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Walden University

College of Psychology and Community Services

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Kristen Montiel

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Walden University

2024

Abstract

The Relative Strength of Emotion Regulation, Narcissistic Personality, and Self-Esteem on Motives to Hookup

by

Kristen Montiel

MA, Argosy University, 2012

BA, Excelsior College, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

February 2024

Abstract

As there has been a shift from more traditional to online dating and with it the societal acceptance of casual sex, researchers have become interested in the emotional impact of casual sex. Hooking up can result in both positive and negative outcomes. A significant number of those who engage in casual sex have reported negative outcomes, including depression and anxiety. While previous studies have examined motivations for casual sex and its emotional outcomes, no known studies have examined the relative strength of emotion regulation, narcissistic personality, and self-esteem on motives to hookup; therefore, the purpose of this quantitative study was to address this gap in the literature. Emotion regulation theory and its focus on how individuals influence, experience, and express their emotions informed this study. Narcissistic personality traits, self-esteem, and motives for hooking up may be influenced by how an individual self-regulates their emotional experience. Online surveys were administered, via SurveyMonkey, to 121 English-speaking, sexually active adults over the age of 21 living in the United States. A hierarchical multiple regression analysis revealed that grandiose narcissism significantly positively predicted all five motives for hooking up (i.e., social-sexual, social-relationship, enhancement, coping, and conformity) and vulnerable narcissism significantly positively predicted coping and conformity motives for hooking up. These results suggested that both types of narcissistic personality predict motives for hooking up. The findings have implications for positive social change, providing insight into the influences of casual sexual behaviors with the potential to inform therapeutic approaches and sex education programs useful for high school and college orientations.

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Dedication

Most importantly, this dissertation is dedicated to my family. First, to my person and my partner, Ryan Marroquin. You've always pushed me to do my best, to be stronger than anything that comes my way, and to persevere always. You have calmed my storms many times through this process, and it's not lost on me what an arduous task that can be – for that, I thank you. You cheered me on when we were kids and came back to cheer me on again now. I love you. Thank you for being there for me and never giving up on me.

I would also like to dedicate this dissertation to my three boys: Job, Silas, and Jesse. Job and Silas, you were always understanding when Mommy had homework to do. You encouraged me with kind words and hugs when I was stressed and overwhelmed. You showed wisdom and grace beyond your years. You are my world, and I will never forget the support you gave me. Baby Jesse, you showed up halfway through this process and shook things up. Thank you for the excitement, the beautiful baby snuggles, and the love we didn't know we needed. I love my boys so much. I know, without a doubt, just how lucky I am to have you three.

Last, but never least, I want to dedicate this dissertation to my parents, Wayne and Cindy Queen. You've been my lifelong encouragers, supporters, and friends. You have always believed in me and for that, I am so grateful. I'm also grateful for the times you watched the boys so I could work on this degree and for the times you brought me dinner or poured me a glass of wine. You lent an ear, many times when you likely didn't even

know what I was talking about. You have always been there for me and for the kids. I couldn’t ask for more. Thank you.

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Chapter 1: Introduction to the Study

Hookup culture and engaging in casual sex has become increasingly popular in recent years, especially given the shift in traditional dating toward more online dating and a wider social acceptance of hooking up (Lundquist et al., 2019). Those who engage in hooking up and casual sex behaviors describe a variety of outcomes, both positive and negative, ranging from exciting and fun experiences and increases in self-esteem to more negative outcomes, such as depression and anxiety (Farvid & Braun, 2017). Hookup culture has been broadly researched, exploring motivations for casual sex and its consequences, emotional outcomes, and implications for self-esteem (Winkeljohn et al., 2019). To date, studies have addressed narcissism and short-term mating (i.e., hookup) motives, self-esteem, and emotion regulation independently, yet no study has investigated the relative strength of emotion regulation, narcissistic personality, and self-esteem on motives to hookup. The results of this study lend important information and insight into understanding the influences of casual sex behaviors, informing therapeutic approaches and sexual education. Benefits of more informed therapy and sex education include identification of and access to resources, resulting in a positive difference in the relationships and overall emotional and mental well-being of individuals engaging in casual sex behaviors.

In this chapter, I provide the background of the problem, problem statement, purpose of the study, research questions and hypotheses, theoretical framework of the study, nature of the study, relevant definitions, assumptions, scope and delimitations, limitations, and significance of the study.

Background

Aside from psychological consequences, casual sex can increase health risks and has been linked to other potentially problematic behaviors, such as substance use (Garcia et al., 2019). Casual sex and the negative sex-related outcomes often associated with it can damage healthy social relationships that play a significant role in emotional well-being and overall quality of life. In this context, healthy social relationships include mutual respect, trust, honesty, compromise, individuality, communication, problem solving, and understanding, contrasted with unhealthy relationships characterized by control, hostility, dishonesty, disrespect, dependence, intimidation, or violence (Shipley et al., 2018).

Adults who are more relationally connected in healthy relationships tend to be overall healthier, live longer, and enjoy a greater quality of life than those who are disconnected or isolated. Lack of healthy relationships can also negatively impact mental health (e.g., anxiety, depression), behavior (e.g., withdrawal as a result of regret or shame), physical health (e.g., negative physical health symptoms caused by anxiety and depression, such as poor sleep hygiene, undereating, or overeating), and can even increase mortality risk (Ohrnberger & Sutton, 2017).

Previous research has suggested that hookups can result in both positive (e.g., feelings of empowerment, attractiveness, and excitement) and negative outcomes (e.g., anxiety, depression, and poor psychological well-being; Winkeljohn et al., 2019). According to Gross's (1998) emotion regulation theory, emotions arise in different situations and can assist in decision making (i.e., motivations), depending on how

individuals experience and respond to situations, including hookups. Self-esteem is another factor that may influence an individual's motives to hookup. Farvid and Braun (2017) discovered that one of four main motivations for casual sex was to boost one's ego (i.e., an increase in self-esteem or self-image; for men this was related to sexual "success" and for women it was internalized as confirmation of desirability). Another study suggested that when individuals, both males and females, approached casual sex for reasons other than their own pleasure, they reported lower levels of self-esteem compared to those who were motivated by their own desire (Townsend et al., 2020). Narcissism should also be considered as a factor that may influence motives to hookup. In relation to sexual behaviors, narcissists commonly value and are motivated by physical pleasure, self-affirmation, and increased sexual self-esteem (i.e., using sex to inflate their own self-esteem or reassure their own self-worth) rather than emotional intimacy, making them less committed to their partners and less sexually satisfied (Gewirtz-Meydan, 2017). Schmitt et al. (2017) determined narcissism was universally related to casual sex behaviors. I conducted the present study to determine the extent to which emotion regulation, narcissism, and self-esteem predict motivations to hookup, contributing to a greater understanding of why and how hooking up may result in a positive or negative experience.

Problem Statement

Hookup culture (i.e., accepts and encourages casual sex, including one-night stands, without emotional connection or commitment) has recently become more common given its easy access via online dating platforms (Lundquist et al., 2019).

However, casual hookups do not come without negative social and emotional consequences, including psychological distress, feelings of confusion, disappointment, reduced self-esteem, and lower levels of overall well-being (Winkeljohn et al., 2019). Though studies on the potentially deleterious outcomes associated with hookups are limited, both men and women have reported feelings of anxiety after hooking up (Winkeljohn et al., 2019).

In the current study, I explored the relative strength of emotion regulation, grandiose and vulnerable narcissism, and self-esteem on motives to hookup. Hookup culture has been widely researched, with researchers often examining motivations for casual sex and its consequences, emotional outcomes, and implications for self-esteem (Winkeljohn et al., 2019). While studies have addressed narcissism, short-term mating (i.e., hookup) motives, and self-esteem, no study to date has determined which among the factors implicated in the motive to hookup may have the greatest predictive strength.

Purpose of the Study

The purpose of this quantitative, cross-sectional, correlational study was to determine the relative strength of emotion regulation (independent variable [IV]), grandiose narcissistic personality (IV), vulnerable narcissistic personality (IV), and self-esteem (IV) in predicting motives to hookup (dependent variables [DVs]).

Research Questions and Hypotheses

The following research questions and hypotheses were addressed in this study:

Research Question 1: To what extent is emotion regulation, as measured by the Emotion Regulation Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$1: Emotion regulation does not predict motives to hookup.

$H_1$1: Emotion regulation predicts motives to hookup.

Research Question 2: To what extent is grandiose narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$2: Grandiose narcissistic personality does not predict motives to hookup.

$H_1$2: Grandiose narcissistic personality does predict motives to hookup.

Research Question 3: To what extent is vulnerable narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$3: Vulnerable narcissistic personality does not predict motives to hookup.

$H_1$3: Vulnerable narcissistic personality does predict motives to hookup.

Research Question 4: To what extent is self-esteem, as measured by the Rosenberg Self Esteem Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$4: Self-esteem does not predict motives to hookup.

$H_1$4: Self-esteem does predict motives to hookup.

Theoretical Framework

In emotion regulation theory, Gross (1998) explained how individuals influence, experience, and express their emotions as well as how emotion-regulation strategies can prepare individuals to respond to challenges and opportunities while providing insight as to what is important to them and how that influences their goals and behaviors. Any emotional response provides the individual with information about their thoughts, feelings, and importance of the situation as well as whether the situation advances or obstructs their goals, the processing of which will then be reflected in the individual's behavioral response.

Based on emotion regulation theory, reappraisal is one approach to regulating emotions where individuals modify the way in which they view or evaluate the situation, in turn, influencing their emotional responses (Gross, 1999). Suppression is another approach individuals use to downplay their behavioral response to a given emotion, thereby decreasing any negative feelings that may be associated with the situation. Narcissistic personality traits, self-esteem, and motives for causal sex (i.e., hookups) may be influenced by how an individual self-regulates their emotions to control their outcomes. A more detailed explanation of emotion regulation theory will be presented in Chapter 2.

Nature of the Study

In the current study, I used a quantitative, cross-sectional, nonexperimental, correlational, survey design. A quantitative research design was best suited to examining relationships among variables, in this case, the relative strength of emotion regulation

(IV), grandiose narcissistic personality (IV), vulnerable narcissistic personality (IV), and self-esteem (IV) in predicting motives to hookup (DVs): social-sexual, social-relational, enhancement, coping, and conformity motives.

The population for this study included English-speaking, sexually active adults over the age of 21. Participants residing outside the United States were excluded from the study to minimize potential cultural differences in attitudes toward casual sex. I used a convenience sampling strategy, and SurveyMonkey, an internet-based survey platform, provided participants using their SurveyMonkey Audience. Individuals who met the inclusion criteria received a notification that they qualified to participate, including a link to the survey where they could choose to participate. I analyzed the data collected from the SurveyMonkey platform using the Statistical Package for Social Sciences (SPSS) Version 28.0. Hierarchical multiple regression analyses were conducted to determine the relative strength of emotion regulation, grandiose and vulnerable narcissism, and self-esteem in predicting motives to hookup.

Definitions

Emotion regulation: How individuals influence, experience, and express their emotions, (Gross, 1998).

Grandiose Narcissism: An individual who exhibits a high level of self-importance, seeking to satisfy self-serving goals (Krizan & Helache, 2018).

Hookup: Sexual activity outside of a committed relationship (McKeen et al., 2022).

Hookup culture: A culture that accepts and encourages casual sex, including one-night stands, without emotional connection or commitment (Lundquist et al., 2019).

Hookup motives: Goal-directed reasons why an individual would choose to engage in casual sex (Montes et al., 2016).

Narcissist: An individual who displays a strong sense of entitlement, inflated sense of self, poor emotion regulation, a need for admiration, lower levels of empathy, and is emotionally unresponsive to others (Casale et al., 2019).

Reappraisal: An emotion regulation strategy that involves reinterpreting a situation (e.g., deciding one feels excitement instead of anxiety; Gross, 1998).

Suppression: An emotion regulation strategy that involves inhibiting one's emotional impulse (e.g., counting to 10 before responding in a tense situation; Gross, 1998).

Self-esteem: Represents how positively or negatively individuals view themselves (Baily, 2003).

Vulnerable narcissism: An individual who exhibits self-protective traits (e.g., engaging in fight or flight responses when threats to their self-image arise), low self-worth, anxiety, depression, and neuroticism (Krizan & Helache, 2018).

Assumptions

I made a number of assumptions in the current study. First, it was assumed that all surveys would be completed in compliance with instructions. I also assumed that all participants would be honest in their survey responses. Due to the sensitive nature of

sexual behavior, some individuals may have been reluctant to disclose information if the questions were perceived as too intimate. However, the method of collecting the data anonymously should have helped potential participants feel more comfortable about answering the questions accurately and honestly.

Scope and Delimitations

The aim of this study was to explore the relative strength of emotion regulation, grandiose narcissistic personality, vulnerable narcissistic personality, and self-esteem in predicting motives to hookup. Participants were limited to English-speaking, sexually active adults over the age of 21, recruited using the online survey platform, SurveyMonkey. Participants were also limited to those living in the United States as to minimize potential cultural differences in attitudes toward casual sex. Though hooking up has become more commonplace for young adults (Lundquist et al., 2019), in a recent study Farvid and Braun (2017) found that age did not emerge as a predictable pattern in the number of casual sex experiences among those studied (aged 18 to 49); therefore, the present study included all adults over the age of 21 who met the inclusion criteria. Younger and older individuals and individuals who do not reside in the United States were outside the scope of this study.

Limitations

Convenience sampling limited the representativeness of the sample because individuals who chose to respond to the survey may not have been representative of all sexually active individuals over the age of 21 residing in the United States. However, recruiting participants through an online survey platform, SurveyMonkey, allowed for

more diverse recruitment than in-person recruiting. The current study was also limited in the ability to confirm participant eligibility. I addressed this limitation by using screening questions about age, sexual activity status, language, and residency. Online surveys are also vulnerable to social desirability bias because participants tend to respond in ways that put them in the best light rather than how they actually feel or what they actually believe, especially when soliciting sensitive information (Stuart & Grimes, 2009). This limitation was addressed by reminding the participants that their responses were anonymous and by using passive deception in an effort to maximize the collection of reliable data. The consent form stated the purpose of the study was to explore how psychological characteristics are related to social behavior; this statement offered the participants the opportunity to make informed decisions about their participation yet did not disclose the specifics of the study. Nonresponse bias was another potential limitation because participants may not have answered all questions or may not have submitted the survey (see Goodwin, 2010). To reduce this threat, SurveyMonkey used a feature that allowed for response verification of each survey item to notify the participant of any incomplete questions.

Significance

This study was significant in its ability to contribute to ongoing research dealing with hookup culture. Casual sex has become increasingly popular but can have substantial emotional, psychological, and physical consequences. The findings of this study may be used to provide greater insight into factors that influence casual sex decisions, which can inform theraputic practices and sex education. Developing greater

access to information, resources, and effective therapeutic approaches can make a positive difference in the relationships and overall emotional and mental well-being of individuals engaging in causal sex behaviors.

Summary

Hooking up and casual sex behaviors have become more accepted and are occurring at higher rates in recent years, particularly with the cultural shift toward more online dating (Lundquist et al., 2019). Hooking up can have positive results; however, there can also be negative consequences (Farvid & Braun, 2017). Although hookup motives and culture have been researched from a broad perspective and relationships between hookup motives, narcissism, self-esteem, and emotion regulation have been explored independently, no study has investigated the relative strength of emotion regulation, narcissistic personality, and self-esteem on motives to hookup. The aim of this study was to address this gap in the current literature. Emotion regulation theory informed the current study. I employed a quantitative, cross-sectional, nonexperimental survey design to collect data from participants recruited by an online survey platform. The findings of this study may be used to inform therapeutic practices and current sex education.

Chapter 2 will include the literature search strategy, an analysis of the theoretical framework, and an exhaustive review of the relevant literature related to key variables (i.e., hookup motives, self-esteem, grandiose and vulnerable narcissism) followed by a summary and conclusions.

Chapter 2: Literature Review

Relevance of the Problem

In recent years, hookup culture (i.e., accepts and encourages casual sex, including one-night stands, without emotional connection or commitment) has recently become more common given its easy access via online dating platforms and wider social acceptance (Lundquist et al., 2019). Both positive and negative outcomes of casual sex have been reported. Positive outcomes may include the thrill of hooking up (i.e., feelings of excitement, carefree, fun, new, or naughty) and experiencing an ego boost (i.e., increased self-esteem or feeling desired). Negative impacts vary from mild to potentially severe. The milder negative outcomes may include feeling disappointed, unfulfilled, awkward, or uncomfortable (Farvid & Braun, 2017). More severe consequences can include health issues, such as sexually transmitted diseases; mental health concerns, such as depression and anxiety; and negative relationship outcomes if individuals engage in hooking up rather than developing emotional connection or intimacy (Ohrnberger et al., 2017).

Some explanations as to why hookup culture is growing increasingly popular include the use of online dating apps, specific personality traits (e.g., narcissism) that make it more likely to gravitate toward casual sex relationships; beliefs and attitudes about sex; and mental health influences, such as depression and anxiety (Gewirtz-Meydan, 2017). Previous research has attempted to understand the motives behind hookup culture (Gewirtz-Meydan, 2017; Hollis et al., 2022). Links have been found independently between self-esteem, narcissism, emotion regulation, and casual sex; in

particular, the tendency toward hooking up seems to decrease among those with increased emotion self-regulation (Stroud et al., 2016). To date, however, research has not determined if emotion regulation moderates the relationship between narcissism, self-esteem, and the motive to hookup.

Despite how common casual sex hookups are becoming, they do not come without negative social and emotional consequences, including psychological distress, feelings of confusion, disappointment, reduced self-esteem, and lower levels of overall well-being, with females more likely to have negative emotional reactions to hookups than men and also more likely to be socially punished (i.e., judged or rejected; Winkeljohn et al., 2019). Though studies on the potentially deleterious outcomes associated with hookups are limited, both men and women have reported feelings of anxiety after hooking up (Winkeljohn et al., 2019).

Aside from psychological consequences, casual sex can increase health risks and has been linked to other potentially problematic behaviors, such as substance use (Garcia et al., 2019). Casual sex and the negative sex-related outcomes often associated with it can damage healthy social relationships, which play a significant role in emotional well-being and overall quality of life (Shipley et al., 2018). In this context, healthy social relationships include mutual respect, trust, honesty, compromise, individuality, communication, problem solving, and understanding, contrasted with control, hostility, dishonesty, disrespect, dependence, intimidation, or violence. Adults who are more relationally connected in healthy relationships tend to be overall healthier, live longer, and enjoy a greater quality of life than those who are disconnected or isolated

(Ohrnberger et al., 2017). Lack of healthy relationships can also negatively impact mental health (e.g., anxiety, depression), behavior (e.g., withdrawal as a result of regret or shame), physical health (e.g., negative physical health symptoms caused by anxiety and depression, such as poor sleep hygiene, undereating or overeating), and even increase mortality risk.

Hookup culture (i.e., sex without commitment) has been widely researched, often examining motivations for casual sex and its consequences, emotional outcomes, and implications for self-esteem (Winkeljohn et al., 2019). While studies have addressed narcissism and short-term mating (i.e., hookup) motives, self-esteem, and emotion regulation independently, no study has investigated the relative strength of emotion regulation, narcissistic personality, self-esteem, on motives to hookup. The purpose of this quantitative study was to determine the relative strength of emotion regulation (IV), grandiose narcissistic personality (IV), vulnerable narcissistic personality (IV), self-esteem (IV), and motives to hookup (DVs). Findings from this study can provide important insights into factors that influence casual sex decisions with the potential to inform theraputic practices and sex education. Developing greater access to information, resources, and effective therapeutic approaches can make a positive difference in the relationships and overall emotional and mental well-being of individuals engaging in causal sex behaviors.

In this chapter, I discuss the literature search strategy and theoretical foundation (i.e., emotion regulation) before providing an exhaustive review of the literature related

to key variables (i.e., narcissistic personality, self-esteem, hookup motives) and concluding with a summary.

Literature Search Strategy

I retrieved the peer-reviewed articles used in this study from the following databases and search engines accessed through the Walden University Library: Ebscohost, APA PsycArticles, APA Psychnet, ProQuest, Google Scholar, APA PsycInfo, and SAGE journals. Keywords used for the literature search included various combinations of the following: *emotion regulation, self-esteem, implicit self-esteem, explicit self-esteem, self-concept, self-worth, hookup culture, hookup consequences, casual sex negative outcomes, motives for hooking up, casual sex motives, casual sex consequences, narcissism, vulnerable narcissists,* and *grandiose narcissists.* Aside from seminal theoretical sources, the majority of studies included were published between 2017 and 2022.

Theoretical Foundation

Emotion Regulation Theory

In emotion regulation theory, Gross (1998) explained how individuals influence, experience, and express their emotions. With origins in developmental psychology, emotion regulation theory is based on two traditions (Gross, 2015). The psychoanalytic tradition explores the idea that individuals may avoid certain situations based on the emotions they experience, and they may suppress their emotional impulses to avoid feeling overwhelmed (e.g., those who experience fear or vulnerability in emotionally intimate relationships may avoid close relationships; Freud, 1926/1959). In the stress and

coping tradition, it is proposed that similar psychophysiological responses occur in a conscious coping process using both problem-focused coping (i.e., goal is to solve a problem) and emotion-focused coping (i.e., goal is to reduce the negative emotional experience; Gross, 1998; Sapolsky, 1994).

As the basis of emotion regulation theory, emotions are conceptualized as flexible response sequences that occur when a person is faced with a situation that presents a challenge or opportunity (Tooby & Cosmides, 1990). In an effort to understand how people manage their emotions, emotion regulation theory contains an explanation of when and how an individual experiences emotion and their joint influence on which emotions are experienced. In the theory, it is further posited that emotional response tendencies can be controlled, which is what determines the final emotional response (Gross, 1998). In other words, a conscious effort can be made to modify an emotion experienced initially. Based on this process model, emotions can be regulated at five different times during the emotion generative process: (a) selection of the situation, (b) modification of the situation, (c) deployment of attention, (d) change of cognitions, and (e) modulation of responses. For example, if an individual felt anxiety about going on a date, they might interpret that feeling as excitement or they might engage in positive self-talk and thus begin to feel more confident and less anxious.

Some emotions have negative outcomes, such as distraction and deviation from healthy functioning (e.g., experiencing negative emotions that disrupt an individual's social, occupational, relational, and/or cognitive functioning), and need to be controlled or regulated. Negative emotions can be controlled during different times in the emotion

generative process and can be regulated in a number of ways, including reappraisal (e.g., reinterpreting a situation, such as deciding one feels excitement instead of anxiety) or suppression (e.g., inhibiting one's emotional impulse, such as counting to 10 before responding in a tense situation); on the other hand, emotions viewed as positive require little need to exert control (Gross, 1998). Emotions have also been described as behavioral (e.g., smiling or crying) and physiological responses (e.g., changes in heart rate, breathing, or blood pressure) used to adapt when the situation warrants (Gross, 1998).

Emotions arise in different situations and can assist in decision-making (i.e., individuals may make decisions based on how they feel about a situation) preparation of rapid motor responses (i.e., reflexes, such as running when one feels fear; Frijda, 1986) as well as provide information about the relationship between an individual and their environment (Schwarz & Clore, 1983). In essence, individuals have a different emotional response based on the situation and how important it is to them. For example, a stranger in traffic saying something insulting will likely yield a less intense emotional response than being insulted by a partner. Emotions also inform social responses, lending information about others' behaviors and providing insight as to whether something is good or bad (i.e., individuals evaluate experiences as being good or bad based on their emotional responses to the situation; Walden, 1991). This evaluation can influence an individual's behavior (Averill, 1980; Keltner & Buswell, 1997). Emotions can have a harmful effect if they are too intense, too frequent, or last too long or if the response to the trigger creates a maladaptive cognition or behavior (Gross & Jazaieri, 2014). For

example, if a person experiences the end of an important relationship, they may ruminate about what went wrong, stay in bed for days feeling sad, stop eating, and start drinking excessively, and this would be considered a negative or maladaptive response. The idea that individuals are capable of managing their emotional response tendencies, but do not always do so, suggests that people manage or modulate their emotional responses (Gross, 1998). For example, individuals are mostly capable of calming themselves down when they feel irritated but not everyone does. Some people, when irritated, might say whatever is on their mind without considering the consequences, and this suggests that people can regulate their emotions (or have some level of control over their expression) but may not always choose to do so. This would imply that people regulate their emotions by controlling their emotional responses.

In addition, people's behavior may not always align with their emotion (e.g., agreeing to sex with someone despite feeling shame or guilt). Emotion regulation theory provides insight into what is important to individuals and how that may influence their goals and behaviors (Gross, 1998). Any given emotional response provides the individual with information about their thoughts, feelings, and importance of the situation as well as whether the situation advances or obstructs their goals; the processing of this information will then be reflected in the individual's behavioral response. For example, if an individual is seeking casual sex and is turned down, they may feel rejected because this interaction would be in opposition to their goals. The level of rejection (or hurt) they feel provides insight as to how important this goal is to them. If they are simply seeking casual sex to have a companion for the evening, they may be only mildly bothered by the

rejection; however, if they are feeling lonely and experiencing poor self-worth, the rejection will evoke a greater negative emotional response to being turned down.

The *situation-attention-apprisal-response* sequence is initiatied by a situation that feels relevent to the individual, either an external (e.g., someone running after you) or an internal response (e.g., *the thought* that someone might chase after you; Gross et al., 2006). These situations are appraised in terms of what they mean to the individual and their goals. Emotions are identified as helpful or harmful based on the relevance of the context to the individual and their goals (e.g., survival if someone is running after you). In an effort to regulate their emotions, individuals will *down-regulate* negative emotions, decreasing the experience of feelings like anger, sadness, and anxiety (Gross et al., 2006). Alternatively, to extend the experience of feeling good, people typically *up-regulate* positive emotions like love, excitement, and joy (Quiodbach et al., 2010). Emotion regulation strategies are also used to change the intensity, duration, and quality of emotions. To regulate emotional intensity, individuals may increase or decrease the emotional response or behavior (e.g., suppressing distressing feelings on a date or around strangers; Smith & Kleinman, 1989) or they may modify the duration of an emotion (e.g., sharing good news with others to prolong the positive feeling; Gable et al., 2004). Individuals may also modify the quality of their emotional response (e.g., laughing when they fall; Samson & Gross, 2012).

Emotion regulation strategies can vary wildly (e.g., punching a pillow; using breathing exercises, venting, or exercise; or reframing one’s thoughts about a situation). With emotion regulation theory, Gross (2015) sought to explain the varying strategies

people use to manage their emotions and assess if different strategies produce different outcomes. For most, emotions are a subjective experience, but they also influence how individuals act (i.e., their behavioral responses to such emotions), including body language, facial expression, withdrawing, or even acting out physically (i.e., hitting; Barrett et al., 2007; Ekman, 1972; Frijda, 1986; LeDoux, 2002).

Reappraisal is one approach to regulating emotions where the individual's evaluation of the situation and how it relates to their own goals, rather than the situation, per se, is the source of the emotion (Gross, 1999). Reappraisal occurs when individuals modify the way in which they view or evaluate the situation, in turn, influencing their emotional responses (Gross, 1999). *Suppression* is another approach individuals use to downplay their behavioral response to a given emotion, thereby decreasing any negative feelings that may be associated with the situation (Gross, 1999).

In emotion regulation theory, Gross (2015) posited that both positive and negative emotions can be modulated and that both the emotional experience and the external influence may be explained using the five-step *process model of emotion regulation*. The model involves a sequence of steps involved in emotion generation: *situation selection* (i.e., choosing among multiple situations based on their expected emotional impact; e.g., avoiding an unpleasant relative), *situation modification* (i.e., modifying the external environment after the situation elicits an emotion; e.g., hiding an upsetting letter rather than leaving it in view), *attentional deployment* (i.e., directing one's attention to particular aspects of a situation to regulate the emotional impact; e.g., using distraction to shift attention away from the negative aspects or using concentration to focus on the

positive aspects), *cognitive change* (i.e., altering one's cognitive appraisal of the situation, thus changing the emotional/behavioral responses; e.g., telling oneself that a task is not too hard that instead they may learn something useful), and *response modulation* (i.e., post hoc altering of one's experiential, behavioral, or physiological responses to their initial emotional response; e.g., using substances, such as alcohol or drugs, to alter one's emotional state by attempting to decrease negative emotions after a breakup; Gross, 2015).

Evolving from the original process model, the *extended process model* was developed to explain why different people use different emotion regulation strategies and why some are successful while others are not; allowances are made for an individual to try a new emotion regulation strategy if an initial attempt is ineffective (John & Gross, 2004). In this model, it is posited that emotions involve valuation (i.e., is this good for me or bad for me?). Individual differences in the way people view the world mean individuals' valuation systems will differ; for example, some may use reappraisal, choosing to view a situation differently and thereby altering its impact, while others use suppression to restrict or subdue negative emotional responses. John and Gross (2004) asserted that the ability to reappraise situations has a positive impact on psychological health, while suppression of emotion as a regulation strategy as been shown to have a negative impact on mental health. Research has suggested a significant positive association between emotion suppression and anxiety, stress, depressed mood, and decreased life satisfaction such that suppressing one's emotions negatively impacts one's quality of life (Haga et al., 2009; Moore et al., 2008).

In the extended process model, it was further posited that during emotion regulation, a first-level valuation system targets a second-level valuation system, appraising it as either positive or negative, which activates behavioral impulses that modify the activity of the original valuation system (Gross, 2015). The targeted valuation system can influence the original evaluating system in five ways: (a) trying to change the situation (e.g., asking someone out on a date), (b) changing external factors (e.g., using online dating instead of trying to meet a partner organically, (c) influencing which aspects of the world are perceived or attended to (e.g., distracting oneself by spending time with friends), (d) changing one's cognitive representation of the world (e.g., reminding oneself that people typically have to go on many dates before finding the right partner), or (e) modifying the emotional reactions (e.g., suppressing feelings of rejection to avoid confrontation; Gross, 2015). Within this valuation process, there are three emotion regulation stages: *identification* (i.e., when the first-level valuation system detects the emotion), *selection* (i.e., when the emotion regulation goal is identified), and *implementation* (i.e., prompted by selection stage, tactics for carrying out the emotion regulation strategy are formulated; Gross, 2015).

Emotion regulation may be assumed when an expected emotional response is modified to proceed in a different way (e.g., a person feels insecure on a first date but after taking deep breaths to alter their physiological response, they reappraise the situation, seeing it now as an opportunity for a new relationship; Gross, 1999). The emotion regulatory processes may be an automatic (i.e., repression) or controlled response (i.e., rumination) and may be conscious (e.g., changing a topic of discussion that

makes you feel anxious) or subconscious (e.g., a child who is abused at a young age may subconsciously repress the memory). The regulation of emotions may also occur at any of the differing points as individuals cycle through the five steps in the emotion-generative process (Gross, 1998).

Emotion regulation theory suggests that individuals need to have some level of control over their own emotions while attempting to explain the extent of that control. The theory explains the balance between ignoring or silencing emotions (i.e., such as repressing or avoiding emotions) and attending to them as sole determinant of one's behavioral reactions (i.e., reacting solely based on an emotional state rather than considering other factors). For example, an angry emotional reaction to a rejected sexual advance leads an individual to insult their partner, leaving them vulnerable to their partner's retaliation. Had they instead considered other factors, such as their partner not feeling well or being tired, the angry emotional reaction that elicited their partner's retaliation could have been avoided. Emotion regulation theory integrates reason and emotion (i.e., how individuals make sense of situations and how they respond emotionally) and explains how emotions can be regulated for optimal human functioning (i.e., down-regulating negative emotions and up-regulating positive ones; Gross, 1998).

Recent research has examined the influence of emotion regulation strategies on life satisfaction, generally, but has not looked specifically at how situational and dispositional factors interact to influence emotion regulation strategies. To that end, Jiang et al. (2022) investigated the interplay between gender, situation (i.e., social stress levels) and emotion regulation strategy (i.e., reappraisal and suppression) in overall life

satisfaction of young adults. The authors hypothesized that gender (i.e., person factor) and social stress (i.e., situation factor) would moderate the relationship between emotion regulation strategy (i.e., both reappraisal and suppression) and life satisfaction. A sample of 351 undergraduate students at a public university within the United States, participated in this study. Participants were ages 18 to 23, including 263 women and 84 men who completed the five-item Satisfaction with Life Scale (Diener et al., 1985), the 21-item University Stress Scale (Stallman & Hurst, 2016), and the 10-item Emotion Regulation Questionnaire (Gross & John, 2003).

Regression results revealed a significant positive relation between reappraisal (i.e., reinterpreting emotional situations) and life satisfaction for females across all stress levels (i.e., low, medium, high) but was positive for men only at moderate and high levels of social stress. On the other hand, suppression (i.e., restricting behavioral displays of emotion) had no significant effect on life satisfaction for females across all stress levels and was significant and positive for males but only at high stress levels. As predicted, there were significant gender differences for both reappraisal and suppression related to social stress and life satisfaction. While reappraisal mitigated the effects of social stress on life satisfaction for both males and females, it decreased for females but increased for men as stress levels increased. Conversely, suppression did not mitigate the effect of social stress on life satisfaction except for males at high stress levels. These findings are consistent with studies indicating that females tend to experience greater social stress than males (Nickels et al., 2017), stress that, for females, resists the positive buffering impact of emotion regulation strategies on life satisfaction. These findings are relevant to

the current study that aimed to examine the predictive relationship of emotion regulation, grandiose and vulnerable narcissistic personality, and self-esteem on motives to hookup.

Extremer and Lourdes (2015) examined the extent to which emotional regulation moderates the relationship between perceived stress and depression/subjective happiness, hypothesizing that greater emotion regulation ability would enable individuals to better manage stressful situations than individuals lacking that ability. Gender differences were also investigated. A convenience sample of 665 Spanish speaking adults completed the Perceived Stress Scale, Mayer-Salovey-Caruso Emotional Intelligence Test, Subjective Happiness Scale, and the depression subscale from the Depression, Anxiety and Stress Scale. Results showed that perceived stress was significantly and positively associated with depression and negatively related to subjective happiness for both males and females. However, a gender-specific analysis indicated that emotion regulation moderated the relationship between perceived stress, depression, and happiness but only for males such that when perceived stress was high, males with higher levels of emotion regulation ability experienced less depression and more subjective happiness than males less able to manage their emotions. Attempting to explain why no moderation effect for emotion regulation was found for females, Extremer and Lourdes suggest males and females inhabit very different emotional worlds wherein different emotion regulation abilities operate. Because women have higher emotion regulation ability scores than men, there could be a baseline level of emotion regulation needed for effective functioning in day-to-day living, and the number of men who fall below this threshold could be higher

than the number of women. Thus, men may need a lower threshold of emotion regulation abilities to experience higher overall well-being.

Emotion regulation theory is also well-suited to examine the potential for self-regulating abilities (i.e., emotion regulation and distress tolerance) to moderate the well-established relationship between narcissism and behavioral and emotional functioning. Traits associated with narcissism include self-absorption and aggression where the more antagonistic behavior is associated with the need to protect self-esteem when threatened. Comprised of two distinct dimensions, narcissism is not a unitary construct (Pincus & Lukowitsky, 2010). Vulnerable narcissists tend to be hypersensitive to distress and others' view them whereas grandiose narcissists tend to engage in more attention-seeking behaviors, are overly confident or arrogant, and tend not show much outward distress (Caligory et al., 2015). Both types of narcissists exhibit lower levels of empathy (Baskin-Sommers et al., 2014), feelings of superiority, attempts to be admired (Brown et al., 2016), and difficulties making behavioral and emotional adjustments. To determine the potential for emotion regulation to mitigate the maladaptive behaviors often associated with narcissism, Underwood et al. (2021) investigated the relationships among narcissism (vulnerable/grandiose), emotion dysregulation, and distress tolerance among a sample of 329 (253 males, 64 females, 12 chose not to respond to gender) at-risk adolescents (ages 16-19) attending residential intervention programs. Participants completed the Narcissistic Personality Inventory for Children, Pathological Narcissism Inventory, Difficulties in Emotion Regulation, Distress Tolerance Scale, and the Personality Assessment Inventory Adolescent.

As predicted, results indicated that vulnerable narcissism was positively related to emotion dysregulation and negatively related to distress tolerance such that vulnerable narcissists had greater difficulty regulating their emotions, in part, due to lower distress tolerance. A negative correlation was found between grandiose narcissism and emotion dysregulation but was not related to distress tolerance. Moderated multiple regression analyses were conducted with vulnerable/grandiose narcissism (i.e., predictors), emotion dysregulation/distress tolerance (i.e., moderators), and aggression/anxiety (i.e., dependent variables). Again, as predicted, results revealed higher levels of grandiose narcissism and emotion dysregulation were related to high levels of aggression whereas lower dysregulation mitigated the relationship between grandiose narcissism and aggression. In sum, narcissists may demonstrate poor regulatory function, resulting in increased anxiety, aggression, and other maladaptive behaviors; this is especially true when faced with distressing social situations (Besser & Priel, 2010). Examining the function of self-regulatory abilities, such as emotion regulation, has the potential to provide insight into how narcissists manage their emotional responses and, ultimately, their behavior.

Emotion regulation theory can also explain how individual differences in self-esteem predict which emotion regulation strategies (i.e., distraction vs. reappraisal) individuals choose to cope with potentially negative evaluations (e.g., receiving an annual review at work). Shafir et al. (2017) aimed to determine the moderating effect of self-esteem on the relationship between self-perceived performance and emotion-regulatory choice (distraction or reappraisal). Individuals with lower self-esteem may be more threatened by the perception of poor performance and experience greater levels of shame

and embarrassment than those who have higher self-esteem (Brown & Dutton, 1995). According to emotion regulation theory, distraction provides greater short-term relief from having to confront one's own shortcomings, whereas reappraisal allows for time to confront, in order to sort through, negative emotions. Participants included 41 college students (16 males and 25 females) who were told upon arrival that they would be giving an impromptu speech and be evaluated on their performance. Before the speech, they were asked to rate how anxious they were about receiving feedback (using a 9-point Likert scale). After the speech, participants were asked to choose an emotion regulation strategy, either distraction or reappraisal while they awaited feedback from an evaluator. Participants ranked their perceived performance from 1 (they believed they performed above 10% of all other participants) to 9 (believing they performed better than 90% of all other participants); they also completed the Rosenberg Self-Esteem Scale (Rosenberg, 1965) to assess their level of self-esteem. Overall, students reported their perceived performance as neutral and chose reappraisal slightly more often than distraction (reappraisal = 54%; distraction = 46%) and reported a moderate level of self-esteem.

The findings supported the hypothesis, such that participants with lower levels of self-esteem were more likely to choose the shorter-term benefit of distraction to avoid negative emotions about potentially poor feedback. Alternatively, those with higher levels of self-esteem seemed to be less negatively affected by the perception of poor performance, preferring, instead, to choose reappraisal. The current study investigated, among other variables, the relationship between emotion regulation and self-esteem.

To determine if age and sex influenced the link between impulsivity (i.e., premature, thoughtless, or inappropriate behavior that can result in varying consequences) and emotion regulation, Deperrois and Combalbert (2020) recruited 240 adults, ages 18 to 82 (69 males, 171 females), none of whom were being treated for emotional disorders or attention deficit hyperactivity disorder. Participants completed the UPPS Impulsive Behavior Scale (Whiteside & Lynam, 2001) assessing for *urgency* (i.e., strong response to negative emotions), *lack of premeditation* (i.e., acting without thinking), *lack of perseverance* (i.e., difficulty staying focused on a challenging task), and *sensation seeking* (i.e., looking for excitement). They also completed the Cognitive Emotion Regulation Questionnaire (Garnefski et al., 2001) assessing nine cognitive emotion regulation strategies divided into two main categories of adaptive (i.e., acceptance, positive refocusing, positive reappraisal, or putting into perspective) or non-adaptive strategies (blaming self or others, rumination, or catastrophizing).

The results revealed that younger adults of both genders had higher levels of acceptance, self-blame, rumination, lack of perseverance, and sensation seeking; they also scored higher in general for impulsivity and for using non-adaptive strategies. Though we would not expect higher levels of acceptance (an adaptive strategy) to be present in younger adults who used more non-adaptive emotion regulation strategies, the authors do not offer a possible explanation for this apparent inconsistency. Males tended to be more sensation seeking and experienced less urgency when responding to negative emotions than females, supporting the hypothesis that urgency would be stronger in females. It appeared that overall, the use of adaptive strategies reduced the strong

response to negative emotions. Irrespective of gender, impulsivity and lack of perseverance were negatively correlated with the cognitive emotion regulation strategy of refocusing and positive reappraisal, but positively correlated with self-blame. The impact of impulsivity on how individuals manage cognitive emotion regulation was less significant in older individuals. Sensation seekers tended to use less positive refocusing, with men showing more sensation seeking behavior and used less adaptive emotion regulation strategies compared to women in reaction to negative like circumstance. As the age of the men increased, their tendency toward impulsivity, lack of perseverance, and sensation seeking decreased, whereas women's age was negatively correlated with impulsivity, urgency, lack of perseverance, and sensation seeking. In both genders and irrespective of age, urgency was negatively correlated with adaptive strategies and positively correlated with non-adaptive. This confirmed the hypothesis that age and sex would influence the relationship between impulsivity and use of emotion regulation strategies. As the authors expected, the overall results revealed that adaptive and non-adaptive emotion regulation strategies were related to lower and higher levels of impulsivity, respectively. Also, as hypothesized, the results indicated that younger adults tended to respond more impulsively to stressful circumstances, using non-adaptive emotion regulation strategies.

While a good deal of research has examined individual differences in the use of emotion regulation strategies and their effect on mental health, to date, none has investigated the influence of situational context on which emotion regulation strategies to use. To address this gap, Chen and Liao (2021) examined the influence of situational

factors (i.e., emotional intelligence [EI], person with whom one is engaged in conflict, and situational sense of control) on an individual's choice of emotion regulation strategies when dealing with conflict. The authors hypothesized that EI would be positively related to cognitive *reappraisal* but negatively related to *suppression*; they also predicted that individuals with high levels of perceived control would attempt to change the situation rather than rely on emotion cognitive reappraisal or suppression, but if maintaining the relationship was the desired resolution to the conflict, then individuals would more likely rely on emotion regulation strategies. Of particular interest was the degree to which gender and the person with whom one is in conflict influence the impact of situational factors on emotion regulation. The study included 300 participants (between the ages of 21 and 53; 46.67% female) whose emotional intelligence and emotion regulation were assessed during two conflicts, one involving parents and one with a partner. Participants completed the Wong and Low Emotion Intelligence Scale (Wong & Low, 2002), the Emotion Regulation Questionnaire (Gross & Jon, 2003), and were asked to recall a conflict situation with either their parents or partner within the last 3 months. They were also asked to report the level of perceived control they had over the cause and the outcome and to what extent they regulated their emotions during the conflict.

The results revealed that as levels of emotional intelligence increased so did the use of emotion regulation, confirming the hypothesis that EI would be positively related to cognitive reappraisal but, unlike previous research (Nolen-Hoeksema et al., 2011), did not support the predicted negative relationship between EI and suppression. As predicted,

the results found that EI was positively related to perceived control in conflict situations; however, the influence of perceived situational control on emotion regulation depends on the person the conflict is with; if the conflict is with one's parents, then perceived control has no impact; however, females sensing control of conflict with their partners will likely rely on emotion regulation strategies, including both cognitive reappraisal and suppression. When maintaining the relationship is the desired conflict outcome, results indicated that individuals will likely use cognitive reappraisal to defuse the conflict but only with males in conflict with a partner and females in conflict with a parent. The overall results revealed that both individual differences and situational factors play important roles in an individual's choice of emotion regulation strategies.

How the Research Questions Relate to the Theory

The purpose of this study is to examine the relative strength of emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem on motives to hookup. Emotion regulation theory has the potential to explain how the ability to regulate one's emotions may influence self-esteem levels among narcissistic individuals, making them more or less motivated to engage in casual sex.

How Emotion Regulation Theory Relates to the Study

Gross's emotion regulation theory (1998) explains how emotion-regulation strategies can prepare individuals to respond to challenges and opportunities, while providing insight as to what is important to them and how that influences their goals, motivations, emotions, and behaviors. Narcissistic personality traits, self-esteem, and motives for causal sex (hookups) may be influenced by an individual's ability to self-

regulate their emotions and control their outcomes. As such, emotion regulation theory is appropriate to inform this study.

Literature Review Related to Key Variables

Hookup Culture

The contemporary hookup cultural phenomenon has generated much recent research interest, with most studies finding that engaging in casual sex has negative emotional outcomes for women (e.g., regret, anxiety, depression, and social stigma). However, some have argued that the emotional outcome depends on the motive for hooking up not on gender, per se. To address this, McKeen et al. (2022) examined the relationship between hookup motives, emotional outcomes, and gender, hypothesizing that the motives for hooking up would predict the emotional outcomes and that there would be gender differences in both motives and outcomes of casual sex. A sample of 701 males (47%; M = 32.85 years) and females (52.8%; M = 28.63 years) were recruited by posting a link to the survey on social networking sites (e.g., Reddit and Facebook) and by word-of-mouth from James Cook University. Participants completed a 35-item multidimensional survey designed to measure (a) *sexual motives* from different theoretical perspectives, including *evolutionary* (i.e., reproductive benefits for males vs. females), *social structural* (i.e., sexual double standard), and *motivational* (i.e., sexual satisfaction/pleasure) and (b) *emotional outcomes*, including positive, negative, and neutral. *Hookup* was defined as “any sexual activity from a kiss to coital intercourse outside of a committed relationship.” Comprised of two parts, 22 survey items assessed motives to hookup (e.g., “physically attracted to other person,” “I felt pressured by

others," "for fun," "to feel loved") and emotional outcomes (e.g., "I felt regret," "I felt more confident," "my mood did not change"). All 35 items were measured on a 7-point Likert scale (1=*strongly agree*; 7=*strongly disagree*).

Results supported all hypotheses. Overall, motivations for casual sex were different for males and females with a notable exception for hooking up "for personal enjoyment/fun," endorsed by both males and females that suggested an increase in female sexual agency. Females, however, were significantly more likely to report feeling lonely, unhappy, rejection, and regret after hooking up than males who, conversely, reported greater sexual satisfaction, happiness, self-confidence, and contentment; these gender differences are consistent with the evolutionary perspective such that short-term mating disadvantages females but has advantages for males. While motivations did predict emotional outcomes, most of the variance was explained by the motive to regulate/avoid negative emotions; although participants were motivated to hookup to avoid feeling lonely, miserable, or unhappy, the emotional outcomes of the hookup experience (e.g., regret, rejection, negative feelings toward oneself) were, ironically, what the hookup was motivated to avoid. Relevant to the current study, these findings indicate that emotion regulation is related not only to emotional outcomes but can itself be a motivation for engaging in casual sex.

Farvid and Braun (2017) conducted a qualitative study to glean more insight into both positive and negative feelings about casual sex. Thirty individuals, aged 18-49, of varying ethnicities in New Zealand participated in semi-structured interviews and were asked to provide self-reports about their emotional experiences related to hookups. Four

main themes emerged, including *casual sex as thrill* (i.e., exciting, carefree, fun, new, transgressive, and naughty), *casual sex as ego boost* (i.e., an increase in self-esteem or self-image – for men this was related to sexual "success" and for women it was internalized as confirmation of desirability), *casual sex as tricky* (i.e., awkward and uncomfortable), and *casual sex as deficient* (i.e., disappointing and unfulfilling). The first two themes seemed to capture the pleasure while the last two represented negative impacts of casual sex. Despite the participant diversity and their varied experiences with hooking up, their overall perspectives suggested that casual sex was fun and exciting, though it did present different anxieties, depending on gender; men tended to have a higher number and variety of casual sex partners. Age did not emerge as a predictable pattern in the number of casual sex experiences. All participants identified emotional intimacy as a necessary component for a full sexual experience and agreed that hookups lacked this element. This exploration of the hookup experience revealed participants' feelings and attitudes, both positive and negative, providing the grist for future quantitative research with larger, more representative samples.

Previous research found that the motives for casual sex (i.e., autonomous/sex for fun and non-autonomous/to please someone else) were associated with overall wellbeing and incidence of casual sex. To replicate and extend this research, Townsend et al. (2020) added additional variables, including casual sex behavior, psychological wellbeing, and experience of sexual victimization, hypothesizing that motives for sex would moderate the relationship between casual sex behaviors and subsequent outcomes. Participants (N = 284) were American college students who completed motives for sex (i.e.,

autonomous/non-autonomous) scales from Uecker et al. (2015) and Vrangalova (2015), e.g., “to have fun and enjoyment,” and “to feel better about themselves.” Casual sex behavior was measured with questions from the Sociosexual Orientation Inventory (Penke & Asendorph, 2008); examples were “number of sex partners in the past year,” “number with whom you’ve had sexual intercourse, including oral sex,” and “number of casual sex partners with no interest in an emotional relationship.” Participants also completed the 21-item Beck Depression Inventory (e.g., “I feel utterly worthless,” “I do not feel I am worthless), the 10-item Rosenberg Self-Esteem Scale (e.g., “I certainly feel useless at time”), and the Sexual Experiences Survey (Koss et al., 2007, 2008) was used to measure sexual victimization (e.g., “unwelcomed sexual contact,” “attempted rape”).

Results indicated that when individuals, males and females, approached casual sex for reasons other than their own pleasure (i.e., non-autonomous), they reported lower levels of self-esteem compared to those who were motivated by their own desire (i.e., autonomous). Those who engaged in casual sex for autonomous reasons also reported more positive outcomes and had a higher number of casual sex partners for both males and females but, for women, was positively related to sex victimization. Non-autonomous sex was related to decreased self-esteem for both sexes and increased sexual victimization, but only for females. Also, irrespective of gender, when a relationship, intimacy, or to please the other person was the motive to hookup, participants experienced more negative outcomes, including lower self-esteem and higher levels of depression and anxiety. The results of this study suggest it is possible for individuals to enjoy casual sex without experiencing negative emotional outcomes, but as hypothesized,

this seems to be dependent on their motivations for hooking up. The current study, likewise, sought to determine if self-esteem and hookup motives are related but also looked at the influence of self-esteem on the motive to hookup rather than the influence of motive to hookup on self-esteem.

Contemporary women's increased sexual equality notwithstanding, stereotypes holding that women who engage in casual sex have low self-esteem are pervasive (e.g., Armstrong et al., 2010; Aubrey, 2004); however, little is known about the lay theories held by ordinary individuals that maintain these stereotypes and whether the stereotypes persist even with evidence of women's preference for, because they enjoy, casual sex. To investigate this, Krems et al. (2021) conducted six experiments with U.S. adults (N = 1,469) to determine if people do stereotype women (but not men) who engage in hookups, if casual sex is associated with low self-esteem for women only, and if these beliefs persist even when told explicitly that women choose casual sex over other options because they enjoy it. Participants read stories about women participating in casual sex, men participating in casual sex, and women and men with no information about their sexual behaviors and then asked their perceptions of the male and female's self-esteem. Self-esteem was defined as "feeling good about oneself and having a solid sense of one's self-worth" (e.g., Rosenberg, 1989).

While results indicated that perceptions of men's self-esteem were not influenced by sexual behavior information, participants associated women's casual sex behavior with lower self-esteem. When no sexual behavior information was provided for either women or men, results revealed a positive association between sex compared to

perceptions of self-esteem in hookup situations for women, but not for men; whereas men's casual sex behavior was significantly related to positive self-esteem, participants assumed women had higher self-esteem when they were in committed sexual relationships. Of particular interest, the stereotype held even when participants were presented with facts about women who desire and enjoy causal sex; results showed that participants still reported that women having committed sex were more satisfied and had higher levels of self-esteem than those who participated in casual sex, even if they desired and enjoyed it. The stereotype that women who chose to engage in casual hookups had lower self-esteem persisted across all experiments, confirming negative stigmas about women and casual sex despite recent narratives regarding progress towards gender equality.

For young adults, generally, and college students, specifically, hooking up (i.e., casual consenting sexual encounter/kissing/oral/vaginal sex between non-romantic partners), has become commonplace (Lundquist et al., 2019). Previous research has identified both positive (e.g., feelings of empowerment, attractiveness, and excitement) and negative outcomes (e.g., anxiety, depression, low self-esteem, lower life satisfaction, and poor psychological well-being), especially among females (Armstrong et al., 2010; Aubrey, 2004; Winkeljohn et al., 2019). Because so many are engaging in casual sex, Napper et al. (2017) sought to determine if hooking up is associated with psychological distress for both males and females, hypothesizing that females would experience more negative consequences which would be more closely associated with poor mental health

in females, and that the more frequent the hookups and the more hookup partners one has, the more negative consequences they would experience.

A random sample of 607 (49% female) college students, between 18-26 years old (*M* = 20.3 years) participated in the study. Negative health outcomes, emotional responses (e.g., feeling like they had been taken advantage of), and social consequences (e.g., their relationship with their hookup partner was negatively impacted) as a result of hookup behaviors were examined using a 14-item Negative Impact of Hookups Inventory developed for this study. Participants also noted the number of times they had hooked up, how many partners they had, and if they had unprotected sex in the last three months. A subset of participants (*n* = 280) completed the Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995) with higher scores demonstrating higher levels of psychological distress. Consistent with previous research (Armstrong et al., 2010; Aubrey, 2004; Winkeljohn et al., 2019), Napper et al. (2017) hypothesized that females would experience greater consequences from hooking up and thus have poorer mental health outcomes. Differential item functioning analysis was used to determine response differences to the Negative Impact of Hookups Inventory between males and females (e.g., not making eye contact after sex may carry differing meanings for men and women). On average, participants, male and female, reported having 2.1 casual sex partners and having hooked up approximately six times within the past 3 months.

Results found no significant gender difference in the number of negative casual sex experiences, but the number of negative experiences (such as negative health outcomes, emotional responses, and social consequences) was positively related to the

number of participants' hookup partners, across gender. Contrary to the hypothesis, the expectation that gender would play a role in negative hookup experiences was not supported, suggesting that gender may play a smaller role in negative hookup outcomes than previously expected.

As to whether females have more negative or positive hookup experiences, research findings are mixed, with some indicating more negative, some more positive, and others reporting no gender differences. To address this, Wongsomboon et al. (2022) hypothesized that women who were self-motivated (i.e., autonomous motivation) to engage in casual sex would have a greater orgasm experience (e.g., orgasm frequency, orgasm satisfaction) than those who were externally motivated (i.e., nonautonomous) to hook up. The authors hypothesized, further, that sexual assertiveness (i.e., ability to communicate sexual needs to a partner) would mediate the relationship between sexual motives and orgasmic function such that women who have casual sex for autonomous reasons (i.e., seeking to fulfill their own sexual pleasure instead of responding to external factors, such as feeling obligated to have casual sex as a perceived social norm, or wanting to be nice and not say no to a potential partner) would be more sexually assertive and would have higher orgasmic casual sexual experiences. A sample of women (N= 401) ages 18 to 59 who had casual sex within the last year, completed a survey reporting their motives for casual sex, sexual assertiveness, and orgasmic experience. Participants indicated one of two motive choices, either pleasure seeking or insecurity (i.e., wanting to increase self-esteem or feeling pressured). Casual sex was defined as "uncommitted, non-exclusive sexual relationship," including one-night stands or longer-term casual sex (e.g.,

friends with benefits). The YSEX Scale (Meston et al., 2019) was used to assess four aspects of their sexual experience: physical, goal attainment, attachment, emotional. Participants also completed the Hurlbert Index of Sexual Assertiveness (a 25-item questionnaire that measured assertiveness used to meet one's sexual needs or pleasure), and to measure female sexual function, the Female Sexual Function Index was used.

Results supported both hypotheses such that women who engaged in casual sex for pleasure (autonomous motive), were more sexually assertive and had greater orgasm function. Conversely, women who were extrinsically motivated to have casual sex for reasons of insecurity or to please others, were less sexually assertive and had lower orgasm function. In general, women experience fewer orgasms in casual sex compared to those in committed relationships (Armstrong et al., 2012; Wongsomboon et al., 2020). These results further support the idea that causal sex can be pleasurable for women and is not always a negative experience or accompanied by negative consequences. Both sexual assertiveness and motives for casual sex may be influenced by gender roles, sexual double standards and societal judgement towards women engaging in hookups.

Several factors potentially influencing hookup motives, such as gender, race, mother's education, social location, religion, age, ideal age to marry, and parent relationship status, have yet to be studied. Previous studies have primarily focused on individual motivations and social contextual factors as influences for hooking up. Thorpe and Kuperberg (2021) used a sample of 180 college students (81.6% female, average 20.25 years old) to complete an online survey that asked, "Thinking about your last hookup experience, what motivated you to hook up with that person?" Participants could

choose all that apply: sexual pleasure, to improve my sex skills, hoped to form a romantic relationship with that person, it's part of the "college experience", my friends are hooking up and I wanted to fit in, to build my self-confidence, I didn't intend to but I was under the influence of drugs or alcohol, not sure, other, and I have never hooked up with someone before. Participants also answered demographic questions and were asked if they wanted to get married (yes, no, unsure), about their parents' relationship status (married, married and separated, divorced, never married/currently living together, never married/currently separated and widowed), and how many of the participants' peers were married.

Results revealed that hooking up was for sexual pleasure was most common motive followed by the motive to form a romantic relationship, unsure why they hooked up, hooking up as part of the "college experience," substance use, to boost self-confidence, to improve their sexual skills, and to fit in, respectively. Those who endorsed hooking up were less likely to have coupled parents (married, widowed, or still together) but there were no other significant differences in the demographics. Males were significantly more likely to hook up for pleasure, to improve sex skills, to boost their confidence, or because it is part of the college experience. Drug or alcohol use, desiring a relationship with their partner, or being unsure about why they hooked up, did not differ by gender. Those with coupled parents, reported they were more likely to hook up for the purpose of forming a relationship, like their parents.

To date, results for emotional responses to hooking up are mixed with some suggesting women have more negative experiences than men (Winkeljohn et al., 2019),

while others suggesting both genders have more positive experiences than negative ones (Armstrong et al., 2010; Aubrey, 2004). Studies have also found that the number of casual sex partners may influence emotional responses post hookup (Napper et al., 2017; Townsend et al., 2020). To investigate factors that have not yet been studied empirically, Yu and Zheng (2022) examined the mediating role of the number of casual sex partners and the moderating role of loneliness on the association between sexting (i.e., exchanging of sexual messages on digital devices) and emotional responses after hooking up (i.e., sexual encounter, from kissing to intercourse, with no relationship commitment or expectation of future commitment). The sample included 544 (N = 544; 52% female ages 18 to 25) Chinese college students who responded to an online survey about the number of hookup partners and the positive and negative outcome after their most recent hookup (within the last 12 months). Participants were asked to what extent they experienced five positive emotions (happy, desirable, attractive, carefree, and excited) and five negative emotional experiences (regretful, ashamed, confused, upset, and depressed), using a Likert scale (1 = Not at all to 5 = Very much). The scale also measured frequency of behaviors within the last 30 days (1 = Never, 7 = a few times/day), including using their phones to send nude photos and/or sexually explicit images/messages and engaging in flirtatious or sexual conversation via text message. Participants also completed the 8-item version of the UCLA Loneliness Scale (Russell, 1996), where they were asked if they often felt they lacked companions (1 = Never, 4 = Often).

The authors hypothesized that the number of casual sex/hookup partners would mediate the relationship between sexting and emotional responses post hookup and that

college students who were sexting, then hooking up, would experience fewer negative and more positive emotional outcomes after hooking up. As expected, the results revealed the number of casual sex partners mediated the relationship between sexting and emotional outcomes given those with more casual sex partners, engaged in sexting and had a more positive emotional response. Further, the moderating effect of loneliness was supported in that loneliness strengthened the relation between sexting, in an effort to hook up, and feeling less lonely. These results suggest that loneliness can be a motivating factor for hooking up in an effort to connect, increasing the number of casual sex partners one has, leading to more positive experiences and less negative ones. Additionally, the results support the idea that hooking up may be a means for individuals to feel better about themselves, satisfying the need to connect with another, even briefly.

The extant literature on the association between sexual attitudes, attitudes toward marriage, and sexual experiences has been mixed and inconclusive. To address that, James-Kangal et al. (2018) aimed to determine if the popularity of hooking up was reducing the value of marriage. The authors hypothesized that the prevalence of hookups in emerging adults may be related to the devaluing of marriage (i.e., devaluation hypothesis), a devaluing that may be related alternatively to delays in seeking committed relationships until after reaching certain life goals, such as academic and professional goals (i.e., delayed timing hypothesis). A sample of 248 (ages 18-25; 72.6% female) completed surveys, including how many different hookup (i.e., a physical encounter, not necessarily intercourse, with no further expectations) partners they had in the last 10 weeks and their attitudes toward their current relationship (e.g., "How important to you is

being in a long-term relationship?") using a 4-point Likert scale ranging from 0 (*not important at all*) to 3 (*extremely important*). Survey items also included expectations for future relationships using two future points in time; response options were "single/not in a committed relationship" or "in a monogamous, committed relationship."

Supporting the delayed timing hypothesis, results revealed that engaging in hookup behavior did not indicate a devaluation of marriage as engaging in casual sex behaviors was not associated with expectations for future long-term relationships, though the majority of participants believed they would "very likely" be married someday in the future. Interestingly, engaging in hookups was associated with negative attitudes toward their current relationships, indicating that these attitudes may be associated developmentally with emerging adulthood, i.e., the belief that being in a committed relationship at this stage in life was less important and/or seeking sexual gratification, at that young age, was preferred to the constraints of a committed relationship. In sum, these results suggest that casual sex may be a developmental "rite of passage" rather than a devaluation of future commitments and that engaging in hookups is not indicative of plans to continue favoring casual sex over long-term relationships.

Narcissistic Personality

Narcissists typically display a strong sense of entitlement, inflated sense of self, poor emotion regulation, and a need for admiration; they display lower levels of empathy and can be emotionally unresponsive to others (Casale et al., 2019). The narcissism spectrum model views narcissism in dimensions of individual traits that vary in presentation (i.e., grandiosity and vulnerability) where the grandiose narcissist exhibits a

high level of self-importance, seeking to satisfy self-serving goals, the vulnerable narcissist exhibits self-protective traits (e.g., engaging in fight or flight responses when threats to their self-image arise), low self-worth, anxiety, depression, and neuroticism (Krizan & Helache, 2018). Loeffler et al. (2020) examined the relationship between narcissistic types (i.e., grandiose and vulnerable) and emotion regulation, differentiating between *habitual reappraisal* (i.e., how often a person uses reappraisal in daily life) and *reappraisal ability* (i.e., the ability to use reappraisal when instructed to do so). Sixty participants (30 females) who had not been diagnosed with any mental disorders were assessed via a structured clinical interview, using the Diagnostic Statistical Manual-IV. Participants completed the Beck Depression Inventory II (Hautzinger et al., 2006), the Mood and Anxiety Symptom Scale (Watson and Clark, 1991), the Emotion Regulation Questionnaire (Gross & John, 2003), and the Emotion Regulation Inventory (Konig, 2011) to assess mood and emotion regulation. To quantify grandiose narcissistic traits, participants completed the 15-item Narcissistic Personality Inventory (Raskin & Hall, 1979) and to quantify vulnerable narcissism, participants completed the revised 42-item Narcissism Inventory (Deneke & Hillenstock; 1998).

Whereas the questionnaires measured self-reported strategies used by participants to regulate emotions in everyday life, an experimental task was conducted to measure their actual emotion regulation ability when instructed to do so. First, participants viewed pictures of happy/sad faces and indicated how happy/sad the faces made them feel. Then, participants randomly assigned to one of three conditions, were told to imagine that the happy/sad faces were (a) strangers (no regulation instruction given), (b) close to them and

happy/sad because of them (up-regulation), and (c) close to them but had no influence on how happy/sad they were (down-regulation).

While no significant relationship between either type of narcissism and emotion regulation ability or the habitual use of reappraisal was found, results did show that vulnerable narcissists used the maladaptive strategy of suppression (i.e., inhibiting their true feelings and impulses) more often than grandiose narcissists, supporting the hypothesis that grandiose narcissism may be related to fewer emotion regulation disturbances. Results indicated, further, that grandiose narcissism was negatively related to suppressing positive emotions and withholding expression of negative emotions, indicating that for the grandiose type, positive emotions may outweigh the negative responses. Grandiose narcissism (but not vulnerable narcissism) was found to be more strongly expressed in men and only vulnerable narcissism was related to depression, supporting the idea that vulnerable narcissists are less adaptive emotion regulators. These findings are relevant to the current study as they point to a potential for emotion regulation strategies to influence narcissists' motives to engage in casual sex.

In relation to sexual behaviors, narcissists commonly value and are motivated by physical pleasure, self-affirmation, and increased sexual self-esteem (i.e., using sex to inflate their own self-esteem or reassure their own self-worth) rather than emotional intimacy, making them less committed to their partners and less sexually satisfied (Gewirtz-Meydan, 2017). Smith et al. (2019) sought to further examine the sexual motivations of narcissists as either self-serving (i.e., perceived enhanced self-image, pleasure, or power) or partner focused (i.e., enhancing emotional connection).

Participants were 345 (99 men and 246 women) university students who completed Screening for Dark Personalities: The Short Dark Tetrad (Jones & Paulhus, 2014; Plouffe et al., 2017) a 36-item scale, measuring narcissism, Machiavellianism, psychopathy, and sadism. Interpersonal sexual goals were measured using a version of Crocker and Canevello's (2008) scale measuring sexual interactions performed to please another (i.e., compassionate goals) or to enhance one's own self-image (i.e., self-image goals). To examine sexual motivations, participants also completed the Sexual Motivations Scale (Cooper et al., 1998) assessing for *enhancement motives* (i.e., it feels good), *self-affirmation motives* (i.e., to feel more self-confident) and *peer approval motives* (i.e., people will think less of me if I do not have sex) and five subscales from the Affective and Motivational Orientation related to Erotic Arousal Questionnaire (Hill & Preston, 1996). To control for individual differences in sexual positivity, participants were also given the sexual self-esteem subscale from the Multidimensional Sexuality Questionnaire (Snell et al., 1993) and the 10-item Personality Inventory (Gosling et al., 2003).

Results indicated that narcissism was unrelated to any of the sexual motivations; however, narcissism was positively associated with sexual self-image goals (i.e., the desire to enhance their own sexual self-esteem) and belief that they are good sexual partners; sexual self-image goals include the desire to be the best sexual partner or better than others. As predicted, a positive relationship was found between all four of the dark triad traits (i.e., narcissism, Machiavellianism, psychopathy, and sadism), sexual motivations for pleasure, self-power, and self-enhancement. These findings when added

to emotion regulation and self-esteem, as the current study did, will provide additional insight into narcissists' motivation to engage in casual sex.

Originally thought to be a unidimensional construct (Simpson & Gangestad, 1991), sociosexuality (i.e., willingness to have sex without commitment) is now viewed as multidimensional comprised of three components, including behaviors, attitudes, and desires related to casual sex.) Aiming to identify the role of personality in predicting each component of sociosexuality, del Rio et al. (2019) used the Big Five (i.e., extraversion agreeableness, openness, conscientiousness, and neuroticism) and the Dark Tetrad (i.e., narcissism, Machiavellianism, psychopathy, and sadism) to determine the predictive strength of personality traits and sociodemographics on sociosexuality. The purpose was twofold: First, to add to what is known about the individual components of sociosexuality and, second, to determine the predictive strength of both the *bright* (Big 5) and *dark* (Dark Tetrad) personality traits in unrestricted sociosexuality. Participants were university students (*N* = 991; 75.5% female, 25.4% male) between the ages of 18 and 26 who completed a sociodemographic and sexual behavior questionnaire designed for this study. Participants also completed the Big Five Inventory (Donahue & Kentle, 1991) the Short Dark Triad (Jones & Paulhus, 2014), the Assessment of Sadistic Personality (Plouffe et al., 2017), and the Sociosexual Orientation Inventory-Revised (Penke & Asendorpf, 2008) to assess sexual behaviors, attitudes, and desires.

The results indicated that predictors of sociosexuality depend on the specific component under examination. As for sociodemographic predictors, the results revealed that being female, older, other than heterosexual, and single were predictors of higher

scores sociosexual behaviors and attitudes. Regarding personality, a positive relationship was found for narcissism and casual sex relationships; however, narcissism alone was not a predictor of sexual attitudes, behaviors, or desire.

Previous research found that narcissism was negatively associated with relationship commitment (i.e., having higher unrestricted sociosexuality; Jonason et al., 2012; Jonason et al., 2009). Given that narcissists tend to be more motivated to use sex to enhance their sense of self-worth as opposed to establishing emotional intimacy, it is likely that narcissists would favor short-term mating over sex in committed relationships. However, most studies have used only samples from Western cultures, prompting Schmitt et al. (2017) to determine if narcissism was universally related to short-term mating (i.e., sexual relationship that is brief in nature, such as a one-night stand). Using the Narcissistic Personality Inventory (Raskin & Hall, 1979; Raskin & Terry, 1988), the Rosenberg's Self-Esteem Scale (Rosenberg, 1965), the Big Five Inventory (Benet-Martinez & John, 1998), subjective well-being was measured using the Affect Balance Scale (Bradburn, 1969), short-term mating desire was assessed using the Short-Term Mating Interests (Schmitt, 2005), potential for short-term mate poaching behaviors was measured with the Anonymous Romantic Attraction Survey (Schmitt & Buss, 2001), and sociosexuality was assessed using the Sociosexuality Orientation Inventory (Simpson & Gangestad, 1991). Schmitt et al. collected responses from 30,470 people across 53 nations, hypothesizing that, across all major world regions, narcissism and self-esteem would be moderately positively related, narcissism would be universally associated with the Big Five personality traits (e.g., extraversion, conscientiousness, openness to

experience, agreeableness, and neuroticism), narcissism and subjective well-being would be positively related, and that narcissism would be positively associated with short-term mating interests, mate poaching, unrestricted sociosexuality, sexual risk taking, and, finally, that the links between narcissism and sexual behaviors would be stronger among those who scored higher on the more socially maladaptive scales of the Narcissistic Personality Inventory.

Results indicated that, for narcissists, subjective well-being was associated with more socially adaptive responses (e.g., self-sufficiency), whereas most indicators of short-term mating were associated with more socially maladaptive narcissistic characteristics (e.g., exploitativeness). As predicted, narcissism was positively correlated with self-esteem, openness, conscientiousness, and extraversion, and subjective well-being but negatively correlated with agreeableness, neuroticism, and overall subjective well-being. With regard to mating behaviors, as predicted, narcissism was positively correlated with interests in short-term mating, mate poaching (i.e., interest in other people's partners), infidelity, and sociosexuality, with stronger associations among those scoring higher on the more socially maladaptive narcissism factors. These findings indicate that narcissists are more likely to engage in short-term mating behaviors and demonstrate unrestricted sociosexuality.

Recent studies have identified two distinct types of narcissism: grandiose and vulnerable (Miller et al., 2011). Though both share common traits such as self-centeredness, entitlement, and showing little concern or regard for others, some significant differences have been noted. Grandiose narcissists tend to display a more

positive self-image/inflated self-esteem, exhibitionism and exploitativeness, and the need for admiration, while vulnerable narcissists are more defensive, avoidant, insecure, overly sensitive and vulnerable, with lover self-esteem, and higher anger and hostility (Miller et al., 2011; Pincus et al., 2009). Zajenkowski and Szymaniak (2019) sought to better understand narcissism and its personality correlates by examining the relationships between both types of narcissism and the Big Five personality traits. With regards to the ten aspects of the Big Five, the authors hypothesized that vulnerable narcissists would score higher in volatility and withdrawal, whereas grandiose narcissists would relate negatively to withdrawal and volatility; grandiose narcissism would relate positively to extraversion, enthusiasm, and assertiveness, while vulnerable narcissism would be negatively associated with those traits; grandiose narcissists would relate negatively to agreeableness, politeness, and compassion and while it is expected that vulnerable narcissists would also related negatively to Agreeableness, the relationship will be stronger with compassion than politeness; and, finally, that grandiose narcissism would be positively related to Intellect.

Participants were 437 (270 female; mean age of 23 years) adults recruited using social networking sites who completed the Hypersensitive Narcissism Scale (Hendin & Cheek, 1997), measuring vulnerable narcissism; the Polish adaptation of the Narcissistic Personality Inventory (Raskin & Hall, 1979), measuring grandiose narcissism; the Polish adaptation of the International Personality Item Pool – Big Five Aspect Scale (DeYoung et al., 2007), assessing the Big Five personality domains. Results revealed that grandiose narcissism was positively related to assertiveness (from extraversion) and Intellect and

negatively related to politeness (agreeableness), industriousness (conscientiousness) and withdrawal (neuroticism), supporting all hypotheses regarding grandiose traits. Vulnerable narcissism was found to be positively correlated with neuroticism and negatively correlated with assertiveness, enthusiasm, and agreeableness. In sum, grandiose and vulnerable narcissism showed distinct differences in eight of the Big Five personality aspects, providing a better understanding of these two distinct personality profiles. Namely, grandiose type exhibited many traits related to both social and personality (e.g., high assertiveness and high intellect, respectively), rivalry (e.g., low politeness) and anxiety (e.g., low withdrawal), while vulnerable types demonstrated less-defined relationships within broader domains and wider range of negative emotional responses such as anxiety (e.g., high withdrawal) and anger (e.g., high volatility).

Casale et al. (2019) built on previous research (Watson et al., 1984; Watson & Morris, 1991) on the emotional intelligence of narcissists, both grandiose and vulnerable, by studying the maladaptive influence of emotional manipulation, hypothesizing that both narcissist types were more likely to emotionally manipulate others than non-narcissists. The study compared trait EI (i.e., behavioral responses and self-perceptions regarding one's ability to recognize, process, and apply emotional information) and the ability to emotional manipulate others among grandiose, vulnerable, and non-narcissists. While previous studies have found that narcissists exhibit lower levels of empathy and emotional responsivity towards others (Watson & Morris, 1991), the darker aspects of trait EI (i.e., emotional manipulation) have been neglected, with the exception of one study that noted a significant link between grandiose narcissism and emotional

manipulation (Nagler et al., 2014). No prior studies have sought to explore the link between vulnerable narcissism and emotional manipulation. A convenience sample of 584 undergraduate students from an Italian university, with a mean age of 22.61, completed the Italian version of the 10-item Grandiose Narcissism Scale (Nakayama & Nakaya, 2006), the Italian adaptation of the Hypersensitive Narcissism Scale (Hendin & Cheek, 1997) measured vulnerable narcissism, the Italian version of the Bar-On Emotional Intelligence Inventory (Baron, 1997) evaluated trait EI, and the Italian version of the Emotional Manipulation Questionnaire (Austin et al., 2007). The results confirmed the hypothesis that both types of narcissists were more likely to emotionally manipulate others than non-narcissists. Vulnerable narcissists were less likely to be aware of others' feelings, build and maintain mutually satisfying relationships, demonstrate control over their own emotions, and cope with change, suggesting they are poorer emotion regulators. On the other hand, grandiose narcissists showed a greater awareness of their own emotional state than non-narcissists but had difficulty identifying others' emotions and less ability to build and maintain mutually satisfying relationships than non-narcissists.

Social status (i.e., how much a person is respected and admired by others) has been theorized as a central goal of narcissists; however, research has previously focused solely on grandiose narcissism, neglecting to investigate a link between status seeking and vulnerable narcissism. Recent research about the Narcissism Spectrum Model (Krizan & Herlache, 2018) and the trifurcated model of narcissism (Weiss et al., 2019) suggests that narcissistic personality falls into three dimensions, namely *agentic*

extraversion (i.e., grandiosity), *narcissistic neuroticism* (i.e., vulnerability), and *antagonism* (i.e., entitlement) common to both grandiose and vulnerable narcissism. Machadevan and Jordan (2021) explored how desires for status and social inclusion (i.e., being liked and accepted by others) and perceived attainment of both, correlate with the two types of narcissism and the three dimensions of the Narcissism Spectrum Model and trifurcated model of narcissism. The Narcissism Spectrum Model ranges from grandiose traits (e.g., exhibitionism) to vulnerable traits (e.g., defensiveness), with the overlapping central trait of self-importance (i.e., entitlement), while the trifurcated model focuses on the specific traits unique to each of the three identified areas on the narcissism spectrum. Machadevan and Jordan (2021) hypothesized that grandiose narcissism would be linked to a stronger desire for and higher perceived attainment of status but would show a weaker relation to aspirations for and perceived attainment of inclusion, as typically grandiose narcissists are attracted to power and status but avoid intimacy (Foster et al., 2006). Conversely, it was hypothesized that vulnerable narcissism would be positively related to the desire for, but lower perceived attainment of, status as vulnerable narcissists (like grandiose narcissists) have a grandiose sense of entitlement, fueling the desire for status; however, vulnerable narcissists tend to be less successful at obtaining status (Dickinson & Pincus, 2003).Vulnerable narcissists were also hypothesized to be less inclusive as they tend to be more hostile towards others (Miller et al., 2012), and though they desire close relationships, many are unable to maintain them given they are more likely to exhibit an anxious or fearful attachment style (Dickinson & Pincus, 2003).

Two studies were conducted *(N* = 676) to examine the relationships between aspirations for status and inclusion, perceived attainment of status and inclusion for both types of narcissism. The first study explored dimensions of grandiosity, vulnerability, and entitlement. Participants completed 10-item questionnaires about their desire for status and inclusion (Mahadevan et al., 2019), 8- and 9-item measures of perceived status and inclusion attainment, respectively (Mahadevan, 2019; Huo et al., 2010), 40-item Narcissistic Personality Inventory (Raskin & Terry, 1988), the 9-item Psychological Entitlement Scale (Campbell et al., 2004), and the 52-item Pathological Narcissism Inventory (Pincus et al., 2009) assessing vulnerable narcissism. The results of Study 1 revealed that all expressions (types) of narcissism were associated with a higher desire for status and those who aspired to higher status also aspired to higher inclusion. Grandiose narcissism was associated with a higher level of perceived status but tended to care less about inclusion, and vulnerable narcissists more strongly desired inclusion but cared less about status, showing a perceived lack of attainment of both. Study 2 re-examined these associations using different measures that also accounted for the three dimensions of the trifurcated model (i.e., agentic extraversion, self-centered antagonism, and narcissistic neuroticism) using the Narcissistic Admiration and Rivalry Questionnaire (Back et al., 2013), the short version of the 5-Factor Narcissism Inventory (Sherman et al., 2015), and the Hypersensitive Narcissism Scale (Hedin & Cheek, 1997). Study 2 results were consistent study 1. These findings demonstrate a difference in the social and motivational profiles of the two types of narcissism where there is a common desire for status but differences in their perceptions of their own status and inclusion.

Self-Esteem

Given the intuitive similarity between narcissism and self-esteem (i.e., positive self-perception), Hyatt et al. (2018) sought to determine where the two constructs converge and where they diverge, hypothesizing that both would be positively related to traits associated with interpersonal agency (e.g., beliefs, values, feelings, thoughts, perceptions, attitudes, behaviors) but would relate differently to antagonism traits (e.g., entitlement, aggression, and psychopathy), with narcissism positively related and self-esteem negatively related to them. Differences were also expected relative to disorders associated with maladaptive function (i.e., neuroticism, aggression, personality disorders), with narcissism null to moderately positively related and self-esteem moderately to strongly negatively related. Using data from 11 existing samples ($N =$ 4,711), the authors compared grandiose narcissism (i.e., having an exaggerated sense of self and their importance) to explicit self-esteem (i.e., how valued one perceives oneself to be by others). Results indicated that both narcissism and self-esteem were significantly positively related to extraversion and agentic traits (e.g., assertiveness and independence) but differed relative to agreeableness/communion (i.e., concern for others and sensitivity in interpersonal relationships). Narcissism was negatively related while self-esteem was positively related to agreeableness/communion traits. Self-esteem was negatively associated with psychopathology (i.e., depression) and was not related to externalized behaviors (i.e., aggression, antisocial behavior, or substance use), whereas narcissism was positively related to callousness, grandiosity, entitlement, demeaning attitudes, and maladaptive outcomes. Both constructs were positively related to emotional stability (low

neuroticism); however, that relationship was stronger for self-esteem. This particular study provides greater insight into the relationship between personality traits, grandiose narcissism, and explicit self-esteem demonstrating how they can influence interpersonal functioning and sexual relationships.

With increased use of social media, previous studies have shown that social media use has satisfied needs such as belonging and self-esteem (Cheung et al., 2011; Kavakh & Unal, 2021; Kesici, 2008; Lin et al., 2014). The link between loneliness and depression has also been studied extensively, indicating that the lonelier an individual feels, the more depressed they are likely to feel (Alpass & Neville, 2003; Aylaz et al., 2012; Segrin et al., 2003; Singh & Misra, 2009). Additionally, negative associations between both loneliness and happiness and loneliness and self-esteem have been established previously (Ozdemir et al., 2014). Attempting to determine a relationship among these several variables, Türkmen et al. (2022) investigated the mediating roles of self-esteem and happiness on the relationship between loneliness and depression, hypothesizing that both would have a mediating role. Participants were 409 Facebook and Instagram users, ranging in age from 18-47, (91 Facebook users and 317 Instagram users) who completed a Demographic Information Form, the Beck Depression Inventory (Beck et al., 1979), Oxford Happiness Scale-Short Form (Hills & Argyle, 2002), Rosenberg Self-Esteem Scale (Rosenberg, 1965), and UCLA Loneliness Scale (Russell et al., 1978). As predicted, the results confirmed the mediating role of both self-esteem and happiness in the relationship between depression and loneliness in that the greater the self-esteem or happiness levels, the lower the depression and loneliness. Depression and loneliness were negatively

correlated with self-esteem and happiness and happiness was positively correlated with self-esteem, indicating that those who felt happier also had higher self-esteem. Based on social media usage, the findings revealed a significant relationship among loneliness, happiness, and self-esteem.

Self-esteem has been found to be related consistently with gender (on average, women report lower levels) and mate value (Bleidorn et al., 2016). While multidimensional scales have been used to measure both, only the overall construct scores have been reported rather than the more nuanced subcomponent subscales (i.e., views of the opposite sex, sociality, parenting, wealth, looks, relationship history, and fear of failure). To address this, Brase and Dillon (2022) sought to determine if the relationship between self-perceived mate value (i.e., one's view of oneself as a potential mate) and self-esteem differed across gender. The authors hypothesized that self-esteem will be lower for women than men, mate value will be positively related to overall self-esteem, the relationship between self-esteem and mating success will be stronger for men than women, men's mate value will positively relate to physical ability, whereas women's mate value will more strongly relate to physical appearance. Previous studies have shown that women value their youth and physical attractiveness, which are more difficult to control than power and status, traits that men value in themselves. This potentially explains why women may be less successful at increasing their self-perceived mate value, resulting in lower self-esteem (Ben-Hamida et al., 1998). Psychology undergraduate students ($N = 192$; 149 females/43 males) between the ages of 18 to 25 completed the Self-Perceived Mate Value (7 subcomponents stated previous; Fisher et

al., 2017), Mate Value Inventory (Edlund & Sagarin, 2014) measured self-perceived desirability compared to others, and the Multidimensional Self-Concept Scale (Fleming & Courtney, 1984), measuring self-regard, social confidence, school abilities, physical appearance, and physical abilities.

As predicted, the results indicated that women's self-esteem ratings were lower than men's overall and for all subscales except social confidence. There were no significant gender differences for the mate-value scales, with only one subscale showing a significant difference (fear of failure). Results also found that positive correlations between self-esteem and mate value were stronger for men than women. Significant positive associations between mate value and physical appearance emerged for women and between mate value and physical ability among men, confirming the authors' hypothesis. Overall, these results suggested that self-perceived mate value relates positively to self-esteem and was generally stronger in men.

While there are similar features common to both types of narcissists (e.g., entitlement, self-absorption), self-esteem differs between grandiose and vulnerable narcissists. Brown et al. (2016) attempted to determine if differences in self-perceived agency (i.e., characteristics of extraversion, action, and competence) would mediate the relationship between narcissism (both types) and self-esteem such that self-esteem would be higher among grandiose narcissists via self-perceived agency. Previous research has shown that grandiose narcissists tend to hold a positive view of themselves, both explicitly and implicitly (Campbell et al., 2007), whereas vulnerable narcissists tend to lack agency and self-confidence (Kernberg, 1986). One hundred college students (58

female, mean age of 18.82) completed the Narcissistic Personality Inventory (Raskin & Terry, 1988), Hypersensitive Narcissism Scale (Hendin & Cheek, 1997), and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). They were also asked to rate themselves on a list of agentic traits (Campbell et al., 2007) such as assertive, outspoken, dominant (i.e., high agency) and reserved, submissive, and inhibited (i.e., low agency). The results revealed that grandiose narcissism was positively related to agency and self-esteem, whereas vulnerable narcissism was negatively related, supporting the hypothesis. Additionally, self-perceived agency mediated the relationship between the narcissism subtypes and self-esteem, such that vulnerable narcissists' self-perceived agency was lower than their grandiose counterparts, suggesting that vulnerable narcissists view themselves as less competent, capable, and self-efficacious. That the results indicated a stronger sense of agency for grandiose compared to vulnerable narcissists is reflected in self-esteem differences, with grandiose narcissists reporting higher levels.

It is well known that successes and failures can impact emotional states and influence moods (Nummenmaa & Niemi, 2004) but little research to date has examined the impact of success and failure among a diverse adult population. To address that gap, Rosi et al. (2019) hypothesized that the experience of success would be associated with lower negative affect, increased positive affect, arousal, pleasure, and state self-esteem (i.e., how one evaluates themselves at a specific point in time), whereas failure would be associated with increased negative affect and a decrease in positive affect, arousal, pleasure, and self-esteem. The sample included 100 younger adults (aged 19-30) and 102 older adults (aged 65-81). Participants were asked to solve part of Raven's Advanced

Progressive Matrices (Raven et al., 1988), measuring observation, thinking, and intellect skills. Younger and older adults were randomly assigned to various conditions, with one group given relatively easy items followed by positive feedback and the other group given more difficult items followed by negative feedback on their performance. They also completed the Positive and Negative Affect Scale (Watson et al., 1988), the Rosenberg Self-Esteem Scale (Rosenberg, 1979), the Affect Grid scale (Russel et al., 1989), and the State Self-Esteem Scale (Heatherton & Polivy, 1991). Questionnaires were completed both before and after participants performed the task and feedback was provided.

Results indicated that both younger and older adults' self-esteem was impacted by the experience of success or failure. As expected, success induced positive changes on affect, arousal, pleasure, and state self-esteem. Failure impacted only the reduction of positive affect and pleasure, and trait self-esteem was not impacted by either success or failure, nor was there was there a significant difference for age. These findings indicate that success and failure affect individuals' state self-esteem similarly, regardless of age.

Summary and Conclusions

The aim of this quantitative study was to determine the extent to which emotion regulation moderates the relationship between narcissistic personality, self-esteem, and motives to hookup. Understanding the dynamics that influence casual sex decisions provides the opportunity to inform effective therapeutic approaches and sex education protocols with the potential to influence not only intimate relationships but the overall emotional and mental well-being of individuals. Informed by the theory of emotion

regulation, the current study demonstrated how the ability to manage one's emotional reactions may influence both self-esteem and decisions about whether or not to engage in casual sex. Chapter 3 will provide details of the planned research design, instruments, sampling procedures, and statistical methods.

Chapter 3: Research Design and Methodology

The purpose of this quantitative study was to determine the relative strength of emotion regulation, grandiose and vulnerable narcissistic personality, and self-esteem in predicting motives to hookup. In this chapter, I provide an overview of the research design and statistical procedures used in the study. The sample description and sampling procedures, including sample inclusion/exclusion criteria, plan for recruitment, and process for data collection, are described. Chapter 3 also includes a review of the reliability, validity, and justification for the instruments used to collect data and an overview of the data analysis plan. I also discuss threats to validity and ethical considerations.

Research Design and Rationale

I conducted this quantitative, cross-sectional, nonexperimental, correlational survey study to determine the relative strength of emotion regulation (IV), grandiose narcissistic personality (IV), vulnerable narcissistic personality (IV), and self-esteem (IV) on motives to hookup (DVs; i.e., social-sexual, social-relational, enhancement, coping, and conformity motives). A quantitative research approach was appropriate given the research purpose was to identify relationships among IVs and DVs and instruments that had been previously tested for reliability and validity were used. Qualitative researchers do not aim to quantify the results through statistical analysis but rather utilize in-depth interviews and observations without formal measures (Marczyk et al., 2005). Because I examined relationships between preexisting IVs that could not be manipulated, a nonexperimental design was used (see Lobmeier, 2010). Survey research can provide

insight into beliefs, attitudes, opinions, and behaviors of a given population by studying a sample of that population (Fowler, 2008). I used SurveyMonkey, an internet-based survey tool, as a low-cost tool that allowed for a large volume of data to be collected in a relatively short period of time (see Goodwin, 2010).

Methodology

Population

The target population for this study was English-speaking, sexually active adults, who were over the age of 21. Participants were limited to those living in the United States to minimize potential cultural differences in attitudes toward casual sex. Though hooking up has become more commonplace for young adults (Lundquist et al., 2019), in a recent study, Farvid and Braun (2017) found that age did not emerge as a predictable pattern in the number of casual sex experiences among those studied (aged 18 to 49); therefore, the present study included all adults over the age of 21 who met the inclusion criteria. Participants answered demographic questions that assessed their age, gender, primary language, and relationship status. Based on 2022 United States Census Data, the target population represented approximately 112 million English-speaking, sexually active adults not in a committed relationship.

Sampling and Sampling Procedures

I used a convenience sampling strategy for this study, and the research participants were self-selected. The sample was obtained using SurveyMonkey, an internet-based survey platform, and participants were provided by Prolific's participant pool. Individuals who met the inclusion criteria (i.e., English-speaking, 21 years old or

older, sexually active, and reside in the United States) were notified via email that they qualified to participate. Then, they received the link to the survey where they could choose to participate.

To determine the minimum sample size needed for the study, I conducted a power analysis using G*Power 3.1 (see Faul et al., 2009). Using an alpha level of .05, power of .80, four predictor variables (i.e., emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem) and an estimated effect size of .10, the recommended sample size was 125. I selected the estimated effect size because the effect sizes of relationships between narcissism, sexual behaviors, and sexual motivations ranged from small to medium (see Gewirtz-Meydan, 2017; Jonason et al., 2012).

Recruitment, Participation and Data Collection

After receiving Walden University Institutional Review Board approval, I utilized Prolific to recruit participants and administer the SurveyMonkey survey. Individuals who met all inclusion criteria and wished to participate were sent a link that included an informed consent form, screening questions that ensured their eligibility to participate, a demographic questionnaire, and the survey instruments. Participant responses remained anonymous.

All prospective participants were asked to complete an informed consent form prior to participation in the study. In an effort to maximize the collection of reliable data, I used passive deception in the consent form, informing prospective participants that the purpose of the study was to explore how psychological characteristics are related to social behavior. This offered them the opportunity to make informed decisions about

their participation but did not disclose the specifics of the study. I assumed that giving a general overview of the purpose of the study would yield more accurate and reliable data than disclosing specifics of the study, such as discussing sexual motivations and behaviors. In order to protect their rights, use of the informed consent form ensured that all participants were competent, knowing, and voluntary (see Marczyk et al., 2005). The informed consent form also indicated the expectations for participation, study procedures, potential risks of participation, where and how the findings would be used, privacy guarantees, and benefits to future research. Participants were provided with my contact information and the contact information for Walden University's participant advocate in the event they had concerns or questions about the research or their rights.

Once their consent was given, potential participants completed screening questions to ensure their eligibility to participate in the study. Those who did not meet inclusion criteria were redirected to a page thanking them for their interest, notifying them that they did not meet participation requirements, and providing my contact information should they have questions. Those who met inclusion criteria received a short demographic questionnaire to report their age, gender, and relationship status. They then completed the survey, which took approximately 10 minutes. Once participants completed the survey, they were directed to a page thanking them for their time and participation. The page also included an overview of the true nature of the study and included my contact information for any questions.

Instrumentation and Operationalization of Constructs

Demographic Questionnaire

I used a demographic survey (Appendix A) sent via Survey Monkey to collect participant information, including age, gender, primary language, and current residency. The demographic questionnaire took less than 1 minute to complete.

Narcissism Scale

The Narcissism Scale is a 20-item Likert-type scale that is used to measure grandiose and vulnerable narcissism across four subscales (i.e., interpersonal vulnerable narcissism, interpersonal grandiose narcissism, intrapersonal grandiose narcissism, and intrapersonal vulnerable narcissism; Derry et al., 2022). Using a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree), participants endorse statements they feel to be true about themselves in each of the four subscales, respectively (e.g., "I am misunderstood, mistreated, and deserve a break; It's easy for me to control other people; I'm a really special person; I am jealous of people who look better than I do."). While factor analysis has identified the four subscales, for the purpose of this study, I collapsed the results into two subscales (i.e., vulnerable and grandiose), representing the two major dimensions of narcissism. I combined interpersonal and intrapersonal vulnerable narcissism into a single vulnerable narcissism score and interpersonal and intrapersonal grandiose narcissism into a single grandiose narcissism score. The Narcissism Scale took the participants less than 5 minutes to complete. The Narcissism Scale is available for research purposes and is accessible; however, I contacted the original author and the

publisher as a courtesy. A copy of the author and publisher permission can be found in Appendix F.

Given recent confusion over the underlying structure of narcissism on what is considered normal, grandiose, and vulnerable, Derry et al. (2019) conducted two studies using a broad range of narcissism items. In the first study, 881 undergraduate students answered a series of 266 items from a wide range of narcissism scales that focused on grandiose, vulnerable, and normal narcissism traits. The test-retest reliability was investigated in Study 2, which surveyed a final number of 254 participants within the community who responded to Study 1 measures (i.e., the Narcissistic Personality Inventory-16 and the Rosenberg Self-Esteem Scale) along with additional measures examining intrapersonal and interpersonal narcissism. Test-retest reliability was assessed after a 1-month period and the Pearson's *r* ranged from .79 to .88 among the four factors. These results provide evidence of strong reliability.

The Narcissism Scale also showed good validity. In Derry et al.'s (2019) studies, the associations between the Narcissism Scale, the Narcissistic Personality Inventory-16, and Rosenberg Self-Esteem Scale were used to examine the convergent validity. The Narcissistic Personality Inventory-16 was strongly correlated with the grandiose factors, $r(254) = .54$, $p < .001$ and $r(254) = .53$, $p < .001$ (inter- and intra-personal, respectively) but not the vulnerable factors. Again, the grandiose factors showed a significant and positive relationship with self-esteem, $r(254) = .29$, $p < .001$ and $r(254) = .46$, $p < .001$(inter- and intra-personal, respectively), and the vulnerable factors were negatively related to self-esteem, $r(254) = .44$, $p < .001$ and $r(254) = .48$, $p < .001$ (inter- and

intrapersonal, respectively; Derry et al., 2019). Both studies supported distinct grandiose and vulnerable traits, with interpersonal and intrapersonal factors supporting the notion that narcissism is comprised of two dimensions.

To further determine the convergent validity of the Narcissism Scale, Derry et al. (2019) assessed the correlations between the Narcissism and the Narcissistic Personality Inventory-16. As predicted, the grandiose scores of the Narcissism Scale were strongly correlated with the Narcissistic Personality Inventory-16, $r(881) = .59$, $p < .001$ and $r(881) = .52$, $p < .001$ (inter- and intra- personal, respectively), and there was no significant association with the vulnerable scores. Also as expected, the grandiose scores were positively correlated with self-esteem, $r(881) = .21$, $p < .001$ and $r(881) = .49$, $p < .001$ (inter- and intra-personal, respectively), and the vulnerable scores were negatively associated with self-esteem, $r(881) = .36$, $p < .001$ and $r(881) = .40$, $p < .001$ (inter- and intra-personal, respectively). These results showed evidence of convergent validity for the Narcissism Scale.

Hookup Motives Questionnaire

The Hookup Motives Questionnaire is a 19-item measure designed to assess motivations for hooking up across five subscales: social-sexual, social-relationship, enhancement, coping, and conformity motives (Kenney et al., 2014). A 5-point Likert scale ranging from 1 (*almost never*/*never*) to 5 (*almost always*/*always*) measures how true each item is based on the participants' motives to hookup, including the social-sexual motivation subscale (i.e., the motive for sex without a commitment; e.g., "Hooking up provides me with sexual benefits without a committed relationship"), social-relational subscale (i.e., the motive to begin an intimate relationship; e.g., "I hookup because hooking up is a way to find a relationship"), enhancement motivation subscale (i.e., motivation for pleasure, excitement, and fun), coping motivation subscale (i.e., the motive to hookup to cope with negative feelings), and conformity motivation subscale (i.e., the motive to engage in casual sex behaviors because of pressure to conform to some sort of norm; e.g., societal, college, or media). Each subscale is scored separately by summing participants' responses for items in each subscale, with higher scores representing a higher degree of motivation within that subscale. There were five outcome variables in the current study, which represented the results of each subscale. The Hookup Motives Questionnaire took participants less than 5 minutes to complete. The measure is in the public domain and is authorized to be used for the purposes of research without the authors' permission.

The Hookup Motives Questionnaire showed good internal consistency for all subscales, with Cronbach's alphas ranging from .83 to .93 in two independent samples of

university students to determine the psychometric properties of the scale (Kenney et al., 2014). These studies used the Hookup Motives Questionnaire to measure sex-driven motivations (i.e., social-sexual and enhancement) and non-sex-driven motivations (i.e., social-relationship, conformity, and coping). Sufficient interitem reliability was demonstrated for sex-driven motivations, with a Cronbach's alpha of .86 and for non-sex-driven motives, with a Cronbach's alpha of .87.

Kenney's (2014) second study was conducted to establish convergent validity of the measure and its subscales using a sample of university students. Mental health concerns and gender have been previously linked to specific sex behaviors (e.g., hookups). Thus, the Hookup Motives Questionnaire should also be associated with those emotional states (e.g., depression, anxiety, stress). As expected, social-sexual motives subscales scores were significantly correlated with depression ($r = .15$) and anxiety ($r = .17$); coping correlated with depression ($r = .27$), anxiety ($r = .27$), and stress ($r = .20$); and conformity correlated with depression ($r = .25$), anxiety ($r = .35$), and stress ($r = .19$).

Tests of discriminant validity were conducted to determine the statistical independence of the subscales. Mahoney et al. (1995) found that interfactor correlations below .80 indicate that subscales are not statistically identical. As evidence of discriminant validity for the instrument, across the five subscales, correlations were $< .60$, indicating that the five subscales representing hookup motivations do not share the same variance. Criterion-related validity was demonstrated with associations of the five Hookup Motives Questionnaire subscales and hookup approval and behaviors. Higher

scores on social-sexual motives, social-relationship motives, enhancement motives, and coping motives were all significantly and positively related to approval of hooking up ($r = .33, .18, .39, .19$, respectively, $p < .001$). With the exception of conformity motives, all subscales significantly and positively correlated with approval of hooking up. This measure provides a valid assessment to assist in creating greater understanding of motivations for engaging in hookup behaviors.

Rosenberg Self-Esteem Scale

The Rosenberg (1965) Self-Esteem Scale is a 10-item, widely used instrument for measuring global self-esteem. The Rosenberg Self-Esteem Scale uses a 4-point Likert scale with responses ranging from *strongly agree* to *strongly disagree* in response to statements, such as “I feel that I am a person of worth, at least on an equal basis with others.” Five of the statements are negatively worded and reverse scored, such as “I wish I could have more respect for myself.” Scoring on a unidimensional continuum, the minimum score is 0 and the highest possible score is 30, with higher scores indicating higher levels of self-esteem. Scores between 15 and 25 are considered to be within the normal range, with scores below 15 suggesting low self-esteem. This scale effectively assesses global self-esteem in a straightforward and convenient method. The Rosenberg Self-Esteem Scale took the participants less than 5 minutes to complete. The Rosenberg Self-Esteem Scale is in the public domain and allowed to be used without author permission for research purposes.

The Rosenberg Self-Esteem Scale is the most commonly used measure of self-esteem in the current literature. It has excellent internal consistency, with a Guttman scale

coefficient of reproducibility of .92 (Rosenberg, 1979). Additionally, test-retest reliability was assessed over a period of 2 weeks, showing correlations of .85 and .88 and the Cronbach's alpha ranging from .77 to .88 for various samples, which indicates the excellent stability of the Rosenberg Self-Esteem Scale samples (Blascovich & Tomaka, 1993). Another study showed internal consistency when reliability was evaluated both overall and across subgroups, with the Cronbach's alpha for the overall measure being .91 and ranging from .84 to .95 across the subgroups, providing evidence for high internal consistency (Sinclair et al., 2010). Azmi et al. (2022) used the Rosenberg Self-Esteem Scale to measure self-esteem and its effect on depression among 151 college students in Saudi Arabia during the COVID-19 pandemic, demonstrating high internal consistency with a Cronbach's alpha coefficient of .865.

To determine convergent validity, the scale was compared to instruments that measured theoretically similar constructs (Rosenberg, 1965). For example, depression has been shown to be related to self-esteem such that those with lower self-esteem would be more depressed than others. Fifty volunteers who were residents of the Clinical Center completed surveys, including the Rosenberg Self-Esteem Scale. Independently, nursing staff who attended to the volunteer residents were asked to complete Leary scales, including items aimed at characterizing the participants. A significant relationship was found between the individual's self-esteem rating and the likelihood that the nurses considered them to be depressed, with only 4% of those with high self-esteem scores compared to 80% of those with the lowest self-esteem scores rated by the nurses as "highly depressed, often gloomy, or frequently depressed." The Rosenberg Self-Esteem

Scale also showed significant correlations with other measures of self-esteem, such as the Kelly Repertory Test (a self-ideal discrepancy test; *r* = .67) and the Health Self-Image Questionnaire (*r* = .83; Tippett & Sibler, 1965). Additionally, the Rosenberg Self-Esteem Scale correlates in the predicted direction when compared with assessments of depression (*r* = .65) and anxiety (*r* = .71; Cooper-Evans et al., 2008); Rosenberg, 1979), providing evidence for the convergent validity of the Rosenberg Self-Esteem Scale.

Clinical validity was evaluated by Sinclair et al. (2010) and results revealed that the scores from the Rosenberg Self-Esteem Scale significantly, moderately, negatively correlated with scores on the Depression subscale of the Depression, Anxiety, and Stress Scales (*r* = -.62; DASS-21; Lovibond & Lovibond, 1995). Hatcher and Hall (2009) discovered that among 205 adult women, the scores on the Rosenberg Self-Esteem Scale showed significant moderate and negative correlations with scores on the Beck Depression Inventory (*r* =.67; BDI; Beck et al., 1961). Greenberger et al. (2002) studied a sample of 741 university students and found that scores on the Rosenberg Self-Esteem Scale demonstrated a significant, moderate, negative correlation with scores on the Center for Epidemiologic Studies Depression Scale (*r* = .64; CES-D Scale; Radloff, 1977).

To further determine convergent validity, Azmi et al. (2022) used the Rosenberg Self-Esteem Scale to measure self-esteem and its effect on depression among 151 college students in Saudi Arabia during the COVID-19 Pandemic. Participants completed the Rosenberg Self-Esteem Scale and the Zung Self-Rating Depression Scale (Zung, 1965). The results revealed that 75% of the students confirmed experiencing symptoms of

depression, with 37.5% reporting moderate to extreme depression; 41% of the students reported low self-esteem, with regression results showing depressive symptoms positively correlated with low self-esteem. The mean Rosenberg Self-Esteem Scale score was 29.4304 (*SD* = 5.02). The correlation analysis between the two measures revealed a significant negative Pearson's correlation ($r = .570$, $p < .001$). The results of the multiple regression analysis and ANOVA revealed that higher self-esteem reduces the instance of depressive symptoms by 17% and self-esteem was a 32.5% predictor of depressive symptoms. A greater number of females reported low self-esteem and depression compared to their male counterparts. This study found a statistically significant positive correlation ($r = .325$, $p < .001$) between depression and low self-esteem, providing evidence of convergent validity of the Rosenberg Self-Esteem Scale.

To test both convergent and discriminant validity, Rajlic et al. (2019) conducted a study of 245 community adults in Canada using the Rosenberg Self-Esteem Scale and the Global Self-Esteem Measure. It was found that overall, the scales were moderately, positively, and significantly correlated ($r = .72$). The pattern of relationships between the Rosenberg Self-Esteem Scale and theoretically less-related (discriminant) constructs included physical health $r = .25$ and Grandiose Narcissism $r = .20$.

Emotion Regulation Questionnaire

The Emotion Regulation Questionnaire is a 10-item scale intended to measure an individual's tendency to regulate their emotions using cognitive reappraisal and expressive submission (Gross & John, 2003). Potential responses to statements such as "When I want to feel more positive emotion (such as joy or amusement), I change what

I’m thinking about” and “I control my emotions by not expressing them” range from 1 (strongly disagree) to 7 (strongly agree) on a 7-point Likert scale. Scores are added for each subscale and the higher score indicates which emotion regulation strategy accurately reflects participant behavior (either suppressor or reappraiser). The Emotion Regulation Questionnaire took less than 5 minutes to complete. The measure is in the public domain and is permitted to be used for research purposes without the author’s permission.

Reliability and validity. The Emotion Regulation Questionnaire showed good internal reliability among a sample of undergraduate students, on average .79 for reappraisal and .73 for suppression. The test-retest reliability after three months was .69 for both subscales (Gross & John, 2003). In another study, the internal consistency of the ERQ was very high demonstrating that the questionnaire was effective in measuring emotion regulation in 605 Greek adults (Bebestos et al., 2022). Both reappraisal and suppression demonstrated good internal consistency, yielding composite reliability index values of 0.881 for reappraisal and 0.829 for suppression. The internal consistency for the reappraisal factors was 0.83 and 0.78 for the suppression factors. These findings confirm the reliability the Emotion Regulation Questionnaire.

To provide evidence of convergent validity, Gross and John (2003) completed several other measures of regulation success, inauthenticity, coping styles, and mood management. Subscales were significant predictors of the constructs against which they were measured. As predicted, suppression predicted inauthenticity ($\beta = .47$), while reappraisal did not ($\beta = -.05$). Coping through reinterpretation predicted reappraisal ($\beta = .43$), while coping through venting predicted a negative relation to suppression ($\beta = -.43$),

suggesting that those who use reappraisal as an emotion regulation strategy are more likely to cope by looking for something positive during stressful times while those who use suppression are less likely to express their upset. When compared to the Meta-Mood scales, reappraisal was positively predicted use of mood repair (β = .36), whereas suppression predicted a negative relation to all 3 mood scales (attention, clarity, repair at β = -.41, -.30, -.26, respectively), suggesting that those who use suppression tend to shut down emotions leading to less awareness, clarity, and repair attempts. With regard to mood, effectively regulating negative mood predicted reappraisal (β = .30) but predicted a negative relation to suppression (β = -.22).

To test discriminant validity, Gross and John (2003) used the Big Five Inventory, Ego Control Scale (Block & Kremen, 1996), tests of cognitive intelligence, and social desirability. Correlations with the Big Five Inventory were modest (the greatest betas were -.20 for reappraisal and -.41 for suppression) which indicated emotion regulation strategies did not duplicate the larger personality dimensions measured in the Big Five Inventory. Neither of the two coping strategies predicted ego control (β = -.03 for reappraisal and -.06 for suppression) suggesting they are not a result of a broader tendency to control impulses. Suppression and reappraisal also did not predict cognitive ability (with betas ranging from -.9 to .17) or social desirability (β = .11 for repression and -.09 for suppression), indicating that neither plays a major role in how individuals regulate their emotions. These results suggest that the Emotion Regulation Questionnaire is a reliable and valid measure for assessing emotion regulation strategies.

Data Analysis Plan

Data collected from the SurveyMonkey platform were downloaded into the Statistical Package for Social Sciences (SPSS) version 28.0 for data analysis. Hierarchical multiple regression was conducted to determine the relative strength of emotion regulation, grandiose and vulnerable narcissism, and self-esteem on motives to hookup. In hierarchical multiple regression, independent variables are entered into the regression equation in a series of steps, using theoretical reasoning to determine the order of entry. Hierarchical regression analysis involves running a series of regression analyses, each step adding one or more predictor variables in the order of predictive power (Warner, 2008). The theoretical framework and relevant literature suggest that emotion regulation may have the greatest predictive strength on hookup motives, as the tendency toward hooking up seems to correspond with emotional control (Stroud et al., 2016). Emotion regulation theory provides insight into what is important to individuals and how that may influence their goals and behaviors, including sexual motivation (Gross, 1998). Based on the relevant literature, grandiose narcissism would be the next strongest predictor followed by vulnerable narcissism and self-esteem (Brase & Dillon, 2022; Gewirtz-Meydan, 2017; Smith et al., 2019).

Regression assumptions of linearity, normality, homoscedasticity, and multicollinearity were checked prior to running the regression analysis in SPSS (Geert van den Berg, 2023). Using scatterplots, linearity was checked to ensure that each independent variable has a linear relation with the outcome variable. Normality was tested by checking that prediction errors are normally distributed using the Shaprio-Wilks

test and Q-Q plots. Homoscedasticity was examined using a scatterplot of residuals versus predicted values to ensure that the variance of errors is constant and that there is no clear pattern in the distribution. Multicollinearity was checked using Variance-inflation-factor (VIF values) to ensure that the data do not include two or more highly correlated independent variables.

Research Questions

Research Question 1: To what extent is emotion regulation, as measured by the Emotion Regulation Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$1: Emotion regulation does not predict motives to hookup.

$H_1$1: Emotion regulation predicts motives to hookup.

Research Question 2: To what extent is grandiose narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$2: Grandiose narcissistic personality does not predict motives to hookup.

$H_1$2: Grandiose narcissistic personality does predict motives to hookup.

Research Question 3: To what extent is vulnerable narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$3: Vulnerable narcissistic personality does not predict motives to hookup.

$H_1 3$: Vulnerable narcissistic personality does predict motives to hookup.

Research Question 4: To what extent is self-esteem, as measured by the Rosenberg Self Esteem Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0 4$: Self-esteem does not predict motives to hookup.

$H_1 4$: Self-esteem does predict motives to hookup.

Threats to Validity

The current study posed several potential threats to validity. Inability to confirm eligibility posed a threat to validity. Self-report online surveys rely on the honesty of participants regarding inclusion/exclusion criteria. Screening questions about age, sexual activity status, language, and residency were presented to potential participants in an effort to ensure this threat to validity is minimal. Self-selection bias was another threat to validity. The study used a convenience sample rather than a random sample, with participants recruited through Prolific; because participants were randomly selected, the sample may not have be representative, limiting the generalizability of the results (Etikan et al., 2016). Participant self-selection further limited sample representativeness as those who choose to participate may have differed demographically from those who do not (Copas et al., 2020). Online surveys are also vulnerable to social desirability bias in that participants tend to respond in ways that put them in the best light, rather than how they actually feel or what they actually believe, especially when soliciting sensitive information (Stuart & Grimes, 2009). Nonresponse bias was a potential threat to validity, as participants may not answer all questions or may not submit the survey (Goodwin,

2010). To reduce this threat, SurveyMonkey has a feature that allowed for response verification of each survey item to notify the participant of any incomplete questions.

Ethical Procedures

Prior to participant recruitment and data collection, this study and procedures were presented to and approved by the Walden University Institutional Review Board (IRB Project #202100059) to ensure appropriate steps are being taken to protect participant rights and welfare. Additionally, the informed consent provided participants with an overview of the study, their role as a participant, potential risks and benefits of participating, their rights, and privacy practices in an effort to make certain participants' consent is informed. All efforts were made to ensure participants understood their participation was voluntary and that they could withdraw from the study at any time without consequence. Participants were made aware of their rights to privacy to include that all data were collected without any personally identifying information, using encrypted software, will be stored for a minimum of 5 years on a password-protected computer and a locked flash drive accessible only by me.

Participants may have found the research topic to be sensitive and personal. They may have had feelings and reactions to being asked about sexual experiences, their self-esteem, their behaviors and traits, and their emotions. The informed consent outlined the risks of the study, and included evoking emotional distress. Participants were reminded that participation is voluntary, and all responses were recorded anonymously. In an effort to reduce emotional distress or feelings of discomfort, participants were referred to Mental Health America (http://www.mentalhealthamerica.net/search/node) and directed

to the “Get Help” tab, which provides options for mental health support in their area. This resource was included in the informed consent as well as the debriefing page to ensure all participants were familiar with how to access support should the need arise.

Summary

The purpose of the current study was to examine the relative strength of emotion regulation, grandiose and vulnerable narcissistic personality, and self-esteem on motives to hookup. This study used a quantitative cross-sectional, nonexperimental, correlational survey design. The target participants were over the age of 21, sexually active, English-speaking, and resided in the United States. Those excluded from the study were children and adults under the age of 21, international residents, non-English-speaking, or those who were not sexually active. The data were collected via SurveyMonkey, and the measurements utilized were established as reliable and valid. Potential ethical concerns and threats to validity were considered and outlined. Chapter 4 will provide a detailed overview of the process for data analysis and review of the results.

Chapter 4: Results

Introduction

The purpose of this quantitative, cross-sectional, correlational study was to determine the relative strength of emotion regulation, grandiose narcissistic personality, vulnerable narcissistic personality, and self-esteem in predicting motives to hookup. I tested four research questions using hierarchical multiple regression. The research questions and hypotheses are restated in this chapter, followed by a description of the data collection and screening procedures. I also provide descriptive statistics and an evaluation of the statistical assumptions. The chapter concludes with a summary of results of the hierarchical multiple regression analyses.

Research Questions

Research Question 1: To what extent is emotion regulation, as measured by the Emotion Regulation Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$1: Emotion regulation does not predict motives to hookup.

$H_1$1: Emotion regulation predicts motives to hookup.

Research Question 2: To what extent is grandiose narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$2: Grandiose narcissistic personality does not predict motives to hookup.

$H_1$2: Grandiose narcissistic personality does predict motives to hookup.

Research Question 3: To what extent is vulnerable narcissistic personality, as measured by the Narcissism Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$3: Vulnerable narcissistic personality does not predict motives to hookup.

$H_1$3: Vulnerable narcissistic personality does predict motives to hookup.

Research Question 4: To what extent is self-esteem, as measured by the Rosenberg Self Esteem Scale, related to motives to hookup, as measured by the Hookup Motives Questionnaire?

$H_0$4: Self-esteem does not predict motives to hookup.

$H_1$4: Self-esteem does predict motives to hookup.

Data Collection

Data collection occurred during a single day in August 2023. Study participants were recruited from the Prolific participant pool based on the study's inclusion criteria requiring participants to be English-speaking adults at least 21 years of age living in the United States. The survey was conducted in an online format using Survey Monkey's online software. A link directed participants to the survey that began with the informed consent form. Using passive deception, the survey stated that the purpose of the study was to "explore how psychological characteristics are related to social behavior." The consent form also included descriptions of the procedures, voluntary nature of the study, risks and benefits, privacy, and contact information. To protect participant privacy, data were collected anonymously. Participants who did not wish to provide consent were able

to exit the survey without responding to any of the survey questions. Participants who did provide consent were directed to a screening question that was designed with a skip logic feature that disqualified participants who did not meet the inclusion criteria. Participants who were disqualified were directed to a thank you page, ending the survey.

Those participants who met all criteria were directed to the survey portion of the study. All survey questions, aside from the demographic questions, were required to be answered to prevent missing data by using a forced validation procedure. Once the survey was completed, participants were sent to a thank you page that included a link to a debriefing page that contained an explanation of the use of passive deception and revealed the true nature of the study, which was to "determine the relative strength of emotion regulation, narcissistic personality, and self-esteem on motives to hookup."

I did not have to remove any responses due to missing or incomplete data because the forced validation procedure required participants to answer each question before moving on to the next one. The total sample size for the study was 121 participants, providing adequate power with an alpha level of .05. I used four predictor variables (i.e., emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem) and five outcome variables (i.e. social-sexual, social-relationship, enhancement, coping, and conformity hook up motives) to examine the research questions and hypotheses.

Demographics

A summary of the demographic data (i.e., age, gender, and relationship status) for participants is displayed in Table 1. A majority of participants were nearly evenly distributed between the 21–30 age group (n = 41, 33.9%) and the 31–40 age group (n =

43, 35.5%), and the majority were female (n = 73, 60.3%). Participants most frequently reported being married (n = 49, 40.5%) followed by being single (n = 35, 28.9%).

Table 1

Frequencies: Gender, Age, and Relationship Status

Variable		*n*	%
Gender	Male	46	38.02%
	Female	73	60.33%
	Prefer not to answer	0	0%
	Other (i.e., nonbinary)	2	1.65%
Age	21–30	41	33.9%
	31–40	43	35.5%
	41–50	23	19.0%
	51 or above	13	10.7%
Relationship status	Single	35	28.9%
	Married	49	40.5%
	Divorced	6	5%
	Widowed	0	0%
	Cohabitating	11	9.1%
	In a monogamous relationship	19	15.7%
	In a nonmonogamous relationship	1	.8%

Because a convenience sampling method was used for this study, the sample characteristics may not be representative of the general U.S. population. For example, based on 2022 United States Census Data, the gender breakdown of the general population in the United States is 51.1% female to 48.9% male, whereas in this study, the female population was significantly larger. Therefore, the results of the study cannot be

generalized to all sexually active, English-speaking individuals over the age of 21 within the United States. Online research platforms use convenience sampling rather than random or probability sampling, limiting the sample representativeness and generalizability of the results, which limits the external validity.

Results

Descriptive Statistics

The total sample included 121 participants who completed the study. The following means and standard deviations were calculated for the four predictor variables: emotion regulation, suppression subscale (*M* = 3.70, *SD* = .117), emotion regulation, cognitive reappraisal subscale (*M* = 5.10, *SD* = .101), grandiose narcissism (*M* = 3.07, *SD* = .076), vulnerable narcissism (*M* = 3.27, *SD* = .080), and self-esteem (*M* = 22.85, *SD* = 2.18). I also calculated means and standard deviations for the following outcome variables using the Hookup Motives Questionnaire: social-sexual motives (*M* = 6.93, *SD*= .320), social-relationship motives (*M* = 5.45, *SD* = .278), enhancement motives (*M* = 11.95, *SD* = .505), coping motives (*M* = 8.31, *SD* = .361), and conformity motives (*M* = 4.92, *SD* = .223). Table 2 displays the means and standard deviations for the predictor and outcome variables.

Table 2

Descriptive Statistics for Predictor and Outcome Variables

Variable	*N*	*M*	*SD*	Min	Max
Emotion regulation, suppression	121	3.70	.117	1.00	6.50
Emotion regulation, cognitive reappraisal	121	5.10	.101	1.33	7.00
Grandiose narcissism	121	3.07	.076	1.10	5.20
Vulnerable narcissism	121	3.27	.080	1.00	5.50
Self-esteem	121	22.85	.218	16.00	30.00
Social-sexual	121	6.93	.320	4.00	17.00
Social-relationship	121	5.45	.273	3.00	15.00
Enhancement	121	11.95	.505	4.00	20.00
Coping	121	8.31	.361	4.00	17.00
Conformity	121	4.92	.223	4.00	16.00

In addition to producing a global score for self-esteem, the Rosenberg Self-Esteem Scale also uses score classifications of low (a score below 15), normal (scores between 15–25), and high self-esteem (a score above 25). The majority of the sample was considered to have normal self-esteem (n = 106, 87.6%). The Rosenberg Self-Esteem classifications for participants are displayed in Table 3.

Table 3

Frequencies for Rosenberg Self-Esteem Classifications

Categories	*n*	%
Low self-esteem	0	0%
Normal self-esteem	106	87.6%
High self-esteem	15	12.4%

Evaluations of Statistical Assumptions

I tested assumptions for multiple regression (i.e., normality, linearity, homoscedasticity, multicollinearity, and independence of residuals) prior to running the regression analysis in SPSS. The Shapiro-Wilk test and Q-Q plots were used to test normality. Table 4 shows the results of the Shapiro-Wilks test and reveals not all of the variables were normally distributed. Grandiose narcissism and vulnerable narcissism were normally distributed, whereas emotion regulation, self-esteem, and all the hookup motives (i.e., social-sexual, social-relationship, enhancement, coping, conformity) were not normally distributed. Q-Q plots show all data points were very close to or on the line, with the exception of conformity, and the assumption of normality was partially met. The Q-Q plots are provided in Appendix H.

Table 4

Shapiro-Wilk Normality Testing for Study Variables

Variable	Statistic	*df*	*p*	Skewness	Kurtosis
Emotion regulation-suppression	.981	121	.086	-.209	-.446
Emotion regulation – cognitive reappraisal	.974	121	.020	-.364	.443
Grandiose narcissism	.988	121	.395	.244	-.309
Vulnerable narcissism	.986	121	.266	.292	.037
Self-esteem	.980	121	.064	-.050	.530
Social-sexual	.812	121	<.001	1.133	.329
Social-relationship	.805	121	<.001	-.353	-1.372
Enhancement	.870	121	<.001	-.359	-1.350
Coping	.892	121	<.001	.478	-.943
Conformity	.433	121	<.001	3.160	9.986

Using scatterplots, I examined linearity between predictor and outcome variables. The scatterplots showed a linear relation between each predator variable and outcome variable, indicating the linearity assumption was met for the data. Scatterplots are provided in Appendix F.

I checked multicollinearity using the variance inflation factor (VIF). Table 5 shows the VIF for the predictor variables. Since the VIF values were less than 10 and the tolerance scores were above 1.2, the predictor variables were not redundant with other independent variables and the multicollinearity assumption was met.

Table 5

Collinearity Diagnostics for Predictor Variables

Variable	Tolerance	VIF
(Constant)		
Emotion regulation	.928	1.078
Grandiose narcissism	.988	1.012
Vulnerable narcissism	.865	1.156
Self-esteem	.916	1.091

I used the Durbin-Watson *d* test to examine the independence of residuals. Table 6 displays the Durban-Watson test results for each of the five regressions, using the four predictor variables (i.e., emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem) The Durbin-Watson values were close to 2.0, indicating that there was independence of residuals and the assumption of independence was met.

Table 6

Model Summary

Outcome variable	Durbin-Watson
Social-sexual	2.527
Social-relationship	2.198
Enhancement	2.473
Coping	2.408
Conformity	1.802

I examined homoscedasticity using scatterplots of studentized residuals versus unstandardized predicted values to ensure the variance of errors was constant and there was no clear pattern in the distribution. The scatterplots of the standardized residual and standardized predicted values for the five regressions are included in Appendix F. The assumption for homoscedasticity was met as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The variance of residuals was constant for all regressions.

The distribution of residuals was examined for all five regressions using P-P plots (Appendix G). All residuals were normally distributed for all regressions, and the assumption of normally distributed residuals was met.

I also calculated Cronbach's alpha to test the reliability of the instruments used for the sample. Table 7 provides the Cronbach's alpha coefficients for each measure, and each demonstrated acceptable internal consistency, ranging from .77 to .92.

Table 7

Cronbach's Alpha Coefficients for Study Instruments

Instrument	α
Emotion Regulation Questionnaire – Suppression Subscale	.773
Emotion Regulation Questionnaire – Reappraisal Subscale	.896
Narcissism Scale – Grandiose Subscale	.844
Narcissism Scale – Vulnerable Subscale	.828
Rosenberg Self-Esteem Scale	.889
Hookup Motives Questionnaire – Social-Sexual Subscale	.844
Hookup Motives Questionnaire – Social-Relationship Subscale	.861
Hookup Motives Questionnaire – Enhancement Subscale	.920
Hookup Motives Questionnaire – Coping Subscale	.870
Hookup Motives Questionnaire – Conformity Subscale	.894

Hierarchical Multiple Regression Analysis

I conducted five separate hierarchical multiple regressions to determine the relative strength of the predictor variables of emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem on the hookup motives outcome variables of (a) social-sexual motives, (b) social-relational motives, (c) enhancement motives, (d) coping motives, and (e) conformity motives. In hierarchical multiple regression, independent variables are entered into the regression equation in a series of steps, using theoretical reasoning to determine the order of entry. I conducted four-stage multiple regressions for each of the five regressions; emotion regulation was entered at Stage 1, grandiose

narcissism was entered at Stage 2, vulnerable narcissism was entered at Stage 3, and self-esteem was entered at Stage 4. I entered the variables in this particular order because the theoretical framework and relevant literature suggested emotion regulation may have the greatest predictive strength on hookup motives, followed by grandiose and vulnerable narcissism and self-esteem.

Social-Sexual Motives for Hooking Up

I conducted the initial regression to examine the relationship between the four predictor variables and social-sexual hookup motives. The results showed at Stage 1, emotion regulation did not significantly contribute to the regression model, $F(1, 119) = .060$, $p = .807$, and only accounted for 0.1% of the variance in social-sexual hookup motives. Grandiose narcissism, entered at Stage 2, significantly contributed to the model, $F(1, 118) = 9.139$, $p = .003$ and explained 7.2% of the variance in social-sexual hookup motives. The addition of weight to the prediction of vulnerable narcissism entered at Stage 3 showed an insignificant increase in variance, $F(1, 117) = .304$, $p = .583$, only accounting for 0.2%. Finally, the addition of self-esteem was also not statistically significant, $F(1, 116) = .035$, $p = .851$, accounting for 0% of the variance in social-sexual hookup motives. Collectively, the four predictor variables accounted for 7.5% of the variance in social-sexual motives for hooking up. Effect sizes for the models (R^2) range from .000 to .072, indicating insignificant to small effect. Tables 8 and 9 present the regression model summary.

Table 8

Model Summary

Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate
1	.022	.001	-.008	3.52850
2	.269	.072	.057	3.41369
3	.273	.075	.051	3.42381
4	.274	.075	.043	3.43801

Table 9

ANOVA Results for Four-Stage Regression Model: Social-Sexual Hookup Motives

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	.745	1	.745	.060	.807
	Residual	1,481.586	119	12.450		
	Total	1,482.331	120			
2	Regression	107.247	2	53.623	4.602	.012
	Residual	1,375.084	118	11.653		
	Total	1,482.331	120			
3	Regression	110.805	3	36.935	3.151	.028
	Residual	1,371.526	117	11.722		
	Total	1,482.331	120			
4	Regression	111.221	4	27.805	2.352	.058
	Residual	1,371.109	116	11.820		
	Total	1,482.331	120			

Research Questions 1 through 4 asked to what extent emotion regulation (RQ1), grandiose narcissism (RQ2), vulnerable narcissism (RQ3), and self-esteem (RQ4) as measured by the Emotion Regulation Scale, Narcissism Scale, and Rosenberg Self-Esteem Scale, relate to motives to hookup, as measured by the Hookup Motives Questionnaire.

Table 10 presents the coefficients for each predictor variable. I ran a hierarchical multiple regression to determine if the addition of emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem predicted social-sexual motivations for hooking up. In Stage 1, the hierarchical regression revealed emotion regulation was a not a statistically significant predictor of social-sexual hookup motives, $\beta = -.037$ ($t = -.401$, $p = .689$). Stage 2 revealed that grandiose narcissism significantly predicted social-sexual motives to hookup, $\beta = .269$ ($t = 2.999$, $p = .003$). The third model revealed that vulnerable narcissism did not significantly predict social-sexual motives to hookup, $\beta = .056$ ($t = .579$, $p = .563$). The final model showed that self-esteem did not significantly predict social-sexual motives to hookup, $\beta = .018$ ($t = .188$, $p = .851$). The results revealed that only grandiose narcissism significantly predicted social-sexual motives for hooking up; therefore, I rejected the null hypothesis for RQ2 and failed to reject the null hypothesis for RQ1, RQ3, and RQ4.

Table 10

Coefficients

Model		*B*	*SE*	β	*t*	*p*
1	(Constant)	7.280	1.484		4.904	<.001
	Emotion regulation	-.197	.804	-.022	-.245	.807
2	(Constant)	4.234	1.754		2.414	.017
	Emotion regulation	-.444	.783	-.051	-.567	.572
	Grandiose narcissism	1.136	.376	.270	3.023	.003
3	(Constant)	3.388	2.335		1.451	.149
	Emotion regulation	-.337	.808	-.038	-.417	.677
	Grandiose narcissism	1.133	.377	.269	3.007	.003
	Vulnerable narcissism	.202	.367	.050	.551	.583
4	(Constant)	2.707	4.320		.627	.532
	Emotion regulation	-.326	.814	-.037	-.401	.689
	Grandiose narcissism	1.135	.378	.269	2.999	.003
	Vulnerable narcissism	.223	.385	.056	.579	.563
	Self-esteem	.026	.137	.018	.188	.851

Social-Relationship Motives for Hooking Up

The second regression examined the relationship between the four predictor variables and social-relationship hookup motives. The results revealed that at stage one, emotion regulation did not significantly contribute to the regression model, $F(1, 119) = .394$, $p = .531$, and only accounted for 0.3% of the variance in social-relationship hookup motives. Grandiose narcissism entered at stage two did significantly contribute to the model, $F(1, 118) = 10.574$, $p = .001$, and explained 8.2% of the variance in social-relationship hookup motives. The addition of weight to the prediction of vulnerable narcissism entered at stage three showed an insignificant increase in variance, $F(1, 117) = .014$, $p = .908$, accounting for 0% variance in social-relationship motives. Finally, the

addition of self-esteem was also not statistically significant, $F(1, 116) = .178$, $p = .674$, accounting for < 0.1% of the variance in social-relationship hookup motives. Together the four predictor variables accounted for 8.5% of the variance in social-relationship motives for hooking up. Effect sizes for the models (R^2) range from .003 to .087, indicating insignificant to small effect. Tables 11 and 12 present the regression model summary.

Table 11

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.057	.003	-.005	3.01025
2	.292	.085	.070	2.89601
3	.292	.085	.062	2.90819
4	.295	.087	.055	2.91846

Table 12

ANOVA Results for Four-Stage Regression Model: Social-Relationship Hookup Motives

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	3.571	1	3.571	.394	.531
	Residual	1078.329	119	9.062		
	Total	1081.901	120			
2	Regression	95.252	2	46.126	5.500	.005
	Residual	989.649	118	8.387		
	Total	1081.901	120			
3	Regression	92.367	3	30.789	3.640	.015
	Residual	989.534	117	8.458		
	Total	1081.901	120			
4	Regression	93.884	4	23.471	2.756	.031
	Residual	988.017	116	8.517		
	Total	1081.901	120			

A four-stage multiple regression was used to answer research questions 1 through 4 examining what extent emotion regulation (RQ1), grandiose narcissism (RQ2), vulnerable narcissism (RQ3), and self-esteem (RQ4) as measured by the Emotion Regulation Scale, Narcissism Scale, and Rosenberg Self-Esteem Scale, relate to motives to hookup, as measured by the Hookup Motives Questionnaire? The outcome variable, social-relationship motives for hooking up, was examined in this regression.

Table 13 displays the coefficients for each predictor variable. In examining the regression coefficients, stage one revealed emotion regulation was a not a statistically significant predictor of social-relationship hookup motives, $\beta = -.088$ ($t = -.953$, p = .343). Grandiose narcissism entered at stage two, showed to significantly predicted social-relationship motives to hookup, $\beta = .287$ ($t = 3.212$, $p = .002$). The third model revealed that vulnerable narcissism did not significantly predict social-relationship motives to hookup, $\beta = -.001$ ($t = -.010$, $p = .992$). The final model revealed that self-esteem did not significantly predict social-relationship motives to hookup, $\beta = -.039$, ($t = -.422$, $p = .674$). In this model, only grandiose narcissism significantly predicted social-relationship motives for hooking up. Therefore, I rejected the null hypothesis for RQ2. I failed to reject the null hypothesis for RQ1, RQ3, and RQ4.

Table 13

Coefficients

Model		*B*	*SE*	β	*t*	*p*
1	(Constant)	6.223	1.266		4.914	<.001
	Emotion regulation	-.431	.686	-.057	-.628	.531
2	(Constant)	3.443	1.488		2.313	.022
	Emotion regulation	-.656	.664	-.088	-.989	.325
	Grandiose narcissism	1.036	.319	.288	3.252	.001
3	(Constant)	3.291	1.983		1.660	.100
	Emotion regulation	-.637	.687	-.085	-.928	.355
	Grandiose narcissism	1.036	.320	.288	3.236	.002
	Vulnerable narcissism	.036	.312	.011	.116	.908
4	(Constant)	4.591	3.667		1.252	.213
	Emotion regulation	-.658	.691	-.088	-.953	.343
	Grandiose narcissism	1.032	.321	.287	3.212	.002
	Vulnerable Narcissism	-.003	.327	-.001	-.010	.992
	Self-Esteem	-.049	.116	-.039	-.422	.674

Enhancement Motives for Hooking Up

The third regression examined the relationship between the four predictor variables and enhancement hookup motives. Emotion regulation entered at stage one did not significantly contribute to the regression model, $F(1, 119) = .174$, $p = .677$, and accounted for < 0.1% of the variance in enhancement hookup motives. At stage two, grandiose narcissism significantly contributed to the model, $F(1, 118) = 8.737$, $p = .004$, explaining 6.9% of the variance in enhancement hookup motives. Vulnerable narcissism was entered at stage three but showed an insignificant increase in variance, $F(1, 117) = .474$, $p = .493$, accounting for < 0.1% of the variance in enhancement hookup motives. Finally, the addition of self-esteem was also not statistically significant, $F(1, 116) = .018$,

p = .895, accounting for < 0.1% of the variance in enhancement hookup motives. Collectively, the four predictor variables accounted for 6.9% of the variance in enhancement motives for hooking up. Effect sizes for the models (R^2) range from .001 to .074, indicating insignificant to small effect. Tables 14 and 15 present the regression model summary.

Table 14

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.038	.001	-.007	5.56875
2	.265	.070	.055	5.39609
3	.272	.074	.050	5.40816
4	.272	.074	.042	5.43101

Table 15

ANOVA Results for Four-Stage Regression Model: Enhancement Hookup Motives

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	5.397	1	5.297	.174	.677
	Residual	3690.305	119	31.011		
	Total	3695.702	120			
2	Regression	259.806	2	129.903	4.461	.019
	Residual	3435.896	118	29.118		
	Total	3695.702	120			
3	Regression	273.666	3	91.222	3.119	.028
	Residual	3422.036	117	29.248		
	Total	3695.702	120			
4	Regression	274.183	4	68.546	2.324	.061
	Residual	3421.520	116	29.496		
	Total	3695.702	120			

An examination of the regression coefficients (Table 16) showed that in stage one, emotion regulation was a not a statistically significant predictor of enhancement hookup motives, β = -.51 (t = -.555, p = .580). Grandiose narcissism entered in stage two significantly predicted enhancement motives to hookup, β = .263 (t = 2.923, p = .004). The third model revealed that vulnerable narcissism did not significantly predict enhancement motives to hookup, β = .059 (t = .619, p = .537). The final model revealed that self-esteem did not significantly predict enhancement motives to hookup, β = -.012 (t = -.132, p = .895). Only grandiose narcissism significantly predicted enhancement motives for hooking up. Accordingly, I rejected the null hypothesis for RQ2. I failed to reject the null hypothesis for RQ1, RQ3, and RQ4.

Table 16

Coefficients

Model		*B*	*SE*	β	*t*	*p*
1	(Constant)	12.905	2.343		5.508	<.001
	Emotion Regulation	-.530	1.270	-.038	-.417	.677
2	(Constant)	8.197	2.773		2.956	.004
	Emotion Regulation	-.911	1.237	-.066	-.737	.463
	Grandiose Narcissism	1.755	.594	.264	2.956	.004
3	(Constant)	6.528	3.688		1.770	.079
	Emotion Regulation	-.701	1.277	-.051	-.549	.584
	Grandiose Narcissism	1.750	.595	.263	2.941	.004
	Vulnerable Narcissism	.399	.580	.063	.688	.493
4	(Constant)	7/286	6.824		1.068	.288
	Emotion Regulation	-.714	1.286	-.051	-.555	.580
	Grandiose Narcissism	1.748	.598	.263	2.923	.004
	Vulnerable Narcissism	.376	.608	.059	.619	.537
	Self-Esteem	-.029	.216	-.012	-.132	.895

Coping Motives for Hooking Up

The third regression examined the relationship between the four predictor variables and coping hookup motives. The model at stage one showed that emotion regulation did not significantly contribute to the regression model, $F(1, 119) = .146$, $p = .703$, and accounted for < 0.1% of the variance in coping hookup motives. Stage two revealed grandiose narcissism significantly contributed to the model, $F(1, 118) = 7.422$, $p = .007$, and explained 5.9% of the variance in coping hookup motives. The addition of weight to the prediction of vulnerable narcissism entered at stage three also showed a significant increase in variance, $F(1, 117) = 6.211$, $p = .014$, accounting for 4.7% of the variance in coping hookup motives. Finally, the addition of self-esteem was not statistically significant, $F(1, 116) = .987$, $p = .323$, accounting for 0.1% of the variance in coping hookup motives. Together, the four predictor variables accounted for 10.6% of the variance in coping motives for hooking up. Effect sizes for the models (R^2) range from .001 to .115, demonstrating an effect size ranging from insignificant to small. Tables 17 and 18 present the regression model summary.

Table 17

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.035	.001	-.007	3.98039
2	.246	.060	.044	3.87715
3	.328	.108	.085	3.79428
4	.339	.115	.085	3.79449

Table 18

ANOVA Results for Four-Stage Regression Model: Coping Hookup Motives

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	2.306	1	2.306	.146	.703
	Residual	1885.380	119	15.844		
	Total	1887.686	120			
2	Regression	113.873	2	56.936	3.788	.025
	Residual	1773.813	118	15.032		
	Total	1887.686	120			
3	Regression	203.293	3	67.764	4.707	.004
	Residual	1684.393	117	14.397		
	Total	1887.686	120			
4	Regression	217.498	4	54.375	3.776	.006
	Residual	1670.188	116	14.398		
	Total	1887.686	120			

Table 19 presents the coefficients for each predictor variable. Emotion regulation in stage one was a not a statistically significant predictor of coping hookup motives, β = -.013 (t = -.145, p = .885). Stage two revealed that grandiose narcissism significantly predicted coping motives to hookup, β = .239 (t = 2.724, p = .007). The third model revealed that vulnerable narcissism also significantly predicted coping motives to hookup, β = .197 (t = 2.101, p = .038). The final model showed that self-esteem did not significantly predict coping motives to hookup, β = -.091 (t = -.993, p = .323). The results revealed that grandiose narcissism and vulnerable narcissism significantly predicted coping motives for hooking up. Therefore, I rejected the null hypothesis for RQ2 and RQ3. I failed to reject the null hypothesis for RQ1 and RQ4.

Table 19

Coefficients

Model		*B*	*SE*	β	*t*	*p*
1	(Constant)	8.930	1.674		5.333	<.001
	Emotion Regulation	-.346	.907	-.035	-.382	.703
2	(Constant)	5.812	1.992		2.917	.004
	Emotion Regulation	-.599	.889	-.060	-.674	.502
	Grandiose Narcissism	1.162	.427	.244	2.724	.007
3	(Constant)	1.573	2.588		.608	.545
	Emotion Regulation	-.065	.896	-.007	-.073	.942
	Grandiose Narcissism	1.150	.418	.242	2754	.007
	Vulnerable Narcissism	1.015	.407	.213	2.492	.014
4	(Constant)	5.550	4.768		1.164	.247
	Emotion Regulation	-.130	.898	-.013	-.145	.885
	Grandiose Narcissism	1.138	.418	.239	2.724	.007
	Vulnerable Narcissism	.893	.425	.197	2.101	.038
	Self-Esteem	-.150	.151	-.091	-.993	.323

Conformity Motives for Hooking Up

The final regression examined the relationship between the four predictor variables and conformity hookup motives. The results showed at stage one, emotion regulation did not significantly contribute to the regression model, $F(1, 119) = .000$, $p = .999$, and accounted for 0% of the variance in conformity hookup motives. Grandiose narcissism entered at stage two did significantly contribute to the model, $F(1, 118) = 4.539$, $p = .035$, and explained 3.7% of the variance in conformity hookup motives. The addition of weight to the prediction of vulnerable narcissism entered at stage three showed a significant increase in variance, $F(1, 117) = 18.376$, $p = < .001$, accounting for 13.1% of the variance in conformity hookup motives. Finally, the addition of self-esteem was also not statistically significant, $F(1, 116) = .100$ $p = .753$, accounting for < 0.1% of

the variance in conformity hookup motives. Collectively, the four predictor variables accounted for 16.8% of the variance in conformity motives for hooking up. Effect sizes for the models (R^2) range from .000 to .168, indicating an effect size ranging from insignificant to small. Tables 20 and 21 present the regression model summary.

Table 20

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.000	.000	-.008	2.46518
2	.192	.037	.021	2.42931
3	.410	.168	.146	2.26806
4	.410	.168	.140	2.27684

Table 21

ANOVA Results for Four-Stage Regression Model: Conformity Hookup Motives

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	.000	1	.000	.000	.999
	Residual	723.174	119	6.077		
	Total	723.174	120			
2	Regression	26.789	2	13.395	2.270	.108
	Residual	696.384	118	5.902		
	Total	723.174	120			
3	Regression	121.314	3	40.438	7.861	<.001
	Residual	601.859	117	5.144		
	Total	723.174	120			
4	Regression	121.831	4	30.458	5.184	<.001
	Residual	601.342	116	5.184		
	Total	723.174	120			

Table 22 presents the coefficients for the above model. Emotion regulation was not a significant predictor of conformity hookup motives, β = .072 (t = .813, p = .418). Stage two revealed that grandiose narcissism significantly predicted conformity motives to hookup, β = .190 (t = 2.230, p = .028). Vulnerable narcissism at stage three significantly predicted conformity motives to hookup, β = .381 (t = 4.181, p = <.001). The final entry showed that self-esteem did not significantly predict conformity motives to hookup, β = .028 (t = .316, p = .753). The results revealed that grandiose narcissism and vulnerable narcissism significantly predicted conformity motives for hooking up. Therefore, I rejected the null hypothesis for RQ2 and RQ3. I failed to reject the null hypothesis for RQ1 and RQ4.

Table 22

Coefficients

Model		*B*	*SE*	β	*t*	*p*
1	(Constant)	4.916	1.037		4.740	<.001
	Emotion Regulation	.001	.562	.000	.002	.999
2	(Constant)	3.388	1.248		2.714	.008
	Emotion Regulation	-.123	.557	-.020	-.221	.826
	Grandiose Narcissism	.569	.267	.194	2.131	.035
3	(Constant)	-.971	1.547		-.628	.532
	Emotion Regulation	.426	.535	.069	.796	.428
	Grandiose Narcissism	.557	.250	.189	2.231	.028
	Vulnerable Narcissism	1.043	.243	.372	4.287	<.001
4	(Constant)	-1.729	2.861		-.605	.547
	Emotion Regulation	.438	.539	.072	.813	.418
	Grandiose Narcissism	.559	.251	.190	2.230	.028
	Vulnerable Narcissism	1.066	.255	.381	4.181	<.001
	Self-Esteem	.029	.091	.028	.316	.753

Summary

A series of five separate hierarchical multiple regressions was used to determine if emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem significantly predicted motives to hookup. The results revealed that the predictor variables emotion regulation and self-esteem were not significant predictors of any of the five hookup motives (social-sexual, social-relationship, enhancement, coping, and conformity). Grandiose narcissism was a significant predictor of all five hookup motives and vulnerable narcissism was a significant predictor of coping and conformity motives. Chapter 5 includes interpretations of the findings, limitations of the study, implications for social change, and recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to determine the relative strength of emotion regulation, grandiose narcissistic personality, vulnerable narcissistic personality, and self-esteem in predicting motives to hookup among sexually active adults in the United States. With the rise of online dating, hookup culture (e.g., one-night stands, casual sex) has become more common and socially accepted (Lundquist et al., 2019). Despite the rise in popularity, casual sex has been associated with negative social and emotional consequences across genders, including psychological distress, feelings of confusion, disappointment, reduced self-esteem, and lower levels of overall well-being (Winkeljohn et al., 2019). Additionally, casual sex can increase health risks and has been linked to other potentially problematic behaviors, such as substance use (Garcia et al., 2019). Casual sex and the negative sex-related outcomes often associated with it can damage healthy social relationships that play a significant role in emotional well-being and overall quality of life (Shipley et al., 2018). Although hookup motives and culture have been researched from a broad perspective and relationships between hookup motives, narcissism, self-esteem, and emotion regulation have been explored independently, no study had investigated the relative strength of emotion regulation, narcissistic personality, and self-esteem on motives to hookup.

To address this gap in the literature, I conducted a quantitative, cross-sectional, correlational survey study to examine the relative strength of emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem in predicting motives for hooking up. Using a convenience sampling strategy, online surveys were distributed to

sexually active adults over the age of 21 residing in the United States whose primary language is English. A hierarchical multiple regression model revealed that emotion regulation and self-esteem were not significant predictors of any of the five hookup motives (i.e., social-sexual, social-relationship, enhancement, coping, and conformity). Grandiose narcissism was found to be a significant positive predictor of all five hookup motives, and vulnerable narcissism was a significant positive predictor of coping and conformity motives. In this chapter, I present my interpretation of the research findings, describe the limitations of the study, provide my recommendations for future research, and discuss implications for positive social change.

Interpretation of Findings

Research Questions 1 through 4 asked to what extent emotion regulation (RQ1), grandiose narcissism (RQ2), vulnerable narcissism (RQ3), and self-esteem (RQ4) relate to motives to hookup. The results indicated that grandiose narcissism significantly and positively predicted all five motivations for hooking up (i.e., social-sexual, social-relationship, enhancement, coping, and conformity) such that increases in grandiose narcissism were related to an increase in all five hookup motivations. I found vulnerable narcissism to be a significant positive predictor of some hookup motives but not all. A positive relationship with both coping and conformity hookup motives suggested that vulnerable narcissists may be more motivated to hook up when trying to cope with negative emotions or to conform to the expectations of others. These findings are generally consistent with previous research on narcissism and hookup motives but are not consistent with previous studies that found both emotion regulation and self-esteem did

predict motives for hooking up. In the following subsections, I discuss the results in the context of the literature that informs each predictor variable.

Emotion Regulation

In emotion regulation theory, Gross (1998) stated that individuals use different strategies to monitor and change the intensity and duration of their emotional reactions. Reappraisal is one approach to regulating emotions where individuals modify the way in which they view or evaluate the situation, in turn, influencing their emotional responses (Gross, 1999). Alternatively, individuals use suppression to downplay an emotional response in an attempt to decrease any negative feelings that may be associated with the situation. In the current study, I examined both emotion regulation strategies in relation to hookup motives.

Research to date has shown a relationship between emotion regulation and casual sex behaviors. For example, McKeen et al. (2022) examined emotion regulation as a motivation for hooking up, and although findings indicated that hooking up was motivated by a need to avoid feeling lonely, miserable, or unhappy, the emotional outcomes of the hookup experience (e.g., regret, rejection, negative feelings toward oneself) were precisely what the hookup was intended to avoid. These findings suggested that emotion regulation is related not only to emotional outcomes but can itself be a motivation for engaging in casual sex. The results of the current study did not show a significant relationship between emotion regulation and any of the motives for hooking up and were therefore not consistent with the findings of McKeen et al. (2002).

In another study, Shafir et al. (2017) found that individuals with lower self-esteem were more likely to engage in hooking up to avoid negative emotions about perceived poor performance, in this case related to giving an impromptu speech, and those with higher self-esteem were less negatively impacted by the perception of poor performance instead choosing to use the positive emotion regulation strategy of reappraisal. While Shafir et al.'s findings showed a significant positive relationship between lower self-esteem and hooking up in an effort to manage negative emotions, the current study did not show any significant relationships between self-esteem, emotion regulation, and motives to hookup. One possibility for inconsistencies between Shafir et al.'s study and the current study may be that, in the latter, no participants reported low self-esteem, limiting the variability required to detect the predicted effect (see Rusticus & Lavato, 2014).

Additionally, emotion regulation theory has the potential to explain how the ability to regulate one's emotions may influence self-esteem levels among narcissistic individuals, making them more or less motivated to engage in casual sex. As such, it was expected that narcissistic personality traits, self-esteem, and motives for causal sex (i.e., hookups) may be influenced by how an individual self-regulates their emotions to control their outcomes. However, the results showed no significant correlation between an individual's emotion regulation strategy and their motives for hooking up. Neither type of emotion regulation strategy (suppression or reappraisal) showed a significant relationship with any of the five hookup motives. While Shafir et al. (2017) did find a positive association between low self-esteem and hooking up to regulate emotions, the lack of

self-esteem variability (i.e., no participants reported low self-esteem) among participants in the current study did not permit detection of the predicted relationship, if one existed.

Grandiose Narcissism

Given that grandiose narcissists tend to be more motivated to use sex to enhance their sense of self-worth as opposed to establishing emotional intimacy, it is likely that grandiose narcissists would favor short-term mating over sex in committed relationships. While Rio et al. (2019) found that grandiose narcissists, who exhibited traits associated with the Dark Tetrad (i.e., personality traits comprised of narcissism, Machiavellianism, psychopathy, and sadism), were more likely to engage in casual sexual behaviors but that grandiose narcissism did not predict sexual motivations. The findings of the current study differed from Rio et al. in that grandiose narcissism was a significant predictor for all five motives to hookup, indicating that grandiose narcissism does, in fact, play a significant role in motives to hookup.

In another study, Smith et al. (2019) found that grandiose narcissism was significantly and positively associated with social-sexual motives, such as sexual self-image goals (i.e., the desire to enhance their own sexual self-esteem); belief that they are good sexual partners; and sexual motivations for pleasure, self-power, and self-enhancement. Findings from the current study support Smith et al.'s results, showing that grandiose narcissism was a significant predictor of enhancement motives for hooking up and for all five hookup motives.

In relation to sexual behaviors, both grandiose and vulnerable narcissists are motivated by physical pleasure, self-affirmation, and increased sexual self-esteem (i.e.,

using sex to inflate their own self-esteem or reassure their own self-worth) rather than emotional intimacy, making them less committed to their partners (Gewirtz-Meydan, 2017). Gewirtz-Meydan (2017) found that both types of narcissism correlated with self-affirmation motives (i.e., protect an image of adequacy and self-integrity), ostensibly because both grandiose and vulnerable narcissists have a high need for affirmation and therefore may use sex to obtain it. Only partially supporting Gewirtz-Meydan's findings, the results of the current study showed that only grandiose narcissism predicted enhancement motives. On the other hand, consistent with Gewirtz-Meydan's results, in the current study I found that both types of narcissism predicted the use of sex to cope with negative emotions.

While a relationship between grandiose narcissism and social-sexual or enhancement motives was found as predicted in the current study, surprisingly grandiose narcissism significantly predicted all hookup motives, including hooking up in hopes of establishing a relationship. Adding additional insight into the nature of grandiose narcissism, other research has suggested that grandiose narcissists are less avoidant of interpersonal relationships and have shown higher levels of emotional intelligence, social reasoning, and empathy than their vulnerable counterparts (Vonk et al., 2013). That current findings showed that grandiose narcissism was positively related to hopes of establishing a relationship may be due to grandiose narcissists, as the better-adapted narcissistic subtype, having a better sense of self and thus a larger relational capacity (see Bogaerts & Jankovic, 2023). However, while grandiose narcissists seem to be happier and more capable of forming relationships than vulnerable narcissists, their intentions are

likely to be manipulative and self-serving, creating relationship stress (Malesza & Ostaszewski, 2016).

Vulnerable Narcissism

Vulnerable narcissists were included in the current study because no previous studies had examined the relationship between vulnerable narcissism and motives to hookup. It has been suggested that vulnerable narcissists tend to be more hostile towards others (Miller et al., 2012), and though they desire close relationships, many are unable to maintain them given their more anxious or fearful attachment style (Dickinson & Pincus, 2003). Vulnerable narcissism has also been found to be related to increased depression (Miller et al., 2012), possibly indicating that vulnerable narcissists are less adaptive emotion regulators, and as such, I expected that vulnerable narcissists may be more likely to hookup as a means to cope with negative emotions.

Additionally, studies finding that vulnerable narcissists tend to regulate negative emotional reactions by suppressing their true feelings and impulses allowed me to hypothesize that emotion regulation strategies would predict vulnerable narcissists' motives to hookup as a means to cope with negative emotions (see Loeffler et al., 2020). Results of the current study supported this hypothesis, showing vulnerable narcissism to significantly predict hooking up motivated by the need to cope with their negative emotions. This could be because vulnerable narcissists are more likely to suppress their negative emotions and hooking up may be a viable emotional outlet.

Vulnerable narcissists develop their sense of identity largely based on the opinions of others, making them more likely to be influenced by negative feedback than

others (Zeigler-Hill et al., 2008). This supports the idea that vulnerable narcissism would predict conformity hookup motives, meaning vulnerable narcissists were motivated to engage in hookup behaviors to conform to some sort of group norms or expectations. The current findings confirmed a positive relationship between vulnerable narcissism and conformity as a motive to hookup.

Their tendency to lack cooperation together with a tendency to be aggressive toward others suggests that vulnerable narcissists may have less relational capacity than grandiose narcissists (Krizan & Johar, 2015). These traits are likely to have a negative impact on social relationships and relationship concordance (e.g., ability to control impulses, aggression and frustration toward others, and ability to value and honor others). Indeed, Bogaerts and Jankovic (2023) found that vulnerable narcissism was negatively related to social concordance. These results suggest that vulnerable narcissists have a less coherent sense of self, which would negatively impact their relationships with others. Consistent with the findings of Bogaerts and Jankovic, results from the current study indicated that vulnerable narcissists did not hookup with the goal of forming a relationship with their partner. Prior to the present study, vulnerable narcissism had not been directly investigated as a predictor of hookup motives . That said, previous research has shown a positive association between vulnerable narcissism and a strong desire for inclusion (Mahadevan & Jordan, 2022). While vulnerable narcissists desire belonging and inclusion, when the relational challenges of narcissistic vulnerability are considered, the need to be liked and accepted could be motivated by the need to repair their damaged sense of self (Kohut & Wolf, 1978).

Self-Esteem

Consistent with previous studies, the present study predicted that the motives for casual sex would be influenced by self-esteem, which surprisingly the current study did not find. Townsend et al. (2020) stated that individuals who were motivated to have casual sex for reasons other than their own pleasure reported lower levels of self-esteem compared to those who were motived by their own desire or were more likely to engage in hooking up to avoid negative emotions (Shafir et al., 2017). In the present study, self-esteem did not predict any of the five hookup motives. One explanation may be that no participants reported low self-esteem, limiting the variability required to detect the predicted effect. Additionally, the Rosenberg Self-Esteem Scale items that reflect poor self-esteem are reverse scored, which, according to Suarez-Alvarez et al. (2018), can increase cognitive processing demands, causing participant response confusion. In any case, results from the current study were not consistent with the literature that informed this particular prediction.

Limitations of the Study

Given that a convenience sampling strategy was used, the representativeness of the sample and generalizability of the results are limited. This study was limited to English-speaking U.S. residents who were sexually active and over the age of 21; therefore, the results cannot be generalized beyond this population. The participants of this study were predominately female (60.33%), and this gender imbalance that may have decreased the social relevance of these findings. Unequal sample sizes can also impact statistical power with implications for study results (Rusticus & Lavato, 2014).

Additionally, 39.2% of participants reported being married and another 15.2% reported being in a monogamous relationship, suggesting that those who are monogamous would have less experience with hooking up and answered the majority of the Hookup Motives Questionnaire with almost never and/or never responses. Individuals under the age of 21 were excluded from the study. For young adults and college students, specifically, hooking up has become commonplace (Lundquist et al., 2019). However, this study did not capture the large population of college students between the ages of 18–20; therefore, including adults 18 and older in the present study may have produced different results.

Another limitation was the potential of self-selection bias that may result from using a convenience internet sample. Convenience sampling limits the representativeness of the sample because individuals who choose to respond to the survey may be different demographically and in disposition from those who chose not to participate (Stroebe et al., 2018). Online surveys are also vulnerable to social desirability bias because participants tend to respond in ways that put themselves in the best light rather than how they actually feel or what they actually believe, especially when soliciting sensitive information (Stuart & Grimes, 2009). To mitigate potential social desirability bias, participants were reminded that their responses were collected anonymously.

Additionally, an individual's eligibility to participate in the study could not be confirmed because participants were simply asked if they met all inclusion criteria. I used screening questions to reduce this threat; however, it was impossible to determine if participants answered all screening questions honestly. Another possible limitation was

attempting to capture actual behaviors of individuals using online survey questions. For example, the Emotion Regulation Questionnaire measures how one regulates their emotions in general but does not measure how they manage their emotions in specific real-life scenarios. Therefore, it can be difficult to infer from these findings whether perceived emotions and behaviors truly represent actual real-world behaviors, a limitation characteristic of online, self-report responses.

Recommendations

I addressed gaps in the literature by determining the relative strength of emotion regulation, grandiose and vulnerable narcissism, and self-esteem in predicting motives to hookup. Though significant outcomes were found, a great deal remains to be explored about the relationships between emotion regulation, narcissism, self-esteem, casual sex, and their impact on emotional, relational, and health outcomes.

Considering the demographics in this study, future research should expand on the population that was used in this study, reaching more college students by including a younger demographic. As there has been a shift from traditional to more online dating and hooking up, engaging in casual sex has become more accepted, specifically among college-aged students and those actively dating. Assuming that hooking up may be less prevalent among married individuals, expanding the inclusion criteria to include 18- to 20-year-olds may more evenly balance the proportion of married (40.5%) to single (28.9%) participants represented in the present study.

As indicated in the literature review, hooking up have implications for emotional outcomes. Casual sex and the negative sex-related outcomes often associated with it can

damage healthy social relationships that play a significant role in emotional well-being and overall quality of life. Previous research suggests that hookups can result in both positive (e.g., feelings of empowerment, attractiveness, and excitement) and negative outcomes (e.g., anxiety, depression, and poor psychological wellbeing; Winkeljohn et al., 2019) such as depression, anxiety, feelings of exclusion, loneliness, and decreased overall wellbeing (Frost & Rickwood, 2017; Ozimek & Bierhoff, 2019). More severe consequences can include mental health concerns such as depression and anxiety, substance abuse, as well as negative relationship outcomes if individuals engage in hooking up rather than developing emotional connection or intimacy (Ohrnberger et al., 2017). Future research has the potential to reveal specifically which hookup motives predict positive or negative outcomes.

The literature also indicated that individuals who approached casual sex to please others had lower levels of self-esteem compared to those who sought sex motivated by their own sexual desires. Non-autonomous sex was related to decreased self-esteem across gender, suggesting a relationship between self-esteem and motivations for hooking up (Townsend et al., 2020). Future research should consider a focused study on individuals with lower self-esteem. An additional area of future research should focus on specific motivations for and outcomes of casual sex among low self-esteem, as that population was not fully represented in the present study.

The Chapter 2 literature review indicated significant emotional, relational, and health outcomes following hookups. As hookup culture is a newer phenomenon, cross-sectional studies, which predominate, may limit a fuller understanding of the long-term

outcomes of hooking up that longitudinal studies may provide. Although negative outcomes (e.g., depression, anxiety, rejection, shame, guilt, lower self-esteem, relationship difficulties and poor overall well-being) have been established in relationship to hooking up and some positive outcomes (e.g., feeling excitement or enhancing one's feelings about themselves, it is unclear if their impact on well-being is transitory, long-lasting, or will evolve over time.

Implications

Positive Social Change

The goal of this study was to investigate factors that may contribute to motivations for hooking up. Despite the popularity of casual hookups, they do not come without negative social and emotional consequences, including psychological distress, feelings of confusion, disappointment, reduced self-esteem, and lower levels of overall wellbeing (Winkeljohn et al., 2019). Results found that characteristics associated with both grandiose and vulnerable narcissism significantly predicted motives to hookup, useful for sparking further research into the long-term effects on emotional and psychological wellbeing. In 2020, college females and males hooked up approximately 8.1 and 7.9 times, respectively (Statista, 2023). Given the incidence of hooking up on college campuses, insights from this study may be well-used to inform educational programs, including sex education classes, about the emotional benefits and risks.

Recent statistics indicate that adolescents are hooking up at almost the same rates as college students, warranting the dissemination of these findings to high school administrators and school psychologists (Fortunato et. al., 2010). The well-documented

potential for hooking up to negatively impact the emotional and psychological wellbeing of those who partake, suggests that results from this study can inform therapeutic approaches and interventions for those seeking counseling. Aside from psychological considerations, casual sex can also impact physical health, having been linked to other potentially problematic behaviors such as substance use (Garcia et al., 2019). These research findings reveal relevant information about motivations for engaging in casual sex that can inform sex education, potentially changing the way individuals approach casual sex.

Theoretical, Methodological, and Empirical Implications

Gross's (1998) emotion regulation theory (1998) has been applied extensively over the last 20 years to explain how emotion-regulation strategies can prepare individuals to respond to challenges and opportunities. When individuals respond to emotional stimuli by using different emotion regulation strategies, they can manage emotions reactions to their best advantage. Emotion regulation theory holds that the way in which indivduals respond to their emotions offers insight into their thoughts, feelings, importance of the situation, and whether or not the situation advances or obstructs their goals. In previous studies, results revealed a significant positive relation between reappraisal and life satisfaction. Suppression, on the other hand, had no significant effect on life satisfaction for females across all stress levels and was significant and positive for males but only at high stress levels, suggesting the situation-specific importance of emotion regulation in overall wellbeing (Jiang et al., 2022). Though the current study failed to find a relationship between emotion regulation and motives to hookup, previous

research has found emotion regulation important to overall well-being, justifying my use of it to inform my study.

Conclusion

The goal of the current study was to determine the relative strength of emotion regulation, grandiose narcissism, vulnerable narcissism, and self-esteem in predicting motives to hookup. There was no significant relationship found between emotion regulation and motives for hooking up, nor was a significant result found for the relationship between self-esteem and hookup motives. The significant findings of this study did include positive associations between grandiose narcissism and all five motives to hookup (social-sexual, social-relationship, enhancement, coping, and conformity). Findings also indicated a significant association between vulnerable narcissism and coping and conformity motives. This study demonstrated the importance of the role that personality traits, specifically narcissistic traits, on the motivations for hooking up, findings that are relevant in that the outcomes of casual sex behaviors play a crucial role on the mental, emotional, physical, and relational health of individuals.

Hookup culture (i.e., no strings attached, casual sex, friends with benefits) continues to rapidly increase in popularity and acceptance, despite the problems that sometimes result (e.g., mental health issues, substance abuse, relational issues, health problems, and emotional difficulties. These issues can negatively impact an individual’s ability to enter into a healthy relationship, one that can promote overall health, longer life, and a greater quality of life (Ohrnberger & Sutton, 2017). As hookup culture is a relatively new phenomenon, research is just beginning to uncover the motivations and

outcomes of casual sexual behaviors. A great deal remains to be discovered about the relationship between emotion regulation, narcissism, self-esteem, and hookup motives. While hooking up can result in some positive outcomes (e.g., excitement, self-enhancement, empowerment, and attractiveness), the potential for negative consequences is greater given that negative outcomes are more often reported and can have a more severe impact on an individual's emotional, relational, and physical health.

Given the rapidly growing popularity of hookup culture, it will likely influence casual sex behaviors for years to come. The findings of this study add new insights to what is already known about motivations for engaging in hookup culture. Results of the current study can be used to inform sex education and therapeutic interventions, making a positive impact in the mental health, physical health, and overall well-being of individuals who do or may potentially engage in future casual sex.

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Appendix A: Eligibility and Demographic Questionnaire

Eligibility: (4 questions)

E1. Are you English Speaking?
Yes (continue)
No (End study)

E2. Are you over 21 years of age?
Yes (continue)
No (End study)

E3. Do you currently reside in the United States?
Yes (continue)
No (End study)

E4. Are you sexually active?
Yes (continue)
No (End study)

Demographics: (4 questions)

D1. What is your age?
Responses:
21-30
31-40
41-50
51 or above

D2. What is your gender?
Responses:
Male
Female
Other:______
Prefer not to answer

D4. What is your relationship status?

Responses (check all that apply):

Single
Married
Divorced
Widowed
Co-habitating
In a monogamous relationship
In a non-monogamous relationship

Appendix B: Narcissism Scale (NS)

Below is a list of statements. Beside each statement are six numbers which indicate how true each statement is for you (e.g., 1 = *strongly disagree,* 6 = *strongly agree*). Please read each statement carefully and choose the number which best indicates how true the statement is of you.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Vulnerable Narcissism						
I am misunderstood, mistreated, and deserve a break.	1	2	3	4	5	6
It's easier to be alone than to face not getting what I want from others.	1	2	3	4	5	6
I have problems that nobody else understands.	1	2	3	4	5	6
Sometimes I avoid people because I know they'll disappoint me.	1	2	3	4	5	6
I have enough of my hands without having to worry about other people's problems.	1	2	3	4	5	6
I am jealous of people who look better than I do.	1	2	3	4	5	6
When other people don't notice me, I start to feel worthless.	1	2	3	4	5	6
Sometimes I am envious of other people's good fortune.	1	2	3	4	5	6
I tend to feel humiliated when criticized.	1	2	3	4	5	6
I get annoyed by people who are not interested in what I say or do.	1	2	3	4	5	6
Grandiose Narcissism						
It's easy for me to control other people.	1	2	3	4	5	6
I am good at getting people to do things my way.	1	2	3	4	5	6
I can usually talk my way out of anything.	1	2	3	4	5	6
I like to see what I can get away with.	1	2	3	4	5	6
I can read people like a book.	1	2	3	4	5	6
I am a really special person.	1	2	3	4	5	6
I have always known that I am gifted.	1	2	3	4	5	6
I love showing all the things I can do.	1	2	3	4	5	6
I am a powerful person.	1	2	3	4	5	6
I know I am going to go far.	1	2	3	4	5	6

Appendix C: Hookup Motives Questionnaire (HMQ)

Instructions: Thinking of all the times you have hooked up, how often would you say that you hook up for each of the following reasons? Answer options:

1 = *almost never/never*
2 = *some of the time*
3 = *half of the time*
4 = *most of the time*
5 = *almost always/always*

Items

Social-Sexual Motives

1. I hook up because it allows me to avoid being tied down to one person.
2. Hooking up provides me with "friends with benefits."
3. Hooking up provides me with sexual benefits without a committed relationship.
4. Hooking up enables me to have multiple partners.

Social-Relationship Seeking Motives

5. I hook up because hooking up is a way to find a relationship.
6. I hook up because it is the first step to forming a committed relationship.
7. I hook up because it can help me decide if I want something more serious with my hookup partner.

Enhancement Motives

8. I hook up because it's fun.
9. I hook up because it's sexually pleasurable.
10. I hook up because I'm attracted to the person.
11. I hook up because it's exciting.

Coping Motives

12. I hook up because it makes me feel good when I'm not feeling good about myself.
13. I hook up because it makes me feel attractive.
14. I hook up because it cheers me up when I'm in a bad mood.
15. I hook up because it helps me feel less lonely.

Conformity Motives

16. I hook up because I feel pressure from my friends to hook up.
17. I hook up because my friends will tease me if I don't.
18. I hook up because it helps me fit in.
19. I hook up because I feel I'll be left out if I don't.

Appendix D: Rosenberg Self-Esteem Scale (RSES)

Instructions: Rate the items using the following scale:

1 = *strongly agree*
2 = *agree*
3 = *disagree*
4 = *strongly disagree*

Items
1. I feel that I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.*
4. I am unable to do things as well as most other people.
5. I feel I do not have much to be proud of.*
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.*
9. I certainly feel useless at times.*
10. At times I think I am no good at all.*

- Reverse-scored

Appendix E: Emotion Regulation Questionnaire (ERQ)

Instructions: The following questions are about your emotional life, in particular, how you control (regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer with the following scale (1-7; 1 = *strongly disagree* and 7 = *strongly agree*).

	Strongly Disagre e			Neutral			Strongly Agree
1. When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about*.	1	2	3	4	5	6	7
2. I keep my emotions to myself.	1	2	3	4	5	6	7
3. When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about*.	1	2	3	4	5	6	7
4. When I am feeling *positive* emotions, I am careful not to express them.	1	2	3	4	5	6	7
5. When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.	1	2	3	4	5	6	7
6. I control my emotions *by not expressing* them.	1	2	3	4	5	6	7
7. When I want to feel more *positive* emotion, I *change the way I'm thinking* about the situation.	1	2	3	4	5	6	7
8. I control my emotions by *changing the way I think* about the situation.	1	2	3	4	5	6	7
9. When I am feeling *negative* emotions, I make sure not to express them.	1	2	3	4	5	6	7
10. When I want to feel less *negative* emotion, I *change the way I'm thinking* about the situation.	1	2	3	4	5	6	7

Appendix F: Permission to Use Narcissism Scale

Dear Ms. Montiel

Thank you very much for your permission request to use the *Narcissism Scale* as described below.
We have no objection to your using the material provided

- You will also seek permission from the original authors of the scale:

Kate L. Derry - at the time the article was published she was affiliated with the School of Psychology, The University of Western Australia, Crawley, WA, Australia.
Jeneva L. Ohan and Donna M. Bayliss - who are copied onto your original e-mail which is very good!

- You will include the full bibliographic references of the article published in our *European Journal of Psychological Assessment:*

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Kind regards,

Dear Kristen,

Thank you for your email. I would be delighted if you used my narcissism scale for your research study.

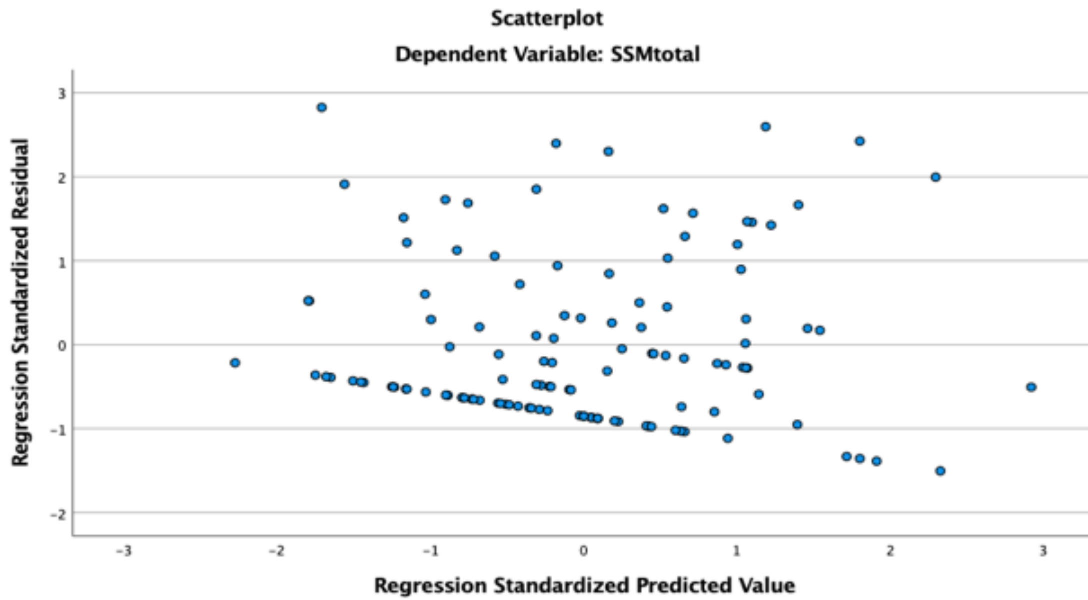
Please do not hesitate to email again if you have any questions or queries.

Warm regards,

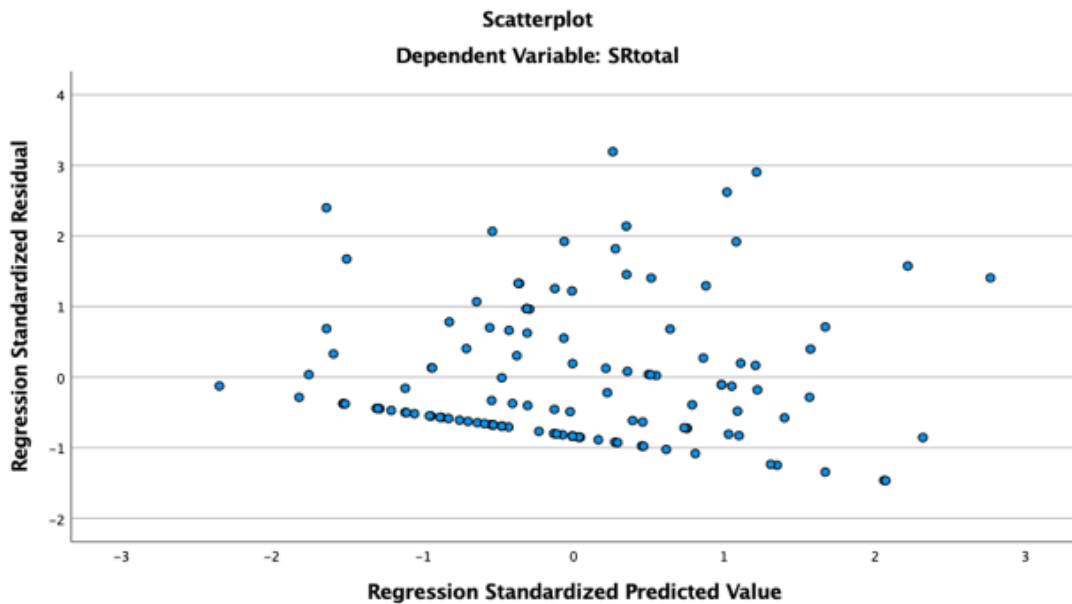
Kate

Appendix G: Scatterplots

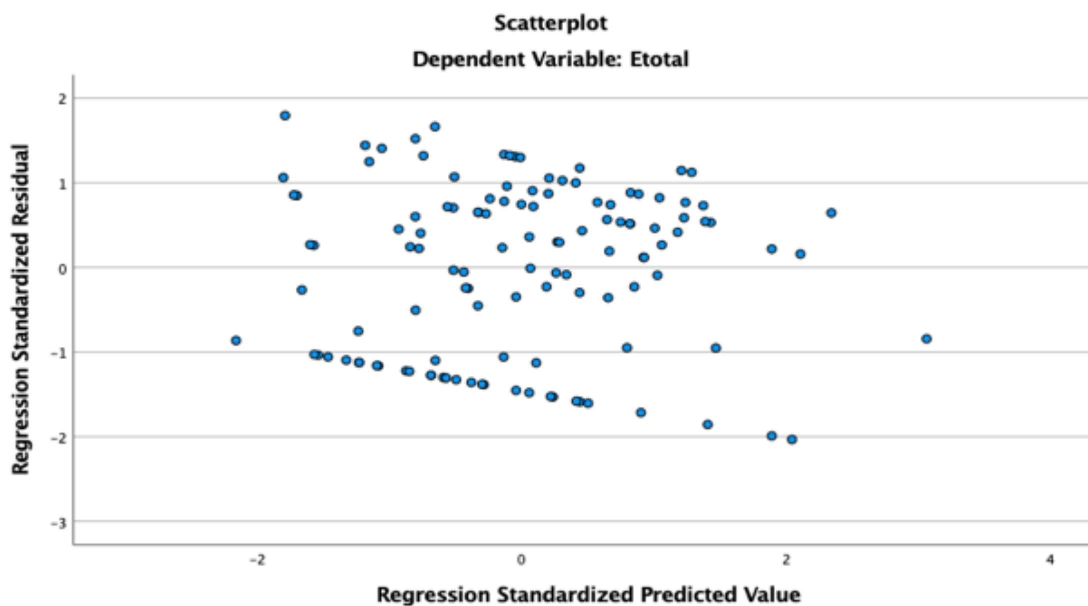
Social-Sexual Motives



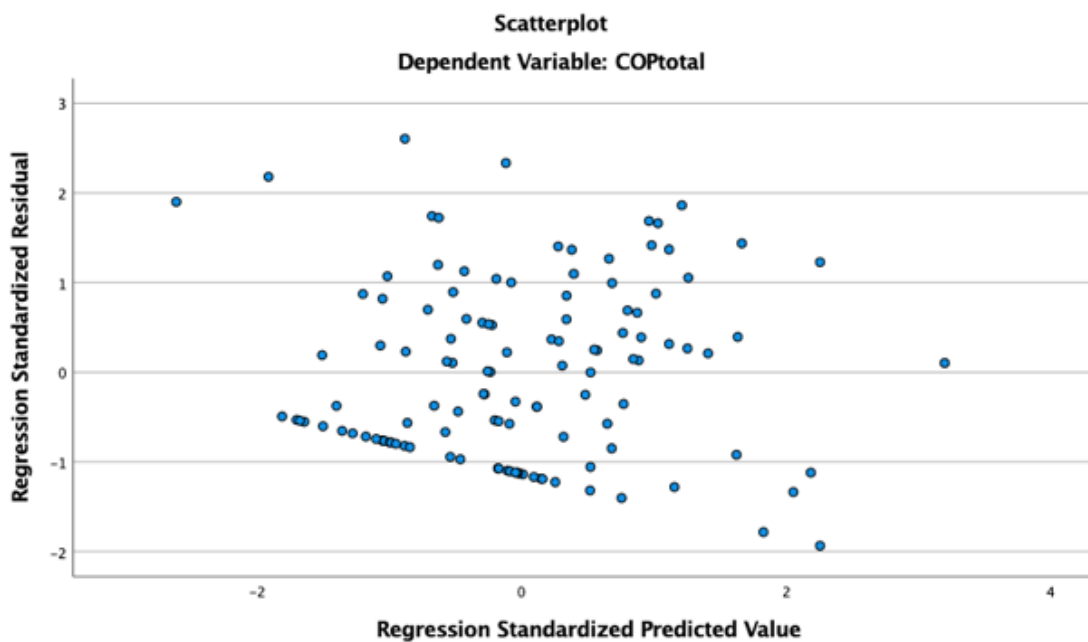
Social-Relationship Motives



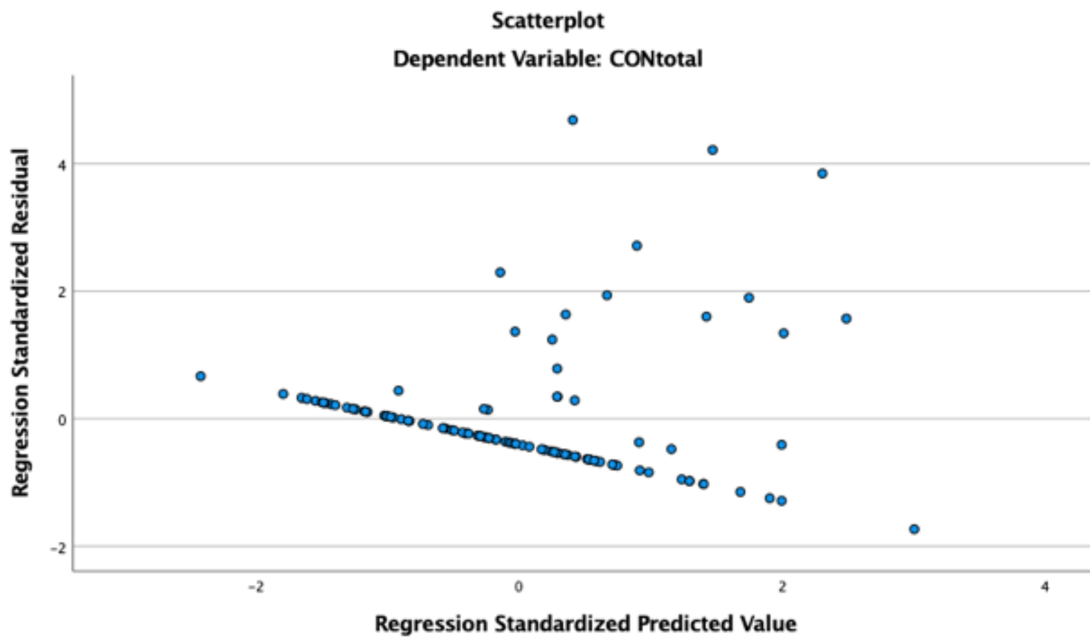
Enhancement Motives



Coping Motives

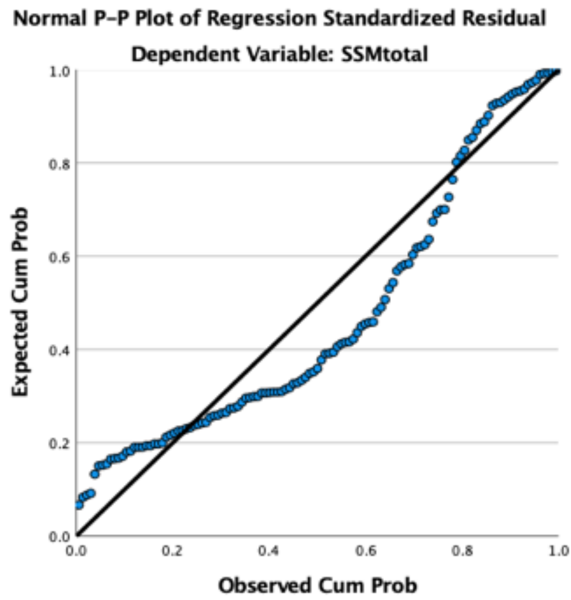


Conformity Motives

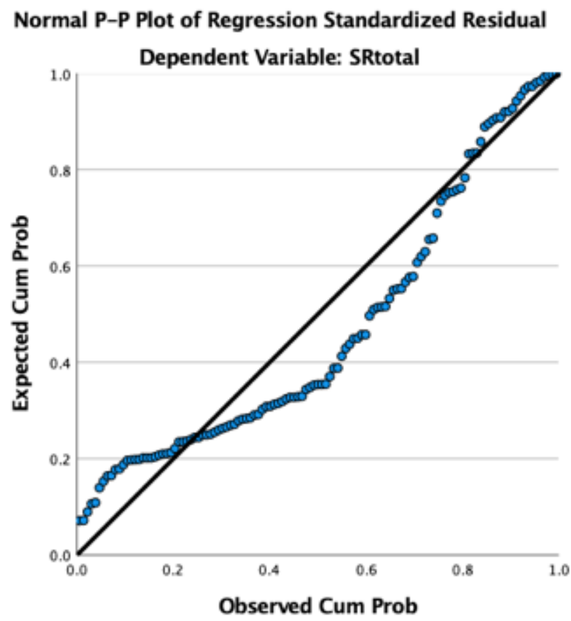


Appendix H: P-P Plots

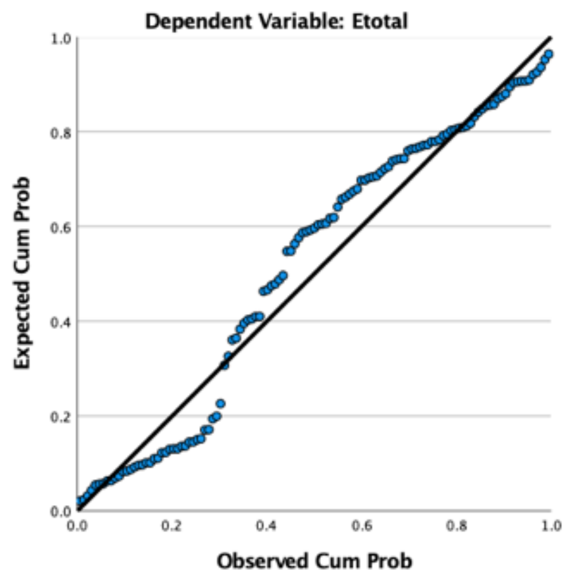
Social-Sexual Motives



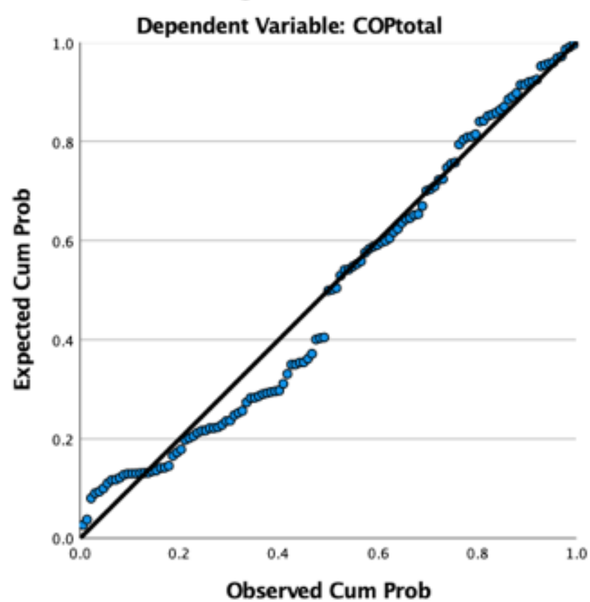
Social-Relationship Motives



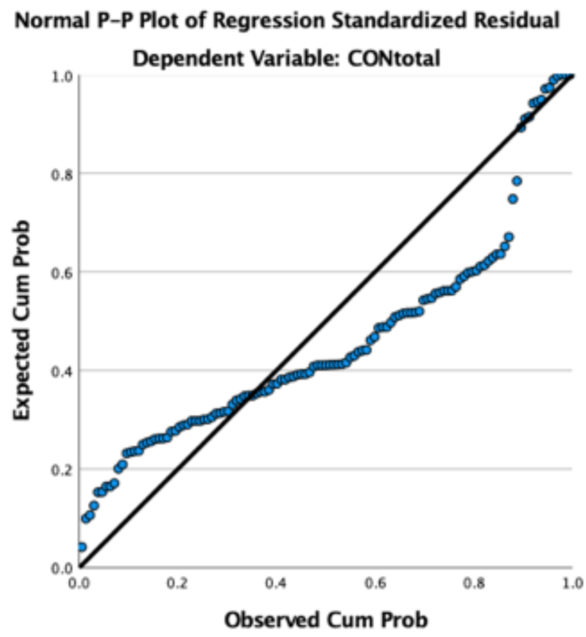
Enhancement Motives



Coping Motives

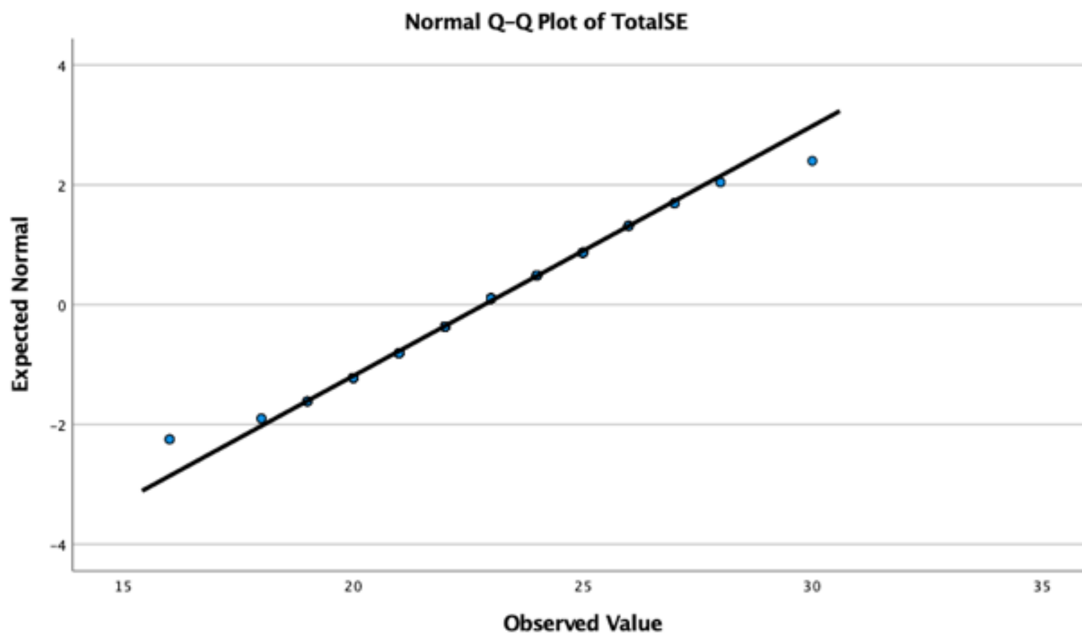


Conformity Motives

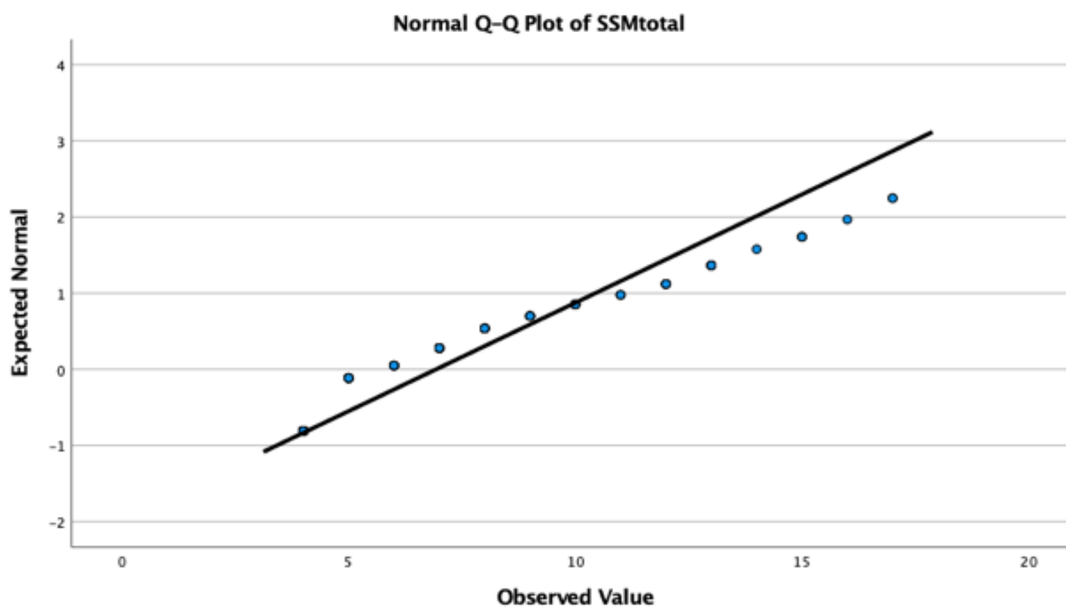


Appendix I: Q-Q Plots

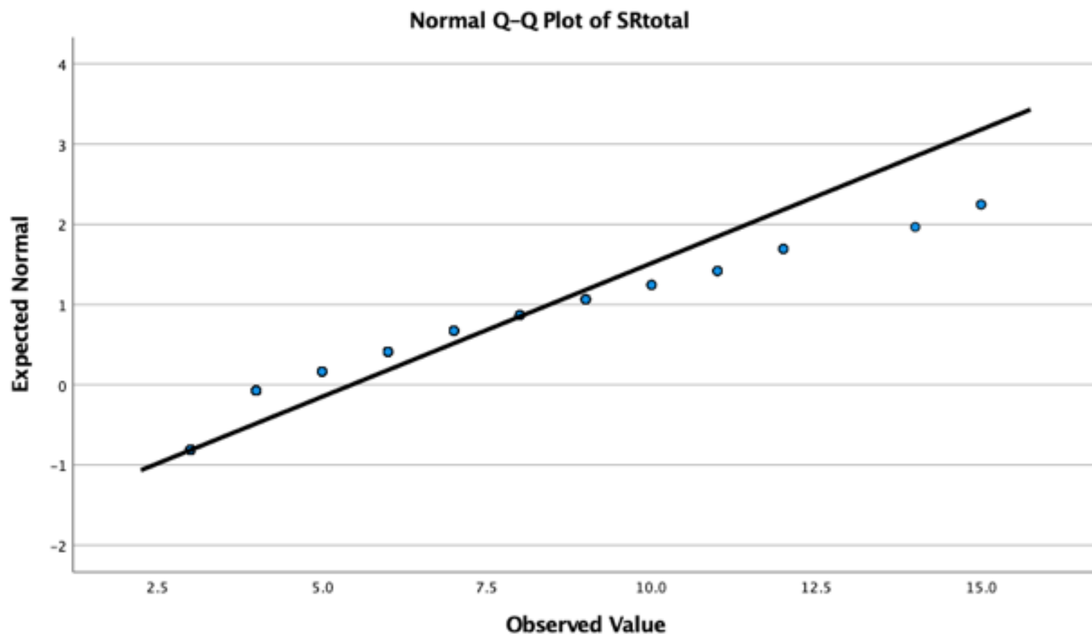
Self-Esteem



Social-Sexual Motives



Social-Relationship Motives



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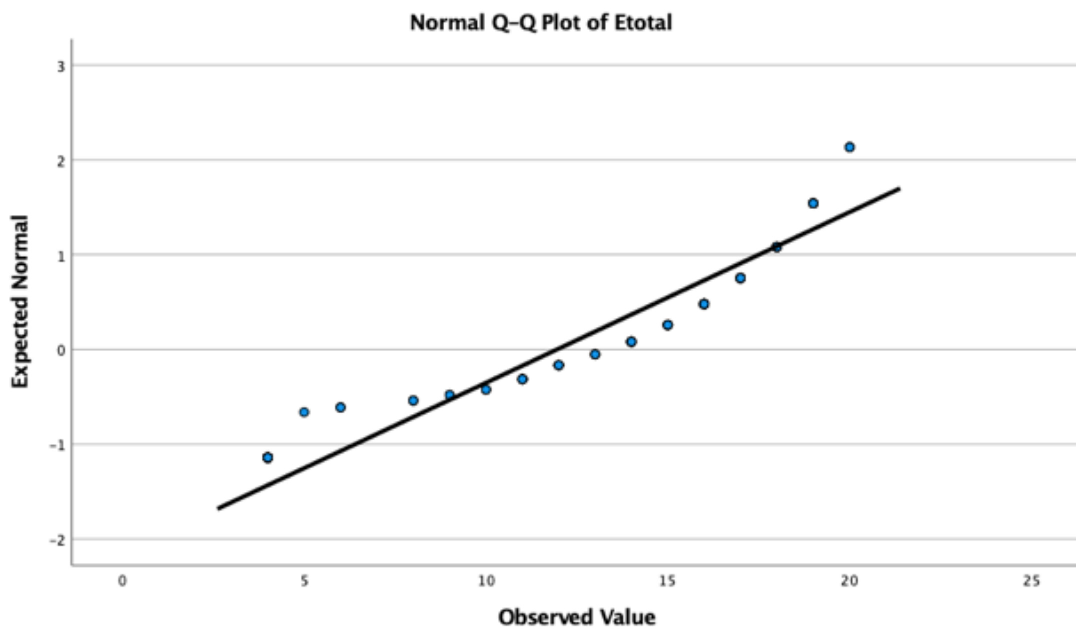
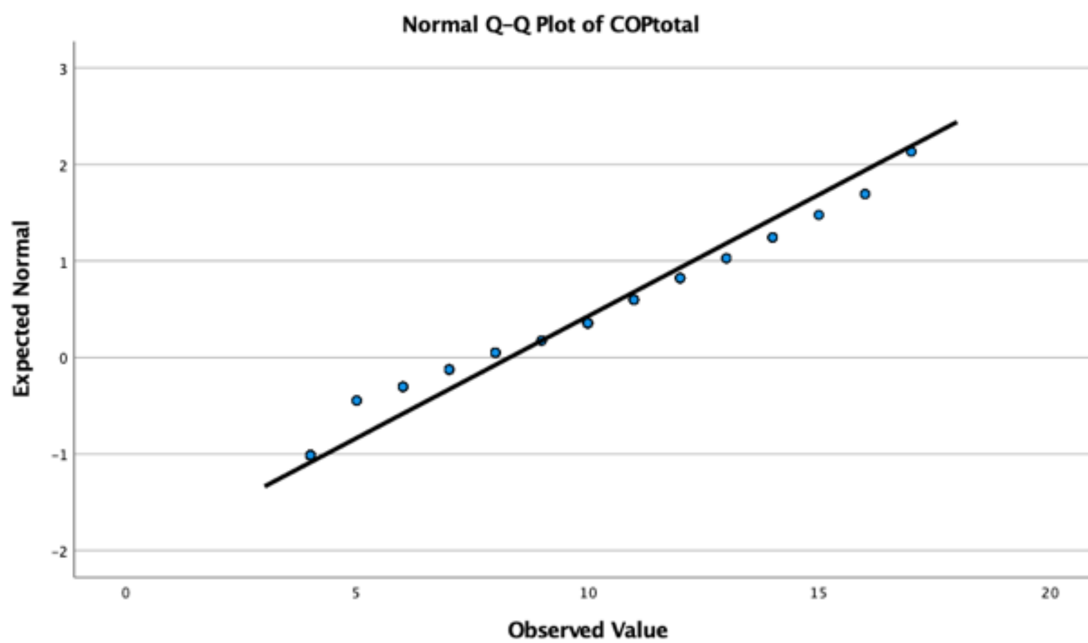
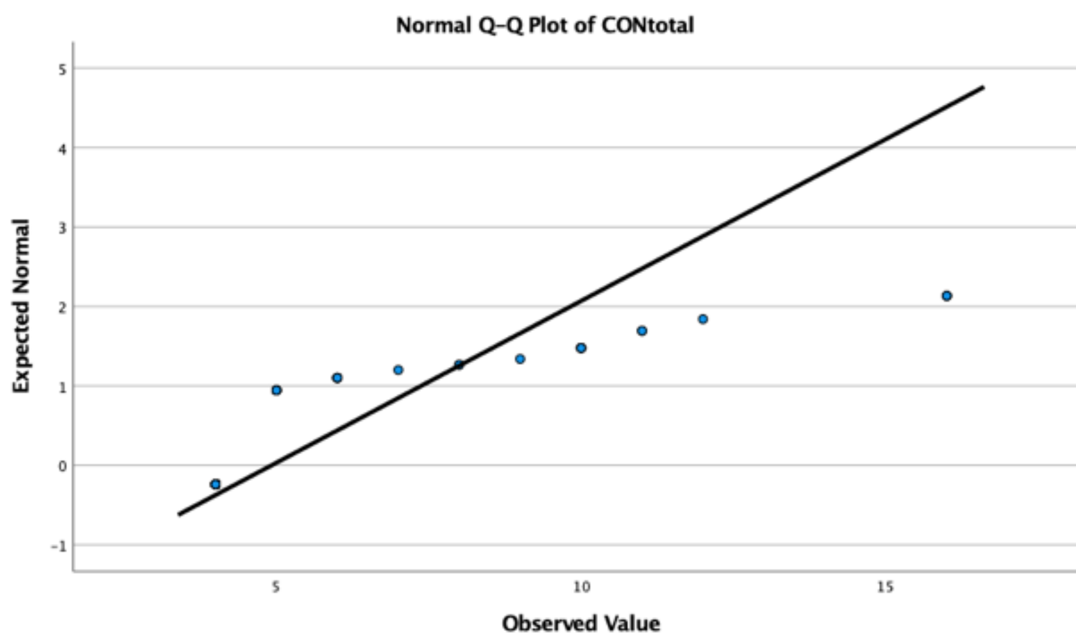


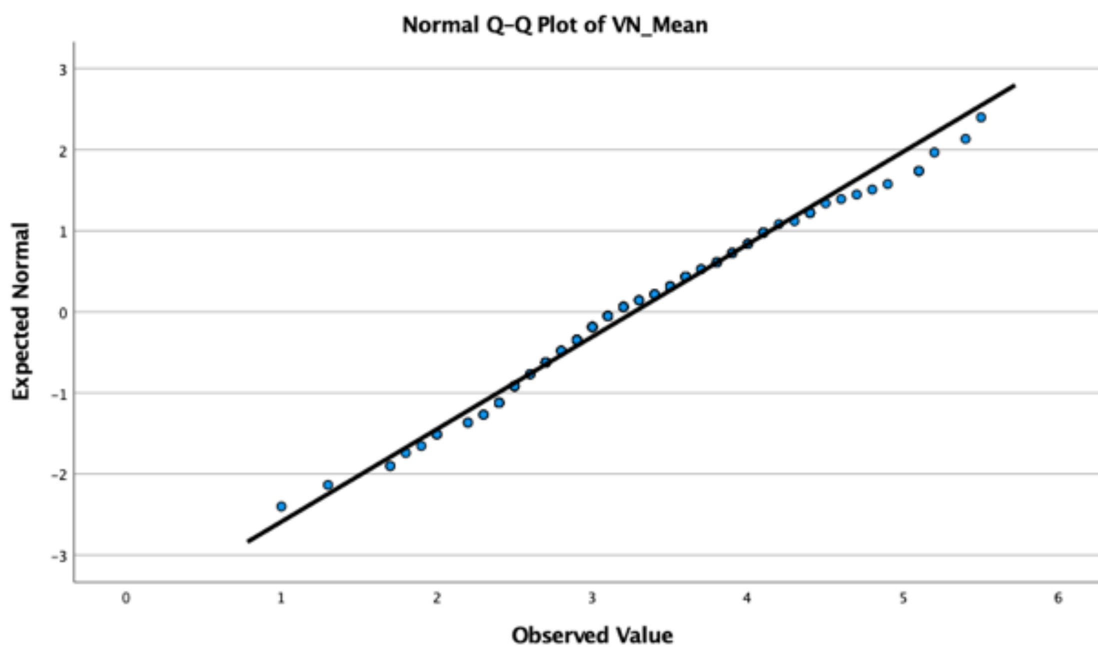
Coping Motives



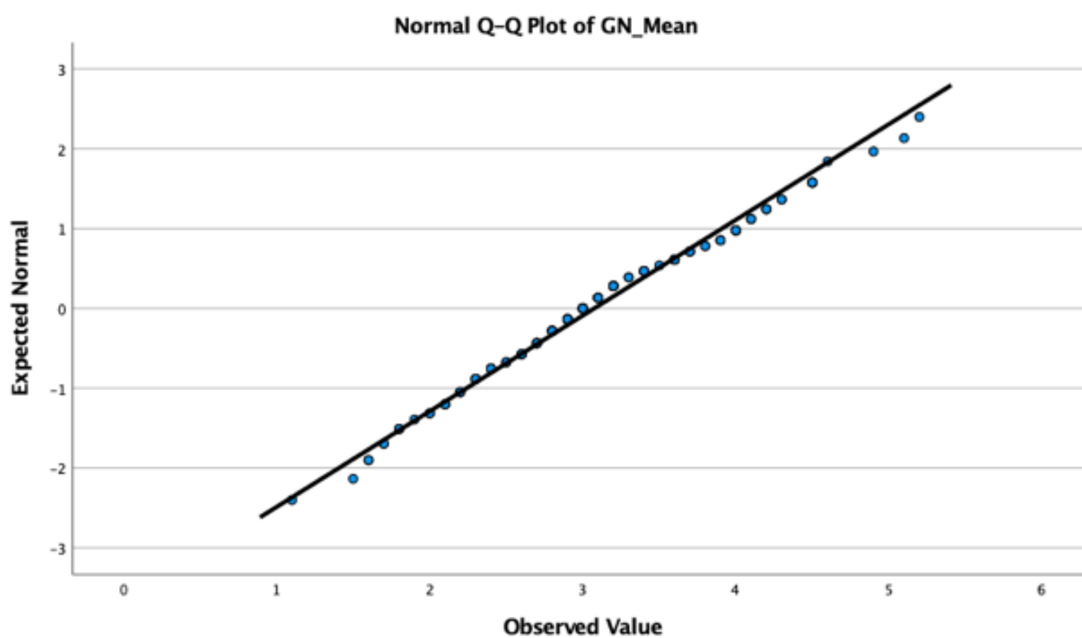
Conformity Motives



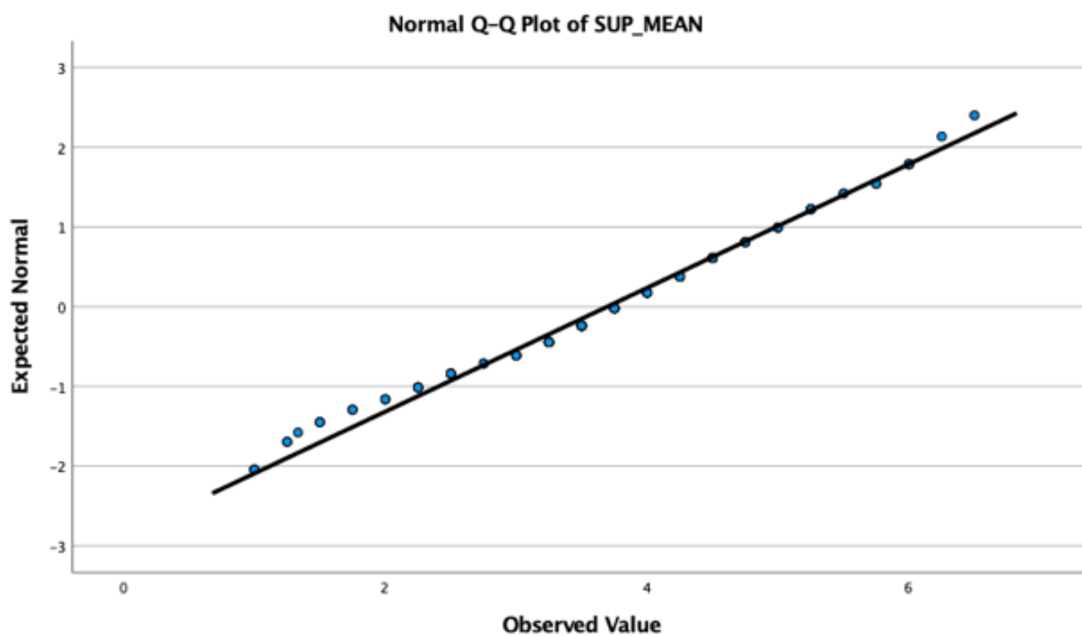
Vulnerable Narcissism



Grandiose Narcissism



Emotion Regulation – Suppression



Emotion Regulation – Cognitive Reappraisal