychological well-being and self-esteem (Schivinski et al., 2020; Ostic et al., 2021). Additionally, when exposed to ideal body types on social media it effects individual's body image and sense of self (Sherlock & Wagstaff, 2018). Examining social media could provide a better insight on how personality traits, body image, and psychological well-being relate to each other, especially since much of people's lives occurs around technology and the internet.

Lack of time and a lack of funding were another two limitations of the current study. The research was conducted over a period of six months. With more time, the survey may have reached more people and gained a better insight on the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being. There was no

money involved with this study. All participants were volunteers from LGBTQ+ support groups at the College of Wooster and Facebook. With a budget, the study could have been posted to sites such as Amazon's MTurk where individuals are paid to partake in studies and surveys. Both having a lack of time and a lack of money prevented the current research to reach a larger number of participants.

Another limitation of the current study is a lack of participants. The survey was completed by a total of one hundred participants, but only sixty-eight identified as queer. The power analysis conducted using G\*Power software (Faul et al., 2009) recommended 99 participants for the study. Although there were one hundred participants within the study, only sixty-eight identified as queer. If there were a total of ninety-nine (or more) queer participants who completed the survey, we can come to better conclusions about the relationship between body image, personality factors (Emotionality and Extraversion), and psychological well-being. Although there were queer participants who took part in the study, it was a small sample size, which is a challenge when doing research with a gender-diverse sample; this does not justify using dichotomous measures of gender (Fraser, 2018). The current study was gender-diverse and included all queer participants because there are many people around the world who identify as queer in one or multiple ways. By excluding queer participants, researchers are excluding a whole group of people who are a part of the world population (Fraser, 2018). Therefore, having a lack of participants, specifically queer participants, limited the current study on how personality factors, body image, and psychological well-being relate to each other within a gender-diverse sample. Overall, the main limitations of the study are the different ways of measuring psychological well-being, the Covid-19 pandemic, not measuring social media, lack of time, funding, and participants.

## **Future Directions**

Previous research has examined the relationship between personality factors, body image, and psychological well-being among cisgender men and women with each personality factor from the HEXACO model (Allen & Celestino, 2018). The main purpose of the current research was to examine the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being in a gender-diverse and queer sample. In future research, one can look more closely at queer participants. By looking at queer participants, researchers would gain a better understanding of how body image, personality, and psychological well-being play in queer people's lives. Additionally, one could look at how all personality factors from the HEXACO model rather than just Emotionality and Extraversion with queer participants.

Future research should also examine subgroups within the queer community. For example, researchers could look at how personality factors, body image, and well-being relate to each other within a sample of just transgender men and transgender women. Or one could examine how sexuality may play a part in this relationship: participants who are gay, lesbian, bisexual, pansexual, etc. By being inclusive in one's research it more accurately represents the population and may encourage cisgender individuals to use more gender inclusive language (Fraser, 2018). Going forward, it is important to be gender and sexuality inclusive in research because if research is not, then it is not accurately representing the population. In addition to being more gender and sexuality inclusive, one could examine how race and ethnicity plays a part in the relationship between personality factors, body image, and psychological well-being. Overall, future research needs to be more inclusive to better represent the population as a whole.

## **Conclusion**

The current study is important because it examines the relationship between personality factors (Emotionality and Extraversion), body image, and psychological well-being in a gender-diverse and queer sample. It is important to have an inclusive sample because a large portion of the population does not identify as straight or cisgender. By excluding people of different gender and sexuality identities, the findings that come out of such studies is not representative of the wider population. This is one of the few studies that has examined personality, body image, and psychological well-being with queer and gender-diverse participants. The findings of this study indicate that there were correlations between the personality factors (Emotionality and Extraversion), body image, and psychological well-being. However, body image only mediated the relationships between Extraversion and well-being when all participants were included. There were limitations to the study, which affected the outcome of the results; with more time, money, and participants there could be more clear outcomes. Additionally, future research needs to be more gender, sexuality, race, and ethnicity inclusive. However, the current research attempted to be more inclusive with gender and sexuality, providing a starting point in research to be more inclusive with participants. This study represents the future of research and being more gender and sexuality inclusive.

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## Appendix 1: Consent Form

Consent Form  
Personality, Body Image, and Psychological Well-being  
Rachel Jones  
The College of Wooster  
Psychology Department

**Purpose of Research:** This research will examine how the personality traits, Neuroticism/Emotionality and Extraversion predict psychological well-being. Furthermore, this research will investigate whether body image mediates the relationship between the personality factors and psychological well-being.

**Duration of Study:** Completion of the survey should take no longer than 30 minutes.

**Risks to the Individual:** Some questions on body image are personal and may make you uncomfortable. **You are free to skip any question you do not feel comfortable answering.** The risks from the other survey questions are no greater than what you would experience in everyday life.

**Benefits to the Individual:** Participants as volunteers from LGBTQ+ support groups on Facebook and LGBTQ+ support groups at the College of Wooster will not have any direct benefits. Any participants outside of Facebook support groups and College of Wooster support groups will also not have any direct benefits. The indirect benefits from this study include the possibility of learning more about one's personality, body image, and psychological well-being.

**Confidentiality:** All data collected for this research will be anonymous and confidential.

**Costs:** There are no costs for participation in this study.

**Right to Refuse or Withdraw:** You may refuse to participate in the study. If you do choose to participate and during the study you change your mind, you are able to withdrawal your participation.

**Questions:** Feel free to ask any questions while completing the study. If you find that you have more questions after the study, feel free to contact me at [rjones22@wooster.edu](mailto:rjones22@wooster.edu), or Amber Garcia at [agarcia@wooster.edu](mailto:agarcia@wooster.edu) for any other questions you may have

**Consent:** Please select the appropriate box below to continue. Selecting "I agree to participate and continue" will indicate that you have decided to agree to participate in this study, and that you have read and understood the information above, and that you are at least 18 years of age. Selecting "I wish to exit" will end your participation.

I agree to participate and  
continue

I wish to exit this  
survey

## Appendix 2: Debrief

RESEARCH PARTICIPANT DEBRIEFING FORM  
 Personality, Body Image, and Well-being  
 Rachel Jones  
 College of Wooster  
 Department of Psychology

### 1. What is the general aim of the research?

The goal of the research is to examine how body image ideals mediates between personality factors and psychological well-being in gender inclusive population.

### 2. Is this correlational or experimental research? What are some of the variables of interest?

This research utilizes a correlational method. I am interested in personality factors, specifically Neuroticism/ Emotionality and Extraversion, which both connect to body image and psychological well-being. I have been interested in personality since I took the Personality lab and class. A second variable in my research is body image/ body image ideals, this variable is important to look at because it can contribute to one's mental health and is not discussed as much as other variables. With these two variables (personality and body image) I want to see how they relate to one's mental health/ psychological well-being. The goal of this research is to see how personality and body image influence psychological well-being. This is important because it will provide an insight on factors that can influence people's mental health. Additionally, I am interested in looking at these factors in relation to the LGBTQ+ community and gender minorities. Therefore, my participants will be volunteers from LGBTQ+ support groups on campus at the College of Wooster and on *Facebook*. Overall, my research aims to look at how body image mediates between personality factors and psychological well-being in a gender inclusive population.

### 3. What topic in introductory psychology does this research illustrate?

This research experiment falls within the general area of social psychology. Specifically, it looks at the effect of personality factors and body image on psychological well-being.

### 4. Where can I learn more about this type of research?

You can read these journal articles:

Allen, M. S., & Celestino, S. (2018). Body image mediates an association between personality and mental health. *Australian Journal of Psychology*, 70(2), 179–185.

<https://doi.org/10.1111/ajpy.12178>



Davis, L. L., Fowler, S. A., Best, L. A., & Both, L. E. (2020). The role of body image in the prediction of life satisfaction and flourishing in men and women. *Journal of Happiness Studies*, 21(2), 505–524. <https://doi.org/10.1007/s10902-019-00093-y>

Swami, V., Tran, U. S., Brooks, L. H., Kanaan, L., Luesse, E.-M., Nader, I. W., Pietschnig, J., Stieger, S., & Voracek, M. (2013). Body image and personality: Associations between the Big Five Personality Factors, actual-ideal weight discrepancy, and body appreciation: *Body Image and Personality*. *Scandinavian Journal of Psychology*, 54(2), 146–151. <https://doi.org/10.1111/sjop.12014>

##### **5. Who is the faculty member supervising this research and how can I contact him or her?**

Rachel Jones is performing this research project and you can contact her by email at [rjones22@wooster.edu](mailto:rjones22@wooster.edu). The faculty advisor is Dr. Amber Garcia, and you can contact her by email at [agarcia@wooster.edu](mailto:agarcia@wooster.edu).

### **Appendix 3: Research Protocol and Survey**

Research Protocol  
Personality, Body Image, and Well-Being  
Rachel Jones and Dr. Amber Garcia

Negative body image is a pervasive psychological issue that has implications for both physical and psychological well-being. Additionally, the area of personality is a core research area in psychology, and one that also has profound effects on physical and psychological well-being. The current study will examine the relationship between these two variables; Specifically, it examines how body image mediates the relationship between personality factors and mental health. This study is inspired by research by Allen and Celestino (2018), which found that body image components mediate the relationship between personality traits (Emotionality/ Neuroticism and Extraversion) and mental health. Higher levels of Emotionality / Neuroticism and lower levels of Extraversion are associated with greater ideal-weight/actual weight discrepancy (Swami et al., 2013). Additionally, having body appreciation for oneself can promote satisfaction with life and enhance self-perceived success (Davis et al., 2020). If one is satisfied with their life, it is more likely that their mental health will be better compared to persons with low life satisfaction.

Previous studies have looked at how all Big 5 personality factors (Costa and McCrae, 1995) are related to body image and mental health. The current study examines two personality factors: Emotionality/ Neuroticism and Extraversion. Multiple studies have found associations between the two personality factors, body image, and mental health (Allen & Celestino, 2018; Davis et al., 2020; Swami et al, 2013; & Sutin & Terracciano, 2019). Although numerous studies have found significant relationships between personality, body image, and mental health, few studies have examined these relationships in queer and gender-queer samples. In my study, I will

recruit queer, gender-queer, and gender non-binary individuals to participate in this research, with the hope of providing more gender inclusivity in this area of research. My goal is to provide more insight on people of all genders' personality traits, body image, and mental health. Since the current research is gender-inclusive, I will use the *Male Body Attitudes* Scale to measure body image; despite the name, the items are more gender-inclusive compared to other body image scales. Participants will be recruited from *Facebook* support groups and Queer Support groups on campus at the College of Wooster. They will take the survey on personality traits, body image, and mental health through an online Qualtrics link. After agreeing to the consent in the study, participants will be presented with the survey and then answer general demographics questions. They will first answer questions pertaining to personality, then body image, and then mental health (See attached Qualtrics survey). The results will be analyzed with a regression, with personality and body image as predictors, and mental health as the dependent variable. The results will be shared with my advisor, second reader, and the public at the Senior I.S. Symposium. This research is part of my Independent Study.

## Measures

Participants will be given a 58-item questionnaire about emotionality/ neuroticism and extraversion, body image, and psychological well-being. The questionnaires are made up of pre-existing measures: HEXACO, Male Body Attitudes Scale (MBAS), and 36-item Short Form Health Survey (SF-36).

*HEXACO*: Participants will complete a 20-item portion of the HEXACO. They will answer ten questions on emotionality. For example, “*I sometimes can’t help worrying about the little things.*” There are also ten questions on extraversion. An example is, “*In social situations, I’m usually the one who makes the first move.*” All items are answered on a 5-point Likert-type scale: 1 = *strongly disagree* to 5 = *strongly agree*. Higher scores indicate higher emotionality and extraversion. Some of the items have to be reversed scored due to how they are asked (e.g., “*I worry a lot less than most people do*” and “*I feel I am an unpopular person.*”).

*Male Body Attitude Scale (MBAS)*: Participants will complete the muscularity, body fat, and height subscales of the MBAS. They will answer 24 questions; eight were on muscularity (“*I think I have too little muscle on my body*”), two ask about height (“*I wish I were taller*”), twelve focused on body fat (“*I think my body should be leaner.*”). All items are answered on a 6-point Likert-type scale: 1 = *Never* to 6 = *Always*. Higher scores reflect more negative body attitudes. Some items have to be reversed scored due to how they are asked (e.g., “*I feel satisfied with the definition in my abs (i.e., stomach muscles)*”).

*36-item Short Form Health Survey (SF-36)*: Participants will complete four of eight subscales: role limitations due to emotional problems, energy/fatigue, emotional well-being, and social functioning. They will answer 14 questions. Three items on role limitations due to emotional problems (“*During the past 4 weeks, have you had any of the following problems with*

*your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?” “Cut down the amount of time you spent on work or other activities”).*

The three questions are answered with “Yes” or “No”. There are four items on energy/ fatigue which ask questions similar to, “*Did you have a lot of energy?*”. These four items are answered on a 6-point Likert-type scale: 1 = *All of the time* to 6 = *None of the time*. There are five items on emotional well-being (“*During the past 4 weeks: Did you feel worn out?*”). They are answered on a 6-point Likert-type scale: 1 = *All of the time* to 6 = *None of the time*. Additionally, there are two items on social functioning (“*During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?*”). These items are answered on a 6-point Likert-type scale: 1 = *Not at all* to 5 = *Extremely*.

## Survey

On the following page you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with each statement.

1. I would feel afraid if I had to travel in bad weather conditions

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

2. When it comes to physical danger, I am very fearful.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

3. Even in an emergency I wouldn't feel like panicking.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

4. I sometimes can't help worrying about little things.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

5. I worry a lot less than most people do.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

6. When I suffer from a painful experience, I need someone to make me feel comfortable.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

7. I can handle difficult situations without needing emotional support from anyone else.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

8. I feel like crying when I see other people crying.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

9. I feel strong emotions when someone close to me is going away for a long time.

Strongly Disagree  
Disagree  
Neutral  
Agree

Strongly Agree

10. I remain unemotional in situation where most people get very sentimental.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

11. I feel reasonably satisfied with myself overall.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

12. I feel that I am an unpopular person.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

13. I sometimes feel that I am a worthless person.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

14. I rarely express my opinions in group meetings.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

15. In social situations, I'm usually the one who makes the first move.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

16. When I'm in a group of people, I'm often the one who speaks on behalf of the group.

Strongly Disagree

Disagree  
Neutral  
Agree  
Strongly Agree

17. I prefer jobs that involve active social interaction to those that involve working alone.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

18. The first thing I always do in a new place is to make friends.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

19. On most days, I feel cheerful and optimistic.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

20. Most people are more upbeat and dynamic than I generally am.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

The next set of questions asks about your body image. Please respond to each item by selecting

which choices best suits you.

21. I think I have too little muscle on my body

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

22. I think my body should be leaner.



- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

23. I wish my arms were stronger.

- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

24. I feel satisfied with the definition in my abs (i.e., stomach muscles).

- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

25. I think my legs are *not* muscular enough.

- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

26. I think my chest should be broader.

- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

27. I think my shoulders are too narrow.

- Never
- Rarely
- Sometimes
- Often
- Usually
- Always

28. I am concerned that my stomach is too flabby.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

29. I think my arms should be larger (i.e., more muscular).

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

30. I feel dissatisfied with my overall body build.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

31. I think my calves should be larger (i.e., more muscular).

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

32. I wish I were taller.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

34. I think I have too much fat on my body.

Never  
Rarely  
Sometimes  
Often

Usually  
Always

35. I think my abs are *not* thin enough.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

36. I think my back should be larger and more defined.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

37. I think my chest should be larger and more defined.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

38. I feel satisfied with the size and shape of my body.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

39. I am satisfied with my height.

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

40. Has eat sweets, cakes, or other high calorie food made you feel fat or weak?

Never  
Rarely

Sometimes  
Often  
Usually  
Always

41. Have you felt excessively large and rounded (i.e., fat)?

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

42. Have you felt ashamed of your body size or shape?

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

43. Has seeing your reflecting (e.g., in a mirror or window) made you feel badly about your size or shape?

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

44. Have you been so worried about your body size or shape that you have been feeling that you ought to diet?

Never  
Rarely  
Sometimes  
Often  
Usually  
Always

During that **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

45. Cut down the amounts of time you spent on work or other activities.

Yes

No

46. Accomplished less than you would like.

Yes

No

47. Didn't do work or other activities as carefully as usual.

Yes

No

These questions are about how you feel and how things have been with you during the past 4 weeks. For each questions give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks**...

48. Did you feel full of pep?

All of the times

Most of the time

A good bit of the time

Some of the time

A little of the time

None of the time

49. Have you been a very nervous person?

All of the times

Most of the time

A good bit of the time

Some of the time

A little of the time

None of the time

50. Have you felt so down in the dumps that nothing could cheer you up?

All of the times

Most of the time

A good bit of the time

Some of the time

A little of the time

None of the time

51. Have you felt calm and peaceful?

All of the times

Most of the time

A good bit of the time  
Some of the time  
A little of the time  
None of the time

52. Did you have a lot of energy?

All of the times  
Most of the time  
A good bit of the time  
Some of the time  
A little of the time  
None of the time

53. Have you felt downhearted and blue?

All of the times  
Most of the time  
A good bit of the time  
Some of the time  
A little of the time  
None of the time

54. Did you feel worn out?

All of the times  
Most of the time  
A good bit of the time  
Some of the time  
A little of the time  
None of the time

55. Have you been a happy person?

All of the times  
Most of the time  
A good bit of the time  
Some of the time  
A little of the time  
None of the time

56. Did you feel tired?

All of the times  
Most of the time  
A good bit of the time  
Some of the time  
A little of the time  
None of the time

57. During the **past 4 weeks**, to what extent has your emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

- Not at all
- Slightly
- Moderately
- Quite a bit
- Extremely

58. During the **past 4 weeks**, how much of the time has **your emotional problems** interfered with your social activities (like visiting with friends, relative, etc.)?

- All of the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

59. Please fill your age in years

60. Please fill your height in feet and inches

61. Please fill in your weight in pounds

62. Please indicate what gender you identify with

- Man
- Woman
- Non-binary/ third gender
- Transgender man
- Transgender woman
- Agender
- Genderqueer
- A gender not listed
- Prefer not to say

63. Which term best describes your sexuality you identify with

- Straight/ heterosexual
- Gay
- Lesbian
- Bisexual
- Pansexual
- Queer
- Prefer to self-describe
- Prefer not to say

64. Are you a U.S. citizen?

Yes

No

Prefer not to say

65. What best describes your ethnicity or race?

66. Which group best describes your ethnicity or race?

White or European American

Black or African American

Latinx or Hispanic American

American Indian or Alaska Native

East Asian (for example, Chinese or Korean)

South Asian (for example, Indian or Sri Lankan)

Native Hawaiian or Pacific Islander

Other