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RELATIONSHIP PACING IN ADOLESCENTS BEFORE AND AFTER A
RELATIONSHIP EDUCATION COURSE: CONSIDERING THE INFLUENCE OF
DEMOGRAPHICS, RELATIONSHIP HISTORY AND WELL-BEING

by

Sarah Hodgskiss

A thesis submitted in partial fulfillment
of the requirements for the degree
of
MASTER OF SCIENCE
in
Human Development and Family Studies

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2021
ABSTRACT

Relationship Pacing in Adolescents Before and After a Relationship Education Course:
Considering the Influence of Demographics, Relationship History and Well-being

by

Sarah Hodgskiss, Master of Science

Utah State University, 2021

Major Professor: Dr. David Schramm
Department: Human Development and Family Studies

The introduction of dating in youth makes it an important time to implement relationship education. Understanding for whom relationship education is the most effective was the main goal of this study. Drawing from a sample of 14,468 youth who participated in the Premarital and Interpersonal Choices and Knowledge (PICK) program, this study examined how different demographics are associated with relationship pacing, specifically decision making before participating in the course. Additionally, well-being and relationship history were examined as potential moderators testing for two-way and three-way interactions. The second purpose of this study was to examine how demographics were associated with changes in relationship pacing scores after students completed the PICK course. Again, the potential moderators of individual well-being and relationship history were examined to test for two-way and three-way interactions. Hierarchal linear regression was used to test if these variables were influential in relationship pacing scores and significant differences between groups were
identified. Findings indicated that there were significant differences in some demographic
groups at pre-test in relationship pacing and that well-being and relationship history did
moderate some of those relationships. Findings also indicated that demographics were
associated with improvements in relationship pacing after participating in the course. The
moderators of well-being and relationship history were also significant for some groups.
Relationship Pacing in Adolescents Before and After a Relationship Education Course:
Considering the Influence of Demographics, Relationship History and Well-being
Sarah Hodgskiss

Adolescence is a time when many individuals begin to participate in dating. Adolescent romantic relationships can have benefits for youth but can also be harmful if they do not have the information and skills needed to form and maintain healthy relationships. This study analyzed survey data from a youth relationship education program entitled the Pre marital and Interpersonal Choices and Knowledge (PICK) program from a group of 14,468 adolescents. This study examined how different demographics were associated with decision making in relationships, referred to as relationship pacing in this study, before participating in the course. Demographic factors that were included were race, gender, family structure, number of times moved and if the individuals felt their basic needs were being met. Additional factors such as the well-being of students and if they had ever dated were also examined to test if those factors influenced their relationship pacing. This study also examined the students’ improvements in their reports of decision making in relationships after participating in the course and whether their demographics influenced how they benefited from the class. Again, their well-being and whether they had ever dated were also considered as potential moderators. Findings indicated that certain demographics did report healthier decision making prior to participating in the course and that their reports depended on their well-being and whether they had ever dated. Findings also indicated that some demographics
improved in decision making after participating in the course more than others. Again, the degree of these improvements depended on factors such as their well-being and whether they had ever dated. These findings indicate that many factors influence how youth pace their relationships and that some youth may benefit from relationship education more than others. Suggestions are given for future research to continue to understand for whom relationship education is the most beneficial and for practitioners to be aware of these differences in participants when presenting relationship education courses.
While writing this thesis I have received a lot of support and encouragement from others to make this possible. I would first like to thank my advisor, Dr. David Schramm, for being so patient, supportive, and encouraging throughout the writing and editing process. I also would like to thank the other two faculty on my committee, Dr. Elizabeth Fauth and Dr. Kay Bradford. I thank you all for helping me finish this document and providing feedback and support when needed. I also would like to express my gratitude to Scott Crapo as he assisted and guided me through many steps and taught me a lot about research methods and statistics.

I am very grateful for my fiancé, Daniel, as he has been incredibly supportive, encouraging and patient throughout this process and his faith in me throughout this program continues to motivate me to do my best. I also want to thank my family, Maryetta, Lyle, Beth Ann, Logan, Taylor and Connor, for always encouraging me in my education and work and being there whenever I need them. Thank you for being my biggest supporters.

Sarah E. Hodgskiss
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CHAPTER I
INTRODUCTION

Adolescence is a very influential developmental period for individuals. During this time, youth are rapidly changing physically, cognitively, and socially. Many adolescents become romantically involved at this age and participate in dating (Connolly et al., 2013). These dating relationships can serve as a positive or negative influence on development depending on factors such as quality and frequency of their romantic involvement with others. Research has found links between adolescent romantic relationships and later outcomes including relationship quality in adulthood, well-being, and health (Madsen & Collins, 2011; Starr et al., 2012; Szwedo et al., 2017). Due to the emergence of romantic relationships and the link between these relationships and later outcomes, this period is an opportune time to teach youth about healthy relationships. One way to do this is to deliver youth relationship education classes to adolescents.

Relationship education is a very common method used for teaching adults about healthy relationships. Relationship education is important because high-quality relationships have positive benefits for individuals but also because of the risk of dating violence (Braithwaite et al., 2010; Wincentak et al., 2017). Specifically, dating violence in teenagers has been associated with many negative outcomes, including higher rates of depression, suicidal thoughts, disordered eating, smoking, and more frequent sexual behaviors (Banyard & Cross, 2008; Bonomi et al., 2013; Exner-Cortens et al., 2013). Some studies have found rates as high as 70% of teenagers reporting being a victim of dating violence while dating in high school (Taylor & Mumford, 2016). This risk
reinforces the importance of teaching youth about healthy relationships through building skills such as healthy relationship pacing.

Many relationship education programs focus on topics such as building positive relationship skills, learning effective ways to communicate, and identifying warning signs of unhealthy relationship behaviors; meta-analyses have found that, overall, relationship education programs (premarital and otherwise) have been at least moderately effective at improving these outcomes (Carroll & Doherty, 2003; Hawkins et al., 2008). While there are many relationship education programs focused on adults and couples, there are fewer directed towards youth. Although there are fewer youth-focused programs, a meta-analysis of 15 studies has shown them to be largely effective, influencing conflict management and faulty relationship beliefs (McElwain et al., 2017). In addition to knowing how relationship education benefits participants, it is also important to understand for whom they are effective (Wadsworth & Markman, 2012). To date, fewer studies have examined potential moderators related to positive outcomes, specifically participant factors. It may be important to consider potential moderators between demographics and efficacy of relationship education courses, such as individual well-being and whether the participants have ever been in a romantic relationship (relationship history). Knowing who is most likely to benefit from relationship education may help educators target specific populations of adolescents in future relationship education efforts.
Study Purpose

The purpose of this study was two-fold. The first purpose of this study was to examine how demographics were associated with relationship pacing in a sample of 14,468 high school students. Additionally, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions (See Figure 2).

The second purpose of this study was to examine how demographics were associated with changes in relationship pacing scores after students completed a relationship education course. Again, potential moderators, including individual well-being and relationship history, were examined to test for two-way and three-way interactions (See Figure 3). Quantitative measures were used to collect data from high school students in a Western state before and after participating in the *Premarital Interpersonal Choices and Knowledge* program on their reports of relationship pacing. Demographic information, relationship history and well-being were measured at pre-test also using self-report quantitative measures.

Theoretical Framework

The Contextual Model of Family Stress (CMFS) is a family stress theory based on the ABC-X model of family stress and was used to frame this study (Boss, 2002). The ABC-X model of family stress is comprised of four pieces: a stressor event (A), family resources (B), family perception (C) and the extent to which the family experiences a crisis (X) (Hill, 1949). For this study, data regarding the adolescents’ perceptions were used as a proxy for family level variables. The CMFS adds two additional components to
the model - internal and external context (Boss, 2002)). Figure 1 provides a visual of the contextual model of family stress and variables in this study.

In the current study, the stressor (A) that was assessed was the emergence of dating in adolescence. The individual’s level of well-being was considered to be a resource (B) and the implementation of the PICK program was considered to be an influence on their resources (B) and perception (C). The aim of the PICK program was to provide youth with more knowledge on how to maintain healthy relationships and was expected to influence their perceptions of what healthy relationships look like. These perceptions may have changed through learning about skills such as decision making in relationships, identifying warning signs and what they should know about someone before entering a committed relationship. Additionally, PICK served as a resource to them to use as knowledge in the present and future in addition to allowing participants access to trained instructors who could answer any relationship questions or concerns they may have had. In this study, the relationship skill that was the focus was relationship pacing, specifically in regard to decision making in relationships. In relation to the ABC-X model (Hill, 1949), the crisis event participants are trying to avoid is involvement in unhealthy or even abusive relationships through learning the skill of relationship pacing. Healthy relationship pacing was used to measure the degree at which the individual was coping with dating or experiencing a crisis (Boss, 2002).

Lastly, the internal and external context of the participants were considered (Boss, 2002). The internal context is made up of factors that the family or individual has control over while the external context are factors that are out of their control. Both the internal and external context influence each other as well as the other four factors that make up
the ABC-X model (Boss, 2002). That is, they are all connected and simultaneously influence others within the system. In the current study, the external factors were characteristics of the individual or their family of which they had no control – their demographics. Examples of this would be their family structure, race, number of times they have moved, whether their needs were being met and their gender. Conversely, internal contextual factors are characteristics that the individual can change or control. In this study, the individuals’ dating history was considered the internal contextual factor because it could be controlled through actions the individual has taken. The CMFS model was used to understand how external factors (things youth cannot control) as well as internal factors (things youth can control) influenced how youth responded to the additional resource of participation in the PICK program.
Figure 1

*Contextual Model of Family Stress (CMFS; Boss, 2002)*
CHAPTER II
LITERATURE REVIEW

Romantic Relationships

Romantic relationships are a robust area of research in the family science field with many studies acknowledging the importance these relationships have on development and overall personal and relational well-being (Braithwaite et al., 2010; Diener et al., 2000). Romantic relationships can be defined as voluntary and mutually agreed on interactions that are usually more intimate and intense than other relationships with peers and family (Collins et al., 2009). These relationships usually involve participation or an intention to participate in sexual behaviors. Marriage and other committed relationships, and the quality of one’s relationship or marriage, has been found to be linked to overall well-being in adulthood (Braithwaite et al., 2010; Diener et al., 2000; Efklides et al., 2003).

Specifically, in a sample of 1,621 college students, being in a committed relationship was linked to more positive mental health and a decreased likelihood of being overweight/obese (Braithwaite et al., 2010). Furthermore, those students in committed relationships also were less likely to engage in risky behaviors, had fewer sexual partners, drank less often and were less likely to binge drink or drive after drinking. This decreased likelihood of engaging in risky behaviors served as a mediator between the association of being in a committed relationship and having better mental health (Braithwaite et al., 2010). Similar benefits have been found in committed healthy marriages as some research suggests that being married, as well as the quality of one’s
marriage has been found to be linked to overall well-being in adulthood (Diener et al., 2000; Efklides et al., 2003).

Adolescent Romantic Relationships

Adolescence is a time of rapid development when individuals change physically, cognitively and socially and it is usually during this time that adolescents are developing a sexual identity and may begin to start engaging in dating and sexual activities. This introduction of dating can be a stressor (A) and whether an individual perceives it as stressful and even as a potential crisis may be influenced by additional factors, as aligned with the ABC-X model (Hill, 1949). Dating has been characterized by three stages; affiliative stages, group-based dating and romantic relationships (Connolly et al., 2013). These stages describe the movement from discussing romantic interests with same-sex friends to casual and group-dating, to the final stage of more serious romantic relationships that are generally more common near the end of high school. Adolescents are more likely to date as they get older, as shown in one study that found 25% of 12-year-olds reported involvement in romantic relationships while 50% of 15-year-olds reported romantic relationships and the number jumped to 70% by the age of 18 (Carver et al., 2003). The Pew Research Center (2015) found that about 35% of teenagers ages 13-17 report a history of dating or dating experience, with adolescents ages 15-17 being twice as likely than adolescents 13-14 years of age. To summarize, many adolescents are dating and involved in romantic relationships.

Romantic relationships in adolescence can be positive or negative. In a study with an ethnically representative sample of 200 U.S. tenth-graders, those with more experience
in romantic relationships reported more social acceptance; however in this same study, romantic experiences were also associated with increased delinquent and sexual behavior, as well as substance use (Furman et al., 2009). Conversely, researchers have also found that support from a romantic partner in adolescence and emerging adulthood can serve as a buffer between maternal negativity and psychosocial outcomes including externalizing behavior, depressive symptoms, and self-worth (Szwedo et al., 2017).

In addition to cross-sectional studies, there is support that adolescent romantic relationships can have positive effects longitudinally. One longitudinal study assessed frequency and quality of 73 adolescent romantic relationships and how these variables affected their romantic relationships in young adulthood (Madsen & Collins, 2011). They controlled for gender and previous relationships with parents and peers and used a high-risk sample. They were able to conclude that higher numbers of romantic partners in adolescence was predictive of negative affect in later adult romantic relationships. However, youth who had fewer dating partners, but romantic relationships of higher quality in high school, demonstrated relationships of higher quality in young adulthood as well (Madsen & Collins, 2011). This suggests that it may be relationships of high quality that have positive effects for youth. While relationships in adolescence can be positive for development, there can also be long-term negative aspects of romantic involvement at this age.

One study with a sample of 83 females in early adolescence found links between dating experiences and anxiety and depressive symptoms, as well as sexual experiences linked to eating disorder symptoms a year later (Starr et al., 2012). They also found that both dating and sexual experiences were linked to externalizing symptoms (Starr et al.,
Another study reported that higher numbers of romantic partners in adolescence was linked to higher rates of delinquency in adulthood, even after controlling for delinquency in high school (Cui et al., 2012). These results were significant for many delinquent behaviors including getting in fights, damaging property, and selling drugs (Cui et al., 2012). The differing results on longitudinal effects of dating in adolescence may imply that rather than dating itself, the number of partners and type of experiences in relationships influence whether an individual is positively or negatively influenced.

While dating provides an opportunity for youth to grow in positive ways, it also has a potential dark side—teen violence. Although teen violence is not a direct focus of this study, it is important to address, as it is a major reason why relationship education is important. While youth relationship education is needed because of the influence of adolescent relationships on future outcomes in adulthood, a more immediate concern would be an abusive or unhealthy relationship. While dating violence can occur in any population and be inflicted by either gender, there are certain demographics that may be associated with a higher risk of experiencing teen dating violence (Wincentak et al., 2017). In one meta-analysis, researchers found that studies that had higher percentages of cultural minority females in their sample also had higher rates of those females reporting perpetration and victimization of physical dating violence (Wincentak et al., 2017). Additionally, economic disadvantage was found to be associated with higher rates of perpetration and victimization for both genders. These results, summarized from over 100 studies, suggest that certain demographics may be associated with higher risk of experiencing teen dating violence. The prevalence of teen dating violence suggests the need for direct relationship education for adolescents. Moreover, these demographic
findings show how an individuals’ external context, in this case their demographics, may influence their dating experience and that it must be taken into consideration when understanding who relationship education works for and who it does not (Boss, 2002).

**Resources and Perceptions in Adolescent Romantic Relationships**

According to the Contextual Model of Family Stress, the extent to which one perceives their situation as a crisis or their ability to cope when responding to a stressor (A) is influenced by four things: resources (B), perception (C) and, internal and external context (Boss, 2002). This model was used to better understand which individuals benefitted from relationship education more than others and why. The participants’ relationship pacing scores were how the outcome of coping with the stressor of dating was measured as it is one aspect of a healthy relationship. The first factor that will be discussed is the resource of well-being.

**Adolescent Well-being.** Well-being was considered to be a resource for participants in this study that may have helped buffer the potential stress of dating for participants and is part B in the ABC-X model in this study (Hill, 1949). Well-being can be considered a very broad term and has been operationalized in many ways in the literature. In this study, well-being was referring to the participants’ satisfaction with their life and relationships as well as their self-reported happiness. Some adolescents may be more susceptible to lower levels of satisfaction than others due to factors that are out of their control, such as demographics, including race and socioeconomic status (McLeod & Owens, 2004). Although an individual’s external and internal context will influence their level of well-being, there are additional factors that influence well-being within the
individual’s control, which is why it was considered a resource (B) rather than an internal or external factor in this study. So, although the external context as well as internal factors do influence resources and will be discussed as how they relate to well-being, well-being was examined as a resource in this study. Demographic characteristics, such as family dynamics, race and SES have been associated with lower levels of well-being overall in adolescents (Rask et al., 2002; McLeod & Owens, 2004). Additionally, research has identified groups such as families with lower SES and racial and ethnic minority families to be at a higher risk of increased stress, which may also play a role in the risk of having lower well-being (Goodman et al., 2005). Some of these additional stressors may include dealing with racism and discrimination or financial stressors. While the research suggests that there are certain demographic groups at higher risk of decreased well-being, possibly due to their increased levels of stress, this does not suggest that all minority and disadvantaged individuals have low well-being.

In addition to demographics potentially influencing well-being, other factors such as character strengths of adolescents, including leadership and teamwork, social support and high-quality romantic relationships (internal factors) have all been associated with high levels of well-being (Gillham et al., 2011; Stevenson et al., 1999; Viejo et al., 2015). Therefore, adolescents who may be considered low SES, of a minority status, or considered disadvantaged in some other ways are still able to have high levels of well-being and their well-being can be viewed as a resource. According to the CMFS model, being in a disadvantaged group that experiences higher levels of stress and issues such as racism and discrimination, would put one at greater risk for reacting to a stressor, such as the emergence of dating, in a way that could lead to crisis rather than coping (Boss,
However, if an individual has strengths in other areas of influence, such as their well-being (resource), this may serve as a buffer to qualities such as minority status and low SES (external factors), which are typically viewed as risk factors.

**Relationship Education.** Relationship education can also serve as a resource (B) for individuals when dealing with the stressor (A) of dating (Boss, 2002). Taking a relationship education course can increase one’s knowledge about forming and maintaining relationships, specifically what is beneficial to know about someone before higher levels of commitment in a relationship, how to manage conflict, and what to look for as warning signs in relationships. These skills, as well as the opportunity to ask questions and engage with a relationship education instructor are both ways relationship education can serve as a resource (B) for youth. Relationship education can also influence individuals’ perceptions (C) of relationships as well, so it was also included in the “C” in the ABC-X model (Hill, 29149). By providing relationship education to youth and giving them the information as a resource, it could influence how they perceive relationships, pacing, and behaviors in relationships differently than they may have before participating in relationship education. They were not only given the information but they were taught why it is important so their own perceptions may have changed due to the education they received.

Relationship education is one method used by practitioners and family life educators to help couples and individuals form and sustain healthy relationships and avoid hurtful and violent relationships. Various forms of relationship education have been delivered for many years. One popular type of relationship education is premarital education, which is a formal preventative approach to prepare couples for marriage (Carrol & Doherty,
Carroll and Doherty (2003) found evidence in their meta-analysis review that those participants who participated in premarital education were significantly better off than those who did not participate. They found that the premarital programs evaluated had a mean effect size of .80 (Carroll & Doherty, 2003). Since their review, premarital education and other forms of relationship education have continued to demonstrate effectiveness and have progressed in alignment with the extant literature on relationships (Harris et al., 2019; Rhoades, 2015).

A more recent meta-analysis analyzing over 100 studies on relationship education interventions found effect sizes for improvement in communication skills ranging from $d = .36$ to $.54$ and $d = .24$ to $.36$ for relationship quality (Hawkins et al., 2008). Overall, the effects of marriage and relationship education courses were found to be modest, but significant, with quasi-experimental designs being less significant (Hawkins et al., 2008). While it is promising that relationship education programs have been effective for adults, it may be beneficial to educate individuals about healthy relationships before they are in a serious relationship themselves. However, many relationship education programs are focused on adults who are already in relationships (Hawkins, 2018). In a recent evaluation of relationship education studies, Hawkins (2018) discovered that only 13% of the 262 studies (between 1975-2016) were interventions that had a focus on young individuals rather than couples. Hawkins (2018) argues that while relationship education is still very important and necessary for couples, additional attention needs to be given to educating individuals before they are in committed relationships.

**Youth Relationship Education.** While the focus of most studies on relationship education have focused on adults, there are youth relationship education programs that
have been delivered for more than two decades with results showing positive outcomes.

A recent relationship education program, *What’s Real*, was found to have increased
knowledge of healthy relationships in the sample and increased their positive attitudes
towards the idea of pre-marital counseling (Gardner et al., 2016). A common program in
the literature for youth relationship education is the *Relationship Smarts* (RS) program
(including variations of the program that have been created). Using an adapted version,
found that in their sample of 340 high school teens from diverse backgrounds, there were
significant positive outcomes. Students who participated in the RS adapted course had
higher scores on their post-tests of relationship knowledge, fewer reports of the use of
verbally aggressive tactics since the course began and had more realistic relationship
beliefs than those who did not participate in the course. Additionally, they discovered that
their sample that participated in the RS adapted program all had similar benefits
regardless of demographics such as socioeconomic status, race and family structure
(Adler-Baeder et al., 2007). Additional studies using other version of RS such as
*Relationship Smarts Plus* have also had effective and positive benefits for their youth
participants and have included additional informational topics into their curriculum such
as lessons on identity development and child abuse and neglect (Antle et al., 2011;
Kerpelman et al., 2009; Ma et al., 2014; Schramm & Gomez-Scott, 2012).

Youth relationship education programs may also be used to help prevent risky
sexual behavior. One program, *Love Notes* (LN) integrates information on forming
healthy relationships with education on sexual disease and pregnancy (Barbee et al.,
2016). In a study comparing the LN program to a control group, scholars found that those
in the LN program were significantly less likely to have had sex and also reported fewer sexual partners overall (Barbee et al., 2016). Additionally, in a sample of 113 adolescents, *Love Notes* 3.0, was found to decrease psychological distress for females (Kanter et al., 2020). This finding suggests that youth relationship education may also help adolescents with their mental health, however, more research needs to be done on this (Kanter et al., 2020).

While there are a growing number of youth relationship education programs, Hawkins (2018) argues that the relationship education field needs to continue to shift their focus to prioritizing youth relationship education to provide adolescents the information they need to make healthy relationship decisions. He also recommends more evaluation research be carried out to determine who benefits most from relationship education, when, how much, and what topics are most influential.

**Premarital Interpersonal Choices and Knowledge (PICK) Program.** The youth relationship education program that was provided as a resource (B) to the participants in this study was *The Premarital Interpersonal Choices and Knowledge* (PICK). PICK is a research-based relationship education program developed to help individuals have success when they enter into a relationship. The PICK program has also been referred to as *How to Avoid Falling for a Jerk(ette)* (Van Epp, 2011). There are PICK instructors in all 50 states and more than 500,000 individuals have participated in the PICK program (Bradford et al., 2016). The main goals of the program were to help individuals learn how to pace relationships and how to recognize specific characteristics of a potential partner that could help lead to successful relationships.
To assist in teaching individuals about appropriate relationship pacing, the Relationship Attachment Model (RAM) was used (Van Epp, 2011). The RAM is a model created to help emphasize a “success sequence,” or the appropriate order of behaviors to engage in when beginning a relationship. The order that the model proposes follows: Know, Trust, Rely, Commit and Touch. The FACES acronym was used to aid in instruction on the five areas of knowledge to have before entering a serious relationship. These qualities were found to contribute to marital quality and stability (Van Epp, 2011). These five areas of FACES include: Family background, Attitudes and Actions of conscience, Compatibility potential, Examples of other relationships and Skills in a relationship.

There have been a small but growing number of studies on the PICK program but those that have been conducted have largely supported the program as effective. A study with a sample of army soldiers had positive outcomes with the participants improving in their attitudes about mate selection, importance placed on knowledge about a partner, and their knowledge gained and confidence in using that knowledge (Van Epp et al., 2008). Bradford and colleagues (2016) also implemented the PICK program with a group of emerging adults. In this community sample they discovered that those who had attended the program had significantly higher post-test scores in all four areas examined (perceived knowledge of relationship skills and selecting partners, perceived knowledge of past relationship patterns of a potential partner, relationship behaviors, and attitudes towards relationships). Conversely, a university control group demonstrated non-significant pre-post differences in these areas.
More recently, a mixed-methods study with low-income adult participants was conducted to explore whether the program was effective for this population and to better understand the experiences of the participants (Bradford et al., 2019). Through their qualitative analyses the authors identified some common themes of what motivated participants to improve relationships, such as not wanting to repeat past mistakes as well as what they got out of the process such as learning about relationship pacing through the use of the RAM model. Their results also supported the overall effectiveness of the program through declines in unrealistic relationship beliefs and increases in relationship skills and knowledge. This study provides preliminary evidence that a low-income population can benefit from the PICK program (Bradford et al., 2019).

In addition to these studies on adults, Brower and colleagues (2012) discovered in a retrospective pre-posttest that both male and female teens improved in their relationship knowledge significantly and the participants rated the program highly (Brower et al., 2012). Additionally, Boehme (2017) and Harris (2017) found support for the PICK program in a high school setting: Boehme (2017) concluded that the PICK program had the intended effect and improved participants knowledge and attitudes about healthy relationships by comparing mean scores from pre and post-test surveys and finding significant changes. Harris (2017) used a qualitative phenomenological approach and discovered four common themes of perceived gain from the program among participants. The four themes were that they felt like they gained knowledge and skills for a healthy relationship, increased knowledge stemming from the Relationship Attachment Model (RAM), personal learning and application and lastly, concepts they learned about relationships within family. These themes aligned with the concerns that the students had
about relationships prior to participation. This gives promising evidence that the PICK program can be effective in youth populations.

**Internal Influences on Adolescent Relationships and Education**

Factors that youth have control over in regard to romantic relationships, such as if they date, how they date, and the frequency of their dating were all considered to be internal factors (Boss, 2002). While these factors are influenced by other areas of the CMFS model and will be discussed, they are still actions that the individual had control over, therefore were considered internal factors. In this study, relationship history was measured by whether or not the participants had ever been in a romantic relationship. To date, research on simply whether individuals have ever dated (yes or no) rather than frequency of dating overall or quality of dating has not often been studied. However, those factors are still important to discuss to better understand relationships, dating, and relationship education. The frequency, or how often adolescents report dating, is influenced by many factors including peers, family, and other related external factors in their sociocultural context (Friedlander et al., 2007; Heifetz et al., 2010; Suleiman & Deardorff, 2015; Tyrell et al., 2016). One study with a sample of 189 Mexican American adolescents looked at how family context influenced dating and relationship quality in early adolescence and then two and five years later (Tyrell et al., 2016). The study’s authors found that for girls, higher levels of conflict with their mother was associated with increased involvement in a romantic relationship in middle adolescence. In addition to conflict between children and parents, interparental conflict, specifically divorce can also lead to increases in dating frequency (Heifetz et al., 2010).
Adolescents are also influenced by other factors, such as peers. A research study conducted by Suleiman and Deardorff (2015) investigated the influence of peers on adolescent relationships. In their qualitative study of 40 adolescents, 60% of participants reported that peers influenced their decisions to engage in dating. They also had many (38%) students describe being in a relationship as reaching a certain social status, with 45% stating that friends motivated them to start dating to begin with (Suleiman & Deardorff, 2015). While there were reports of positive outcomes of dating and friends being helpful and supportive, 45% of participants reported that their engagement in romantic relationships led to negative outcomes, such as being uncomfortable because of giving in to peer pressure to date. These findings support the idea that family context and peers influence adolescents’ dating frequency, however adolescents do have control of these factors. Ultimately, engaging in dating is an individual’s choice, but there are many factors out of their control that are influencing that decision. These decisions that youth make and have control over (internal factors) are an important area to consider when understanding relationship pacing.

As noted, a less common focus in the literature is how participants’ relationship history (if they have ever dated) rather than the frequency of dating influences their relationship pacing and if it influences how they benefit from relationship education courses. Additionally, whether youth have ever been in a romantic relationship, may influence how youth respond to questions in a relationship education course regarding their decision making, or pacing, in relationships. Therefore, relationship history was an internal factor that was studied (Boss, 2002).
External Influences on Adolescent Relationships and Education

Research needs to be conducted to understand participant factors, such as if participants have ever dated and their level of well-being, and for whom, such as what demographics, these relationship education programs are most beneficial (Wadsworth & Markman, 2012). Demographics are a part of the participants’ external context (Boss, 2002). This means that they do not have any control over these factors such as race, family structure and gender. Halpern-Meekin (2011) discovered in her study on youth relationship education programs in Florida and Oklahoma, that overall, the programs had potential to increase relationship skills. However, certain students in particular schools had much higher increases in relationships skills than other students following program delivery. While finding conflicting results about some demographics, they did find that in both states, participants from two-parent families had higher gains in relationship skills (Halpern-Meekin, 2011). In another study with 1,808 high school students in 106 different classes (62 classes who received education and 44 control groups) using Relationship Smarts, the authors found that the youth who had lower scores for their standards for their relationships (intimacy and loyalty) and partners (warmth/trustworthiness) at the beginning had the greatest increase in scores post-test, implying that those adolescents at more risk for being in an unhealthy relationship may have larger benefits from relationship education in high school (Ma et al., 2014).

Another study using the Love U2 program found benefits in a high-risk sample of youth (Antle et al., 2011). The program resulted in significant increases in relationship knowledge and positive relationship attitudes and significant decreases in harmful conflict resolution and communication skills. In their sample, African American students
scored higher on knowledge gained in content areas at post-test than Caucasian students (13.38% average gain vs. 5.69% average gain). Thus, some research shows differences in effectiveness may be influenced by race.

Kerpelman and colleagues (2010) explored the effectiveness of a relationship education program and whether the participants’ social address (minority/majority status, SES, family structure) influenced the efficacy of the class through a diverse group of youth. When assessing for differences in outcomes for different levels of social address they found some interesting findings. Students who were signed up for the free lunch program, implying they may be of lower SES, were more likely to endorse faulty relationship beliefs than the other participants prior to the intervention, but benefitted the same amount as everyone else. For students who had single parents, they had no change in faulty relationship beliefs, suggesting they did not benefit in that area of the intervention compared to others (Kerpelman et al., 2010). For conflict management skills, those eligible for free or reduced lunch started with lower scores compared to the rest of the group. However, the groups that improved the most in conflict management skills were the groups that would generally be considered disadvantaged (eligible for free lunch, minority status, stepfamilies, parents with lower education). This supports the idea that relationship education courses may more strongly benefit those who may be at a higher risk for unhealthy relationships. This study explored for whom the PICK program was most beneficial when considering not only individual’s external factors such as their demographics but also exploring how their internal context and resources and perceptions all interacted together (Boss, 2002).
Relationship Pacing in Adolescents

In this study, how youth reported making decisions in their relationships and what steps they have taken or would take, and when, was the way that relationship pacing was operationalized. Knowing how to pace their relationships is one way that youth can cope with the stressor of dating and this was the main outcome of this study (Boss, 2002). Van Epp (2011) suggests that there are five levels of development in a relationship: knowing certain details about your partner, trusting them, being able to rely on them, committing to them and lastly, touching them. He states that, ideally, these should occur in order without one happening before the other. In this study, the “deciding” factors of relationship pacing were the specific focus (Venum & Fincham, 2011). Deciding was operationalized by asking participants how/if they weigh decisions about taking major steps (some of which are discussed in the RAM model) in their relationship. Venuum and Fincham (2011) discuss the importance of making deliberate decisions in relationships rather than “sliding” into them without much thought or discussion. The absence of deliberate decision-making can lead to constraints in a relationship, furthering the relationship to continue when it may have otherwise ended if those actions were intentionally decided rather than “sliding” into them. This “sliding” through relationship transitions can lead to greater risks for the couple and is the reason relationship pacing was chosen as the outcome measure for this study (Stanley et al., 2006).

A study with a sample of 24 youth living in group homes used focus group interviews to assess problems they face with relationships and what they felt would make relationship classes relevant to their life (Hurley et al., 2013). The participants identified many issues that they face in relationships that involve relationship pacing, such as
setting relationship boundaries, consequences of being sexually active (sexually transmitted infections, getting pregnant), peer pressure by partner and others to be sexually active, communication with their partner and rushing things/moving too fast in a relationship. In this study, males were more likely than females to rank relationship pacing in their top five problem areas they face within romantic relationships. In response to what would make relationship education relevant for them, discussion about commitment and learning about communication were both themes that emerged and are related to healthy relationship pacing (Hurley et al., 2013). This study with a sample of youth in a group home shows that this demographic has concerns about relationship pacing but also have a desire to learn how to pace relationships in a healthy way.

Partner selection is one concept used in research that also assesses how individuals perceive their ability to pace relationships (Bradford et al., 2016). In a study conducted by Bradford and colleagues (2016) using a sample of emerging adults and a university control group, results supported the efficacy of the PICK program with the group of emerging adults that participated. At post-test the scores of the treatment group were significantly higher in knowledge about partner selection than those who did not receive the education and were also significantly higher compared to their own pre-test scores. Another study, also using the PICK program, confirmed the effectiveness of the PICK program on developing relationship pacing skills among a sample of low-income adult participants (Bradford et al., 2019). While these two studies focus on pacing in a broader sense than the current study, they also encompass “deciding” concepts that will be measured in this study and support the efficacy of the PICK curriculum.
To date, there is very little research on the “deciding” aspect of pacing in adolescent relationships and how/if variables such as demographics, relationships history, and well-being are related to this area of relationship pacing. This study explored these areas.

**Purpose of Study and Hypotheses**

Although there is an increasing amount of research conducted on relationship education, more research needs to specifically focus on youth relationship education (Hawkins, 2018). Research is also needed on how both internal and external factors, such as whether the participants have dated and their level of well-being, influence relationship pacing when youth have received no relationship education as well as following education. The goal of this study was to better understand these associations through the lens of the Contextual Model of Family Stress (Boss, 2002). The first purpose of this study was to examine how demographics were associated with relationship pacing in a sample of 14,468 high school students. Additionally, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions (See Figure 2).

While there is evidence that relationship education programs can have positive outcomes, the research on which participants benefit the most is still unclear. Therefore, the second purpose of this study was to examine how demographics were associated with changes in relationship pacing scores after students completed a relationship education course. Again, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions (See Figure 3).
This study contributes to the small, but growing research evaluating the PICK program in youth.

Guided by the Contextual Model of Family Stress (Boss, 2002), it was hypothesized that students who may have been more disadvantaged by additional stressors due to their demographics (external factors) may have had lower levels of relationship pacing; however, if they had high levels of well-being (internal factor), it may have served as a buffer. More specifically, students who would usually be considered disadvantaged, such as students who did not feel their needs were met, students without a two-parent family structure and minority students, would have lower relationship pacing scores at pre-test. It is further hypothesized that students’ levels of well-being would moderate the relationship between each of the demographics chosen and their relationship pacing, prior to and following the program. Specifically, it was hypothesized that higher levels of well-being would moderate the change scores, meaning students would have larger increases in relationship pacing scores if they had higher well-being, regardless of their demographics. When testing for the additional moderating variable, relationship history, no hypotheses is provided as this was an exploratory area of the study.
Figure 2

*Research Question 1*

![Diagram of Research Question 1]

Figure 3

*Research Question 2*

![Diagram of Research Question 2]
CHAPTER III

METHODOLOGY

Participants

Data for this study was collected from 14,468 students in a Western state who participated in the PICK relationship education course in school. Of the students who reported their identified gender, 52% were male and 48% were female. The majority (82%) of students reported their race were Caucasian, and the remaining students reported a variety of races including Asian/Pacific Islander, Black and Native American. Ages of participants ranged from 14 to 19, with a mean age of 15.6 (SD = .77) for females and 15.71 (SD = .78) for males. Due to missing data, the sample size for analysis was smaller than the number that participated in the course. 570 were removed from analysis due to missingness on demographics, an additional 178 were removed due to missingness on well-being, then an additional 315 were removed for missing data on relationship pacing measures and an additional 1,013 were removed due to missing data or selecting “prefer not to answer” on relationship history for a total \( n \) of 12,392 for research question one. Fewer participants completed the post survey, thus for research question two, an additional 1,688 were removed due to only having data at pre or post for a total of \( n = 10,704 \) for research question two.

Procedures

Students in this study participated in the *Premarital and Interpersonal Choices and Knowledge* (PICK) program in the years 2017 - 2020 across a Western state in 39 schools (Van Epp, 2011). Educators typically offered PICK to groups of students in
health or adult role classes. To be in the study, the program had to be taught for at least four hours but the number of sessions (e.g. how the four hours were grouped) was up to the school. The majority of courses (536) took place over three sessions, 200 of the courses were taught in four sessions, 13 courses were completed in two sessions and only one course taught the four hours of the curriculum in one session. The study received IRB approval and proper consent from parents of participants was required through letters of information. No incentives were offered and participation in the program and completion of surveys was voluntary. Students filled out a two-page survey of questions prior to the first session and immediately after their final session. They filled out paper surveys that were then entered into Qualtrics by staff. There were nine different educators that were all certified PICK instructors. In addition to their training as a PICK instructor, each of the educators participated in a full-day training conference that oriented them to the curriculum and to the procedures of the project. To further ensure treatment fidelity, site visits were performed periodically by the project manager (also trained in PICK) who observed classes and gave feedback.

Measures

Demographics. The demographic data used in this study included participants’ gender, race, family structure, students’ perception of their needs being met and the number of times they have moved in their lifetime. Gender was measured as a dichotomous variable with the options of “male” and “female”. Race was measured with the options “White”, “Black”, “Asian/Pacific Islander”, “Native American” and “other”. The race variable was collapsed into two groups for the analysis because the percentages
of the other racial categories were too small in comparison to the majority and this created more balanced sampling groups. The two groups created were “White” and “non-White” which included the racial groups of “Black”, “Asian/Pacific Islander”, “Native American” and “other”. Collapsing the non-White groups to compare to the White group also served as a better representation of the demographics of the state the study was conducted in. To measure family structure, students responded to the prompt “I live with…” and were given the options of “One parent”, “Both parents”, “One parent and a stepparent”, “Grandparents” and “Other” with a space to specify. Family structure was coded such that families with both parents served as the comparison group. The students’ perception of their needs being met were grouped by their response to “My family gets the things that it needs (like food, clothes, housing, transportation)” on a 4-point Likert scale from “very easily” to “with a lot of difficulty”. Lastly, to measure the number of times the participant had moved in their life they had options for 1 to 6 times and then an option of 7 or more times.

**History of dating.** In addition to demographics, an internal factor, the participants’ history of dating was measured. History of dating was measured through participants’ response to “Have you ever been in a romantic relationship?”. They were given the options of “Yes”, “No”, or “Prefer not to answer”. For this variable, the data was recoded so that those students who responded with “Prefer not to answer” were not included in the analysis.

**Well-being.** Participants’ well-being was measured using the well-being scale of the Outcome Questionnaire Short Form (OQ-10; Seelert et al., 1999). The OQ-10 is a screening instrument, often used in primary care, to assess distress and well-being. The
scale consists of five items, rated on a 5-point Likert scale from 1 “strongly disagree” to 5 “strongly agree”. The five items were “I am a happy person”, “I am satisfied with my life”, “I am satisfied with my relationship with others”, “I feel loved and wanted” and “I feel my relationships are full and complete”. The alpha for this measure was 0.9.

**Relationship pacing.** Healthy relationship pacing was measured using the deciding subscale of the Relationship Deciding Scale (RDS; Vennum & Fincham, 2011). The RDS was designed to measure confidence in addressing warning signs in relationships, confidence in relationship skills and maintenance and thoughtfulness of steps taken in a developing relationship. The deciding subscale consists of five items which measure how the participants generally pace their relationships, rated on a 5-point Likert scale from 1 “strongly disagree” to 5 “strongly agree”. The five items were “With romantic partners, I weigh the pros and cons before allowing myself to take the next step in the relationship”, “It is important to make conscious decisions about whether to take each major step in romantic relationships” and “It is important to me to discuss with my partner each major step we take in a relationship”, “Considering the pros and cons of each major step in a romantic relationship destroys it’s chemistry”, and “It is better to ‘go with the flow’ than think carefully about each major step in a romantic relationship”. The last two statements were reverse coded so higher scores represent more thoughtful decision making in relationship pacing. Relationship pacing was coded such that higher levels reflected healthier pacing. The alpha for this measure was 0.6.

For research question two, the same deciding subscale was used to measure relationship pacing (RDS; Vennum & Fincham, 2011). However, to measure the change from pre to post, a new variable subtracting the pre-test score from the post-test score in
relationship pacing was created and that number was used. The alpha for the change scores was 0.29.

**Analysis**

To test the first research question, a hierarchal multiple regression was run in three steps. In step one, the model included a three-way interaction between each demographic variable, and well-being and relationship history on the dependent variable of relationship pacing. Any three-way interactions that were significant at the $p < .05$ level were retained.

In step two, for clarity and parsimony, any non-significant three-way interactions were removed and the underlying two-way interactions were tested. Again, any two-way interactions that were significant at the $p < .05$ level were retained. In step three, following the same process as step two, any two-way interactions that were not significant were removed and the remaining variables were then tested for main effects. Due to all of the variables being of theoretical interest, all the variables at this step were kept whether they were significant or not.

To test research question two, the same steps were taken as research question one with the outcome variable being the change between pre and post relationship pacing scores to measure the improvement over the course.
CHAPTER IV
RESULTS

Research Question One

The first purpose of this study was to examine how demographics were associated with relationship pacing in a sample of 14,468 high school students. Additionally, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions. Therefore, the outcome variable in research question one was relationship pacing, specifically deciding, so will be referred to as relationship deciding in the results and discussion sections. In step one, one three-way interaction was found between number of times moved on relationship deciding scores with the moderators of well-being and relationship history ($B = .01$, $\beta = 0.19$, $p = .02$). In general, higher well-being was associated with healthier relationship pacing (See Figure 4). This was true for both groups, no matter how many times the participants had moved. However, well-being moderated the relationship between how many times a person moved and their deciding scores, but only for those participants who had been in a relationship. For those participants who had been in a relationship before, the students who had moved more often and had higher well-being had healthier relationship deciding scores than other students who had moved just as often but had lower well-being. For those who had never been in a relationship, well-being did not serve as a moderator although well-being did predict their pacing scores overall with higher well-being being associated with healthier deciding scores, regardless of times moved and relationship
history. The other three-way interactions that were tested were not significant so they were dropped from the model.

**Figure 4**

*Research Question 1 – Three-way interaction*

In the next step, two two-way interactions were found. The first was between participant’s perceptions of their needs being met on relationship deciding with the moderator of relationship history ($B = -0.04, \beta = -0.09 \, p = .02$). For those participants who had dated in the past, whether or not they felt their needs were being met did not influence their relationship deciding scores (See Figure 5). However, for participants who had not dated in the past, whether their needs were being met was strongly associated with healthier relationship deciding scores, such that those who did not feel their needs
were being met had significantly lower deciding scores than those who felt their needs were being met.

Figure 5

Research Question One – Two-way interaction with needs met and dating history

The second two-way interaction that was found was between race, well-being and relationship deciding ($B = -0.04$, $\beta = -0.09$ $p = .02$). White participants scored higher than those of other races with the same level of well-being (See Figure 6). However, participant scores were moderated by well-being, such that as well-being increased, the difference in deciding scores between races grew more pronounced. The difference between racial groups was less pronounced when well-being was low. Additionally, when
the non-White participants’ well-being was high and White well-being is low, the
deciding scores were not significantly different from zero, although when White was high
and Other was low, the difference is exacerbated.

**Figure 6**
*Research Question One – Two-way interaction with race and well-being*

In step three, the two significant main effects that remained and had not been
included in the above interactions were between gender and relationship deciding and
family structure and relationship deciding. For the main effect between gender and
relationship deciding, females had healthier deciding scores than males ($B = 0.20$, $\beta = 0.18$, $p < .001$). Being female compared to being male increased the relationship
deciding score by an average of .02. For the main effect between family structure and
relationship deciding, those who lived with both parents had higher deciding scores than
those from other family structures ($p < .001$). The unstandardized and standardized beta
scores for a two parent family structure compared to other family structures were as
follows: living with one parent ($B = -0.07, \beta = -0.05$), living with one parent and a step-
parent ($B = -0.08, \beta = -0.05$), living with grandparents ($B = -0.17, \beta = -0.04$) and other
($B = -0.11, \beta = -0.05$).
### Table 1

**Research Question One Interactions**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Unstandardized Beta ($B$)</th>
<th>Standard Error ($SE$)</th>
<th>$p$-value</th>
<th>Standardized Beta ($\beta$)</th>
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<tbody>
<tr>
<td>Gender</td>
<td>0.203</td>
<td>0.010</td>
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<td>0.184</td>
</tr>
<tr>
<td>Race</td>
<td>0.003</td>
<td>0.058</td>
<td>0.955</td>
<td>0.002</td>
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<td>Well-being</td>
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<td>0.013</td>
<td>&lt;.001</td>
<td>0.166</td>
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<tr>
<td><strong>Family Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lives with one Parent</td>
<td>-0.075</td>
<td>0.015</td>
<td>&lt;.001</td>
<td>-0.046</td>
</tr>
<tr>
<td>Lives with one Parent and a Stepparent</td>
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<td>0.016</td>
<td>&lt;.001</td>
<td>-0.046</td>
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<tr>
<td>Lives with Grandparents</td>
<td>-0.174</td>
<td>0.041</td>
<td>&lt;.001</td>
<td>-0.037</td>
</tr>
<tr>
<td>Lives with Other</td>
<td>-0.109</td>
<td>0.021</td>
<td>&lt;.001</td>
<td>-0.046</td>
</tr>
<tr>
<td>Needs Met</td>
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<td>0.012</td>
<td>&lt;.001</td>
<td>0.046</td>
</tr>
<tr>
<td>Relationship History</td>
<td>0.194</td>
<td>0.081</td>
<td>0.017</td>
<td>0.176</td>
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<td>0.015</td>
<td>0.425</td>
<td>0.051</td>
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<td>0.019</td>
<td>-0.092</td>
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<tr>
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<td>0.016</td>
<td>0.022</td>
<td>-0.086</td>
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<td>0.004</td>
<td>0.510</td>
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<tr>
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<td>0.024</td>
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<tr>
<td>Well-being * Relationship History * Times Moved</td>
<td>0.012</td>
<td>0.005</td>
<td>0.018</td>
<td>0.191</td>
</tr>
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</table>

Note: The comparison group for gender was males, the comparison group for race was participants who are White and the comparison group for family structure was a two-parent family.


**Research Question Two**

The second purpose of this study was to examine how demographics were associated with changes in relationship pacing scores after students completed a relationship education course. Again, potential moderators, including individual well-being and relationship history, were examined to test for two-way and three-way interactions. The outcome variable in each step for research question two was the change scores in relationship deciding from pre to post. In step one, two three-way interactions were significant with a $p < .05$. The first significant three-way interaction was between family structure, relationship history and well-being on improvement of relationship deciding over the course ($B = -0.33, \beta = -0.22 \ p < .01$). For those who lived with their grandparents, if they had been in a relationship, and had lower well-being, it was associated with getting more out of their class (See Figure 7). However, for those participants who had dated, higher well-being was associated with a large decrease in what they got out of the class, with even lower improvements than individuals who had never dated and also had higher well-being. Through post hoc testing, a $t$-test was run to see if the findings were a result of differences in pre-test scores. The $t$-test came back non-significant meaning there was no initial difference between groups.
Another three-way interaction was found between well-being, history of dating, and race on relationship deciding improvements from pre to post ($B = 0.07$, $\beta = 0.15$, $p = .05$). Non-White participants who had never been in a relationship benefited more from the class if they had lower well-being (See Figure 8). Nonwhite participants who had
been in a relationship also benefited more from the class if they had lower well-being but the improvement was smaller than those who had never been in a relationship. White participants also got more out of the class if they had lower well-being and those who had never dated got more out of the class at all levels of well-being than those who had dated. Comparing the White and non-White groups, the non-White group had more variance overall with the high improvements being larger than White participants and also their lowest level of improvements being smaller than white participants. Through post hoc testing, a t-test was run to see if the findings were a result of differences in pre-test scores. The t-test showed that the difference was significant \( t(2526.3) = 11.615, p < .001, \) with the non-White group having an initially lower mean score for relationship pacing. There may have been a ceiling effect for the white group such that those who started with higher scores may not be able to get much higher, thus resulting in the non-White group having larger improvements, specifically for those with higher well-being.
In the next step, one two-way interaction was significant between needs met on relationship deciding with the moderator of well-being ($B = 0.02, \beta = 0.16, p = .03$). For participants who felt that all their needs were met, their level of well-being did not largely influence their improvements in the course (See Figure 9). However, for participants who did not feel like their needs were met, those with lower well-being improved much more than those who had higher well-being but did not feel their needs were met.
Lastly, the main effect of gender on improvement in relationship deciding was significant ($B = 0.04, \beta = 0.04, p < .001$). Female participants improved more than male participants in their relationship deciding scores. Being female compared to being male increases the relationship deciding score by .04, on average.
<table>
<thead>
<tr>
<th>Predictor</th>
<th>Unstandardized Beta ($B$)</th>
<th>Standard Error (SE)</th>
<th>$p$-value</th>
<th>Standardized Beta ($\beta$)</th>
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<td>0.066</td>
<td>0.900</td>
<td>-0.008</td>
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<td></td>
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<tr>
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<tr>
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<td>Predictor</td>
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<td>Standard Error ($SE$)</td>
<td>$p$-value</td>
<td>Standardized Beta ($\beta$)</td>
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<td>-----------</td>
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<td>-----------</td>
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<tr>
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</tr>
</tbody>
</table>

Note: The comparison group for gender was males, the comparison group for race was participants who are White and the comparison group for family structure was a two-parent family.
CHAPTER V
DISCUSSION

The current study’s first purpose was to examine how demographics were associated with relationship deciding in a sample of high school students. Additionally, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions. The study also sought to identify for whom relationship education was the most beneficial. Thus, the second purpose of this study was to examine how demographics were associated with changes in relationship deciding scores after students completed a relationship education course. Again, potential moderators including individual well-being and relationship history were examined to test for two-way and three-way interactions. These demographics included family structure, race, gender, perception of needs met and number of times moved. The Contextual Model of Family Stress was used as the lens for the study with the goal of understanding how resources, perceptions and the internal and external context of an individual influence how youth cope with the stressor of dating (Boss, 2002). While previous studies on the PICK curriculum have found the program to be effective, there has not been research conducted on whom it benefits the most, specifically looking at youth (Bradford et al., 2016; Brower et al., 2012).

Research Question One

For the first research question, the hypothesis that those with higher well-being would have higher relationship deciding scores before the course was supported. However, in the identified three-way interaction, how participant scores changed when
considering the number of times moved depended on well-being as well as whether or not the students had ever dated. The influence of number of times moved on relationship deciding was stronger for those who have dated than those who have never dated. The influence of number of times moved was also stronger for those with higher well-being than those with lower well-being, specifically for those who have dated.

One potential reason for this interaction, specifically for students who have had relationships in the past, could be that they answered the questions more realistically based on their experiences in relationships. Thus, it is possible that their well-being and number of times they moved may have influenced how they have made decisions about pacing their relationships in the past while those who have never dated report consistent answers regardless of how many times they have moved because they have never had that experience and it is more likely that they answered the questions based on how they ideally would behave based on their current attitude toward relationships (Wood et al., 2016).

Through the lens of the CMFS, this is a reasonable explanation because the participants’ internal context (if they have ever dated) as well as their external context (number of times moved) and resources (well-being) likely restructure the way they view decision making in their relationships (Boss, 2002). Additionally, the result that participants who have dated in the past and moved several times have healthier pacing scores than those who have not moved many times could be due to those participants making more conscious decisions about pacing their relationships. This could be due to how many times they have moved before and they may be keeping in mind that they may move again soon, so they do not move as fast romantically with the fear of potentially
leaving or not wanting to get too committed. Research has found that one of the most
difficult transitions when moving for adolescents is creating a new social network so it
may be that those who move frequently do not have as much opportunity to be in a
committed relationship as those who are not moving as often, thus resulting in healthier
relationship deciding scores (Perreault et al., 2020).

In addition to the number of times moved, whether the individuals’ needs have
been met with the moderation of relationship history also was associated with pacing
scores at pre-test. For those who had not been in a romantic relationship, whether their
needs were met strongly influenced their deciding scores with those who did not have
their needs met reporting low scores and those who did had all their needs met reporting
higher scores. Again, it is possible that those participants who had never dated reported
how they believe they would make decisions in romantic relationships, and this is
influenced by whether or not their needs are met. If their needs are not met, they may feel
that they would be more willing to move quicker in relationships to fulfill a desire to be
cared for while those who have all their needs met and have never dated before do not
have the same desire to move quickly or fill any void and may be more cautious.

However, those participants who had dated in the past were more likely to report
their real actions they had taken regarding deciding in the past and for those, it appears
that whether their needs were met did not influence how they made decisions in their past
or current relationships. This finding may imply that this specific area of the individuals’
external context does not have as strong of an influence on their ability to make decisions
when pacing relationships as other areas of their life, such as their internal context, in this
case, dating history (Boss, 2002).
The next interaction was between well-being and race on relationship deciding scores with both White and non-White participants having higher relationship deciding scores if their well-being was higher, which again supports the original hypothesis that those with higher well-being would have healthier relationship deciding scores. However, White participants had higher scores than those with the same level of well-being that are not white. Again, this aligns with the CMFS because their external context (demographics), influences their deciding scores (Boss, 2002). Those who were in the White group had larger increases in deciding for improved well-being than those in the non-white group. This also aligns with the theoretical model as it shows how the deciding scores change when considering another factor, in this case a resource, well-being (Boss, 2002). These findings show the importance of well-being for making decisions in relationships before ever participating in a relationship education course. Any student with higher well-being, White or non-White, had higher scores. However, those in the White group were still higher in relationship deciding overall. This could be due to other advantages that White individuals typically have over non-White individuals such as not having to deal with the same stresses and challenges such as discrimination and racism, potentially putting them ahead of the non-White group in relationship pacing scores regardless of their level of well-being (Hope et al., 2017; Marks et al., 2020).

Lastly, two main effects were found in research question one: gender and family structure. At pre-test, females had healthier deciding scores than males and participants in two parent family structures had healthier deciding scores than those from other family structures. The finding that females had healthier scores is not surprising as adolescent females have been found to have higher levels of relationship care and value when dating
in high school compared with males (Shulman & Scharf, 2000). The finding that youth from two parent family structures have healthier deciding scores is also not surprising as research has supported how other family structures such as families with single mothers or divorced parents have been associated with things such as increased dating frequency and risky sexual behavior when compared to two parent families (Cavanagh et al., 2008; Steele et al., 2020).

**Research Question Two**

The first three-way interaction found in research question two was between family structure, relationship history and well-being on change in relationship deciding scores from pre to posttest. These results do not support the original hypothesis that well-being would moderate improvement in relationship deciding scores in the positive direction. Although the resource of well-being did not moderate the relationship in the way hypothesized, it still served as an influence in changes in deciding scores from pre to posttest (Boss 2002). Individuals living with grandparents, with the lowest well-being, and who have dated, had the largest improvements. These results support that the class is effectively reaching those who need it. In general, individuals living with grandparents may have had to go through some length of family stress and have had more life challenges and instability than those in a two-parent family structure (Cox, 2003). When compared to other family structures, grandparents raising grandchildren are more likely to face issues such as poverty and increased stress within the family. In addition to living with grandparents, having lower well-being and a history of dating makes these individuals an important group to target in intervention. Overall, those with higher well-
being generally got less out of the class than those who had lower well-being within their same family structure group. This is likely because those individuals with higher well-being had less to get out of the class overall due to higher scores to begin with.

The second three-way interaction that was found in research question two was between well-being, relationship history and race. In general, higher well-being was associated with less improvement in the class regardless of race or relationship history. Again, this could be due to a ceiling effect—those with higher well-being having higher scores at pre-test. White participants who had dated had less improvement compared to those who had not dated and improvement declined as well-being increased for both groups. This effect was very similar for the non-White group but was a larger effect, for those who had not dated and had lower well-being improving the most and those who had not dated and had high well-being improving the least. Non-White participants who had dated improved more if they had lower well-being compared to higher well-being. This shows that while the external factor of race influences improvement on deciding scores, the strength of influence depends on the internal factor of whether they have ever dated or not as well as their level of well-being (Boss, 2002).

The only two-way interaction that was significant in research question two was between needs met and well-being on improvements in relationship deciding. For those who did not feel their needs were met, well-being had a much larger influence on their improvement in deciding from pre to posttest than those who did feel their needs were met with lower well-being being associated with more improvement. This could be because those individuals who do not have their needs being met and who also have lower well-being are the most susceptible to risk, and thus learn the most through the
class. Other studies on youth relationship education have similar findings supporting the idea that those who are the most susceptible to risk and need relationship education the most may get more out of it, thus having the largest improvements (Kerpelman et al., 2010; Ma et al., 2014). This again supports the idea that the class is effectively reaching those who need it most.

The finding that female participants, on average, improved more than males has also been supported in the literature in other relationship education content areas and classes (Sparks et al., 2012). Additionally, the fact that females also had healthier relationship deciding scores at pre-test also rules out a ceiling effect for male students. This suggests that participants who are female may get more out of relationship education courses and be more receptive of the concepts at this age than their male counterparts.

**Limitations**

There are several limitations that can be addressed in the current study. One limitation is the low reliability score of the relationship pacing measure. This was measured using a Cronbach’s alpha test and the reliability score was low at 0.6. Although the alpha score was low in our sample, the Relationship Deciding Scale (RDS) is an established measure and has been used in other studies (Venum & Fincham, 2011). Additionally, it has been argued that lower reliability scores are acceptable for emerging research such as this study (Lace et al., 2006). The alpha for the change scores was also low at 0.27. Low alphas for change scores and the continued use of change scores as dependent variables in regression analysis have also been argued to be justifiable (Allison, 1990). However, future research can improve by using a measure with higher
reliability. In addition to the low reliability, the RDS only measures one specific aspect of relationship pacing – decision making. In the survey given to students, other aspects of pacing as well as other parts of the PICK program, such as relationship knowledge, were measured. These measures were not included in the study due to participants rating those variables very highly at pretest, thus creating a potential ceiling effect. The decision-making aspect of relationship pacing was one of the few variables with an even distribution of scores by students at pre-test.

Without a retrospective post-test this study was not able to test for response shift bias. It is possible that students had a different perspective on the construct of relationship pacing after the relationship education course. Without measuring for response shift bias it cannot be concluded whether or not they may have reflected on what they knew about relationship pacing initially and reported different levels than they did in the actual pre-test. This leaves the potential for there to be a ceiling effect where those who answered with high scores at the pre-test did not report much change in scores even if they felt like they had learned more through the class.

Lastly, another significant limitation of the current study is the lack of diversity in the sample. Even after combining minority racial groups to create a more balanced sample, the White group was still much larger than the non-White group. Although this is representative of the region the sample was taken from, it still limits findings regarding race, especially the non-White group. Another limitation to note is that the grouping of Non-white races assumes some homogeneity of the different racial groups and this may not be the case. There are differences in the racial groups that cannot be identified when collapsing them into one group.
Implications for Practitioners and Future Research

The current study sought to examine how demographics, relationship history and well-being influenced relationship pacing as well as what individuals benefited most from a relationship education course. The Contextual Model of Family Stress was used as the lens for this study (Boss, 2002). This study was able to identify some specific groups based off these factors that got the most out of the PICK course in the area of relationship pacing. This is beneficial for practitioners who are implementing relationship education in youth. It is important that those who are teaching relationship education classes are aware that certain students may benefit more than others, so that they can use that information to effectively teach their students about healthy relationships. For example, the findings related to well-being show the importance of providing relationship education to youth who have lower well-being because they may benefit more than those with higher well-being. However, those with higher well-being still benefitted and are important to include in youth relationship education. Findings like this could benefit practitioners in being more aware of their audience and how they may be influenced by the PICK course.

Although this study provided some good insights on specific groups in this sample of youth that benefited more than others from the relationship education course, further research needs to be conducted to continue to identify for whom relationship education is the most effective and why. Future research should consider other internal and external factors that may influence how much youth benefit from relationship education (Boss, 2002). Research should also consider the role of other perceptions and
resources. Additionally, studies with more diverse samples and with increased measures of improvement in other areas are needed to better understand the nuances of how youth relationship education reaches certain groups and what factors influence what they learn.
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