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Predictive Factors of Risky Sexual Behaviors of Emerging Adult Women

Corey Dabney
Walden University

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Walden University

College of Social and Behavioral Sciences

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Corey Dabney

has been found to be complete and satisfactory in all respects,
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Review Committee

Dr. Brian Ragsdale, Committee Chairperson, Psychology Faculty
Dr. Nina Nabors, Committee Member, Psychology Faculty
Dr. Rachel Piferi, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

Predictive Factors of Risky Sexual Behaviors of Emerging Adult Women

by

Corey Dabney

MS, Walden University, 2009

MBA, DeVry University, 2000

BS, Indiana University, 1998

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

August 2020

Abstract

This study offered a predictive model to better understand the social dynamics of risky sexual behavior through examining how reproductive coercion, self-esteem, and peer relationships that present with risky sexual behaviors correlate to unintended pregnancy. The participants were 104 emerging adult women between the ages 18-25 who resided in the United States and were proficient in the English language. Using the theoretical lens of reciprocal determinism, direct logistic regression was performed to assess the likelihood that the variables reproductive coercion, peer relationships, and self-esteem would impact unintended pregnancy. The full model containing all predictors was statistically significant, indicating that the model was able to distinguish between variables. The strongest predictors of reporting unintended pregnancy were reproductive coercion and peer relationships, whereas self-esteem was not a significant predictor of unintended pregnancy. Thus, the findings show that reproductive coercion and peer relations are significant predictors in unintended pregnancy for emerging adult females, which offers insight into how to develop interventions for this population. These research findings may foster a raise of social change within academic, research and clinical applications, while also addressing the presenting gap in the research.

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Dedication

This dissertation is dedicated to my loving wife Cynthia F. Dabney and my children Darshuno, Corrina, and Tabalina Ovallie Dabney for their unwavering support throughout this dissertation process. Moreover, I would like to acknowledge my mother Marion Dabney-Grant and grandmother Ovallie Thurmond for without their sacrifice and faith in me none of this would be possible. I love them with my whole heart.

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Chapter 1: Introduction to the Study

Emerging adulthood is now being used in the study of human development (Arnett, 2014a). Defined as a person's late teen years through his or her 20s, with a focus on ages 18 through 25, there is limited research about the decision-making processes used by emerging adults (Arnett, 2014b). Logistic regression analysis through SPSS allowed for a quantitative data analysis to determine whether emerging adult women's social dynamics and personal factors are statistically significant predictors of unintended pregnancy. The dependent variable (DV) was unintended pregnancy and the independent variables (IVs) were reproductive coercion, self-esteem, and peer relationships. Understanding the interactions of these variables is necessary for understanding what impacts emerging adult women's decision-making process. Analyzing emerging women's social experiences is central to gaining an in-depth understanding about the ways peer interactions impact behaviors and subsequent decisions (Arnett, 2014a). The sample information was gathered using a survey compiled from widely used scales, including Conflict Tactics Scales II, Rosenberg Self-Esteem Scale, and Peer Risky Sexual Behavior Frequency Measure. This study only focused on social dynamics that can produce risky sexual behaviors that could lead to unintended pregnancies for emerging adult women.

Study Design

Direct logistic regression was performed to assess the likelihood that the variables reproductive coercion, peer relationships, and self-esteem would impact unintended pregnancy. The full model containing all predictors was tested to assess whether there is

a statistically significant relationship between the variables and the strength of that relationship using a 95% confidence interval for an odds ratio. The data were analyzed using each of the following distinct scales Conflict Tactics Scales II (Phillips, Bennett, Hacker, & Gold, 2016), Rosenberg's Self-Esteem Scale, and Peer Risky Sexual Behavior Frequency Measure (DelPriore, Schlomer, & Ellis, 2017; Seo, Houston, Taylor Knight, Kennedy, & English, 2014). All the variables used in this study were dichotomous. I investigated whether there is a significant relationship among the variables, how these variables interact with each other, and the strength of these interactions.

Operationalization of Variables

The research variables unintended pregnancy, self-esteem, reproductive coercion, and peer relationships were operationalized in the following manner. Unintended pregnancy is defined as occurring when an emerging adult woman who experiences an unplanned pregnancy (Gomez-Scott & Cooney, 2014). The unintended pregnancy variable was operationalized as in prior studies analyzing the social dynamics of unintended pregnancy (Hayford & Guzzo, 2013).

Self-esteem is defined as the level of an individual's self-satisfaction. Enhancement of an individual's self-esteem, meaning their satisfaction with themselves, motivates them to continue to improve their decision-making processes, fostering their efficacy to advance (Sowislo & Orth, 2013). The self-esteem variable was operationalized as in prior studies that employed this as a variable in analyzing the social dynamics of self-esteem (Moosmann & Roosa, 2015; Pachucki, Ozer, Barrat, & Cattuto, 2015; Zheng, 2013).

Reproductive coercion is defined occurring when male partners show a compulsion to force pregnancy upon their female partner. In many cases this includes sabotage of a female partner's birth control, interfering with their access to health care, and threatening to leave if the female partner does not get pregnant (Phillips et al., 2016). Reproductive coercion is examined as whether one partner dominates the other, marginalizing the other's ability to make healthy positive decisions (Szymanski & Stewart-Richardson, 2014; Vasilenko, Lefkowitz, & Welsh, 2014). The reproductive coercion variable was operationalized as in prior studies that employed this as a variable in analyzing the social dynamics of reproductive coercion (Baker, Buick, Kim, Moniz, & Nava, 2013; Brickell, 2009; Sanders, 2015).

Peer relationships involve the influence and power peers have on impacting each other's decision-making processes. The experiences individuals have with their peer group significantly shapes development and the development of psychopathology (Peer, 2006). The peer relationship variable was operationalized as in prior studies that used this as a variable in analyzing the social dynamics of peer relationships (Wakefield, 2013). Chapter 3 provides a more specific explanation as to how the variables was grouped and operationalized.

Construct Validity

Construct validity refers to how well a measurement tool or test measures the constructs it was designed to measure. Logistic regression predicts the probability that an observed event will land in one of two categories of a dichotomous variable because one (or, in some cases, more than one) IV is either categorical or continuous (Ryzin & Leve,

2012). Researchers have used this approach in their studies by grouping testing items into categories and using a predictive model to measure the probability of a relationship and the strength of that relationship (Gerards, Hummel, Dagnelie, de Vries, & Kremers, 2013; Trippolini, Dijkstra, Geertzen, & Reneman, 2015). The predictive model explains the impact of the IV on the DV (Hayes & Rockwood, 2017). A logistic regression analysis was the appropriate measurement tool for this study because it seeks to understand if there is a relationship between the variables as well as determining the predictive strength of that relationship when IVs are present.

Background

Self-Esteem

Self-esteem helps emerging adults self-regulate, a process that is central to this population's development and maturation into full adulthood (Farley & Kim-Spoon, 2014). Self-regulation is also key to predicting achievement in social relationships. Although researchers have analyzed the effect parents have on an emerging adult's development, less is known about the effects of other social relationships and sexual partners on emerging adult women (Farley & Kim-Spoon, 2014).

Reproductive Coercion

Perceptions of reproductive coercion and how that impacts the relationship are a natural part of emerging adults' relationship dynamics when they occur (Schade, Sandberg, Bean, Busby, & Coyne, 2013). Adults' perceptions, particularly of the relationship structure, play an integral role in explaining risky sexual behavior that could lead to unintended pregnancy. Relationship structures can include reproductive coercion

through physical and emotional abuse, such as being slapped, punched, or verbally insulted in private or public (Johnson & Taliaferro, 2012; Wright, 2015). Emerging adult women experiencing physical abuse in their romantic relationship are likely to also experience psychological distress (Leisring, 2013). Further, psychological abuse seems to be more prevalent in emerging adult relationships than physical abuse (Vagi et al., 2013). For this population, frequent unpleasant events can produce adverse effects in psychological health (Ellis et. al, 2013). As a result, emerging adult experiences of psychological abuse can be as impactful as experiences of physical assault. Psychological abuse in romantic or social relationships can explain some of the trauma symptoms experienced by emerging adult women (Ha, Dishion, Overbeek, Burk, & Engels, 2014). For instance, previous research has shown that adult women often self-report their psychological abuse as more harmful than physical violence in the relationship (McLaughlin, O'Carroll, & O'Connor, 2012). But further research is needed for to learn whether these findings about reproductive coercion generalize to the general population of emerging adult relationships (Ellis, Chung-Hall, & Dumas, 2013; Norwood & Murphy, 2012).

Social life is generally composed of the activities and groups in which individuals involve themselves as well as their participation in community and personal relationships (Pflieger, Cook, Niccolai, & Connell, 2013). Rather than restrict examination to narrow topics such as condom use or substance abuse, I investigated a combination of factors to gain an enhanced understanding about whether the social experiences of emerging adult women correlate with risky sexual behavior that may lead to unintended pregnancy and

the strength of the resultant correlation. Such research is imperative for understanding emerging adult women's decision-making processes and creating interventions that could positively affect this population. Analyzing the social experiences of emerging adult women in-depth may offer insights into understanding how their social interactions impact various behaviors (Arnett, 2014a).

Peer Relationships and Unintended Pregnancy

Social experiences have been shown to influence emerging adult behaviors (Arnett, 2014b). But many emerging adults struggle to recognize the structure and complexity of social relationships and process the consequences of decisions and how those decisions will impact them during the emerging adult years (Arnett, 2014a). For instance, young adults having sexually active peers has been associated with experiencing early sexual intercourse themselves (Benotsch, Snipes, Martin, & Bull, 2013). This interaction demonstrates reciprocal determinism, a framework used in this study. This construct explains how influencing and being influenced impact an individual's decision-making processes. Because these relationships may develop in either a positive or negative manner, potentially placing an emerging adult woman at risk, reciprocal determinism can expose possible risk factors. Therefore, the results of studying this population may have a positive impact on the health of emerging adult women (Stone, Becker, Huber, & Catalano, 2012).

Though most research has been conducted with a sole focus on peer influences (Arnett, 2014b), peer relationships can impact the circumstances in romantic relationships and have the potential to foster low self-esteem, reproductive coercion, domestic

violence, hostility, verbal abuse, or some other negative interaction. For example, male partners can sabotage birth control options and intimidate their romantic partners to produce unintended pregnancies and control the outcome of the pregnancy (Miller, McCauley, Tancredi, & Decker, 2014). Further, research on inner-city women at a local clinic showed that of 641 women between 18 to 44 years old, 16% either reported experiencing past episodes of reproductive coercion or that reproductive coercion was a current issue. Moreover, 32% of the emerging adult women surveyed reported that romantic partner violence had taken place within their relationship. Single emerging adult women were also at greater risk for reproductive coercion and co-occurring partner violence by the romantic partner (Clark, Allen, Goyal, Raker, & Gottlieb, 2014).

Previous research has also examined delinquency and drug use as predictors of unprotected and extremely casual sex (Ali & Dwyer, 2011; Card & Giuliano, 2013) in addition to family structures like absence of supervision and inferior parental interactions, which are linked with an earlier age commencement of sexual activity (Eaton et al., 2012). Though researchers have connected sexual behaviors to delinquency, drug use, drinking, smoking, and adverse educational outcomes, they have not identified the structure of social experiences in emerging adult peer and romantic relationships that impact this population's outcomes (Acworth, de Roos, & Katayama, 2012). Additional research is needed to understand how and under what conditions social experiences affect emerging adult sexual and peer relationships as well as individual development (Shulman & Connolly, 2013).

Birth Rates Among Emerging Adult Women and Associated Factors

In the United States, approximately 77% of emerging adult pregnancies are not planned (Mosher, Jones, & Abma, 2012). Pregnancy rates include live birth pregnancies and those that end in abortion or some other type of miscarriage (Martin, Hamilton, Osterman, Driscoll, & Matthews, 2015). In most of the pregnancies of emerging adult women in 2010, an estimated 60% concluded in a live birth, with 15% ending in a miscarriage, and 30% of pregnancies being terminated by abortion. Emerging adult women accounted for 26.5 out of every 1,000 births in 2013; there were 273,105 babies born to women in this age group (Martin et al., 2017). Moreover, about 93% of these births were to unmarried emerging adult women. The 2013 rate indicates a decline from 2012 birth rates, which were 29.4 per 1,000 births (Martin et al., 2017). These rates continue to support the need for additional research about the role of reproductive coercion, self-esteem, and peer relationships in unplanned pregnancies.

Though emerging adult women's birth rates have fallen almost continuously over the past 20 years, in the United States, emerging adult birth rates are still higher than that of many other developed countries, including Canada and the United Kingdom. The emerging adult women pregnancy rate declined by 51%, from 116.9 to 57.4 pregnancies per 1,000, which may be due to a combination of factors including an increased use of contraceptives (Kost & Henshaw, 2014). However, the statistics do not represent all emerging adults' first birth (Martin et al., 2017). According to Martin et al. (2017), 17% of the births in 2013 were to women that had given birth before and had one, and in some cases, additional biological children at home. Moreover, emerging adult birth rates

fluctuate substantially by ethnic group, age, and region. For example, birth rates are higher among Hispanic and Black emerging adult women as compared to White women (Martin et al., 2017). In 2013, Hispanic emerging adult women ages 15-19 presented the highest birth rate at 41.7 births per 1,000, which was followed closely by Black women at 39.0 births per 1,000 and White Women at 18.6 births per 1,000 (Martin et al., 2017).

The literature has identified many individual, family, and community characteristics associated with emerging adult women's birth rates (Park, Scott, Adams, Brindis, & Irwin, 2014). At the individual level, an emerging adult woman enrolled in school, participating in activities with peers, and doing well in school is less likely than other emerging adult women to give birth in their emerging adult years (Park et al., 2014). At the family level, women who have mothers with limited education who gave birth in their emerging adult years are more likely to give birth before age 20 than other emerging adults whose parents were older at the time of their birth or who attended some secondary education. Living with both biological parents plays a factor and is linked to a lower risk of emerging adults giving birth (Martin et al., 2015; Martinez, Copen, & Abma, 2011). At the community level, emerging adults who live in an affluent neighborhood and have substantial levels of employment are less likely to give birth than their counterparts in communities where income and employment are more limited. Further, emerging adult women with high levels of self-esteem are more likely to have a positive attitude toward condom use and engage in regular communication with parents and intimate partners (Pflieger et al., 2013).

Although studies have suggested that educational and employment attainment as well as self-esteem correlate with lower rates of unplanned pregnancy, they do not explain how peer relationships, reproductive coercion, and self-esteem interact or correlate to unplanned pregnancy. By exploring emerging adult women's social dynamics and how these impact decision-making processes related to unintended pregnancy, this dissertation attempted to address these research gaps. The study may also help foster the future development of interventions and social constructs that could positively impact social change for emerging adult women.

Problem Statement

There is a gap in the research about how social dynamics impacts the risky sexual behaviors of emerging adult women. Specifically, an analysis of the interrelated environmental and personal factors that impact emerging adult women's decision-making processes is missing (Claxton & van Dulmen, 2013.) Thus, there is a need for studies on how individual psychological processes such as self-esteem influence behavior among emerging adults (Giordano, Manning, Longmore, & Flanigan, 2012). Additionally, Nonplanned and noncommittal sexual relationships like "friends with benefits" (p. 138) have received increasing attention over the past decade; however, less attention has been paid to coercion within the relationships of emerging adults (Claxton & van Dulmen, 2013). There is also more focus on parental impacts on emerging adults aged 18 to 25 than about the ways their social relationships influence their decision-making processes about the issue of unintended pregnancy (Halpern-Meehin, Manning, Giordano, &

Longmore, 2013a). Thus, more research is needed to identify the impacting variables in emerging adult women's unplanned pregnancies.

Most researchers have also not made the connection between two formal traditions in the literature on emerging adults: individual sexual behavior and violence (Branstetter & Furman, 2013). By treating these as separate rather than interrelated factors related to decision-making, researchers have not examined how peer relationships, reproductive coercion, and self-esteem influence the decision-making processes of emerging adults (Ellis et al., 2013). In many emerging adult relationships, the partners perceive themselves as equal, holding expectations that each partner will share power, contribute emotionally, participate in decision-making responsibilities (Vasilenko et al., 2014). However, emerging women's perceptions that they are not treated as equals in the relationship has been associated with more negative psychological symptoms for the women (Halpern-Meekin et al., 2013a; Vasilenko et al., 2014). For instance, individuals may choose sexual partners they are compatible with and those that encourage their existing behavior, which may strengthen problematic behavior over time (Booth, Crouter, & Snyder, 2015). Alternatively, partnerships could have a positive impact and facilitate the cessation of problem behavior over time (Sussman & Arnett, 2014). Additional research is needed to understand how social dynamics influence problematic behaviors within romantic partners (Shulman & Connolly, 2013).

By exploring how emerging adult women's social dynamics impact their decision-making processes related to unintended pregnancy, this dissertation was an attempt to address a gap in the research. The study's findings may offer useful data to

therapists and researchers who seek to help emerging adult women. A better understanding of the interrelated factors that influence behavior in emerging adult social relationships will allow researchers to develop intervention models. Moreover, analyzing the environmental and personal factors that may lead to unintended pregnancies in emerging adult women has the potential to yield valuable data for addressing the adverse outcomes of risky sexual behavior for this population.

Purpose

The purpose of this study was to examine the environmental and personal factors that could lead to unintended pregnancies in emerging adult women. Specifically, I investigated whether there is a significant correlation among unintended pregnancy reproductive coercion, peer relationships, and self-esteem that present with risky sexual behaviors. For example, one of the study's variables may have a causal correlation with another variable. However, because correlation does not always mean causation, this study is a predictive model. A quantitative data analysis is designed to determine whether emerging adult women's social dynamics and personal factors are statistically significant predictors of unintended pregnancy, seeking to measure the impact of the IV on the DV. The DV was unintended pregnancy, and the IVs are reproductive coercion, peer relationships and self-esteem.

Nature of the Study

This was a predictive quantitative study. Quantitative methodology is the systematic empirical investigation of a social phenomenon employing statistical, mathematical or numerical data, or computational techniques (Ryzin & Leve, 2012). The

construct for testing was social dynamics of risky sexual behavior. The construct was tested using logistic regression analysis and employing SPSS to perform the calculations. Logistic regression predicts the probability that an event observed will fall in one of two categories of a dichotomous variable (Ryzin & Leve, 2012). I sought to measure the impact the IVs (reproductive coercion, peer relationships and self-esteem) had on the DV (unintended pregnancy). The sample information was gathered using a survey compiled from widely used scales, which included Conflict Tactics Scales II (Phillips et al., 2016), Rosenberg Self-Esteem Scale, and Peer Risky Sexual Behavior Frequency Measure (DelPriore et al., 2017; Seo et al., 2014). All the variables used in this study were dichotomous.

Research Questions and Hypotheses

Research Question 1: Will reproductive coercion as measured by Conflict Tactics Scales II and self-esteem as measured by the Collective Self-Esteem Measure be a statistically significant predictor of unintended pregnancy in emerging adult women?

H₀1: Reproductive coercion and self-esteem are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

H_a1: Reproductive coercion and self-esteem are statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

Research Question 2: Will reproductive coercion as measured by Conflict Tactics Scales II and peer relationships as measured by the Peer Risky Sexual Behavior

Frequency Measure be a statistically significant predictor of unintended pregnancy in emerging adult women?

H₀2: Reproductive coercion and peer relationships are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

H_a2: Reproductive coercion and peer relationships are statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

Theoretical Framework

Reciprocal determinism is a basic analytic principle for examining psychosocial phenomena at the level of intrapersonal development, interpersonal transactions, and the interactive functioning of organizational and social systems. This refers to the social relationships that individuals engage in and how those relationships impact behavior. Implementing reciprocal determinism means considering multiple paths to changing an individual's behavior (Devi, Khandelwal, & Das, 2017), presuming that personal factors, environmental factors, behavior through constant communication, and the process of influencing and being influenced can impact behavioral outcomes (see Figure 1). Reciprocal determinism fit this study because it can help expose possible risk factors placing emerging adult women at risk (Shaw, 2013).



Figure 1. Interaction of factors in behavioral outcomes.

Using reciprocal determinism as a theoretical framework is uniquely suited for understanding how emerging adult women’s socially dynamic relationships impact behavioral outcomes. Reciprocal determinism is used to examine environmental factors related to an individual’s friendships, romantic relationships, and other social interactions. The personal factors examined in reciprocal determinism relate to the interaction between people. Because the factors for testing in the current study mirror those examined by reciprocal determinism, this framework was suited for understanding how environmental and personal factors (Shaw, 2013) impact emerging adult women’s behaviors.

Operational Definitions

Appraisal process: A manner or method designed to establish a level of value (Folkman, 2013).

Birth rates: The number presented of live births per 1,000 pregnancies (Martin et al., 2017).

Computer-assisted personal interview: A questionnaire that is completed using a computer, allowing for longer interviews. Interviews can also be administered via a smartphone or tablet (Barber, Gatny, & Kusunoki, 2012).

Computer-assisted self-interview: Questionnaires that are completed using a computer and is a method of survey data collection (Barber et al., 2012).

Content: Relates to the actions shared by two emerging adults as a couple, the ways they spend their time, the diversity of their activities, and the culture of their sexual relationship as a couple (Triandis, 1989).

Coping appraisal: The processes used to evaluate risk levels (Folkman, 2013).

Emerging adulthood: Consisting of individuals between the ages of 18 to 22 years old (Barber et al., 2012).

Peer relationships: The influence and power peers have on impacting each other's decision-making processes. This includes the experiences individuals have with their peer group that can shape development and the development of psychopathology (Peer, 2006).

Psychological abuse: A type of abuse whereby an individual is subjecting another individual to a behavior that may result in psychological trauma, one that could negatively impact their self-esteem (Phillips et al., 2016).

Quality: Addresses whether a romantic relationship is beneficial to both parties. If it is, the relationship is deemed to have quality (Shulman & Connolly, 2013).

Reproductive coercion: Compulsion by male partners to force their female partners to become pregnant. This can include sabotaging their partners by interfering

with contraception planning and application, interfering with their access to health care, and threatening to leave if the women do not become pregnant (Phillips et al., 2016).

Reproductive coercion refers to whether one individual is more dominant over the other, marginalizing the other's ability to make healthy positive decisions (Szymanski & Stewart-Richardson, 2014; Vasilenko et al., 2014).

Relationship dynamics: Involve an emerging adult's perceptions of the variables impacting their relationships, particularly their perceptions of the relationship mechanics (Schade et al., 2013).

Retrospective reporting error: The misreporting or perceived misreporting of past decisions, while taking other actions after the fact into consideration (Stone et al., 2012).

Risky sexual behavior: Defined as inconsistent condom use (unprotected sex) and feeling physically or mentally marginalized within a relationship (Szymanski & Stewart-Richardson, 2014; Vasilenko et al., 2014).

Romantic relationship: Relates to the strength of the emotional link between partners, the social recognition of the relationship between partners, particularly the sexual aspects of the relationship (Barnett, Melugin, & Cruze, 2016).

Self-esteem: A level of an individual's self-satisfaction. Enhancement of an individual's self-esteem, meaning their personal satisfaction with themselves, motivates them to continue to improve their decision-making processes, fostering their personal efficacy to advance (Sowislo & Orth, 2013).

Sexual behaviors: Can include physical kissing, touching of genitals, oral sex, and intercourse (Finer & Philbin, 2013).

Social dynamics: Involves the impact that an individual's peer relationships have on their personal decision-making processes. Social dynamics seek to provide an in-depth understanding of the interactions of the social and emotional aspects of peer relationships and how they correlate (Veenema, 2012).

Social life: Composed of the activities that individuals participate in and the groups in which they involve themselves as well as their participation and involvement in community and personal relationships (Lyons, Manning, Longmore, & Giordano, 2015).

Unintended pregnancy: Occurs when a woman experiences an unplanned pregnancy (Gomez-Scott & Cooney, 2014). For this study, the focus is on when this occurs to emerging adult women.

Assumptions and Limitations

A major limitation in scientific research when analyzing unplanned pregnancies is the measurement of the frequency of unplanned pregnancies. For example, many study designs, such as the one employed by the National Survey of Family Growth, have employed a single cross-sectional interview with lifetime reporting that was retrospective (Finer, Lawrence & Zolna, 2011), but there could be reporting errors due to viewpoints that change over time. Though many social science research issues require data on events that have happened over time, retrospective reporting research reveals types of reporting errors and biases that are characteristic of retrospective reports such as recall error. Moreover, the methodological research about surveys suggests that these errors may be considerable and significant (Fiedler & Schwarz, 2016). This is a primary concern because participants may change their opinions to become more consistent with behavior.

This can yield significant miscalculations of the real and genuine impact of unplanned pregnancy (Stone et al., 2012). Retrospective reporting can also limit the depth to which these studies can measure temporal dynamics. Measuring temporal dynamics is necessary when analyzing an individual's attitudes, intentions, relationship characteristics, or contraceptive use. But when researchers measure perceived past intentions of the variables of unplanned pregnancy, the data are limited to the time frame of the pregnancy while factors such as behavioral, attitudinal, and contextual aspects of relationships are not taken into account. This change could have occurred directly before or after pregnancy, impacting the participant's perception of whether the pregnancy was planned or unplanned (Stone et al., 2012). However, this study employed questionnaires to collect participant data. It is the assumption of this study that the participants' responses were honest and forthright.

Delimitations

For this study, responses were only solicited from emerging adult women ages 18-25. Soliciting responses from this population diminishes the impact of lifetime reporting errors from retrospective viewpoints. Rather than soliciting participants exclusively from community health centers, participation was recruited from a wider breadth of locations. Demographics were collected on the participants' race, economic status and educational level. This predictive study was designed to provide future researchers with the opportunity and framework to choose the proper demographics that are not outdated or inappropriate for their study. For example, historically researchers ask questions about gender but only present two options, male or female (Tate, Ledbetter, &

Youssef, 2013). Therefore, to further the example to achieve non-discrimination, researchers should ask about a participant's race, economic, educational and other appropriate demographic questions, which allow them to understand a person's experiences (Tate et al., 2013). Future researchers can review the demographics and findings of this study because race, economic and educational data indicates something about what types of experience individuals may have encountered.

Generalization is a crucial element of the broader scientific process. Ideally, to test a hypothesis, an entire population would be sampled. However, in most cases, this is not feasible, so a representative group is chosen to reflect the whole population. Therefore, generalization is the act of reasoning that involves drawing broad inferences from a particular set of data and is widely acknowledged as a quality standard in quantitative research (Fiedler & Schwarz, 2016).

If deviations are not made, survey research will continue to validate beliefs rather than represent the diversity of identities, as with the identities of emerging adult women (Westbrook & Saperstein, 2015). Therefore, the generalizability of psychological theories rests on the replication of theory-consistent with findings across different samples. As researchers seek to investigate this population of emerging adult females with scholarly rigor, it is important to not start off using a small lens to interpret data (Tate et al., 2013; Herek, Kimmel, Amaro, & Melton, 1991). The survey tool in the current study was focused on collecting factual experiences of emerging adult women and demographics like race, economic, and educational levels that may have impacted their experiences.

Transferability was also taken into consideration, as the reader applies transferability to their own experiences. Unlike generalizability, transferability does not involve wide-ranging claims but invites the readers to make associations between elements of a research study and their individual experiences (Maxwell & Chmiel, 2014). For example, a 23-year-old female who has experienced an unintended pregnancy might selectively apply their own experiences to the study's results. Thus, this study's generalizable claims were accompanied by an examination of the variables involved in the study. Additionally, generalizability and transferability are significant elements of any research methodology, but they are not mutually exclusive to each other. Generalizability, to varying degrees, depends on the transferability of research findings (Polit & Beck, 2010). The implications of these two aspects were taken into consideration in this research study design.

Significance of the Study

The significance of this study was to investigate whether there is a statistically significant relationship between emerging adult women's environmental and personal factors that could lead to risky sexual decisions. Although emerging adults' sexual and social relationships have gained widespread interest, scientific rigor has rarely been adopted to studying them (Shulman & Connolly, 2013). Moreover, much of the available research has been obstructed by inaccurate assumptions about emerging adult sexual and social relationships such as that the impact of social relationships is insignificant to problematic behaviors (Shulman & Connolly, 2013). Further, many studies addressing social dynamics and emerging adult sexual relationships start with existing couples that

have passed the point of selection (Finkel, Eastwick, & Reis, 2015). By contrast, the current study included emerging adult women, ages 18-25, regardless of whether they are in a current relationship. If the correlations exist, the study identifies the strength of those correlations (Shulman & Connolly, 2013). This study may enhance the current body of research about emerging adults, enabling positive social change by providing additional data about how the tested variables impact each other and whether they correlate to risky sexual behaviors that could result in unintended pregnancy.

Summary

The purpose of this study was to examine the environmental and personal factors that could lead to unintended pregnancies in emerging adult women. In this study, I explored whether reproductive coercion, peer relationships, and self-esteem correlate to unintended pregnancy among emerging adult women. Understanding the interactions between these variables is necessary for understanding what impacts emerging adult women's decision-making process. Specifically, there is a gap in the research regarding social dynamics impacting the risky sexual behaviors of emerging adult women such as the interrelated environmental and personal factors that impact emerging adult women's decision-making processes (Claxton & van Dulmen, 2013). The study may yield valuable data useful for addressing the adverse outcomes of risky sexual behavior that could lead to unintended pregnancies through the development of prevention methods or the advancement of treatment options.

I employed reciprocal determinism as a basic analytic principle for examining psychosocial phenomena at the level of intrapersonal development, interpersonal

transactions, and the interactive functioning of organizational and social systems.

Referring to the social relationships that individuals engage in and how those relationships impact behavior. As these behaviors are in the past a limitation the study will encounter is retrospective viewpoints. For this study, responses were only solicited from emerging adult women aged 18-25. Soliciting responses from this population diminishes the impact of lifetime reporting errors from retrospective viewpoints.

Chapter 2 will include literature that is related to the problem of the study.

Chapter 2 outlines the strategy for locating relevant literature and includes sections on relationships and social life, the theoretical framework, and the literature review. The literature review presents the known and unknown issues of this population. Sections on the study's research variables—unintended pregnancies, self-esteem, reproductive coercion, and peer relationships—clarify the specifics of the study in relation to the available literature.

Chapter 2: Literature Review

The current study was a correlational design quantitative analysis. This study's purpose was to investigate whether there is a correlation between the social experiences of emerging adult women and their decision-making process. The focus was on decisions that lead to early risky sexual behavior that could result in issues like unintended pregnancies. The DV was unintended pregnancy, and the IVs was self-esteem, reproductive coercion, and peer relationships that present with risky sexual behaviors. This literature review provides a foundation for this study by addressing its theoretical framework, research strategy, a review of research about emerging adulthood, social dynamics of sexual relationships, social dynamics of peer relations on pregnancy decisions, self-esteem, and reproductive coercion.

Research Strategy

The research databases presented numerous studies to review. The research databases used for the study included Case Western Reserve University research database, SocINDEX with full text Sociology Research Database, Harvard Library research dissertation library, Inter-university Consortium for Political and Social Research, Medline Plus database, ProQuest dissertation database, Social Science Research Network, Academic Search Complete, Education Research Complete, PsycArticles, PsycBooks, PsycCritiques, PsycExtra, PsycINFO, and PsycTest. The search engines of the following libraries were used: Aurora University, Carnegie Library of Pittsburgh, DePaul University, Indiana University, Northwestern University, Purdue

Calumet University, University of Chicago, University of Wisconsin-Milwaukee, and Walden University Library Services.

The key search terms included *abortion, abortion history, adolescents, adolescent behavioral predictors, adolescent pregnancy, adolescent transitioning, barriers, birth control, counseling, condom use, counseling gender base, cultural family structure, dating, delinquency, economic status and gender, emergence, emerging adults, emerging adult women, emotional responses, ethnographic studies, facilitators, family planning, family structure, gender, gender-related, gender roles male and women, healthy women, health promotions, hegemonic, intervention, intimate partners, gender design, late adolescents, life cycle, mediation, reproductive coercion within emerging adult relationships, parental relationships and history, peer influences, peer relationships, power balance, power dynamics, pregnancy, primary care, public health, publicly funded, qualitative analysis, randomized, referral, relationship dynamics, reproductive history, risk behaviors, risk reduction, risk reduction education, risky sexual behaviors, romantic relationships, screening behavior, self-efficacy, self-esteem, sexual attitudes, sexual behavior, sexual orientation, sexual relationship, sexual risk, social attitudes, social influences, social life, social marketing, socioeconomic status, sociocultural determinants, stigmatizing, safety, teenage pregnancy, teenage risky sexual behavior, testing interventions, unwanted pregnancy, unwanted relationship outcomes, and young adults*. The parameters of the search included the years of 2012 to 2017.

Theoretical Framework

The theoretical framework for the current study was based on social cognitive theory (Bandura, 1989). Originated by Albert Bandura (1989), social cognitive theory points out the dynamic interaction of personal factors that take place among individuals, including their behavior and environments (Shaw, 2013). Describing behavioral patterns and how individuals adopt and maintain these patterns, social cognitive theory provides the foundation for probable intervention strategies (Devi et al., 2017). The theory is suited for this study because the research questions were designed to examine whether social and environmental factors influence behavior, and if they do, to what extent.

Critiques of social learning theory include it having the assumption that individuals' behavior is only affected by the imprinted messages of peers and family. However, learning through modeling the behaviors of others is not simply copying what others do but rather involves abstracting rules concerning appropriate behavior and the risk associated with certain behaviors (Devi et al., 2017). Furthermore, the circumstances and the actions that a person could engage in do not have to be identical to the behavior witnessed for modeling to occur (Singer & Singer, 2013).

Another part of social cognitive theory is reciprocal determinism. Reciprocal determinism is the construct that demonstrates the interaction among social and environmental factors (Devi et al., 2017). The primary point of reciprocal determinism is to understand that personal, environmental, and behavioral factors, through constant interaction, influence the individual just as they influence others within their environment. Implementing reciprocal determinism means considering the different paths

that could be used to change the behavior of an individual (Shaw, 2013). As the current study was designed to foster an enhanced understanding of how reproductive coercion, self-esteem, and peer relationships predict unintended pregnancy as well as the strength of the predictions, reciprocal determinism was also an appropriate part of the theoretical framework.

Reciprocal determinism has been applied to topics in multiple fields like health and education. For example, Singer and Singer (2013) examined the effects of adult content in mass media on adolescent attitudes toward sexuality and adolescent sexual behaviors (Singer & Singer, 2013). In another study, Wardell and Read (2013) provided the first investigation of the unique reciprocal associations among norms, positive alcohol expectancies, and drinking together in a single model. Further, Zahry, Cheng, and Peng (2016) designed a focus group study based on reciprocal determinism framework with the goal of getting the members to eat five servings per day of fruits and vegetables, as this framework has been useful in positively impacting student's behavior in school nutrition education programs.

Social cognitive theory has also been applied to different contexts. For example, the social cognitive theory has been applied to sustainable consumption because it is used to explore how individual, environmental, and behavioral factors of consumption interact with each other (Phipps et al., 2013). The social cognitive theory framework builds on previous theoretical models of sustainable consumption and incorporates the concept of reciprocal determinism where personal, environmental, and behavioral factors create and produce mutually constitutive influences within a given environment (Phipps et al.,

2013). Additionally, Devi et al. (2017) examined disease prevention and health promotion from the perception of social cognitive theory, concluding that models of health promotion and disease prevention have experienced several generational transformations. These transformations included a shift from using fear-based tactics to get the public to make healthy choices to offering rewards for increasing healthy choices, giving the public self-regulatory skills to manage their health needs, and bolstering their habit changes with dependable social supports such as diet and exercise groups.

For the current study, causal processes were conceptualized in terms of reciprocal determinism. Human behavior frequently prefers unidirectional causal models expressing either internal determinants or environmental determinants of human behavior with a given population (Devi et al., 2017). The main disagreements between unidirectional and reciprocal models of human behavior occur around the issue of self-influences. Reciprocal determinism is a basic analytic principle for analyzing psychosocial phenomena at the level of intrapersonal development, interpersonal transactions, and interactive functioning of organizational and social systems meaning the social relationships people engage in and how those relationships impact behavior.

Further, social cognitive theory looks at the sociostructural dimensions of health and personal determinants, which applied to this study's purpose. A comprehensive method that addresses health advancement necessitates altering the practices of social systems. These systems produce harmful effects on health rather than merely altering the habits of people. Therefore, to impact positive social change in an individual's health requires understanding how social systems, relationships, and environments influence

individuals. Achieving positive health outcomes and social change will necessitate building new structures for health promotion, risk reduction, and a greater emphasis on healthcare policy frameworks (Devi et al., 2017). The following section emphasizes the significance of social systems to the current study with an analysis the literature pertaining to the social relationships of emerging adult women.

Literature Review Related to Key Variables

Social Science Perspectives

Sexual relationships in emerging adulthood. This section addresses social science perspectives about emerging adult women. Emerging adulthood is a separate stage in development that starts in the late teenage years and lasts into the mid-20s (Arnett, 2014b). This is an age span when individuals are no longer adolescents but not yet adults, a population caught in between the two stages (Arnett, 2014a). Of the two distinct stages, emerging adulthood more accurately addresses the emerging adult population, as at this point individuals tend to seek out romantic and social relationships (Arnett, 2014a; Erikson, 1968). After examining literature on emerging adults, four categories seem to consistently repeat: involvement, content, quality, and cognitive and emotional processes (Collins, 2003).

Involvement. Involvement has been the most commonly applied indicator of intimate relationships during emerging adulthood (Finkel et al., 2015). The term *involvement* includes several factors: whether emerging adults date, have oral sex, or sexual intercourse; the age at which dating begins; the regularity and uniformity of dating; and the length of time of a sexual relationship (Collins & van Dulmen, 2015).

However, these factors do not do not address other aspects emerging adults' development in relation to sexual relationships because they do not capture their experience. Moreover, as currently defined, involvement does not address the cognitive and emotional consequences that sexual relationships may have on an individual and their future sexual relationships. This constitutes a knowledge gap in the research, which is partly due to methodological decisions such as addressing dating and other emerging adult sexual relationships in existing couples who have passed the point of selection (Finkel et al., 2015). Further, many of the correlations between involvement in emerging adult sexual relationships and negative behaviors within the relations are attributable to the characteristics of the partners in the relationships; thus, there is a need to learn when romantic involvements are indicators of relational difficulties (Shulman & Connolly, 2013). Understanding the social experiences of emerging adult women can offer an opportunity to learn more about the adaptive and less adaptive trajectories during this developmental stage.

There is also much researchers do not understand about emerging adults' dating processes and sexual relationships in an era of social media (Colluns & van Dulmen, 2015; Fox & Warber, 2013), such as how emerging adults define involvement and what it means to be in a relationship. For example, Fox and Warber (2013) assessed what it means to emerging adults to label themselves "In a Relationship" on Facebook and then link to their partners' online profiles. They examined how this population conceptualizes romantic and peer relationships, identifying common social perceptions about the meaning of this status that diverged on the basis of gender. For example, women believed

this status conveyed commitment and passion more so than did their male emerging adult counterparts. The implications of this discrepancy and the prevailing role of technology in romantic and sexual relationships require more scholarly discussion to facilitate a stronger knowledge base. This study indicated that social media platforms are not simply devices that facilitate our interactions; rather, they are tools that help establish, shape, and even define the relationships of emerging adults (Fox & Warber, 2013).

Shared content. Shared content relates to the actions shared by two emerging adults as a couple, the ways they spend their time, the diversity of their activities, and the culture of their sexual relationship as a couple (Triandis, 1989). Advanced interdependent partners characteristically share a broader scope of activities than partners who are more distant and less interactive. For example, couples who play sports together, cook together, or shop together are characterized by greater interdependence, placing less of an emotional weight and stress on the relationship. By contrast, not having a broader scope of shared activities could cause the individuals' relationship to be more distant and less interactive with each other (Samp, 2013). Both shared activities or the absence of activities can weigh on the relationship and the behavior of the individuals involved (Samp, 2013).

Though theories of romantic stage development propose that in the period of emerging adulthood the individuals are fully capable of committing to an intimate romantic relationship (Warber, 2013), recent research suggests that the intimate relationships of many emerging adults are quite different (Arnett, 2014b). Marriage and other forms of formal commitment are delayed while many youths engage in short-term

casual sexual encounters or noncommitted relationships (Shulman & Connolly, 2013). During the emerging adult years, many relationships become committed and characterized by intimacy. However, regardless of the growing probability of becoming involved in intimate and committed relationships, this does not necessarily lead to long-term commitments in U.S. culture (Arnett, 2014b). Over the past 30 years, emerging adults in the United States delay marriage, some until their early 30s (Claxton & van Dulmen, 2013). Many emerging adults are frequently labeled as unstable, transitioning between dedicated relationships, and as having erratic romantic and sexual encounters. Therefore, despite theories that have contributed to understanding of the developmental progression of emerging adult relationships (see Rauer, Pettit, Lansford, Bates, & Dodge, 2013), there is a gap in knowledge regarding the impact of sexual and peer relationships. Moreover, the theories do not explain the developmental importance and meanings of the diverse types of sexual and peer relationships by which emerging adults describe their involvement (Shulman & Connolly, 2013). There is also a need for additional research about how social relationships impact this population (Rauer et al., 2013). Learning how peer interactions affect this population's behaviors are important to foster a more in-depth understanding of variables like reproductive coercion, self-esteem, and peer relationships and how they correlate with unintended pregnancy.

There is diversity in emerging adults' romantic relationship experiences that have connections to peers and family. Data has shown that the more positive individuals are in their relationships with family and peers, the more these experiences develop into a framework for building positive romantic relationships (Rauer et al., 2013). Research has

also found that for both genders, there is connection between emerging adult relationships and emerging adult social experiences (Arnett, 2014a; Connolly & McIsaac, 2011; Rauer et al., 2013; Shulman & Connolly, 2013). For example, as the individuals in this population conclude their secondary school years, the individuals involved in adolescent sexual relationships are more likely to wed and to cohabitate in early adulthood as emerging adults. Moreover, individuals involved in nonsexual relationships are more likely to cohabit with partners but not marry in early adulthood. Because the precursors to union formation patterns in adulthood are observable in their emerging adult years, there is a need to better understand how this population conceptualizes the concept of intimate relationships and related predictors of behavior (Arnett, 2014b; Connolly & McIsaac, 2011).

Quality. If the romantic relationship is beneficial to both parties, it is deemed to have quality. Shulman and Connolly (2013) defined good quality as each partner within the relationship offering intimacy and affection to the other partner. Low-quality romantic relationships exhibit manifestations of irritation, antagonism, conflict, and controlling behaviors (Vasilenko et al., 2014). Studies have found that strong supportiveness and closeness in romantic relationships are linked by measures of high functioning between the partners, with the most negative qualities related to a range of adverse outcomes (Collins & van Dulmen, 2015). Many of these adverse outcomes stem from situations involving relationship instability that can lead to risky sexual behaviors and unsafe situations.

For example, many family researchers commonly conceive “relationship instability” (Halpern-Meekin, Manning, Giordano, & Longmore, 2013b, p. 25) as an individual transitioning from being in a romantic relationship to not being in that relationship. However, this is not the view of many emerging adults (Halpern-Meekin et al., 2013a). This conceptualization does not capture how many emerging adults conceptualize relationships. For example, some relationships are better described as not being completely broken up, where the partners still have sexual relations. This is somewhat analogous to a marital breakup followed by reconciliations. Halpern-Meekin et al. (2013a) argue the portrait of emerging adult relationships should comprise of two relationship gauges. Indicator one would involve breaking up and getting back together; indicator two would involve having a sexual relationship with an ex-boyfriend or girlfriend (Halpern-Meekin et al., 2013b).

Halpern-Meekin et al. (2013a) examined two forms of relationship instability and referred to them as forms of relationships churning. The study analyzed recent data from 792 emerging adult daters. The researchers found that almost half of the participants reported a reconciliation, meaning having sex with their ex-romantic partner. Engaging in sexual activity with an ex-romantic partner could be a risky health decision since most of the participants engaged in unprotected sex that could lead to unintended pregnancies. Also, 37% of the participants were also having sex with other partners during the same time that they were having sex with their ex-romantic partners. The study examined social and psychological relationship features and related them to individual demographics. These findings illustrated that considerable uncertainty characterizes

emerging adult relationships. Although these studies offer insights in understanding stability in emerging adults' romantic relationships, additional research is required to clarify the views and beliefs of this population. Future studies about risky sexual behavior and the associated decision-making processes of emerging adults needs to be performed to determine effective future interventions (Halpern-Meehin et al., 2013a).

Researchers have found that, as emerging adults seek quality intimate relationships, they may often find themselves in violent relationships that can be linked backed to violence in their family of origin (Lohman, Neppl, Senia, & Schofield, 2013). Over the past three decades, the intergenerational transmission of violence focused on intimate partners has been well documented (Lohman et al., 2013). The results of studies have suggested that, when an individual experienced violence in past relationships, she or he will take it to their next relationship. However, retrospective literature is imperfect because of self-selection and reporter biases (Miller et al., 2015). In an effort to overcome these limitations, Lohman et al. (2013) used a multi-method and multi-prospective trait approach to examine data from the Iowa Youth and Families Project. The study had a total of 392 participants. It focused on intimate partner violence in the emerging adults from 19 to 23 years old. The researchers focused on psychological intimate partner violence in adulthood and emerging adulthood; this included self and partner evaluations of violence with observational data. The study also took into consideration the number of sexual partners participants had in adolescence. These factors served as predictors for intimate partner violence in both adulthood and emerging adulthood.

The Lohman et al. (2013) study only evaluated psychological intimate partner violence experienced by emerging adults. Future studies might also consider physical and sexual abuse. Also, to better understand the acceptability of violence and how this impacts relationship satisfaction, future studies should examine the stability and instability of these relationships and how self-esteem is impacted (Halpern-Meekin et al., 2013a; Lohman et al., 2013).

Cognitive and emotional processes. Characterizing relationships in any aspect of life span necessitates thinking about perceptions and expectations about the self as well as the other person in the relationship (Vasilenko et al., 2014). For example, representations of emerging adult intimate relationships are associated with representations of other similarly close relationships experienced by a partner. These interrelated representations parallel features such as control (Furman & Winkles, 2012). Sussman and Arnett (2014) took into consideration relationship progress in their study on emerging romantic relationships. They argued that romantic relationships are complicated, multifaceted experiences to which many researchers give uneven attention to various aspects within the relationship experience. Additional research is needed to address questions as to how and under what conditions these emerging romantic relationships develop, how this affects individual development, and how romance along with other close relationships such as peer group relationships mutually influence developmental paths during the formidable emerging adult years of development.

Arnett (2014a) pointed out the research has produced substantial literature about emerging adults since the field first began in the mid-1990s. However, the theories we

have about romantic development have fallen short. Arnett (2014a) suggested that we need to know more about how these relationships start and external factors that contribute to their development. We need a more substantial understanding about the diverse social experiences emerging adults experience and how those experiences impact their decision-making skills as it relates to relationship choices. Understanding the influence of social factors and their impact on emerging adults is important as these background factors could set up fundamentally different kinds of romantic trajectories (Arnett, 2014a).

Rauer et al. (2013) noted that there are few studies that contrast the development timetables, relationship qualities, and patterns of peer and family influences that might exist among emerging adults from different cultural groups. In a manner similar to other researchers, Rauer et al. also recommended conducting studies in non-Western cultures (Arnett, 2014b; Connolly & McIsaac, 2011; Rauer et al., 2013). Gaining knowledge about how social experiences impact the decision-making processes of emerging adults is vital to our understanding of this population and the creation of impactful interventions (McIsaac, 2011; Rauer et al., 2013).

The Impact of Peer Relationships on Pregnancy Decisions

Miller and Silverman (2010) have suggested that younger women are disproportionately affected by unintended pregnancy. This disproportionate impact is associated with intimate partner violence and reproductive coercion within the relationship. Involuntary sex is common in many of these relationships (Miller and Silverman, 2010). For example, emerging adult women present with other impairments

that place them at risk for involuntary sex like being homeless or substance abuse, all areas that can be exploited by their intimate partner Miller and Silverman (2010).

Borrero et al. (2015) indicates that when involuntary sex is a factor many times there is a fear of negotiating condom or other contraceptive use with the woman's intimate partner. This inability to negotiate contraception use leads to varying levels of condom use. The inability of an individual to negotiate contraception use permits their intimate partners the opportunity to interfere with their partners' access to appropriate healthcare Rauer et al., 2013. The inability of women to negotiate within their relationships contributes to the association between unintended pregnancy and reproductive coercion within the structure of their intimate relationship. Borrero et al. (2015) it is unclear why emerging adult women are unsuccessful in negotiating their reproductive rights within their romantic relationships and which factors most perpetuate their inability to effectively negotiate their reproductive rights.

A growing body of literature about male partner influences on contraception and pregnancy decision-making has emerged (Miller & Silverman, 2010). The literature has identified a range of male partner pregnancy-controlling behaviors including but not limited to, reproductive coercion, aggression and imposing economic hardships. Miller and Silverman (2010) termed these behaviors reproductive coercion. This is defined as male partners' efforts to encourage pregnancy in their partners through verbal pressure (pregnancy coercion), direct interference with contraception (birth control sabotage), threats and coercion related to whether the pregnancy is carried to term or concluded in an abortion (control of pregnancy outcomes).

Borrero et al. (2015) indicated that unintended pregnancy is common and disproportionately happens among low-income women. Their study sought to better categorize pregnancy intention and comprehend its relationship to contraceptive use. The study's results identified factors that may obstruct the public health goal of increasing the proportion of planned pregnancies over time. Women do not always understand that they have reproductive control and, because of this, may not formulate clear pregnancy plans for the desired outcome. Also, the advantages of planning a pregnancy may not be apparent to women. Therefore, because there was no prior planning, abortion becomes their primary option. Moreover, even when women want to avoid becoming pregnant, their contraceptive behaviors are not essentially consistent with their desire not to become pregnant. Borrero et al.'s (2015) findings suggest that the current conceptual framework of pregnancy related behaviors may be limited, particularly as it pertains to low-income populations and young women.

Finer and Zolna (2014) monitored patterns of unintended pregnancy results nationally. They analyzed data on intended and unintended pregnancies from the National Survey of Family Growth and a national representative survey of abortion patients; they combined the results and took population denominators from the United States Census Bureau to obtain pregnancy rates by intentness. They found that 51% of pregnancies in the United States were unintended, and the unintended pregnancy rate was 54 per 1000 women above the age of 15. Despite recent declines in the United States, the pregnancy rate among individuals ages 15 to 19 years of age (57 pregnancies per 1,000 women)

remains high compared to other countries that are industrialized (Sedgh, Finer, Bankole, Eilers, & Singh, 2015).

As a result of cultural taboos, emerging adults have been shown to seldom converse about sexual matters explicitly with their parents (Taffa, Haimanot, Desalegn, Tesfaye, & Mohammed, 2017). Instead, most emerging adult women get what patchy knowledge they have from peers of the same sex who may themselves have been uneducated or incorrectly informed about abortion options (Taffa et al., 2017). The influence of peer relationships on reproductive decisions offers another largely uninvestigated domain for understanding sexual transitions among emerging adults, particularly the question of how these transitions impact their decisions on aspects such as abortion. Arnett (2014b) recognized the need to be able to integrate specific domain information into a clear system, to recognize the structure of peer relationships, and these influence future outcomes within emerging adults' romantic relationships.

Sedgh et al. (2015) hoped that studying the planning or lack of planning involved in emerging adult pregnancies would help discover factors that determine how emerging adult women resolve their pregnancies, thereby helping the future development of intervention programs and policies. Emerging adult sexual activity and contraceptive usage ought to be considered alongside other emerging adult social experiences. For example, emerging adult sexual behavior is commonly connected with some type of illegal drug use or alcohol abuse as well as disappointments in school success (Arnett, 2014b). Emerging adults engage in these behaviors for numerous reasons, including trying to accomplish unattainable goals, peer pressure, creating an avenue for coping with

personal frustrations, rebellion against conventional society, or expressing a peer subculture (Walsh, Latzman, & Latzman, 2014). Merely describing demographic trends in sexual behavior and antecedent factors does not offer comprehensive knowledge about why emerging adults in romantic relationships engage in risky sexual activity that could lead to unintended pregnancies or other negative outcomes (Bersamin et al., 2014).

Altshuler, Storey, and Prager (2015) explored how emerging adults use social media as a primary source of information on sex, abortion, and abortion issues. They interviewed women aged 13 to 29 years old about sex and decision-making options about pregnancies, including abortion. The study used descriptive statistics to describe the demographics of the study's population, and to define opinions on abortion. The studies included 996 total participants, 74% of whom overwhelmingly supported abortion. However, when romantic relationship circumstances were included, their support varied. Moreover, the finding that peer based social media was the number one source of information about abortion issues suggested to the authors that future research on this population is needed in relationship to social media as a platform where peers exchange and process information (Altshuler et al., 2015).

Emerging adult women seeking information from peers are often basing their decision to have an abortion on social media information and choosing unhealthy options such as clandestine abortions (Farley & Kim-Spoon, 2014). These illegal abortions are not performed in a traditional healthcare facility with licensed staff and life-saving equipment. Osur, Orago, Mwanzo, and Bukusi (2015) claim that research examining the role of peer groups on social media in promoting clandestine abortions is limited. Their

study investigated how social networks impact decision-making about clandestine abortions in the country of Kenya. Their mixed methods study utilized 320 emerging adult women participants who were getting medical treatment after experiencing unsafe clandestine abortions. A cross sectional survey was employed to interview the participants about their social networks and how those networks led to the decision to obtain a clandestine abortion. The study found that, of the 320 emerging adult women participants, 95% had turned to their social networks as a primary part of their decision-making process before making the unsafe choice of a clandestine abortion. Of the 320 participants, 92% reported that the advice from peers and their romantic partners was to abort the pregnancy. The study found that the emerging adult women's peer groups and relatives served as intermediaries to the participant's unsafe clandestine abortion, finding that the decision for the clandestine abortion was a shared activity between the peer group and romantic partner. Osur et al. (2015) recommended designing future research, initiatives, interventions, and programs to reduce unsafe clandestine abortions.

Levy, Minnis, Lahiff, Schmittiel, and Dehlendorf (2015) dealt with this issue from a different perspective, acknowledging that social networks are an increasing influence on emerging adult women's decision-making about contraception use to limit unintended pregnancies. The study did a mixed-methods analysis of audio recordings of clinical contraceptive counseling clinic visits. The study included 342 participants. The goal of the study was to examine predictors of social influence that arose in a contraceptive counseling visit and to analyze the content of that discussion. The results showed that social influences were mentioned by the participants in 42% of the 342-

clinical contraceptive visits without clinician prompting (Levy et al., 2015). The regularity with which social influence was mentioned in these visits supports the claim that emerging adult women's social relationships influence their decision-making about contraception.

Self-Esteem

Self-esteem is one of the most highly researched areas in contemporary times. Sowislo and Orth (2013) argued that researchers in the United States have wholeheartedly accepted the idea that self-esteem is associated with all positive behaviors and outcomes. Happiness measures positively correlate with self-esteem and satisfaction (Moksnes & Espnes, 2013). There is a downside to dealing with self-esteem, however, as high self-esteem individuals have been shown to respond with defensiveness when aggressively challenged (Vanhalst, Luyckx, Scholte, Engels, & Goossens, 2013). High self-esteem can also result in nonproductive persistence, for example, pursuing a romantic relationship even when it is evident that goal is not attainable (Hafen, Spilker, Chango, Marston, & Allen, 2014). This examination of the positive and negative aspects of self-esteem has split researchers between those who support the benefits of this concept and those who criticize the usefulness of self-esteem. Steiger, Allemand, Robins, and Fend (2014) see this division within the literature as evidence that the term self-esteem is a sensitive cultural subject. Another major problem in self-esteem research is the lack of available relative risk studies that have successfully controlled for a sufficient number of demographic and psychosocial variables associated with risky sexual behaviors in the population under consideration here (Rawana, 2013).

Raboteg-Saric and Sakic (2014) examined the effects of friendship quality on an emerging adult's well-being. The study included 401 participants who completed scales assessing their perception of a valuable and positive friendship, self-esteem, and overall fulfillment with their life. The results showed that the perceived quality of friendship had significant effects on an emerging adult's well-being. Moreover, emerging adults with positive friendships reported more fulfillment and self-esteem. The results emphasize the important role of peer relationships in impacting others' self-esteem within their social group.

Birkeland, Breivik, and Wold (2014) indicated that a distant relationship with parents has the potential to increase negative self-esteem. The study included 1,090 emerging adult participants. It explored whether peer acceptance can be employed as a moderator and protector of self-esteem opposing the negative effects of feeling low levels of closeness in parental relationships among emerging adult women. The study's results indicated that peer acceptance was found to protect self-esteem for emerging adult women. Moreover, peer acceptance was found to have a defensive but also a steadying effect on emerging adults' relationships to their parents, meaning peer relationships helped strengthen their relationship with their parents. This demonstrates that peer relationships and acceptance can be a valued underpinning of self-esteem when closeness to parents is low (Birkeland et al., 2014).

Reproductive Coercion

Hamby and Turner (2013) suggested that being impacted by aggression in the context of an emerging adult romantic relationship could have substantial consequences

for the emerging adult's psychological adjustment. Moreover, beyond physical injury, this aggression could cause low self-esteem, trauma, and depression. The presence of all these symptoms could possibly contribute to an unintended pregnancy (Hamby & Turner, 2013; Jouriles, Mueller, Rosenfield, McDonald, & Dodson, 2012). Any one of these psychological symptoms could be debilitating and, in combination, could significantly impact the individual. Trauma could also lead to disagreements and conflict within their peer relationships and damage self-esteem (Fernández-González, O'Leary, & Muñoz-Rivas, 2013).

The research dealing with aggression in the romantic relationships of emerging adults has mostly focused on the actual physical acts of aggression, such as being slapped or punched. Undoubtedly, these actions do require our scholarly attention. However, it is important to understand that these actions seldom transpire in the absence of psychological aggression that can negatively impact an individual's self-esteem and self-worth (Johnson & Taliaferro, 2012). This behavior is often combined with emotional and verbal insults, many times in public situations. For emerging adult women, undergoing psychological aggression in their intimate relationships has positively correlated with the presence of psychological distress in these emerging adult women (Schnurr, Mahatmya, & Basche, 2013). Psychological aggression seems to be present more often in emerging adult intimate relationships than physical aggression (Garrido & Taussig, 2013). For emerging adult women, these types of frequent traumas, whether major or even minor, have the potential to be psychologically damaging. Emerging adult women who

experience psychological aggression find it as impactful as physical assault (Garrido & Taussig, 2013).

McLaughlin et al. (2012) also suggested that emerging adult women see psychological aggression as more harmful than physical aggression. Further research is required to understand whether these findings about psychological aggression can be connected to or generalized to all or a majority of emerging adult intimate relationships. However, it seems plausible to hypothesize that psychological aggression could address and help explain the trauma symptoms experienced by this population (Ha et al., 2014).

Seeking a firm understanding of the emerging adult women's appraisals of aggression could improve our understanding of how experiences of psychological and physical aggression affect the emerging adult's adjustment as they transition from emerging adulthood into their adult years (Schnurr et al., 2013). In other literature, researchers have found participants' appraisals to be valuable in explaining the impact of aggression on children and adolescents (Ha et al., 2012). Additionally, the aggressor may identify physical aggression in their romantic relationship as just joking around (Alvira-Hammond, Longmore, Manning, & Giordano, 2014). Claims that minimize the significance of aggression are more prevalent in males than women in this population (Schnurr et al., 2013).

Jouriles, et al. (2012) suggested that research is inconclusive about whether emerging adult women view acts of aggression delivered in a playful manner similarly to other acts of relationship aggression and whether they induce psychological distress into their intimate relationships. Arnett (2014a) took the same position. This has not been

researched with any type of academic rigor, as many research studies about adolescent or emerging adult relationships on aggression only evaluate specific acts of aggression such as being slapped or punched. Moreover, measuring the frequency of the acts of violence could be misleading because the psychological significance and the situation in which the act took place are essential features in defining relationship violence, even if infrequent (Shulman & Connolly, 2013). To date, systematic efforts to compare aggression data refined by adolescent appraisals of the aggression related to occurrences of aggression in emerging adult relationships have not been undertaken (Alvira et al., 2014).

Leisring (2013) pointed out that the majority of emerging adults do not experience physical aggression in their romantic relationships. However, about 10% of emerging adults nationwide report being the victim of physical violence by their romantic partners during the previous 12-month period. Howard, Debnam, and Wang, (2013) indicated that emerging adult relationship violence against women has only recently been viewed as a significant problem. Although some research about perpetration and victimization has been conducted, scholarly research from a longitudinal perspective that mirrors the changing aspects of these relationships is still needed for emerging adults (Schnurr et al., 2013). As a result, practitioners have to rely on the adult research that is available about this to address a problem that relates to emerging adult relationship violence.

Participating in risky sexual behaviors and becoming pregnant is both issues for adolescent and emerging adult issue. Many childbearing, emerging adult women's partners are adult males, and the percentage of pregnancies in this population in which the father is an emerging adult or adult is unclear. As a result, this proves to be a

challenging area to study (Walsh et al., 2014). Having an adult father for their child can provide an adverse environment for emerging adult women. Therefore, the fact that adult men engage in a sexual relationship with emerging adult women is problematic. Many of these relationships have the potential to become abusive or coercive with detrimental consequences for the emerging adult women's health (Arnett & Tanner, 2016). Even though some states have adjusted statutory rape laws and how they enforce the law, mandating reporting of statutory rape has not been successful in either altering behavior (Thompson, Swartout, & Koss 2013).

Howard et al. (2013) looked at emerging adults' experiences with aggression, both psychological and physical. The researchers hypothesized that psychological and physical aggression experiences were correlated positively with indicators of psychological distress. Moreover, psychological aggression was hypothesized as being perceived less positively than physical aggression. Relationship aggression was assessed in 125 secondary school students over an eight-week time frame utilizing two methods. The study used a retrospective method that used a single assessment at the end of the eight-week period frame and a cumulative method that used multiple assessments given during the eight-week period. Emerging adults' appraisals of aggression coupled with their reports of symptoms of psychological distress were measured. Their results showed that emerging adults' experiences of psychological and physical aggression within their romantic relationships were positively correlated. When both forms of aggression were considered simultaneously, psychological aggression correlated to the level of the emerging adult's distress, but physical aggression did not. This finding was present

across both methods of assessing relationship aggression. Psychological aggression was more probable than physical aggression to be considered as unpleasant and likely to be communicated by their romantic partner as just playing (Howard et al., 2013)

Summary

This literature review discussed the literature available that has dealt with every variable for the current study: peer and social relationships, self-esteem, reproductive coercion, and unintended pregnancy.

Arnett (2014b) proposed the idea of emerging adulthood as a separate stage in the development that starts in the late teenage years and lasts into the mid-twenties. This is an age span when individuals are no longer adolescents but not yet adults, a population caught in between the two stages (Arnett, 2014a). An early contribution about emerging adulthood was made by Erik Erikson (1968), but the author rarely discussed precise ages in his writings. After examining literature on emerging adults, five categories seem to consistently repeat: involvement, content, quality, cognitive and emotional processes (Collins, 2003).

The theoretical framework for the current study is based on social cognitive theory (Bandura, 1989). This is an interpersonal level theory and the guide for the research questions put forth in this study. Devi et al. (2017) emphasized that learning through modeling the behaviors of others is not simply copying what others do but rather involves abstracting rules concerning appropriate behavior and the risk associated with certain behaviors. Furthermore, the circumstances and the actions that a person could

engage in do not have to be identical to the behavior witnessed for modeling to occur (Singer and Singer, 2013).

Miller and Silverman (2010) have suggested that younger women are disproportionately affected by unintended pregnancy. This disproportionate impact is associated with intimate partner violence and reproductive coercion within the relationship. Involuntary sex is common in many of these relationships (Miller and Silverman, 2010). For example, emerging adult woman present with other impairments that place them at risk for involuntary sex like being homeless or substance abuse, all areas that can be exploited by their intimate partner Miller and Silverman (2010).

Repeatedly, the literature supported and encouraged future studies. Though emerging adults are no longer children but not yet adults, methodologies and interventions based on adult populations are being applied to this group (Arnett, 2014a). These may not provide the best outcomes because this human transition period is distinct. Examining how emerging adults' social relationships impact their interactions, influences, and decisions will allow researchers to better characterize and conceptualized this population. The literature also addressed the idea that nurturing a more comprehensive understanding of this population could be useful in considering how emerging adults interpret information, social experiences, and other correlating factors (Leisring, 2013).

In this chapter, the literature reviewed the significance of social dynamics in emerging adults' interactions within peer relationships (Veenema, 2012). The emergent adult population is newly conceptualized in human development frameworks as being

from the late teen years through the twenties (Arnett, 2014b), with a focus on ages 18 and 25 for the current study. The literature further suggested that these relationships have the potential to affect or impact development in both positive and negative manners, potentially placing an emerging adult woman at risk for unintended pregnancy. Moreover, the literature has suggested that research about emerging adult sexual relationships as a whole has often looked at the matter through a narrow behavioral lens, focusing primarily on predictors used to describe behaviors such as delinquency and drug use (Ali & Dwyer, 2011; Arnett, 2014b).

Chapter 3 will include a description of how the research design was derived logically from the research questions and will address the role of the researcher, including defining data collection procedures. A discussion about the appropriateness of the data collection and an analysis of how the data was collected and managed follow. Chapter 3 also includes the study's procedures for gaining access to participants, criteria for selecting participants, and information on the measures for the ethical protection of the participants. Finally, Chapter 3 will describe how the data was analyzed and reviews the software program used for data analysis, including coding procedures.

Chapter 3: Research Methodology

Emerging adulthood is a modern conception in human development theory, and limited research has been conducted on the predictive variables involved in the decision-making process of this population. This study was a quantitative data analysis designed to determine whether the social dynamics and personal factors of emerging adult women are statistically significant predictors of unintended pregnancy. The study measured the impact of the IVs on the DV. All the study's variables are dichotomous. The DV was unintended pregnancy, and the IVs were reproductive coercion, self-esteem, and peer relationships. The research study's survey also collected demographic data on the participants including race, economic and educational levels which will be presented in Chapter 4. The variable test item for reproductive coercion was taken from Conflict Tactics Scales II (Phillips et al., 2016). The variable test item for self-esteem was taken from the Collective Self-Esteem Measure located (Seo et al., 2014), and the variable test item for peer relationships was taken from Peer Risky Sexual Behavior Frequency Measure (DelPriore et al., 2017). The scales were used separately to analyze the correlation strength of the IVs to the DV.

This chapter presents the study's research design, data collection, and analysis. It also includes the study's variables and ethical considerations. The discussion of methodology in this chapter lists the hypotheses and associated variables, identifies the statistical test utilized in analyzing the data, and summarizes the current study. The construct for testing was "Social Dynamics of Risky Sexual Behavior" and was tested using logistic regression analysis employing SPSS to perform the calculations. The

subtest produced by the logistic regression analysis utilized to display data results in Chapter 4 include a classification table.

Research Design and Rationale

The present study was a predictive model designed to foster an enhanced understanding of how reproductive coercion, self-esteem, and peer relationships correlate to unintended pregnancy as well as the strength of the correlations. This study was designed to determine whether the dichotomous IVs are predictors of the dichotomous DV. The methodology was a systematic empirical investigation of a social phenomenon employing statistical, mathematical or numerical data, or computational techniques, which suited the study's purpose. I investigated whether there is a significant relationship between the IVs and the DV as they interact with each other in the lives of emerging adult women, (i.e., how well these variables predict unintended pregnancies among emerging adult women). The advantages of using a predictive design study are that it saves time trying to find archival data sets that fit the current research projects data set requirements (Patiejunas et al., 2017).

Demographic information was used as a descriptor for the sample population. The population was treated as a whole during the analysis of the research questions, with demographics used to describe participants within the data set. The study used a questionnaire, which offer researchers the opportunity to present consistently and measure information across a given population. Questionnaires also help to generalize the data received from a population such as the one used in this study. The survey is designed for the target population.

The sample size was determined by a G-Power Analysis. All participants were in the United States and were women between the ages of 18 to 25. This study did not differentiate between ethnic races and treated the group as one population. The rationale for this decision is that the purpose of this study was not to analyze the predicting factors or correlations among economic or racial groups, but to develop and analyze a model that will determine the probability of having an unintended pregnancy when the IVs are present.

Research Question Process for Testing the Hypotheses

Research Question 1: Will reproductive coercion as measured by Conflict Tactics Scales II and self-esteem as measured by the Collective Self-Esteem Measure be a statistically significant predictor of unintended pregnancy?

H_01 : Reproductive coercion and self-esteem are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

H_a1 : Reproductive coercion and self-esteem are statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

The reproductive coercion variable was operationalized as in prior studies that employed this as a variable in analyzing the social dynamics of reproductive coercion (Baker et al., 2013; Brickell, 2009; Sanders, 2015). A dichotomous response survey was used to collect the data on reproductive coercion. The dichotomous response category options were *yes* or *no*. The self-esteem variable was operationalized as in prior studies

that employed this as a variable in analyzing the social dynamics of self-esteem (Moosmann & Roosa, 2015; Pachucki et al., 2015; Zheng, 2013). A dichotomous response survey was used to collect data on self-esteem. The dichotomous response category options were *yes* or *no*. Unintended pregnancy is when an emerging adult woman experiences an unplanned pregnancy (Gomez-Scott & Cooney, 2012), which was the DV. A dichotomous response survey was used to collect the data on unintended pregnancy. The response category options were *yes* or *no*. See Figure 2 for the relationship among the variables in this research question.

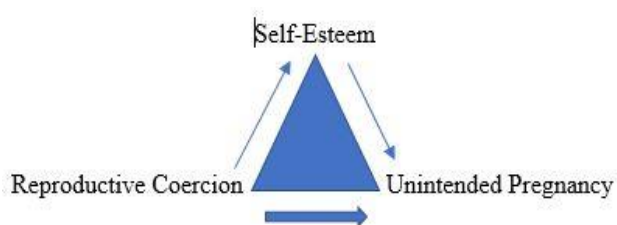


Figure 2. Relationship among reproductive coercion, self-esteem (independent variables), and unintended pregnancy (dependent variable).

Research Question 2: Will reproductive coercion as measured by Conflict Tactics Scales II and peer relationships as measured by the Peer Risky Sexual Behavior Frequency Measure be a statistically significant predictor of unintended pregnancy in emerging adult women?

H₀2: Reproductive coercion and peer relationships are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

H_{a2}: Reproductive coercion and peer relationships are statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

The peer relationship variable was operationalized as in prior studies that employed this as a variable in analyzing the social dynamics of peer relationships (Wakefield, 2013). A dichotomous response survey was used to collect the data on peer relationships. The response category options were *yes* or *no* (DelPriore et al., 2017). The reproductive coercion variable was operationalized as in prior studies that employed this as a variable in analyzing the social dynamics of reproductive coercion (Baker et al., 2013; Brickell, 2009; Sanders, 2015). A dichotomous response survey was used to collect the data on reproductive coercion. The response category options were *yes* or *no*. A dichotomous response survey was used to collect the data on unintended pregnancy. The response category options were *yes* or *no*. Figure 3 illustrates the relationships among the variables in this research question.

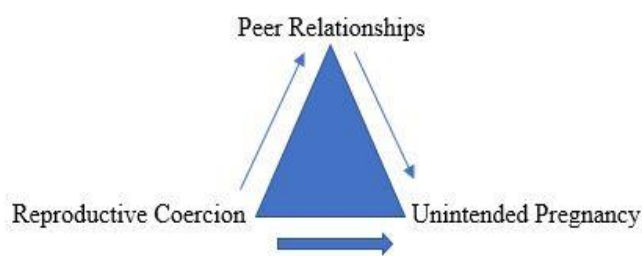


Figure 3. Relationship among reproductive coercion, peer relationships (independent variable), and unintended pregnancy (dependent variable).

Methodology

Sampling Approach and Data Source

To ensure that there were a sufficient number of study participants, a G-Power analysis was performed (see Figures 4 and 5). The total sample size of 102 was required for a 95% confidence rate (see Faul, Erdfelder, Buchner, & Lang, 2009). To arrive at this calculation, the data entry included an effect size of 0.03, an α error probability of 0.05, and a power ($1 - \beta$ error probability) of 0.95. Moreover, a t test was used as the family test for sample size, and the statistical test was a point-biserial correlation model. The point-biserial correlation coefficient is a correlation measure of the strength of association. Mathematically, the point-biserial correlation coefficient is calculated just as the Pearson's bivariate correlation coefficient would be calculated, wherein the dichotomous variable of the two variables is either 0-1, which is why it is called the binary variable (Faul et al., 2009).

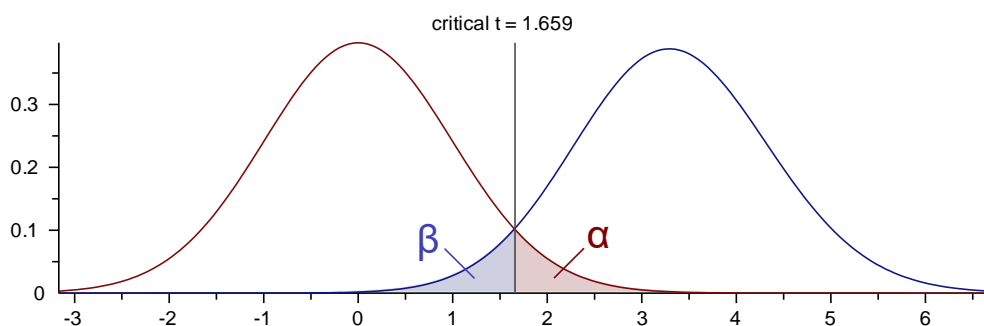


Figure 4. Power analysis. Significance level (α) power ($1 - \beta$).

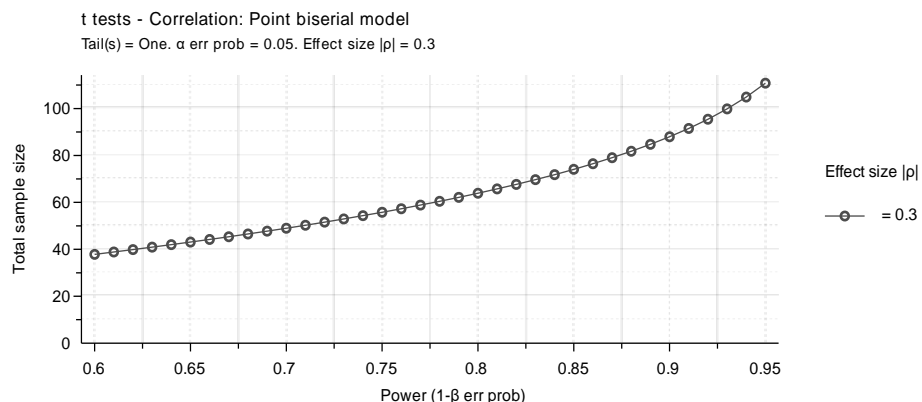


Figure 5. Power analysis (graph format).

Procedures for Recruitment, Participation, and Data Collection

The current study recruited emerging adult women between 18 and 25 years of age who reside in the United States. All participants were recruited online via LinkedIn, Facebook, and Research Gate. The survey form and data collection procedures were presented to each participant explaining the nature of the study. All participants completed a computer-based informed consent form to participate in the survey. All survey items and materials were presented in English. The participants had basic computer knowledge to complete the computer-based survey. All surveys were fully anonymous and were completed employing Survey Monkey online database services, allowing the participants to input their information privately. The recruitment process and data analysis began December 2019 when the institutional review board approved the dissertation proposal (approval no. 11-25-19-0013188).

Measuring Variables

This study utilized categorical variables that are identified as discrete. Moreover, categorical variables were further categorized as either nominal or dichotomous. This

study only employed dichotomous variables. For example, male or female would be a dichotomous variable if the study was examining gender. Another example would be if the study asked whether a woman had an unintended pregnancy. In this case, unintended pregnancy is categorized as *Yes* or *No*, meaning *A* would mean there is a pregnancy and *B* would mean it was unintended.

Statistical measures. Binary logistic regression was used, which is also referred to as logistic regression. This predicts the probability that an observed group falls into one or another category of a dichotomous DV, based on one or more IVs. In this study, the dependent dichotomous variable was unintended pregnancy and the dichotomous IVs are reproductive coercion, self-esteem, and peer relationships. As with other kinds of regression, binary logistic regression can also use the interactions among IVs to predict the DV.

When a researcher is deciding to employ binary logistic regression to test their model, a critical component of the process encompasses checking to confirm whether this test can be used to analyze the data. This study fit the overarching assumptions of a binary logistic regression. The logistic regression allowed the study's dataset to provide information on the accuracy of the predictions, to determine the variation in the DV in relation to the IVs, to test how well the regression model fits this study's data, and to test hypotheses on the regression equation. Moreover, I employed the most appropriate regression measurement tool. For example, this study is not using simple linear regression because simple linear regression uses one quantitative variable seeking to predict another. By contrast, binary logistic regression allows for the addition of more

IVs. Also, as it relates to nonlinear regression, the data is curvilinear. Ignoring these differences can present some significant issues. For example, binary data does not have a normal distribution. However, this is a requirement for most other types of regression. Another example would be that the predicted values of the DV can go beyond 0 and 1 in the other models, which violate the definition of probability.

Procedures for processing and inputting data into SPSS software. Each research question was analyzed using IBM SPSS statistical software version 24. In the variable view of SPSS, all participant responses were assigned an identification number and entered into the system. There were 20 participant response items being measured, divided into three categories: reproductive coercion, self-esteem, and peer relationships as in prior studies (Holmberg & Blair, 2016; Landis, 1947; Wheeler et al., 2016). These are listed in Appendix A. The data type was numeric, and each participant response question was assigned a label (an abbreviation of the question), and then possible answer choices was entered as numeric values while allowing for missing values by selecting “Discrete missing values” under the missing values tab. Then the type of measure was selected based on the type of response choices provided for each question. In the case of this study, the choices were nominal. For example, if the response answer choice format for the Conflict Tactics Scales II is yes or no, it was input into SPSS with the following values to allow for measurement: one will equal “yes” and zero will equal “no.”

Operationalized variables. The section will first list the prior studies that have operationalized these variables. It will then explain how data was input into SPSS step-by-step. It will conclude by identifying the scales used and the numeric values assigned

to the variables in order to provide a clear path for future researchers to replicated the data finding.

How data were input into SPSS. In SPSS, all dichotomous variables were entered in variable view using numeric type. Each variable was appropriately labeled with an abbreviation of the variable name. Values was assigned between 0 and 1, and the measurement for each was scale. The researcher selected “Analyze” on the main menu bar in SPSS, then “Regression,” then “Binary Logistics.” This is because this study has one DV with two levels, “yes” and “no.” In reference to test selection options with the SPSS software, the study will follow the steps in Appendix C.

Scales. The variables are dichotomous and was analyzed using SPSS software and Copies of all scales can be found in appendix A. The variable test items were taken from Conflict Tactics Scales II (Phillips et al., 2016), Collective Self-Esteem Measure (Seo et al., 2014) and Peer Risky Sexual Behavior Frequency Measure (DelPriore et al., 2017). The dichotomous variable, unintended pregnancy, was measured with a yes or no response. The construct was tested logistic regression. By assigning a numeric value, with responses no=0 and yes =1, the study will examine how much variance can be predicted by other variables.

Peer Risky Sexual Behavior Frequency measure. This rating scale was retrieved from Walden University’s PsycTests database. The Peer Risky Sexual Behavior Frequency (DelPriore et al., 2017) was designed to measure a participant’s retrospective reports of the frequency with which their peers were involved in risky sexual behavior. The measure was adapted from previous research on delinquent peer affiliation (Van

Ryzin & Leve, 2012) and demonstrated good internal consistency (Cronbach's alpha = 0.80). The measure was standardized to achieve grand mean centering. The scores on the five items were standardized and averaged together and thus form a composite measure with higher scores relating to more frequent peer risky sexual behavior. The current study made no adaptation to the test items and employed them as presented by DelPriore et al. (2017). The scale contains five items with yes or no dichotomous responses. Program participants responding yes to any one of the survey choices was considered as having experienced negative peer influences within their peer relationships.

Conflict Tactics Scales II. This rating scale was retrieved from Walden University's PsycTests database. The Conflict Tactics Scales II measures the degree to which romantic partners participate in physical and psychological attacks on each other. The Conflict Tactics Scales II scale also measures reasoning as it relates to dealing with conflict. This measure is frequently used to acquire data on partner physical assault. Researchers have employed this scale since 1972 involving more than 70,000 participants in over 20 countries. Over 400 papers have included data gained by using this scale including studies that have established its validity and reliability (Straus, Hamby, Boney-McCoy, & Sugarman, 1996).

Scales items foster content validity and reliability. The reliability range is 0.79 to 0.95, with evidence of construct validity. The developers of the tool examined the frequency distributions to detect and remove items with a bimodal distribution. The sexual coercion scale was developed by providing information about three levels of coercion which include actual force, insistence, and threats of force. The three types of

sexual acts included are oral, vaginal, and anal sex. From that analysis, items were retained if they enhanced internal consistency and reliability which would be indicated by a reduced alpha when the item was deleted and by the size of the correlation of each item with the sum of the other items (Straus et al., 1996).

To establish construct validity in the measure, researchers have looked at correlations of sexual coercion. For example, looking at the assumption that men are more probable than women to employ coercion to obtain sex, the physical assault scales and psychological assault scales should highly correlate with the sexual coercion scale for men more so than women. This was confirmed by a z-test for the differences between correlations and each was significant. The current study employed the revised Conflict Tactics Scales modified Conflict Tactics Scales II measure (Phillips et al., 2016), measuring the degree to which men commit and continue physical and psychological sexual aggression within their relationships. The scoring scales for sexual coercion includes two subscales: minor or severe injury. The current study will make no adaptation to the test items and will employ them as presented by Phillips et al. (2016). The scale contains five items with yes or no dichotomous responses. Program participants responding yes to any one of the survey choices was considered as having experienced reproductive coercion within their relationship.

Collective Self-Esteem Measure. This rating scale was retrieved from Walden University's PsycTests database. This study will use the Collective Self-Esteem Measure that was modified by Seo et al. (2014). This measure was established within the framework of studying the relationship between self-esteem and life satisfaction in order

to examine how the relationship between the two influenced participants' reflection of self. Tajfel and Turner (1998) used social identity theory to argue that self-concept has two separate characteristics: personal identity and social identity. In the United States, the latter is better known as collective identity. The researchers pointed out that, even though numerous self-esteem measures are available in the literature, they concentrate on individuals' evaluation of their personal identity within their interpersonal and private domains. This scale was constructed to measure individual differences in a collective form, rather than just measuring personal self-esteem. Evidence for reliability and validity of the scale was provided by three studies. All correlations were statistically significant at $p < .001$. (Seo et al., 2014). These findings suggested that the scale could be a useful research tool with implications for research. The scale contains ten items with yes or no dichotomous responses. Moreover, each of the scale items was entered into SPSS for binary logistic regression testing.

Reverse coding. Reverse coding was used when the wording of a question is reverse of what the scale is measuring as with the Collective Self-Esteem Measure. The reverse coding will also be done in SPSS by clicking on the "Transforms" tab and then the "Recode into Different Variables" tab. The variable being recoded was moved to the "Numeric Variable" box and renamed in the "Output Variable" box to differentiate the new value from the old value by clicking the change "button." Then the inputs were entered telling the software how to recode the values.

In the Collective Self-Esteem Measure, the scoring of items 6, 10, 12, 15 (on the actual survey tool) are reverse scored then assigned point values. This keeps scores on a

continuous scale with the higher scores, indicating higher levels of self-esteem. The current study will use five of the ten testing items as adapted in Barber et al. (2012).

Threats to Validity

This study presents several limitations that have the potential to negatively impact its validity. The data set was randomly selected for LinkedIn, Facebook and Research Gate and was composed of information from women located in the United States. Thus, the results may not be generalizable to other areas outside the United States. Also, as with all survey data, social desirability bias could be an issue. Even emerging adult women who desire a pregnancy could be reluctant to admit it, particularly if they are afraid that others could see them as not prepared for parenthood. Therefore, many participants who have experienced unintended pregnancies could choose not to identify in the current study.

Internal Validity

Internal validity is the estimated truth about inferences regarding causal relationships. This works best when a researcher controls all extraneous variables with only one variable manipulated by the researcher, as in the case of this study (Trochim, 2006). The only variable that was studied is the one affecting the results, excluding unidentified or unwanted variables from the data set. The study is only examining the unintended pregnancy variable and what is influencing the results of unintended pregnancy. The key question in internal validity is whether the observed, perceived validity changes could be accredited to the DV, meaning the cause and alternative explanations (Trochim, 2006).

External Validity

External validity addresses generalizations. To understanding external validity means knowing the extent to which a researcher's results could be said to apply to more than just the immediate population that was included in their experiment (Henderson, Kimmelman, Fergusson, Grimshaw, & Hackam, 2013). In other words, would the research findings also stand true for other populations in different locations and at different times? There are three types of external validity: population, environmental, and temporal generalization. Population generalization determines whether the results apply to other general populations beyond those that were included in the study. Environmental generalization determines whether the results apply to other situations or environments outside of those the researcher applied in the experiment. Temporal generalization examines timing. As it relates to population, the current study only looks at a snapshot of a population seeking to identify the correlation strength between variables. Because the study's participants are from the United States, a Western country, the results may not hold true for another country. However, as it relates to environmental and temporal generalizations, there is no apparent threat to external validity.

Ethical Procedures and Considerations

The data collection may not be employed for any purpose other than academic statistical reporting and analysis. No attempts were made to use the data to learn the identity of any participant. This activity is prohibited. The confidentiality of records is mandated by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulation, and American Psychological Association Ethical Standards, including ethics

code 4.01 and 6.02 (American Psychological Association, 2010). The assurance of confidentiality is critical to this study in upholding American Psychological Association Ethical Standards, in respecting the privacy rights and trust of future participants.

Moreover, in compliance with American Psychological Association Guideline 6 Security, the researcher was the only one with access to the data, and the data was secured on a computer system via password (American Psychological Association, 2010). Moreover, after the data is collected, it was downloaded on to an encrypted hard drive for added security of participant information and store at the researcher's home for a period of six-years. Also, as part of the ethical procedures and considerations, each prospective participant was presented with a comprehensive Informed Consent Form adapted from Walden University's Institutional Review Board's website. Because of the sensitive nature of questions, the Informed Consent Form will include sample questions for prospective participants to review before committing to volunteer. Participating in this type of study involves some risk of minor discomforts that can be encountered in daily life, such as the stress of recalling past uncomfortable memories. Therefore, because of the potential discomfort, a list of free mental health resources was provided to participants.

Summary

This chapter described the research design, data collection, analysis process, and addressed the study's variables and ethical considerations. The chapter listed the hypotheses and associated variables, identified the statistical test that was used in

analyzing the data, and summarized the study. The construct for testing is titled, “Social Dynamics of Risky Sexual Behavior.”

The first research question asks whether reproductive coercion as measured by Conflict Tactics Scales II and self-esteem as measured by the Collective Self-Esteem Measure was a statistically significant predictor of unintended pregnancy. Hypothesis one states:

H₀₁: Reproductive coercion and self-esteem are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

H_{a1}: Reproductive coercion and self-esteem are statistically significant predictors of unintended pregnancy in emerging adult women as measured by binary logistic regression analysis.

The second research question asks whether reproductive coercion as measured by Conflict Tactics Scales II and peer relationships as measured by the Peer Risky Sexual Behavior Frequency Measure is a statistically significant predictor of unintended pregnancy in emerging adult women. Hypothesis two states:

H₀₂: Reproductive coercion and peer relationships are not statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

H_{a2}: Reproductive coercion and peer relationships are statistically significant predictors of unintended pregnancy in emerging adult women as measured by a binary logistic regression analysis.

The construct tested is titled, “Social Dynamics of Risky Sexual Behavior” to investigate whether there is a significant relationship between the IVs and the DV as they interact with each other in the lives of emerging adult women. The construct was tested using logistic regression analysis employing SPSS to perform the calculations. The study considered how well do these variables predict unintended pregnancies among emerging adult women. This is crucial to understanding decision-making processes of these emerging adult women and creating interventions that could positively affect this population.

Chapter 4: Results

Introduction

The present study was a quantitative, predictive model designed to determine whether the social dynamics and personal factors of emerging adult women are statistically significant predictors of unintended pregnancy. The study measured the impact of the IVs on the DV. All the study's variables were dichotomous. The DV was unintended pregnancy, and the IVs were reproductive coercion, self-esteem, and peer relationships. The research questions addressed whether reproductive coercion and self-esteem could be a statistically significant predictor of unintended pregnancy as well as whether reproductive coercion and peer relationships could be a statistically significant predictor of unintended pregnancy in emerging adult women. The construct for testing was "Social Dynamics of Risky Sexual Behavior" and was tested using binary logistic regression analysis employing SPSS to perform the calculations. The subtest produced by the binary logistic regression analysis is included a classification table. In Chapter 4, the research sample is described as well as data collection, data screening, demographics, and study results.

Data Collection

Data collection began November 2019 and concluded December 2019. An anonymous online survey was used to collect data from consenting participants. An invitation to take part in this study was posted on social media sites connected to me LinkedIn, ResearchGate, and Facebook. There were no partner organizations.

Results

Data Screening

A total of 124 participants responded to the survey. The data was downloaded into SPSS 24.0 software (IBM, 2017) for analysis. The participants' data were screened for accuracy, missing data, and outliers. Of the 124 participants, 19 participants were removed for not meeting the survey gender and age requirement, and another one was removed for skipping all the survey questions, leaving 104 survey participant responses for analysis. Moreover, the study variables were tested for multicollinearity looking for variance inflation factors. Although the literature did not present a definitive value of what constitutes multicollinearity in this study, a variance inflation factor of 5 was the measure used to constitute the presence of multicollinearity and none was found among the variables. The final data analysis was conducted only on the final data set.

Demographics

The sample participants were emerging adult women between the ages 18-25. All participants lived in the United States and were proficient in the English language. The participants also presented with basic computer knowledge needed to complete the computer-based survey. The participant total was 124.

Descriptive statistics were calculated for the demographic variables (see Table 1). Of the 104 study participants, all were women with 47.1% experiencing unintended pregnancies. The two largest race groups of emerging adult women were Black at 51% and White 42.3%. The participants' annual income level varied widely as did their educational backgrounds.

Table 1

Baseline Descriptive and Demographic Characteristics by Number and Percentage

Characteristic	Number (<i>N</i> = 104)	Percentage
Race		
Black	53	51.0%
White	44	42.3%
Asian	5	4.8%
No Answer	2	1.9%
Education Level		
Did not complete high school	3	2.9%
High school diploma/GED	18	17.3%
Some college	15	14.4%
Associate Degree	5	4.8%
Bachelor's degree	22	21.2%
Master's degree	25	24.0%
Doctorate degree	16	15.4%
Annual Income Level		
Less Than \$20,000	15	14.4%
\$20,000 to \$34,999	26	25.0%
\$35,000 to \$49,999	13	12.5%
\$50,000 to \$74,999	13	12.5%
\$75,000 to \$99,999	20	19.2%
Over \$100,000	17	16.3%

Table 2

Frequencies and Percentages for Demographic and Research Variables

Research variable	<i>N</i>	%	Mean	SD
Gender				
Male	0	0		
Woman	100	100		
Unintended pregnancy				
Yes	49	47.1		
No	47	45.2		
Missing (Coded 99)	8	7.7		
Reproductive Coercion			0.59	0.50
Peer Relationships			0.52	0.52
Self-Esteem			0.54	0.50

Table 3

Logistic Regression Predicting Likelihood of Reporting Unintended Pregnancy

	B	S.E.	Wald	df	Sig.	Odds Ratio	95% C.I. for EXP(B)	
							Lower	Upper
Reproductive Coercion	2.65	.53	24.41	1	.00	14.14	4.94	40.45
Peer Relationships	2.20	.90	6.02	1	.01	9.05	1.56	52.59
Self-Esteem	.80	.90	.80	1	.37	2.229	.38	12.95
Constant	-2.91	.93	17.647	1	.00	0.089		

Direct logistic regression was performed to assess the impact of a number of variables on the likelihood that the variables would impact unintended pregnancy. The model contained three IVs (reproductive coercion, peer relationships, self-esteem). The full model containing all predictors was statistically significant, indicating that the model

was able to distinguish between variables. For instance, reproductive coercion was found to be statistically significant, $\chi^2(3, N = 104) = 50.03, P < 0.001$. Additionally, the model between 38.2% (Cox and Snell R square) and 51% (Nagelkerke R squared) of the variance in unintended pregnancy and correctly classified 78.8% of cases. As shown in Table 1, only two of the IVs made a unique statistically significant contribution to the model (reproductive coercion and peer relationships). The strongest predictor of reporting unintended pregnancy was reproductive coercion, recording an odds ratio of 14.14, with the model reporting a 95% C.I. that the population parameter is between 4.94 and 40.45. This indicated that respondents that experienced reproductive coercion were over 14 times more likely to report an unintended pregnancy than those who did not experience reproductive coercion, controlling for all other factors in the model. The next strongest predictor of reporting unintended pregnancy was peer relationships, recording an odds ratio of 9.05, with the model reporting a 95% CI that the population parameter is between 1.56 and 52.59. This indicated that respondents who experienced peer relationships were over nine times more likely to report an unintended pregnancy than those who did not experience peer relationships, controlling for all other factors in the model.

Research Questions 1 and 2

Research Question 1 was “Will reproductive coercion and self-esteem be a statistically significant predictor of unintended pregnancy?” For Research Question 1, the null hypothesis is partially rejected with self-esteem at a p -value of $p > .37$ not statistically significant and reproductive coercion at a p -value of $p < .00$ statistically

significant. Thus, reproductive coercion and self-esteem were partially predictive of unintended pregnancy.

Research Question 2 was “Will reproductive coercion and peer relationships be a statistically significant predictor of unintended pregnancy in emerging adult women?” For Research Question 2, the null hypothesis is rejected with reproductive coercion at a p -value of $p < .00$ and peer relationships at a p -value of $p < .01$ both statistically significant. Thus, reproductive coercion and peer relationships are statistically significant predictors of unintended pregnancy.

Summary

The study was designed to determine whether the social dynamics and personal factors of emerging adult women are statistically significant predictors of unintended pregnancy. The study measured the impact of the IVs (reproductive coercion, self-esteem, and peer relationships) on the DV (unintended pregnancy). The full model containing all predictors was statistically significant, indicating that the model was able to distinguish between variables. Moreover, only two of the IVs made a unique statistically significant contribution to the model: reproductive coercion and peer relationships. The strongest predictor of reporting unintended pregnancy was reproductive coercion. The next strongest predictor of reporting unintended pregnancy was peer relationships. Chapter 5 will include the summary and conclusion of the study with future research recommendations.

Chapter 5: Discussion, Conclusions, Recommendations

Introduction

Emerging adulthood is a stage from late teenage years to mid-20s, which describes individuals who tend to seek out romantic and social relationships (Arnett, 2014a; Erikson, 1968). I explored whether reproductive coercion, self-esteem, and peer relationships correlate to unintended pregnancy among emerging adult women. Understanding the interactions of these variables is necessary for understanding what impacts emerging adult women's decision-making processes. I sought to understand factors that have the potential to lead to unintended pregnancy. The study was able to show that the variables, reproductive coercion and peer relationships, bore a statistically significant positive relationship to some emerging adult women experiencing an unintended pregnancy, whereas self-esteem did not bear a significant predictive relationship to unintended pregnancy. Data collection was through an anonymous online survey, which was posted on LinkedIn, ResearchGate, and Facebook.

Interpretation of Findings and Discussion

The logistic regression was performed to assess the likelihood that the variables would impact unintended pregnancy. The model contained three IVs: reproductive coercion, peer relationships, self-esteem). However, only two of the IVs (reproductive coercion and peer relationships) made a unique statistically significant contribution to the model. The results presented a strong relationship between reproductive coercion and unintended pregnancy but not between self-esteem and unintended pregnancy, which partially rejected the null hypothesis for Research Question 1. But for Research Question

2, the null hypothesis was rejected because reproductive coercion and peer relationships were both statistically significant.

My findings suggest that self-esteem may not be a suitable variable to measure outcomes related to this population and beyond. Though research has suggested that self-esteem is associated with all positive behaviors and outcomes (Sowislo & Orth, 2013), happiness measures positively correlate with self-esteem and satisfaction and can present as an inaccurate generalization (Moksnes & Espnes, 2013), as demonstrated in the current study. This examination of the positive and negative aspects of self-esteem has caused a debate among researchers (Rawana, 2013), which along with the findings of this study support the need to reevaluate how self-esteem is employed as a variable. For instance, the term *self-esteem* is a sensitive cultural subject (Steiger et al., 2014). Another major problem in self-esteem research is the lack of available relative risk studies that have successfully controlled for sufficient numbers of demographic and psychosocial variables associated with risky sexual behaviors in the population under consideration (Rawana, 2013). There is a lack of relative risk studies, similar to the current study, that are population focused (Rawana, 2013).

Despite the findings regarding self-esteem, reproductive coercion was a strong predictor in both research questions, which suggests that although much research has focused on the physical aspect of aggression in romantic relationships (see Johnson & Taliaferro, 2012), there has been less focus on the psychological aspects. However, psychological aggression seems to be present more often in emerging adult's intimate relationships than in physical aggression (Garrido & Taussig, 2013). For emerging adult

women, these types of frequent traumas, whether major or minor, have the potential to be psychologically damaging. Emerging adult women who experience psychological aggression find it as impactful as physical assault (Garrido & Taussig, 2013). In the current study, the estimated odds ratio favored an increase of greater than 14 times for those individuals exposed to reproductive coercion. This means that the probability of experiencing an unintended pregnancy is increased compared to those not exposed to reproductive coercion with individuals who engage in risky sexual behaviors. Based on the results of this study, this population of emerging adults is more vulnerable to aggression and intimidation.

Peer relationships with friends with risky sexual behaviors also presented as a strong predictor of unintended pregnancy. The estimated odds ratio favored an increase of greater than nine times for those individuals exposed to peer relationships with risky sexual behaviors, meaning the probability of experiencing an unintended pregnancy compared to those not exposed to peer relationships with individuals that engage in risky sexual behaviors is increased. But the influence of peer relationships on reproductive decisions is largely uninvestigated domain for understanding sexual transitions among emerging adults, particularly the question of how these transitions impact their decisions on aspects such as unintended pregnancy. For instance, as a result of cultural taboos, emerging adults have been shown to seldom explicitly converse about sexual matters with their parents or authority figures (Taffa et al., 2017). Instead, most emerging adult women obtain what knowledge they have from peers of the same sex who may themselves be uneducated or incorrectly informed about abortion options (Taffa et al.,

2017). Therefore, it is important to acknowledge the structure of peer relationships and their influence on future outcomes within emerging adults' romantic relationships (Arnett, 2014b).

Further, research related to unintended pregnancy has typically focused on low-income women, whereas this issue is a much wider concern. As it relates to emerging adult women, a wider lens is required that is broken into smaller pieces, meaning considering culture, peer relationships, economics, education, and other presenting variables. Understanding the interactions of these variables is necessary for understanding what impacts emerging adult women's decision-making processes.

Theoretical Foundation

The theoretical foundation was social cognitive theory with a focus on reciprocal determinism. Reciprocal determinism is a basic analytic principle for examining psychosocial phenomena at the level of intrapersonal development, interpersonal transactions, and the interactive functioning of organizational and social systems. This refers to the social relationships that individuals engage in and how those relationships impact behavior. Implementing reciprocal determinism means considering multiple paths to changing an individual's behavior, presuming that personal factors, environmental factors, behavior through constant communication, and the process of influencing and being influenced can impact behavioral outcomes (Devi et al., 2017). The study of reciprocal determinism can expose possible risk factors because the relationship among these factors have the potential to develop in either a positive or negative manner, potentially placing an emerging adult woman at risk (Shaw, 2013).

I found reciprocal determinism uniquely suited for understanding how emerging adult women's socially dynamic relationships impact their behavioral outcomes as illustrated in the studies result. The results showed that the socially dynamic relationships of emerging adult women are the statistically significant drivers like reproductive coercion and peer relationships. The study's findings suggest that these types of complex social interactions are areas that yield valuable data and variables that are most reflective of this population.

Limitations

When asking the target populations about personal information such as reproductive coercion, level of self-esteem, and peer relationships, many possible participants become reluctant to share such personal information in a survey. In the current study, this limitation was limited due to the anonymous nature of the study. The methodological research about surveys suggests that this issue may be considerable and significant, which was a driving factor for making the survey anonymous (Fiedler & Schwarz, 2016). The survey was also anonymous because of the possibility that the nature of the questions could cause emotional distress. However, in retrospect, the survey being offered anonymously is a limitation, as an interview format would have provided greater opportunity to engage with the participant in data gathering. Utilizing an anonymous survey does not provide the opportunity to interact with participants or give presentations to large groups. However, when asking such personal questions, it becomes a challenging choice for researchers.

Recommendations

Further research is required on this population of emerging adult women in relation to the impacting variables of unintended pregnancy, reproductive coercion, self-esteem, and peer-relationship. Unintended pregnancy presents a challenging issue with many competing variables.

As it relates to taking my research further there are two areas of interest. I would like to look at the self-esteem measure and other proxies that may present the possibility making the variable a valuable predictor of future behavior. I would also be interested in better understanding how emerging adult females define self-esteem as the variable may be titled incorrectly and therefore tested incorrectly. Moreover, I would like to have a greater understanding regarding how emerging adult females share and retain information.

The would also suggest future research on this population in several areas. As it relates to reproductive coercion, we need to gain a greater understanding of the factors that impact this outcome for many emerging adult women as presented in the study's data. This lack of understanding reproductive coercion factors is evident in that the higher levels of income and education of participants in the present study did not appear to be a deterrent, which is alarming. Moreover, this study did not look at culture, race, age, location or religion beliefs, all of which are important variables to consider in furthering our understanding of this population in a meaningful manner. Lastly, I suggest further research is needed on emerging adult men as this data will give researchers and clinicians insight into emerging adult women as well, as observed through the lens of their male

counterparts. Looking at emerging adult men will enable us to look at how emerging adult males communicate to emerging adult females and how emerging adult females process that information.

The statistical significance of the research questions supports the validity outlined in Chapter 2 of a research gap in the literature on emerging adults falling into five categories: involvement, content, quality, cognitive, and emotional processes (Collins, 2003). However, the categories fail to capture the relationships and social experiences of emerging adult women. For example, involvement has been the most commonly applied indicator of intimate relationships during emerging adult years (Finkel et al., 2015). The term *involvement* encompasses several factors: whether emerging adults date, are having oral sex, or sexual intercourse; the age at which dating begins; the regularity and uniformity of dating; and the length of time of a sexual relationship (Collins & van Dulmen, 2015). Since these factors do not capture the experiences emerging adults are having in their relationships, this limited understanding of involvement does not address other aspects of emerging adults' development in relation to sexual relationships. Moreover, as currently defined, involvement does not address the cognitive and emotional consequences that sexual relationships may have on individuals and their future sexual relationships. This constitutes a knowledge gap in the research (Finkel et al., 2015). This gap is partly due to methodological decisions and speaks to the need for future studies to employ methodologies that take into consideration the experiences emerging adults have within their sexual and social environments (Finkel et al., 2015). Making a concerted effort in the future to employ experience-based methodologies would

provide a better understanding of risky sexual behaviors that can lead to unintended pregnancies and other adverse outcomes. Collins and van Dulmen (2015) observed that many of these adverse outcomes stem from situations involving relationship instability that result in risky sexual behaviors and other unsafe situations. These situations can, in turn, can lead to the need to address reproductive coercion issues with emerging adult women.

A growing body of literature about male partner influences on contraception and pregnancy decision-making has emerged (Miller & Silverman, 2010). The literature has identified a range of male partner pregnancy-controlling behaviors including, but not limited to, reproductive coercion, aggression, and imposing economic hardships (Finkel et al., 2015). Miller and Silverman (2010) termed these behaviors reproductive coercion. Borrero et al. (2015) indicated that, when involuntary sex is a factor, women often a fear of negotiating the use of condoms or other contraceptives with their intimate partner. This inability to negotiate contraception use leads to varying levels of condom use. The inability of an individual to negotiate contraception use gives their intimate partners the opportunity to interfere with their partners' access to appropriate healthcare (Rauer et al., 2013). The inability of women to negotiate within their relationships thus contributes to the association between unintended pregnancy and reproductive coercion within the structure of their intimate relationship.

Implications for Positive Social Change

This study served to address a gap in the research in our understanding about how social dynamics impact the risky sexual behaviors of emerging adult women.

Specifically, there has been a lack of research into the interrelated environmental and personal factors that impact emerging adult women's decision-making processes (Claxton & van Dulmen, 2013). Giordano et al. (2012) identified a specific need for studies that examine how individual psychological processes, such as self-esteem, influence behavior among emerging adults. Park et al. (2014) asserted that the issue of early unprotected sexual activity and pregnancy persists, despite declining emerging adult pregnancy rates. Claxton and van Dulmen (2013) noted that non-planned and non-committal sexual relationships, such as "friends with benefits" (p. 138), have received increasing attention over the past decade. However, less attention has been paid to coercion within the relationships of emerging adults. According to Halpern-Meehin et al. (2013a), we have more knowledge about the parental impact on emerging adults aged 18 to 25 than about the ways their social relationships influence their decision-making processes concerning the issue of unintended pregnancy. Thus, more research is needed to identify the impacting variables in emerging adult women's unplanned pregnancies.

Theories of self-selection presents that individuals choose sexual partners with whom they are compatible and those that encourage their existing behavior. This suggests the potential to strengthen problematic behavior over time (Booth et al., 2015). Alternatively, partnerships can have a positive impact and facilitate the cessation of problem behavior over time (Sussman & Arnett, 2014). Additional research is needed to understand how social dynamics influence problematic behaviors between romantic partners (Shulman & Connolly, 2013).

By exploring how emerging adult women's social dynamics impact their decision-making processes related to unintended pregnancy, this dissertation attempted to address a gap in the research. The study's findings may provide useful data for therapists and researchers who seek to better understand and help emerging adult women. A better understanding of the interrelated factors that influence behavior in emerging adult social relationships will enable researchers to develop intervention models. Moreover, analyzing the environmental and personal factors that may lead to unintended pregnancies in emerging adult women have the potential to yield valuable data for addressing the adverse outcomes of risky sexual behavior in this population and foster positive social change.

Conclusion

The purpose of this study was to examine the environmental and personal factors that can lead to unintended pregnancies in emerging adult women. The study investigated if there is a significant correlation among unintended pregnancy, self-esteem, reproductive coercion, and peer relationships in a predictive model. This study presented some valuable data of this population of emerging adult women. However, I think most of all it shed a spot light on the gaping hole of what we do not know and our social and professional obligation to address our lack knowledge. This study provides the framework to foster positive social change in the lives of emerging adult women.

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Appendix A: Survey Tool (with Scale Sources & All Scales are Publicly Available)

Participant Criteria: Must be a woman between 18 and 25 years of age residing in the United States.

Scale: Conflict Tactics Scales II (CTS2)

Representing Variable: Reproductive Coercion

Source: Phillips, S. J., Bennett, A. H., Hacker, M. R., & Gold, M. (2016). Reproductive coercion: An under-recognized challenge for primary care patients. *Family practice, 33*(3), 286–289.

Items are rated 0 = yes, 1 = no

1. **Has a sexual partner ever told you not to use birth control?**
2. **Has a sexual partner ever said he would leave you if you did not get pregnant?**
3. **Has a sexual partner ever taken off the condom or broken a condom on purpose while you were having sex so that you would get pregnant?**
4. **Has a sexual partner ever taken your birth control (such as pills) or prevented you from going to the clinic to get birth control, so that you would get pregnant?**
5. **Has a sexual partner ever made you have sex without a condom so that you would get pregnant?**

Scale: Collective Self-Esteem Scale

Representing Variable: Self-Esteem

Source: Seo, H., Houston, J. B., Taylor Knight, L. A., Kennedy, E. J., & English, A. B. (2014). Teens' social media use and collective action. *New Media & Society, 16*(6), 883–902.

Items are rated 0 = yes, 1 = no

1. **I am a worthy member of the groups or organizations I belong to.**
2. **I often regret that I belong to some of the groups or organizations I do.**

3. Overall, my groups or organizations are considered good by others.
4. Overall, my group or organization memberships have very little to do with how I feel about myself.
5. I feel I don't have much to offer to the groups or organizations I belong to.
6. In general, I am glad to be a member of the groups or organizations I belong to.
7. Most people consider my groups or organizations, on the average, to be more ineffective than other groups or organizations.
8. The groups or organizations I belong to are an important reflection of who I am.
9. I am a cooperative participant in the groups or organizations I belong to.
10. Overall, I often feel that the groups or organizations of which I am a member are not worthwhile.

Scale: Peer Risky Sexual Behavior Frequency Measure

Representing Variable: Peer Relationships

Source: DelPriore, D. J., Schlomer, G. L., & Ellis, B. J. (2017). *Peer Risky Sexual Behavior Frequency Measure*. Retrieved from PsycTests. doi:10.1037/t63752-000

Items are rated 0 = yes, 1 = no

1. My friends dressed in a sexually provocative manner.
2. My friends went out with lots of different guys/girls.
3. My friends were sexually promiscuous (i.e., had a lot of sexual partners).
4. My friends contracted sexually transmitted diseases (STDs), e.g., herpes, chlamydia, gonorrhea, etc.
5. My friends had unintended pregnancies.

Appendix B: Actual Survey Tool

Participant Criteria:

Must be a woman between 18 and 25 years of age residing in the United States.

Demographic Information (Fryrear, 2019)

Race: Check the one that applies

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

Educational Level: Check the one that applies

- Less than a high school diploma
- High School Diploma or equivalent (e.g. GED)
- Some College no degree
- Associate's Degree (e.g. AA, AS)
- Bachelor's Degree (e.g. BA, BS)
- Master's Degree (e.g. MA, MS, MEd)
- Doctorate Degree (e.g. PhD, EdD)

Economic Level – Annual Income: Check the one that applies

- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- Over \$100,000

1. **Has a sexual partner ever told you not to use birth control?**
Yes or No
2. **Has a sexual partner ever said he would leave you if you did not get pregnant?**
Yes or No
3. **Has a sexual partner ever taken off the condom or broken a condom on purpose while you were having sex so that you would get pregnant?**
Yes or No
4. **Has a sexual partner ever taken your birth control (such as pills) or prevented you from going to the clinic to get birth control, so that you would get pregnant?**
Yes or No
5. **Has a sexual partner ever made you have sex without a condom so that you would get pregnant?**
Yes or No
6. **I am a worthy member of the groups or organizations I belong to.**
Yes or No
7. **I often regret that I belong to some of the groups or organizations I do.**
Yes or No
8. **Overall, my groups or organizations are considered good by others.**
Yes or No
9. **Overall, my group or organization memberships have very little to do with how I feel about myself.**
Yes or No
10. **I feel I don't have much to offer to the groups or organizations I belong to.**
Yes or No
11. **In general, I am glad to be a member of the groups or organizations I belong to.**
Yes or No
12. **Most people consider my groups or organizations, on the average, to be more ineffective than other groups or organizations.**
Yes or No

- 13. The groups or organizations I belong to are an important reflection of who I am.**
Yes or No
- 14. I am a cooperative participant in the groups or organizations I belong to.**
Yes or No
- 15. Overall, I often feel that the groups or organizations of which I am a member are not worthwhile.**
Yes or No
- 16. My friends dressed in a sexually provocative manner.**
Yes or No
- 17. My friends went out with lots of different guys/girls.**
Yes or No
- 18. My friends were sexually promiscuous (i.e., had lots of sexual partners).**
Yes or No
- 19. My friends contracted sexually transmitted diseases (STDs), e.g., herpes, chlamydia, gonorrhea, etc.**
Yes or No
- 20. My friends had unintended pregnancies.**
Yes or No

Appendix C: Test Selection Steps To Be Chosen in SPSS

(Click On) Logistic Regression Box	Select
Dependent Box:	Unintended Pregnancy
Covariates Box:	Reproductive coercion Self-esteem Peer relationships
Logistic Regression: Define Categorical Variables	Select
Covariates moved over to Categorical Covariates with Reference Category set on last	Reproductive coercion Self-esteem Peer relationships
Logistic Regression: Save	Select
Predicted Values	
Note this information will appear in Data Editor and not in the feedback printout	Probabilities Group membership
Logistic Regression: Options Tab	Select
Statistics and Plots	Classifications plots Hosmer-Lemeshow goodness-of-fit CI for $\exp(B)$ 95%
Then click "continue" and "ok" for data to be calculated and feedback presented for analysis	

Appendix D: Original Testing Instruments & Permissions

Conflict Tactics Scales II

Test Format: The measure contains 5 items.

Source:

Conflict Tactics Scales II (Phillips et al., 2016); Miller E, Decker MR, McCauley HL et al. *Pregnancy coercion, intimate partner violence and unintended pregnancy*. *Contraception* 2010; 81: 316–22.

Permissions:

License Number	4604621134971
License date	Jun 09, 2019
Licensed Content Publisher	Elsevier
Licensed Content Publication	Contraception
Licensed Content Title	Pregnancy coercion, intimate partner violence and unintended pregnancy
Licensed Content Author	Elizabeth Miller, Michele R. Decker, Heather L. McCauley, Daniel J. Tancredi, Rebecca R. Levenson, Jeffrey Waldman, Phyllis Schoenwald, Jay G. Silverman
Licensed Content Date	Apr 1, 2010
Licensed Content Volume	81
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Are you the author of this Elsevier article?	No
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Title of your thesis/dissertation	Construct Validity of Social Dynamics of Risky Sexual Behaviors of Emerging Adult Women Relating to Unintended Pregnancy
Expected completion date	Dec 2019
Estimated size (number of pages)	150
Publisher Tax ID	98-0397604
Total	0.00 USD

The survey included questions about demographic characteristics; reproductive history; reproductive coercion; violence; and birth control knowledge, attitudes and behaviors. Assessing the lifetime prevalence of reproductive coercion with the following five questions, reflecting pregnancy coercion and birth control sabotage by male sexual partners, adapted from Miller et al.:

Items:

- (1) Has a sexual partner ever told you not to use birth control?
- (2) Has a sexual partner ever said he would leave you if you did not get pregnant?
- (3) Has a sexual partner ever taken off the condom or broken a condom on purpose while you were having sex so that you would get pregnant?
- (4) Has a sexual partner ever taken your birth control (such as pills) or prevented you from going to the clinic to get birth control, so that you would get pregnant?
- (5) Has a sexual partner ever made you have sex without a condom so that you would get pregnant?

End of Testing Instrument

Collective Self-Esteem Measure

Version Attached: Full Test

Note: Test name created by PsycTESTS

PsycTESTS Citation:

Seo, H., Houston, J. B., Knight, L. A. T., Kennedy, E. J., & English, A. B. (2014). Collective Self-Esteem Measure [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t36714-000>

Test Format:

The measure contains 10 items.

Source:

Seo, Hyunjin, Houston, J. Brian, Knight, Leigh Anne Taylor, Kennedy, Emily J., & English, Alexandra B. (2014). Teens' social media use and collective action. *New Media & Society*, Vol 16(6), 883-902. doi:10.1177/1461444813495162, © 2014 by SAGE Publications. Reproduced by Permission of SAGE Publications.

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Collective Self-Esteem Measure

Items

- (i) I am a worthy member of the groups or organizations I belong to.
- (ii) I often regret that I belong to some of the groups or organizations I do.
- (iii) Overall, my groups or organizations are considered good by others.
- (iv) Overall, my group or organization memberships have very little to do with how I feel about myself.
- (v) I feel I don't have much to offer to the groups or organizations I belong to.
- (vi) In general, I am glad to be a member of the groups or organizations I belong to.
- (vii) Most people consider my groups or organizations, on the average, to be more ineffective than other groups or organizations.
- (viii) The groups or organizations I belong to are an important reflection of who I am.
- (ix) I am a cooperative participant in the groups or organizations I belong to.
- (x) Overall, I often feel that the groups or organizations of which I am a member are not worthwhile.

PsycTESTS™ is a database of the American Psychological Association

End of Testing Instrument

Peer Risky Sexual Behavior Frequency Measure

Version Attached: Full Test

PsycTESTS Citation:

DelPriore, D. J., Schlomer, G. L., & Ellis, B. J. (2017). Peer Risky Sexual Behavior Frequency Measure [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t63752-000>

Instrument Type: Rating Scale

Test Format:

This measure has 5 items rated on a 5-point scale (1 = never, 5 = always).

Source:

DelPriore, Danielle J., Schlomer, Gabriel L., & Ellis, Bruce J. (2017). Impact of fathers on parental monitoring of daughters and their affiliation with sexually promiscuous peers: A genetically and environmentally controlled sibling study. *Developmental Psychology*, Vol 53(7), 1330-1343. doi:10.1037/dev0000327

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doi: <http://dx.doi.org/10.1037/t63752-000>

Peer Risky Sexual Behavior Frequency Measure

Items

My friends dressed in a sexually provocative manner.

My friends went out with lots of different guys/girls.

My friends were sexually promiscuous (i.e., had lots of sexual partners).

My friends contracted sexually transmitted diseases (STDs; e.g., herpes, chlamydia, gonorrhea, etc.).

My friends had unintended pregnancies.

PsycTESTS™ is a database of the American Psychological Association
End of Testing Instrument

Appendix E: Results

Table E1

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	1.028	5	.960

Note. Having a nonsignificant score of .830 on the Hosmer and Lemeshow Test is another indicator of the model being a good fit (Hosmer & Lemeshow, 2010).

Table E2

Binary Logistic Regression Model Summary

Step	- 2 Likelihood	Cox & Snell R Squared	Nagelkerke R Squared
1	93.529 ^a	0.382	0.510

Note. a. Estimation terminated at the iteration number 5 because parameter estimates changed by less than .001. The Binary Logistic Regression Model Summary illustrates the proportion of variance in the dependent variable accounted for by the predictors.

Table E3

Binary Logistic Regression Omnibus Test of Model Coefficients

Step 1	Step	Chi-Square	df	Sig.
	Step	50.029	3	0.000
	Block	50.029	3	0.000
	Model	50.029	3	0.000

Note. There is a significant positive relationship between reproductive coercion and self-esteem as a predictor of unintended pregnancy $p < .001$.

Table E4

Binary Logistic Regression Classification Table^a

Observed			Predicted		% Correct
			No Unintended Preg	Unintended Preg	
Step 1	Unintended Pregnancy	No Unintended Preg	34	13	72.9
		Unintended Preg	9	47	83.9
Overall Percentage					78.8

Note. a. The cut value is .500. A predictor of 78.8% represents a significant improvement over the null model.