

RELATIONSHIP QUALITY BEFORE, DURING, AND AFTER STEPFAMILY  
EDUCATION: A LATENT TRAJECTORY ANALYSIS

by

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In

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## ABSTRACT

Relationship Quality Before, During, and After Stepfamily Education: A  
Latent Trajectory Analysis

by

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Couple relationship quality is one of the most frequently studied concepts in the family relationships literature with higher-quality relationships associated with better physical and mental health as well as positive couple and child outcomes. Recognizing these important connections, a central goal of most couple relationship education (RE) programs is to strengthen and support relationship quality in program participants. While the impact of traditional RE programs is well-documented in the literature, there has been less attention paid to RE programs for stepfamily couples who face many additional challenges. These challenges may act as risk factors and limit couples' relationship quality. While past studies show ways in which the average couple's relationship quality trajectory changes over time, they often do not include stepfamily couples. Additionally, RE studies often do not include follow-up assessments beyond the duration of the RE program. Moreover, existing studies' focus on a population mean trajectory may

obfuscate differences in subpopulations. This study addresses both of those gaps in the literature by assessing the effects of a relationship education program for stepfamilies (Smart Steps) on relationship quality and assessing possible differential impacts across latent trajectory classes. Using a prevention science lens to view possible risk and protective factors for relationship quality, this study uses growth mixture modeling to determine the number of latent trajectory classes and then to assess the risk and protective factors associated with membership in each class. Class membership was predicted by commitment and parenting agreement levels for both men and women. Findings are discussed further and implications for both research and interventionists are outlined.

(129 pages)

## PUBLIC ABSTRACT

Relationship Quality Before, During, and After Stepfamily Education: A  
Latent Trajectory Analysis

Bryan K. Spuhler

The purpose of this study was to explore the trajectories of relationship quality for a sample of 777 adult participants attending the *Smart Steps: Embrace the Journey* stepfamily relationship education course. Rather than assume that all program participants had similar relationship quality trajectories by averaging their scores together in a growth curve analysis, growth mixture modeling was used to allow for a variety of sub-groups (classes), each with a unique trajectory. A prevention science approach was then taken to address possible predictors of each trajectory class in order to identify the risk and protective factors that influence participants' trajectories.

It was found that two relationship quality trajectory classes were present in the data for men; a "high and rising group" and a "mid and rising group." The two groups had similar increases in relationship quality over time but began at two different levels. The analysis on the women's data showed three groups: a "high and rising" and a "mid and rising" group similar to those found within the men's data, and a "low and falling" group who began at a rather low relationship quality level and reported declining levels over time.

Only a few variables emerged as risk and protective factors predicting trajectory class membership, and the results were consistent for both men and women. Members of

the high and rising class were more likely to report higher levels of commitment and agreement on parenting than those in the mid and rising class. For the women, members in the low and falling class were more likely to report low levels of commitment and parenting agreement. Class membership was not predicted by a number of demographic variables signifying that the course is effective within a wide range of participants. These findings support previous research on the effectiveness of stepfamily relationship education in promoting relationship quality within a wide array of stepfamily participants.

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## DEDICATION

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## **CHAPTER I**

### **INTRODUCTION**

Long-term couple relationships are an important goal for the vast majority of adults in America. A Gallup poll of over 2,000 adults across the U.S. found that 75% of respondents were either married or planned to be married someday while only 5% stated they had no desire to marry (Newport & Wilke, 2013). Given the prevalence of couple relationships, relationship scholars have been interested in assessing and understanding relationship quality since the earliest days of relationship research (Bradbury, Fincham, & Beach, 2000; Fincham & Beach, 2010; Hamilton, 1929; Locke & Wallace, 1959; Norton, 1983). As noted by Berscheid (1999), “There is nothing people consider more meaningful and essential to their mental and physical well-being than their close relationships with other people” (p. 260). While Berscheid’s comments were not specific to one relationship type, much of the research literature focuses specifically on the influence of high-quality romantic couple relationships on individuals and families.

Recognizing this influence, interventionists created relationship education (RE) courses to help strengthen and support couples’ relationship quality (Hawkins, Blanchard, Baldwin, & Fawcett, 2008; Hawkins, Carroll, Doherty, & Willoughby, 2004). While positive effects of RE programs on relationship quality is well established in the literature (Blanchard, Hawkins, Baldwin, & Fawcett, 2009; Hawkins et al., 2008; Hawkins & Fellows, 2011; Hawkins, Stanley, Blanchard, & Albright, 2012), less is known about the effects of RE programs on relationship quality within stepfamily couples who face unique challenges (Lucier-Greer & Adler-Baeder, 2012; Lucier-Greer, Adler-Baeder, Ketring,

Harcourt, & Smith, 2012). The present study is designed to add to the small body of stepfamily RE research by identifying relationship quality trajectories that may show differential changes in relationship quality related to participation in an RE intervention. Specifically, the aims of this study were to first examine possible differential effects in the form of latent trajectory classes, and then test possible predictors of those classes. Using a prevention science lens with a focus on strengthening protective factors while mitigating the impact of risk factors, this study is designed to identify potential risk and protective factors that shape differential programmatic effects on relationship quality trajectories.

### **Impacts of Relationship Quality**

Over the last several decades of research, relationship quality has been shown to have a significant effect on a number of important outcomes for individuals, the relationship dyad, and children within the family. When examining older adults' reflections on their relationship quality, for example, Carr, Freedman, Cornman, and Schwartz (2014) found that both husbands' and wives' reports of relationship quality were significantly and strongly correlated with overall life satisfaction and momentary happiness.

Relationship quality influences individuals beyond their emotional well-being. Waite and Gallagher (2000) reviewed several studies related to the effects of healthy couple relationships on a variety of outcomes and found benefits ranging from overall healthier lifestyles, to increased sexual satisfaction and healthier financial standing.



Evaluating the effect of relatively low relationship quality on health over time, Umberson, Williams, Powers, Liu, and Needham (2006) found that relationship strain was associated with an acceleration in health declines over the life course. Similarly, in their meta-analysis of 126 studies covering more than 72,000 respondents, Robles, Slatcher, Trombello, and McGinn (2014) reported that relatively greater relationship quality was related to better overall health, with mean effect sizes ranging from  $r = .07$  to  $.21$ . They noted that these effect sizes were similar in magnitude to those found in medical studies of the effects of diet and exercise on overall health. Due to the variety of outcomes across the included studies, Robles and colleagues were cautious about highlighting specific health benefits from higher levels of relationship quality, but they did note a lower risk of mortality, and lower cardiovascular reactivity as benefits that emerged from their meta-analysis. Taken together, these benefits highlight the importance of relationship quality and the potential value of RE interventions designed to bolster couple relationship quality.

A couple's relationship quality has been found to have effects that reach beyond the couple dyad as well. Evaluations of the effects of couples' relationship quality on their children have been documented within the family literature for decades (Cummings & Davies, 2002; El-Sheikh & Elmore-Staton, 2004; Linville et al., 2010). In their review of the literature, Cummings and Davies noted that couple relationship conflict contributes to declines in children's cognitive, social, academic, and psychobiological functioning. Linville et al. analyzed longitudinal data and found that couple relationship quality directly predicted behavior problems in their children over time. A meta-analysis by

Rhoades (2008) looked at the results of 71 studies addressing interparental conflicts (IPC) and child outcomes. They found small to moderate effect sizes ( $r = .18 - .38, p < .001$ ) for the associations between children's cognitions (self-blame or fear about their parents' IPC) and a variety of negative outcomes including internalizing and externalizing behavior problems, self-esteem, and relational problems. The effects of couple relationship quality on children adds a compelling argument for the need for interventions such as RE programs addressing relationship quality.

### **Relationship Quality Contributors**

Given the effects that a couple's relationship quality can have on them and their children, researchers have sought to identify key factors that may influence relationship quality as a means to better understand the concept (Amato & Rogers, 1997; Fincham & Beach, 2010). Interventionists have devised educational interventions that target these factors in order to strengthen relationship quality. Published studies from the last few decades have identified a number of factors that may affect relationship quality, including both couple-level processes and contextual factors. Couple processes tied to relationship quality in the literature include communication and commitment (Stanley, Markman, & Whitton, 2002), sexual satisfaction (Yeh, Lorenz, Wickrama, Conger, & Elder, 2006), empathy and forgiveness (Fincham, Stanley, & Beach, 2007), and role expectations (Wilcox & Nock, 2006) to name a few. Sociodemographic factors influencing relationship quality may include socioeconomic status (Conger, Conger, & Martin, 2010), prior relationships (Collins, Welsh, & Furman, 2009; Tach & Halpern-Meehin, 2009),

family-of-origin dynamics (Whitton, Waldinger, et al., 2008), and the transition to parenthood (Lawrence, Rothman, Cobb, Rothman, & Bradbury, 2008) among others. While not exhaustive, this list illustrates the diversity of risk and protective factors that can shape relationship quality in traditional couples. These factors may serve as protective or risk factors within stepfamily couples as well.

### **Relationship Quality Trajectories**

As noted by Berscheid (1999), relationships are inherently temporal rather than static. Consequently, relationship quality is a dynamic construct that can fluctuate over time. Accordingly, researchers have been interested in assessing relationship quality trajectories as relationships progress. By viewing relationship quality longitudinally, researchers can gain descriptive insights as well as evidence of the effects of events or interventions on couple's relationship quality (Bruce, 2012; Lawrence et al., 2008; Proulx, Helms, & Buehler, 2007; Reck, 2013; Umberson, Williams, Powers, Chen, & Campbell, 2005; VanLaningham, Johnson, & Amato, 2001). Prior studies on relationship quality trajectories have noted a consistent series of findings. Absent other forces, relationship quality tends to start high in newly married couples and then gradually decreases over time (Umberson et al., 2005; VanLaningham et al., 2001). Additionally, there is evidence of a decline in relationship quality for both mothers and fathers associated with the transition to parenthood (Lawrence et al., 2008). While it is interesting to note overall trends in these trajectories, these studies are limited in two ways: First, they are limited in their scope, as they use data from only first-time

marriages leaving out cohabiting couples and couples in stepfamilies. Second, they are limited in their interpretation, as they focus on the population mean over time. This focus on the population mean over time does not allow for the potential presence of relationship quality trajectories among subpopulations (Anderson, Van Ryzin, & Doherty, 2010; Bauer & Shanahan, 2007; Padilla-Walker, Son, & Nelson, 2017). Noting this limitation, Anderson et al. focused on identifying these subpopulations and found five distinct trajectories of marital happiness among continuously married individuals. Specifically, they found evidence of two high and stable trajectories (one slightly higher than the other), a U-shaped curvilinear trajectory, a low and stable trajectory, and a low and falling trajectory. Accordingly, there is a need for similar nuanced analyses of relationship quality trajectories among couples in stepfamilies allowing for different trajectories among subpopulations.

Relationship education interventions are primarily concerned with improving the couple relationship quality by teaching relationship knowledge and skills to program participants (Hawkins, 2009; Hawkins et al., 2004; Hawkins & Fellows, 2011). Oftentimes, interventionists gather relationship quality data before and after their programs to then determine if program attendance was associated with an increase in relationship quality across the two time points (Hawkins et al., 2008; Hawkins & Fellows, 2011). Overall, these programs have largely resulted in statistically significant gains in relationship quality with small to moderate pre-posttest effect sizes (Hawkins et al., 2008; Hawkins & Erickson, 2015; Hawkins & Fackrell, 2010; Hawkins & Fellows, 2011). But many of these studies did not collect data past the posttest and therefore

cannot speak to the longevity of any gains made from pre to posttest. Follow-up data are needed to allow researchers to model relationship quality trajectories beyond the RE course duration and assess what happens to potential gains made through RE program participation (Hawkins et al., 2008; Hawkins & Erickson, 2015; Hawkins & Fackrell, 2010). The present study will use data from three time points (pre, post, and following a booster session) to describe latent relationship quality trajectories within a sample of couples attending a stepfamily RE course.

### **Relationship Quality in Stepfamily Couples**

The complexity of describing relationship trajectories is compounded in stepfamily couples and may present additional challenges for RE researchers. In traditional couple relationships, the relationship predates the arrival of children, which may help to explain the higher relationship quality scores early in the relationship and their subsequent decline with the arrival of children (Lawrence et al., 2008). In stepfamily couples this order of events is reversed with a child or children from at least one partner present prior to the formation of the couple relationship (Kang, Ganong, Russell, & Coleman, 2016). Consequently, in remarriages, couple challenges are faced alongside challenges unique to stepfamilies such as navigating stepparent roles, balancing interactions including co-parenting with ex-partners, and complex financial arrangements involving alimony and/or child support payments into and/or out of the household (Robertson et al., 2006; Teachman, 2008). This presents an interesting question regarding the relationship quality trajectory within stepfamilies. Studies of relationship quality

trajectories within the stepfamily context are relatively rare and often centered around participation in an RE intervention (Bruce, 2012; Lucier-Greer, Adler-Baeder, Harcourt, & Gregson, 2014; Reck, 2013). This makes it difficult to speak of definitive “trends” in stepfamily couple relationship quality trajectories. As described earlier, much is known about the contributors to relationship quality within first-time marriages, but less is known about risk and protective factors for relationship quality within stepfamily couples. Even less is known about how those factors may play a role in shaping relationship quality trajectories of participants in RE programs. Accordingly, using the method of identifying latent trajectory classes described by Tofghi and Enders (2008), the present study is designed to identify trajectories that may show differential changes in relationship quality related to participation in an RE intervention.

### **Purpose of the Study**

This study has two aims. First, it examines the relationship quality trajectories of stepfamily couples participating in a stepfamily RE course to assess the presence of differential impact in the form of subpopulations with differing trajectories. Second, utilizing a prevention science framework (Coie, Miller-Johnson, & Bagwell, 2000), it examines those differing trajectories using a series of potential covariates in order to identify individual and couple-level risk and protective factors that predict trajectory membership. This study is designed to look beyond the initial question of whether participation in an RE program impacts participants’ reports of relationship quality toward a more nuanced evaluation of whether differential impacts are present, and, if so,

which risk and protective factors shape those differential impacts. With a focus on the relationship quality of couples in stepfamilies, this study is designed to empirically determine if there are differential impacts among participants in the *Smart Steps: Embrace the Journey* (hereafter *Smart Steps*) program. Separate trajectory classes present in the data merit further analyses to identify the risk and protective factors that predict membership in those classes. With these risk and protective factors identified, researchers and RE interventionists may address whether and how their program could be modified to better support protective factors and minimize the effects of risk factors for stepfamily RE participants.

## CHAPTER II

### LITERATURE REVIEW

RE has become a widely available preventative intervention (Hawkins, Amato, & Kinghorn, 2013). Over the last two decades, RE has gained growing support in both funding and research and has serviced a wide range of participants including a large number of distressed couples (Bradford, Hawkins, & Acker, 2015; Hawkins & VanDenBerghe, 2014). Meta-analytic evidence shows that RE is effective in helping some individuals develop knowledge and skills related to healthier relationship pacing and beliefs (Simpson, Leonhardt, & Hawkins, 2018) and many couples develop healthy relationship knowledge, attitudes, and communication and conflict resolution skills (Hawkins et al., 2008; Hawkins & Fackrell, 2010; Hawkins & Fellows, 2011; Simpson et al., 2018). As RE becomes more widely disseminated, there are now developmental variants such as RE for individuals, couples, parents, and specific to this study, stepfamilies. Meta-analytic evidence shows that stepfamily RE is largely effective (Lucier-Greer & Adler-Baeder, 2012). *Smart Steps* (Adler-Baeder, 2007) is one-such program that provides research-based information to both couples and their children. However, past evaluations of the curriculum have focused primarily on mean impact across all participants (Reck, 2013). This approach, while effective in viewing overall programmatic impact, may overlook important differences among potentially different groups of participants; moreover, focusing on single mean differences does not allow identification of sub-groups of participants who may experience differential impacts (Li, Duncan, Duncan, & Acock, 2001). Using sophisticated statistical techniques such as



latent trajectory analysis (a.k.a. latent class growth analysis), scholars are able to look beyond assumptions of a single population mean and examine whether interventions have differential effects on sub-populations of program participants. The purpose of this study is to identify latent trajectories of relationship quality as well as predictors of those trajectories within *Smart Steps* program participants.

### **Prevention Science**

This study is influenced and informed by a form of research called “prevention science.” Coie et al. (1993) coined the term prevention science to describe the efforts of interventionists to reduce or eliminate human dysfunction by identifying and addressing precursors of dysfunction. Prevention science provides a simple, yet strong framework upon which RE scholars and interventionists might build. At its core, prevention science theory looks to the interplay between risk and protective factors in order to describe the role of dysfunction in shaping outcomes. Risk factors are variables that increase the likelihood of negative outcomes; risk factors typically increase the occurrence, duration, or intensity of dysfunction. Individuals are often subject to multiple risk factors that have a cumulative effect on their likelihood of dysfunction (Dannefer, 2003). Conversely, protective factors are the variables that increase the resistance to risk factors thereby buffering or mitigating dysfunction (Coie et al., 1993). Within this framework, there is a need to identify risk factors before there are signs of dysfunction and then strengthen protective factors in order to minimize the likelihood of later dysfunction.

As justification for the application of prevention science, Coie et al. (2000) offer

three arguments. (1) Given the prevalence of disorder and the perpetual lack of resources to effectively treat all individuals, society has a responsibility to prevent disorders whenever possible. (2) If effective preventative strategies can be developed, they will likely be more cost effective than treatment efforts. (3) The value of preventing human suffering from disorder should outweigh concerns over the cost of preventative efforts. While Coie et al.'s arguments were focused on preventing psychological disorders, they have since been used to justify efforts to prevent a range of societal ills including bullying, violence, adolescent delinquency, and drug/alcohol abuse (Aronson, 2006; Ferrans, Selman, & Feigenberg, 2012; Gorman-Smith, 2012). The present study extends these arguments to the justification of relationship education as a means of preventing relationship dysfunction within couples in stepfamilies.

Coie et al.'s (1993) viewed prevention as a research-based activity that includes, among other empirical inquiries, methodical evaluation of community-implemented programs. Coie et al. stated that prevention science is shaped by two goals: (1) cultivating the knowledge needed to better understand risk and (2) developing and evaluating interventions to influence those factors (Carroll & Doherty, 2003; Coie et al., 1993). As noted by Fox and Shriner (2014), the goals of prevention science mirror those of relationship education, namely reducing risk factors related to relationship dysfunction while developing and supporting protective factors that support relationship satisfaction (Markman, Rhoades, Stanley, Ragan, & Whitton, 2010; Stanley & Markman, 1997). Accordingly, the present study has two goals: (1) to examine differential impact of the *Smart Steps* stepfamily relationship education program within a sample of stepfamily

couples; and (2) to identify potential predictors of those differences (potential risk and protective factors).

### **Stepfamily Context: Stepfamilies in the United States**

RE programs have increasingly been adapted to the developmental needs of participants, including stepfamilies (Lucier-Greer & Adler-Baeder, 2012; Lucier-Greer et al., 2012). Stepfamilies are diverse, but by definition consist of a family wherein one or both married or cohabiting partners have at least one child from a prior relationship (Kang et al., 2016). While the majority of marriages in the U.S. are first-time marriages for both spouses (Lewis & Kreider, 2015), Geiger and Livingston (2018) reported that in 2013, 40% of new marriages were remarriages for at least one spouse, and 20% were remarriages for both spouses. In their analysis of data from the American Community Survey, Lewis and Kreider found the prevalence of remarriage varies by race, education, employment status, socioeconomic status, and geographic location. More specifically, they found that remarriage rates were higher in non-Hispanic Caucasian men and women than in other racial/Ethnic groups, higher among lower SES and educational groups, and higher in the Southern and Western United States. Challenges typical to stepfamilies have drawn the attention of relationship interventionists interested in assisting this diverse and growing family form.

### **Stepfamily Risk Factors**

Despite their increasing prevalence in the U.S., stepfamilies continue to face unique challenges in addition to the relationship challenges common to most couples

(Adler-Baeder & Higginbotham, 2004). As stepfamily couples are more prone to dissolution than their first-marriage peers (Adler-Baeder, Robertson, & Schramm, 2010; Sweeney, 2010), prevention science considers those factors unique to these families as potential “risk factors.” Those unique challenges can range from financial complications, including alimony/child support payments, to role ambiguity in stepparent-stepchild relationships. These risk factors inherent to stepfamilies have been found to contribute to higher rates of relationship instability within stepcouples (Adler-Baeder & Higginbotham, 2004; Adler-Baeder et al., 2010; Coleman, Ganong, & Fine, 2000; Gold, 2009; Visher & Visher, 1985). According to nationally representative data, roughly half of men and women who remarried following a divorce do so within 4 years (Kreider & Ellis, 2011). This chronological proximity to the divorce makes it likely that children will still be in the home, which adds a layer of complexity to the remarriage. The demands of balancing relationships with prior spouses and developing relationships with new stepchildren often leave stepcouples with relatively little time or energy to focus on their couple relationship, placing further strain on the stepfamily as a whole (Visher & Visher, 2013). Additionally, the boundaries in stepfamilies are often less clear than in intact families as many children are frequently moving from custodial to non-custodial parent’s homes and adapting to the changing circumstances of each parents’ living arrangements and relationship status (Dunn, 2002; Stewart, 2005).

### **Family Complexity**

Several unique aspects of stepfamilies set them apart in complexity from traditional families. The presence of at least one child from a prior relationship often

means there is also a parent outside of the couple dyad who continues to have interactions with the stepfamily. When both spouses have children from prior relationships, this effect may be compounded. Prior research has classified stepfamilies into “simple” and “complex” stepfamilies in order to examine the role of complexity in shaping couple and family outcomes (Bruce, 2012; O’Connor & Insabella, 1999). Under this schema, “simple” stepfamilies are those where only one partner has a child (or children) from a previous relationship while “complex” denotes those stepfamilies where both partners bring children into the relationship. Past research has consistently reported that couples from complex stepfamilies report lower levels of relationship quality/satisfaction and stability (Clingempeel, 1981; Clingempeel & Brand, 1985; Downs, 2004; Stewart, 2005). A meta-analysis of four studies also found that partners in simple stepfamilies reported higher relationship satisfaction than those in complex stepfamilies (Vemer, Coleman, Ganong, & Cooper, 1989).

The relationship between family complexity and relationship quality may be shaped by a variety of factors. Schultz, Schultz, and Olsen (1991) measured agreement among stepcouples on variables ranging from parenting to communication and conflict resolution. They found relatively higher levels of agreement among those couples in simple stepfamilies compared to their peers in complex stepfamilies. Longitudinal research by O’Connor and Insabella (1999) found that wives in complex stepfamilies were more likely to report contemplating separation and more likely to divorce than their peers in simple stepfamilies or first-married families. Downs (2004) reported that complex stepfamilies may experience lower commitment due to the higher levels of role

uncertainty related to their complexity. Additionally, recent analyses by Bruce (2012) found that stepfamily complexity was predictive of lower stability and relationship satisfaction over a period of 2.5 years.

### **Socioeconomic Status**

Financial strain has been associated with greater marital instability and relationship dissolution (Cherlin, 2009; Conger et al., 1990; Sassler, 2010), and increased levels of negativity and criticism (Williamson, Karney, & Bradbury, 2013). While the methods of conceptualizing and measuring socioeconomic status (SES) vary from study to study, research has consistently highlighted the important contextual role that SES can play in shaping family experiences and outcomes. To address the potential effect that lower SES can have on family outcomes, RE programming targeting low-income families has increased over the last decade (Cowan & Cowan, 2014; Hawkins & Erickson, 2015). Although recent studies suggest that RE programs are effective within low-income populations at lowering relationship distress (Hsueh et al., 2012), reducing negative communication (Einhorn, 2010), and improving relationship quality and communication (Hawkins & Erickson, 2015; Hawkins & Fackrell, 2010), concerns remain that these programs do not inoculate low-income couples against the challenges associated with lower SES (Hawkins & Fackrell, 2010). Within stepfamilies, low SES can be particularly difficult as stepfamilies typically experience a redistribution of resources after a divorce/breakup, often followed by a subsequent (re-)partnering, which then places further economic strain on the new relationship (Crosbie-Burnett, 1989; Meyer & Cancian, 2012). Finally, new financial circumstances can potentially limit eligibility for

welfare assistance such as Temporary Assistance for Needy Families (TANF; Cancian, Meyer, & Caspar, 2008).

### **Instability**

Stepfamily relationships are more prone to dissolution than first-time marriages. Studies over the last few decades have consistently found higher rates of marital dissolution among higher order marriages and couples in stepfamilies (Booth & Edwards, 1992; Bumpass & Raley, 2007; Coleman et al., 2000; Slattery, Bruce, Halford, & Nicholson, 2011). One longitudinal study found that being in a stepfamily was a significant predictor of lower relationship satisfaction and higher marital dissolution rates in the first 4 years of marriage compared to first-time marriages during the same time period (Bruce, 2012).

O'Connor et al. (1999) highlight the roles that risk factors can play in stepfamily dissolution. They found that the risk factors that explained the increased rate of dissolution in British stepfamilies were largely those factors that existed prior to the formation of the stepfamily such as younger age at union formation, lower educational attainment, lower SES, and the number of previous relationships. Accordingly, the present study includes such variables in the model as potential predictors of stepfamily relationship quality trajectories.

### **Commitment**

Commitment has long been recognized as an important contributor to the quality and stability of the spousal relationship. While definitions have varied across studies,

Stanley, Rhoades, and Whitton (2010) noted that commitment is generally defined as “the intention to maintain a relationship over time” (p. 243). A frequently studied contributor to relationship quality, higher levels of commitment have been related to lower likelihood of divorce, lower monitoring of relationship alternatives, higher relationship satisfaction, and even higher rates of wealth accumulation (Stanley & Markman, 1992; Stanley et al., 2002, 2010; Treas, 1993). Within stepfamilies, commitment continues to play an important role in shaping couple functioning. Amato and DeBoer (2001) described how commitment or a lack of it could strongly shape the relationship outcomes of couples facing challenges. They argued that those with low levels of commitment to marriage may see relationship problems as barriers to a successful union and may therefore exit the relationship rather than attempt to resolve the problems. Those with high levels of commitment to marriage, however, may see problems as challenges to overcome as they remain optimistic about the likelihood of relationship improvements in the future. Empirical findings support their assertion that higher commitment is a protective factor while lower commitment is a risk factor in the relationship. In a survey of over 2,300 adults from the state of Oklahoma, Johnson et al. (2002) noted that 85% of divorced respondents cited a lack of commitment as a primary reason for their divorce. These findings were echoed in Scott, Rhoades, Stanley, Allen, and Markman’s (2013) study on divorced individuals. In that study, over 94% of divorced couples had at least one partner cite a lack of commitment as a major reason for their divorce. In their discussion of transformative processes within relationships, Fincham et al. (2007) note that high commitment is a strong protective factor as it not only helps the committed partner



weather tough times in the relationship, but also interrupts the tit-for-tat escalation that can exacerbate small issues in strained relationships to the point where they become toxic. Accordingly, commitment has been recognized as an important component of RE efforts over the last few decades (Halford, Moore, Wilson, Farrugia, & Dyer, 2004; Markman & Rhoades, 2012; Markman, Stanley, Jenkins, Petrella, & Wadsworth, 2006). Unfortunately, while commitment is often measured as part of RE program assessments, it is generally not used as an outcome variable so programmatic effects on commitment are rarely reported (Hawkins et al., 2012).

### **Other Covariates**

In studies that have addressed relationship quality over time, common demographic variables are often tested to determine if there are differential effects on relationship quality by gender, race/ethnicity, age, etc. (Bruce, 2012; Jackson, Miller, Oka, & Henry, 2014; Reck, 2013). When differential effects by demographic variables are found in these studies, it can point to underlying differences between population groups, or to differential impacts of programming in program evaluation studies. When no differences are found, effect sizes are assumed to be valid across most participants.

The aforementioned studies do not provide a consistent answer as to which demographic variables may be tied to differential relationship quality. In her analysis of relationship quality over time, Reck (2013) looked at differential impacts by gender, ethnicity, education, income, and marital status. Her analyses found only slightly higher levels of marital quality in males at each time point (.12 higher on a 7-point scale) and slightly lower levels ( $B = -.02$ ) of relationship quality with each increase in income level.

No other covariates emerged as significant in that analysis. Noting the oft-held belief and often-reported result that females experience lower relationship quality/satisfaction (Stevenson & Wolfers, 2009; Umberson et al., 2006), in their meta-analysis of 226 independent samples of respondents, Jackson et al. (2014) found no significant gender differences in relationship satisfaction within nonclinical populations. Similarly, Carr et al. (2014) found no gendered differences in relationship quality and its effect on life satisfaction and momentary happiness among elderly participants reflecting on their relationship and life. Finally, a relationship quality trajectory analysis by Bruce (2012) also found no relationship quality differences by gender. Because the extant literature is split on the matter, the present study examines potential gendered differences in relationship quality trajectories among couples in stepfamilies.

### **Relationship Education**

Most RE programs are designed to increase knowledge and build skills within the population they serve (i.e., singles, newlyweds, stepfamilies, etc.) in order to prevent or overcome relationship difficulties. These educational programs have a long history in the U.S. with some of the earliest programs dating back to the 1800s (Duncan & Goddard, 2016). However, it was not until the early 2000s that RE programs began to grow with the support of significant government funding into the diverse field of programs that have been available to couples, singles, and families over the last two decades. During this time, the U.S. Department of Health and Human Services through the Administration for Children and Families (ACF) has allocated funding for educational efforts designed to

support youth and adults in creating and maintaining healthy relationships (Dion & Hawkins, 2008; Hawkins & VanDenBerghe, 2014). In 2005, TANF program began offering direct funding in the form of grants to community agencies to provide free RE programs to lower income and less educated couples and individuals (Hawkins & VanDenBerghe, 2014). This infusion of funding shifted the role of RE from a tool for couples who may feel their relationship needs some work to a social policy initiative aimed at improving lives through strengthening families (Bradford et al., 2015).

The increase in funding led to an increase in RE program offerings across the U.S. as well as a more diverse array of RE programs with curricula tailored for specific audiences (Hawkins et al., 2013; Hawkins & Ooms, 2012; Lucier-Greer & Adler-Baeder, 2012). This expansion in program offerings has also sparked discussion as to the effectiveness of these programs and their relative value in light of their cost (Hawkins, 2014; Hawkins et al., 2013; M. D. Johnson, 2014). Central to this discussion is the need for further evaluation of the effectiveness of RE programs. The present study helps answer that call by adding to the body of RE impact research.

### **Effectiveness**

Consistent with the goals of prevention science, the expansion of RE over the last two decades has prompted an interest in measuring and improving the effectiveness of these programs (Bradford et al., 2015). There have been a series of meta-analyses over the years beginning with the seminal work of Giblin, Sprenkle, and Sheehan (1985). In their meta-analysis they found a mean effect size of  $d = .44$  (ranging between .007 and .96) across 85 RE studies. Their findings thus indicate that, on average, RE participants

benefit from their time in an RE program. The meta-analysis of Reardon-Anderson, Stagner, Macomber, and Murray (2005) further strengthened the evidence of RE effectiveness by reviewing 39 program evaluations. For this analysis, they specifically selected studies that were more rigorous in their methodologies with either a treatment and control group design, or a quasi-experimental design. Reardon-Anderson et al. focused specifically on two outcome variables: relationship satisfaction and communication. They found an overall effect size of  $d = .68$  for relationship satisfaction and communication.

While the Rearden-Anderson et al. (2005) analysis highlighted the empirical findings of methodologically rigorous studies, it was also limited in the number of studies it included ( $N = 39$ ) due to the lack of studies with such rigorous standards. This left open the question as to the effectiveness of programs with relatively less-rigorous methodological designs. Hawkins et al. (2008) examined the impact of RE more inclusively with their meta-analysis of 500 effect sizes from 117 studies. With results organized by methodology, dosage, and publication status, Hawkins et al. reported the effect sizes for relationship quality and communication in a more nuanced way by grouping studies according to study design. They calculated that within studies with an experimental design, relationship quality effect sizes ranged from  $d = .30 - .36$  and communication effect sizes ranged from  $d = .43 - .45$ . Studies with a quasi-experimental design yielded smaller effect sizes, but the researchers believed the differences were due to pretest group differences and should not be interpreted as a reflection of program effectiveness (Hawkins et al., 2008).

There have been a number of meta-analyses in the RE evaluation research since Hawkins et al.'s (2008) seminal work, with recent analyses becoming more targeted in their focus. Fawcett, Hawkins, Blanchard, and Carroll (2010) looked specifically at premarital RE programs and in their analysis of 47 studies found no evidence of program effectiveness on relationship quality, but significant improvements in couples' communication ( $d = .454 - .539$ ). Hawkins and Erickson (2015) focused on RE programs designed for low-income couples. Their analysis of 38 studies found small-to-moderate overall effect sizes for relationship quality, commitment, and communication skills across both control-group and one group/pre-post studies ( $d = .061$  and  $.352$ , respectively). These are similar to those found within middle-income studies suggesting that RE programs can be effective within low-income populations as well as those more financially stable. Finally, a meta-analytic study by Pinquart and Teubert (2010) looked beyond financial challenges at another possible risk factor and focused specifically on the effectiveness of RE programs designed for couples during the transition to parenthood. They found modest overall effects on couple communication ( $d = .28$ ) and smaller effects on psychological well-being ( $d = .21$ ) and couple adjustment ( $d = .09$ ). Results like this, the meta-analyses outlined above, and other targeted RE program analyses like those performed by Lucier-Greer and Adler-Baeder (2012) highlight the effectiveness of RE programs tailored to the unique risk factors of specific populations.

### **Relationship Outcomes**

Since its earliest incarnations, RE has been primarily a skills-focused endeavor with programs designed to help couples and individuals improve their communication

skills, improve their commitment, and improve their relationship quality (Hawkins et al., 2004). Relationship quality has gained particular attention as it represents one of the most centrally important influencers of individual and family functioning (Bradbury et al., 2000). With nearly 90 years of research on relationship quality having taken place since some of the earliest measures of the construct were created in 1929 (Locke & Wallace, 1959), there have been countless factors shown to influence relationship quality outcomes across a range of measurement tools. Consequently, the conceptual definitions of this concept have varied considerably (Bradbury et al., 2000). Relationship quality often seems to be defined idiosyncratically by each study that measures it as an outcome variable. Part of the difficulty in defining this concept was discussed by Bradbury et al. in their review of a decade of research on the subject. They noted that relationships do not take place in a vacuum, but are influenced by both the microcontext (influencers specific to the dyad such as children, health, life transitions, etc.) and macrocontext (influencers outside the dyad like economic factors, social and political climates, etc.) in which they exist. This translates into myriad contextual factors that can influence the relationship. The birth of a child, the number of children, the ages of the children, the neighborhood in which the family lives, the political and economic environment, and the influence of extended family and friends are just a small sample of the factors that can affect a couple's relationship quality (Bradbury et al., 2000). Attempting to account for and control for such a broad range of contextual factors would be nearly impossible without prohibitively long measures and data sets of more participants than can be reasonably gathered. Accordingly, this study is limited to those contextual factors that are most

likely to affect relationship quality.

### **Stepfamily Context**

Stepfamilies can be quite complex and face some unique microcontext and macrocontext challenges in addition to those faced by their first-marriage peers. Recognizing that traditional RE efforts may not address all of those unique needs, researchers created RE programs designed to support and promote relationship quality within complex families (Lucier-Greer & Adler-Baeder, 2012). Meta-analyses completed within the last decade report encouraging evidence that stepfamily RE programs are largely effective. Whitton, Nicholson, and Markman (2008) were among the earliest scholars to meta-analytically examine RE for stepfamilies. In their analysis of 20 studies, they noted several methodological shortcomings. While they still concluded that there was sufficient “preliminary” evidence to suggest that stepfamily RE programs are effective, the researchers called for additional evaluations of programs including more methodologically rigorous studies with larger samples, control or comparison groups, more use of verified measures, and longitudinal studies able to follow change over time, as well as more focus on couple-level processes and outcomes.

Further evidence of the effectiveness of RE for stepfamilies can be found within the literature. A meta-analysis conducted by Lucier-Greer and Adler-Baeder (2012) looked at family functioning, parenting, and couple-level outcomes across 14 stepfamily RE programs. They found consistent, albeit modest, effects for individuals ( $d = .20$  to  $.23$ ) across both comparison-group and one-group/pre-post programs. Germane to this study, they found less evidence of stepfamily RE’s effectiveness on couple outcomes

compared to family functioning and parenting outcomes (range  $d = .20 - .35$ ). They noted that this may not be due to lack of program impact, but rather may be due to a lack of longitudinal studies that examine how family functioning and parenting affect the couple over time. The researchers highlighted the need for further investigation and evaluation noting the iterative nature of evaluation and the need for increased understanding of both broad effects and specific processes within and across stepfamily types.

One study looked closely at the potential differential impact of stepfamily RE across stepfamily types. Lucier-Greer et al. (2012) compared stepfamily RE outcomes across stepfamilies of different types (one spouse remarried, and both spouses remarried). They found that couples of both types reported similar benefits from stepfamily RE participation. Their study answered the call in Lucier-Greer and Adler-Baeder's (2012) meta-analysis for more in-depth analyses of longitudinal outcomes and interactions within demographic variables (gender, age race/ethnicity, number of children, income, relationship history, and time in relationship at the point of the RE course). The present study is designed to further answer that call by analyzing changes in relationship satisfaction during and after a stepfamily relationship education course.

### **Program Description**

The *Smart Steps* program is a 12-hour curriculum offered in six, 2-hour sessions over a period of six weeks. *Smart Steps* is a research-based, stepfamily education curriculum designed to assist stepfamilies in overcoming some of the unique challenges they face (Adler-Baeder, 2007). The course includes discussions of legal and financial



issues, communication and conflict management, expectation management, emotional identification/regulation, step-parenting and co-parenting strategies, and strengthening the couple relationship (Vaterlaus, Allgood, & Higginbotham, 2012). In addition to separate instruction and activities for children and adults, at the end of each session, participant's families complete family strengthening activities.

### **Reach and Effectiveness of the *Smart Steps* Program**

A number of prior studies have addressed the effectiveness of the *Smart Steps* stepfamily relationship education curriculum and found it to be an effective tool in strengthening couples in stepfamilies by supporting relationship quality, individual empowerment, parenting efficacy, commitment, and spousal agreement (Higginbotham & Skogrand, 2010; Lucier-Greer et al., 2014; Reck, 2013; Skogrand, Davis, & Higginbotham, 2011). A longitudinal analysis of stepfamilies in the *Smart Steps* program found modest improvements in relationship quality and commitment, and slight decreases in relationship instability longitudinally up to a year after program participation (Reck, 2013).

The study by Reck (2013) included multi-level hierarchical analyses and was among the first to address longitudinal changes in stepfamily couple relationship quality over time. However, by focusing on mean changes, it was not designed to address the question of differential impact. As conventional analyses assume one population with a slope and intercept centered around the population mean, they do not account for the presence of subpopulations with their own slopes and intercepts (Boscardin, Muthén,

Francis, & Baker, 2008). Noting this limitation to conventional analyses, Bruce (2012) addressed relationship quality over time within stepfamilies, and also examined latent trajectories over time rather than an overall population mean. Bruce found two distinct relationship satisfaction trajectories within the data. One class experienced a significant decline in relationship satisfaction over the course of four years, while the other demonstrated no significant change in linear slope over time. The study was done within a population of Australian stepcouples and was not centered around a relationship education program (Bruce, 2012). The present study builds upon these studies and the broader stepfamily literature by using a prevention science lens to view pre, post, and follow-up assessment data from participants in a stepfamily RE program. By assessing the number and shape of latent relationship quality trajectories and the predictors of those trajectories (risk and protective factors) this study provides a more nuanced understanding of the effect of the *Smart Steps* program on participants' relationship quality.

### **Study Aims and Hypotheses**

1. Identify latent trajectories of relationship satisfaction over time for participants in a stepfamily relationship education course.

*Hypothesis 1.* Similar to the findings in Bruce (2012), growth mixture modeling analyses will reveal more than one latent relationship quality trajectory present within the data.

2. Assess predictors of class membership in the trajectory classes in order to highlight protective and risk factors present within participant families.

*Hypothesis 2.* Membership in each identified latent trajectory class will be significantly associated with one or more covariate variables in the model and not due solely to chance.

## CHAPTER III

### METHOD

#### Participants

Data for this study were gathered under funding from two federally-funded Healthy Marriage Demonstration grants: Grant No. 90FE0129; “Teaching Healthy Marriage Skills to Ethnically Diverse, Low-Income Couples in Stepfamilies” and Grant No. 90YD0227; “Teaching Healthy Marriage Skills to Low-Income, Hispanic Couples in Stepfamilies.” Participants were recruited from families who chose to attend *Smart Steps* (Adler-Baeder, 2007), offered in a western state. Program classes were offered free of charge at 12 family-service agency locations in both urban and rural areas across the state. Recruitment efforts included individual referrals and invitations to known clientele as well as newspaper advertising and billboards statewide. The present study included data from adult participants in the *Smart Steps* program offered between February 2007 and September 2011. During that time, a total of 3,186 adults and 2,448 children participated in the program. Program participants completed voluntary surveys in order to assess relationship skills, attitudes, characteristics, and understanding of course-related concepts. To protect participant confidentiality, surveys were placed and sealed in individual envelopes, which were gathered by facilitators and mailed unopened to the data entry team. A total of 3,044 adults completed the voluntary survey during the first class session.

Because the current study was focused on trajectories of relationship education

over the course of the program and through a booster session (an additional class session held six weeks after the course concluded), only the data from those participants who provided complete responses within the relationship quality variable across all three time points (pretest, posttest, and booster/follow-up) were used ( $n = 777$ , 344 men, 433 women). This subsample represents 25.6% of the total participants who completed the pretest. A description of the differences between this subsample and the total sample is included in the measurement section below.

### **Participant Demographics**

This study consisted of adult participants in a stepfamily education course who completed three waves of data collection. The sample included more women than men with 55.7% of the participants identifying as female. Full descriptive statistics are presented in Tables 1-3 and are separated by gender as the analyses central to the research questions of this study were conducted separately for men and women.

### **Program Procedures**

*Smart Steps* was offered free of charge through a number of family-service agencies in six 2-hour sessions over a period of 6 weeks. Families attended the classes together and after a meal was provided, the parents and children were separated, as the curriculum contains separate modules for adults (18 years and older) and children (ages 6-17). Children ages 5 and under were provided onsite daycare while their families attended the classes. Families were then reunited for the final 15 to 30 minutes of each

Table 1

*Demographic Variables: Descriptive Statistics for Gender, Age, Relationship Status, Number of Times Married, Race/Ethnicity, Spousal Attendance, and Years of Education (N = 777)*

Variable	Male (N = 344)			Female (N = 433)		
	%	M	SD	%	M	SD
Gender	44.3			55.7		
Age (Range 18-62)		34.62	7.60		31.90	6.36
18 – 29	25.0			38.3		
30 – 39	50.0			49.7		
40 – 49	19.5			10.9		
50 – 59	3.8			1.2		
60 - 69	.3			0		
Relationship Status						
Married	65.1			63.1		
In an unmarried relationship	34.9			37.0		
Single	0			0		
# of times married		1.39	.80		1.47	.86
0	13.2			12.3		
1	40.9			37.7		
2	39.6			42.3		
3	6.0			6.3		
4+	.3			1.5		
Race/ethnicity						
African-American	1.2			.2		
Asian-American	.9			1.2		
Caucasian	71.4			70.9		
Hispanic or Latino/a	22.7			23.5		
Native American/Alaskan Native	1.2			1.4		
Bi-Racial	.3			1.2		
Unknown	.3			.2		
Other	2.1			1.4		
Attended with spouse/partner	97.7			95.5		
Years of schooling completed (Range 4-25, HS Diploma = 12)		13.1	2.6		13.1	2.4

Note. Percentages may not add up to 100 due to rounding.

Table 2

*Demographic Variables: Descriptive Statistics for Fertility, and Religious Affiliation (N = 777)*

Variable	Male (N = 344)			Female (N = 433)		
	%	M	SD	%	M	SD
Biological children from other relationships		1.60	1.55		1.95	1.42
0	32.1			16.0		
1 – 2	42.7			53.4		
3 – 4	21.2			25.8		
5 – 6	3.4			4.3		
7 – 8	.7			.5		
Biological children from partner's other relationships		1.89	1.40		1.60	1.64
0	16.6			33.2		
1 – 2	54.2			42.5		
3 – 4	25.1			19.7		
5 – 6	3.4			3.56		
7 – 8	.7			1.1		
Biological children from current relationship		.83	1.08		.88	1.22
0	50.1			48.2		
1 – 2	42.3			44.1		
3 – 4	6.48			6.3		
5 – 6	.7			1.1		
7 – 8	.3			.3		
Religious affiliation						
Baptist	.9			1.4		
Jewish	0			0		
Atheist	.9			.47		
Catholic	16.7			16.0		
Methodist	0			.5		
No Religious Affiliation	15.8			14.4		
Episcopalian	0			.2		
Latter-day Saint	56.7			59.4		
Other	9.0			7.6		

*Note.* Percentages may not add up to 100 due to rounding.

Table 3

*Demographic Variables: Descriptive Statistics for Income/Financial Indicators (N = 777)*

Variable	% Male (N = 591)	% Female (N = 551)
Approximate personal income		
< \$5,000	7.6	36.1
\$5,001 – 15,000	12.7	24.3
\$15,001 – 25,000	24.3	19.9
\$25,001 – 35,000	17.0	8.4
\$35,001 – 50,000	20.1	7.6
\$50,001 – 75,000	13.1	2.5
> \$75,001	5.2	1.2
Approximate spouse/partner's income		
< \$5,000	34.8	12.5
\$5,001 – 15,000	23.2	15.0
\$15,001 – 25,000	18.7	20.8
\$25,001 – 35,000	9.4	17.0
\$35,001 – 50,000	9.7	18.8
\$50,001 – 75,000	2.9	11.3
> \$75,001	1.3	4.8
Pool earnings with spouse/partner? (% yes)	59.3	63.0
Receive services (% yes)		
Free/reduced school lunch	48.2	57.2
Food stamps (EBT)	29.8	39.6
Medicaid	60.2	50.4
Head Start	25.2	31.7
WIC	27.7	34.3

*Note.* Percentages may not add up to 100 due to rounding.

session for a family strengthening activity. Course facilitators were members of the family-service agencies' staff who had been trained in the curriculum and who underwent ongoing site visits to ensure program fidelity. A full explanation of recruitment and retention efforts can be found in Skogrand, Reck, Higginbotham, Adler-Baeder, and Dansie (2010). Data for the present study were gathered with approval from the Utah State University Institutional Review Board (see Appendix A). Data were collected using



surveys across three time points (see Appendices B, C, and D): immediately pre-program, post-program (approximately 6 weeks later), and following a booster session (approximately 12-weeks after the program began). Paper surveys were completed at each time point and submitted to the research team who then entered the data into a secure database. Participants' names were removed and a unique identification variable was added and then used to match participants' responses over time.

## **Measures**

### **Dependent Variable**

The primary outcome variable in this study was relationship quality. Using Norton's (1983) Quality Marriage Index (QMI), scale scores were calculated as the mean score of the responses to five items. The items were modified slightly from the original scale by substituting "relationship" for "marriage" in order to be more inclusive to cohabiting couples (roughly 36% of this study's participants). The participants were asked how much they agree with a series of five statements: (1) "We have a good relationship;" (2) "My relationship with my partner is very stable;" (3) "Our relationship is strong;" (4) "My relationship with my partner makes me happy;" and (5) "I really feel like part of a team with my partner." Responses ranged on a 7-point Likert scale from (1) *Very strongly disagree* to (7) *Very strongly agree*, with higher scores indicating better relationship quality. Data were gathered at three time points as described above. Cronbach's alpha scores for each of the three survey periods were as follows: for men - pre = .95, post = .96, booster = .96; for women - pre = .97, post = .97, booster = .98.

While alpha levels were not reported in Norton's article, these alpha levels are consistent with the .96 level reported by Funk and Rogge (2007).

**Missing data on dependent variable.** As the data for this study were limited to those participants who completed the relationship quality variable at the three time points (pretest, posttest, and booster/ follow up), it is important to ascertain whether those participants with complete data differ from those with missing relationship quality responses. Accordingly, independent samples *t* tests were conducted comparing those with complete and missing data across all study variables. The participants with complete data differed from those with missing data on a number of variables. Participants with complete data were significantly more likely to be non-Hispanic ( $p < .001$ ), younger ( $p = .015$ ), married ( $p = .005$ ), attending the program with their partner or spouse ( $p < .001$ ), and receiving Medicaid ( $p = .030$ ) than those with missing relationship quality data. They did not significantly differ in gender makeup, commitment at pretest, or the agreement variables outlined below.

**Measurement invariance within the dependent variable.** Prior to performing the growth curve and growth mixture models outlined below, data were first tested for measurement invariance in the relationship quality variable across the three time points following the steps outlined by van de Schoot, Lugtig, and Hox (2012). Both men's and women's data were found to have partial invariance as they had configural, metric, and scalar invariance (see Table 4). Configural invariance indicates that the structural model fits the data well across each of the three time points as it maintains the same number of factors and configuration of loadings with good model fit at each point. Metric invariance

Table 4

*Measurement Invariance Test Statistics*

Model	$\chi^2 (df)$	CFI	SRMR	Comparison model	$\Delta\chi^2 (\Delta df)$	$\Delta CFI$	$\Delta RMSEA$	$\Delta SRMR$	Decision
<b>Men</b>									
M1: Configural	35.45 (72)	1.00	.027	-	-	-	-	-	Demonstrated invariance
M2: Metric	44.89 (80)	1.00	.028	M1	9.44 (8)	.000	.000	.001	Demonstrated invariance
M3: Scalar	52.39 (87)	1.00	.031	M2	7.49 (7)	.000	.000	.003	Demonstrated invariance
M4: Residual	Failed to converge	-	-	M3	-	-	-	-	Invariance not established
<b>Women</b>									
M1: Configural	125.30 (72)	.988	.022	-	-	-	-	-	Demonstrated invariance
M2: Metric	130.70 (80)	.988	.03	M1	5.40 (8)	.000	.003	.008	Demonstrated invariance
M3: Scalar	135.87 (87)	.989	.031	M2	5.17 (7)	.001	.002	.001	Demonstrated invariance
M4: Residual	4574.71 (96)	.000	1.695	M3	4438.85 (9)	.989	.291	1.664	Invariance not established

*Note:* CFI = Comparative fit index; SRMR = Standardized root mean-square residual; RMSEA = Root mean square error of approximation.

indicates that the factor loadings were equivalent as there was no significant change in model fit when factors were constrained to be equal across time. Scalar invariance was demonstrated by no significant difference in model fit when intercepts were constrained across time. This allows for comparisons of group means across time as it suggests that any significant differences in mean values over time are due to changes in the population and not differences in scale properties. Neither dataset met the test of strong invariance as they both experienced a significant decline in model fit after constraining the error variances across the three time points. While strong invariances were not indicated, the combined presence of configural, metric, and scalar invariance is generally accepted as sufficient for establishing measurement invariance (Bialosiewicz, Murphy, & Berry, 2013; Milfont & Fischer, 2010).

### **Covariates**

Prevention science focuses on identifying both risk and protective factors in order to minimize dysfunction (Coie et al., 2000). In analyzing the data, a series of potential risk and/or protective factors in the form of covariates were used as predictors of class membership in the various relationship quality trajectories identified in the analyses. Some of these covariates were demographic variables such as the participant's race/ethnicity or age. Other covariates described the family environment, including the nature of the step-relationship (cohabiting or married) and the family's financial strength (using Medicaid enrollment as a proxy for economic health). These variables were captured through single-item questions included in the pre-program survey (pretest). There were, however, two covariates representing individual or couple characteristics, that were

measured to assess change in relationship quality over time. These covariates and their psychometrics are discussed in detail below.

### **Individual and Family Characteristics**

**Commitment.** Four items from the commitment scale developed by Stanley and Markman (1992) were used to measure individual commitment to the relationship. Using a 5-point Likert scale, participant responses ranged from (1) *Strongly disagree* to (5) *Strongly agree* in response to four statements about commitment: (1) “My relationship with my partner/spouse is more important to me than almost anything else in my life;” (2) “I may not want to be with my partner/spouse a few years from now [reversed coded];” (3) “I like to think of my partner/spouse and me more in terms of ‘us’ and ‘we’ than ‘me’ and ‘him/her;”” and (4) “I want this relationship to stay strong no matter what rough times we may encounter.” Higher scores indicated higher commitment levels. Reliability was calculated using Cronbach’s alpha for each of the survey periods: for men - pre = .70, post = .62, booster = .66; for women - pre = .75, post = .66, booster = .72. These alphas are lower than those initially reported by Stanley and Markman (1992), but this may be a function of the present study’s use of a smaller number of items in the scale, which can result in lower alpha levels (Cortina, 1993).

**Couple agreement.** Couple agreement was also included as a covariate, given its importance among remarried couples (Schultz et al., 1991). To measure how often participants reported agreeing with their spouses on topics that are potentially problematic in stepfamilies, a four-item couple agreement scale was developed. Using a 5-point Likert scale, participants were asked how often they agree with their spouse about

four topics: Finances; Dealing with family/relatives; Dealing with ex-spouses/ex-partners; and Parenting. Responses ranged from (1) *Always disagree* to (5) *Always agree*, with higher scores indicating higher agreement between partners. Reliability was calculated using Cronbach's alpha for each of the survey periods: for men - pre = .75, post = .71, booster = .81; for women - pre = .74, post = .77, booster = .83.

**Missing data on covariate and individual/family characteristic variables.** The amount of missing data on the covariate variables outlined below was negligible, ranging from less than 1% to 2.7%. Missing data patterns were evaluated using Little's MCAR test. This returned a nonsignificant  $p$  value ( $p = .73$ ) indicating that the data were missing completely at random. Accordingly, missing data on these model variables were handled using full information maximum likelihood procedure (Graham, 2008).

### **Analytic Plan**

This study identified latent relationship quality trajectories and their predictors to highlighting for whom the course was effective in improving relationship quality and to also identify any group(s) that are not benefitting from the course. Thus, the study adopted a person-centered approach in analyzing trajectories of relationship quality across time. The aims of the analyses were two-fold: first, to identify and describe potential variations in trajectories that exist within this program's participants; second, to test potential predictors of those trajectories. These analyses were conducted in three stages: first, growth curve analyses were used to inspect the growth curve of relationship quality over time and look for evidence of subpopulations within the data. Then, growth

mixture modeling was used to identify the number of latent trajectories that existed within the data. Finally, latent class analysis was used to identify predictors of membership within the identified trajectories. These analyses shed light on how individual characteristics (demographics and relationship attitudes) and family structure variables (couple-level and family-level variables) were associated with different relationship quality trajectories across the time participants were attending the stepfamily education course and for the first several weeks following the course.

### **Data Preparation**

Although data in this study came from both husbands and wives who participated in the Smart Steps course, the analyses were conducted by gender. There are two reasons for choosing this approach: (1) to avoid issues stemming from dependence of data (Kenny, Kashy, & Cook, 2006), and (2) to capture the possibilities of gendered differences in trajectory classes. As different trajectory classes emerged for men and women, the findings of this study further add to the discussion of gendered differences in relationship quality, an issue upon which the extant literature appears split (Bruce, 2012; Jackson et al., 2014; Reck, 2013).

### **Growth Curve Analyses**

MPlus 8.0 (Muthén & Muthén, 2017) was first used to conduct growth curve analyses on relationship quality data from men and women separately. As the analyses showed a significant intercept and slope denoting significant changes in the relationship quality variable across time, the variance around the intercept and slope was then

reviewed. Those variances were also significant, suggesting there was heterogeneity in the relationship quality trajectories that would be better described through mixture modeling.

### **Growth Mixture Modeling**

As a second step, growth mixture modeling (GMM) was conducted in MPlus 8.0 (Muthén & Muthén, 2017) to assess the number of latent trajectories present within the data. GMM was advantageous in that it allowed for heterogeneity in the growth trajectories (Tofighi & Enders, 2008). In other words, unlike latent growth modeling, it did not assume that the population represented by the data followed a single growth trajectory in the outcome variable over time, but (in this case), allowed for participants to be identified in classes representing subpopulations with differing trajectories. The GMM protocol outlined by Tofighi and Enders was followed, which involved running successive analyses with increasing numbers of classes in order to identify the best-fitting model according to a series of model fit criterion. Model fit was determined using a combination of statistics. Specifically, Akaike's Information Criterion (AIC; Akaike, 1974), Bayesian Information Criterion (BIC; Schwarz, 1978), and Sample-Size Adjusted Bayesian Information Criterion (SABIC; Sclove, 1987) were examined. Higher entropy values (as close to one as possible but at least as high as .80) represented evidence of more distinct delineation between classes (Celeux & Soromenho, 1993; Tofighi & Enders, 2008). Additionally, the Vuong-Lo-Mendell-Rubin likelihood ratio test (VLMR; Lo, Mendell, & Rubin, 2001) and the bootstrapped likelihood ratio test (BLRT; McLachlan & Peel, 2000) provided standards for comparing two models by calculating a



*p*-value. If the VLMR and BLRT  $p < .05$ , then the model with the greater number of classes was a better fit than the model with the fewer number of classes. Overall, the rule of parsimony was followed, whereby if two models with very similar fit indices emerged, the simpler model (the one with fewer classes) was chosen.

### **Latent Class Analyses**

As a final step, the R3STEP approach to latent class analyses was used, as outlined by Asparouhov and Muthén (2014). This approach regressed the class membership on the predictors of class membership (individual characteristics and family structure variables) in order to show which of the various predictors were significant contributors to the differing class memberships. This procedure effectively identified those predictors that were risk factors or protective factors for relationship quality and the strength of the relationship between those factors and relationship quality. This allowed the description of the trajectory classes in terms of the risk and protective factors that were present for each class. Consistent with prevention science, these results afford understanding of whether classes with less-than-ideal relationship quality trajectories could be enhanced by making changes or additions to the course curriculum. Moreover, they highlight which protective and risk factors may be appropriate targets for intervention in other venues and contexts.

## CHAPTER IV

### RESULTS

#### Correlations of Study Variables

Correlations for study variables are presented in Table 5. As analyses were conducted separately for males and females in order to avoid biases from non-independence of data, sample demographics, descriptive statistics, correlations, and other results are separated by gender as well.

#### Growth Curve Analyses

Mplus 8.0 software (Muthén & Muthén, 2017) was used to first conduct a growth curve analysis of relationship quality over time for both men and women. The models for men and women fit the data adequately ( $\chi^2 = 2.012$  [1,  $p = 0.156$ ], CFI = .998, TLI = .993, RMSEA = 0.05 and  $\chi^2 = 4.359$  [1,  $p = 0.037$ ], CFI = .994, TLI = .983, RMSEA = 0.088, respectively). The modeled growth curves for men and women also had a significant slope ( $S = .028$ ,  $p < .001$  and  $S = .027$ ,  $p < .001$ , respectively) and intercept ( $I = 5.777$ ,  $p < .001$ , and  $I = 5.596$ ,  $p < .001$ , respectively). Additionally, both men and women had significant variance around the slope at the  $p < .01$  level ( $S = .002$ ,  $p = .064$ , and  $S = .003$ ,  $p = .084$ , respectively) and the intercept at the  $p < .001$  level ( $I = 1.005$ ,  $p < .001$ , and  $I = 1.166$ ,  $p < .001$ , respectively). These results suggest heterogeneity in relationship quality trajectories that could be better described using mixture modeling (see Figure 1).

Table 5  
*Descriptive Statistics and Correlations of Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
<i>Mean (Men)</i>	34.62	.18	.65	.40	3.56	3.46	3.29	3.34	4.47	5.76	5.99	6.10
<i>(SD)</i>	(7.60)	(.38)	(.48)	(.49)	(1.03)	(1.02)	(1.24)	(1.00)	(.63)	(1.20)	(1.13)	(1.02)
1. Age	--	-.103	.215***	-.246***	.139*	.125*	.067	.040	.067	.047	.007	.012
2. Ethnicity <sup>a</sup>	-.065	--	-.165**	.094	.028	-.013	-.181***	-.022	-.266***	-.189***	-.029	.017
3. Marital status <sup>b</sup>	.184***	-.203***	--	-.087	-.034	-.071	.041	-.106*	.047	-.016	-.009	-.008
4. Medicaid <sup>c</sup>	-.233***	.135**	-.160***	--	-.104	-.105	.082	.037	-.098	-.008	.033	.006
5. Agree money	.025	-.037	-.047	-.155***	--	.579***	.322***	.497***	.305***	.454***	.333***	.274***
6. Agree family	.014	-.013	-.077	-.122*	.565***	--	.331***	.543***	.330***	.453***	.342***	.384***
7. Agree ex-spouse	.101*	-.244***	.039	-.071	.360***	.360***	--	.334***	.285***	.310***	.232***	.197***
8. Agree parenting	-.065	.106*	-.144***	-.088	.480***	.544***	.237***	--	.344***	.495***	.356***	.347***
9. Commitment (t1)	.022	-.251***	.140***	-.185***	.398***	.334***	.259***	.265***	--	.618***	.453**	.449***
10. Relationship quality (t1)	.021	-.090	-.063	-.132**	.521***	.435***	.307***	.485***	.603***	--	.649***	.614***
11. Relationship quality (t2)	.035	-.048	-.021	-.130**	.419***	.377***	.243***	.382***	.474***	.652***	--	.688***
12. Relationship quality (t3)	-.080	.058	-.058	-.115*	.419***	.369***	.166**	.389***	.443***	.583***	.783***	--
<i>Mean (Women)</i>	31.90	.18	.37	.50	3.50	3.46	3.27	3.19	4.41	5.55	5.81	5.90
<i>(SD)</i>	(6.36)	(.39)	(.48)	(.50)	(1.05)	(1.05)	(1.16)	(1.05)	(.67)	(1.38)	(1.23)	(1.29)

*Note.* Men's results are above the diagonal and Women's are below.

<sup>a</sup> Non-Hispanic = 0, Hispanic = 1 (Hispanic = 18% Men, 18.5% Women).

<sup>b</sup> Cohabiting = 0, Married = 1 (Cohabiting = 35% Men, 37% Women).

<sup>c</sup> Not Receiving Medicaid = 0, Receiving Medicaid = 1 (Receiving Medicaid = 40% Men, 49.6% Women). *T*<sub>1</sub> time one, *T*<sub>2</sub> time two, *T*<sub>3</sub> booster session.

† *p* < .10.

\* *p* < .05.

\*\* *p* < .01.

\*\*\* *p* < .001.

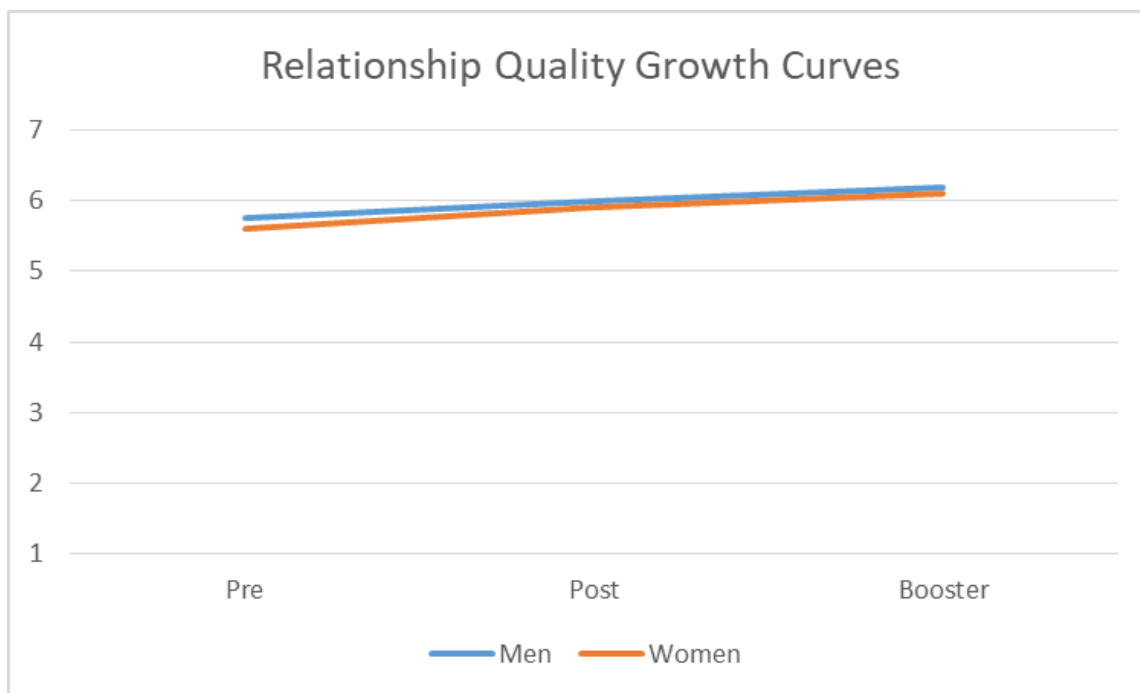


Figure 1. Relationship quality growth curve for men and women.

### Growth Mixture Modeling

Given the results of the growth curve analyses, growth mixture modeling (GMM) was then conducted in MPlus 8.0 (Muthén & Muthén, 2017) to determine the number of relationship quality latent trajectories present for both men and women. Following the procedures set forth by Tofighi and Enders (2008), multiple models were fit to the data beginning with one class, then two classes and so forth. Model fit statistics were then compared to determine the number of classes which best fit the data. Tofighi and Enders recommend comparing the Bayesian Information Criterion (BIC) and the sample-size adjusted BIC (SABIC) to determine the best number of classes. As the SABIC and BIC may potentially indicate differing class structures, the bootstrap likelihood ration test

(BLRT), entropy, and class size figures were also considered in determining the overall number of classes that best fit the data. Lower BIC and SABIC values indicate a better fit and entropy indicates a clearer delineation of classes as the value approaches 1 (Celeux & Soromenho, 1996).

For both men and women, there was an appreciable improvement in model fit from one to two classes (see Table 6). The results diverged from there, with further improvement in the three-class model for women, but not for men. In the women's data, the BIC, SABIC, and BLRT figures suggested that a four-class model was the best fit, but the entropy figures began to decline after three classes and so a three-class model was selected (see Table 6). While the BIC, SABIC, BLRT, and entropy figures all suggested that a three-class model was a better fit for the men's data, the resulting class structure included a class with only 12 participants (3.5% of the total male sample). As a general

Table 6

*Relative Model Fit by Number of Latent Classes*

Classes	Class size(s) ( <i>n</i> )	Log-likelihood	Entropy	AIC	BIC	SABIC	BLRT <i>p</i> value
Men							
1	344	-1,575.37	-	3,160.75	3,179.95	3,164.09	-
<b>2</b>	<b>255, 89</b>	<b>-1,374.16</b>	<b>.89</b>	<b>2,764.32</b>	<b>2,795.05</b>	<b>2,769.67</b>	<b><i>p</i> &lt; .001</b>
3	233, 99, 12	-1,310.46	.90	2,642.93	2,685.17	2,650.28	<i>p</i> < .001
Women							
1	433	-2,183.46	-	4,376.91	4,397.26	4,381.40	-
2	302, 131	-1,889.77	.90	3,795.54	3,828.11	3,802.72	<i>p</i> < .001
<b>3</b>	<b>281, 128, 24</b>	<b>-1,808.81</b>	<b>.92</b>	<b>3,639.61</b>	<b>3,684.39</b>	<b>3,649.48</b>	<b><i>p</i> &lt; .001</b>
4	246, 93, 81, 13	-1,773.13	.87	3,574.25	3,631.24	3,586.82	<i>p</i> < .001

*Note:* AIC = Akaike information criterion; BIC = Bayesian Information Criterion; SABIC = sample-size adjusted BIC; BLRT = bootstrap likelihood ratio test. Best fitting class for each gender is in bold

rule, class sizes smaller than 5% of the sample are discouraged as they may be spurious artifacts of the data rather than accurate representations of an additional subpopulation (Nylund, Asparouhov, & Muthén, 2007). Accordingly, a two-class solution was chosen for the men's data. Figure 2 shows the two class trajectories representing the two subpopulations and Table 7 describes the growth parameters for each class. Class 1 (74.1%,  $n = 255$ ) closely matched the growth curve in Figure 1 and was named "High and Rising" as it was characterized by a high intercept and included a rising slope. Class 2 (25.9%,  $n = 89$ ) was named "Mid and Rising" and featured a lower intercept and a rising slope similar to that of Class 1.

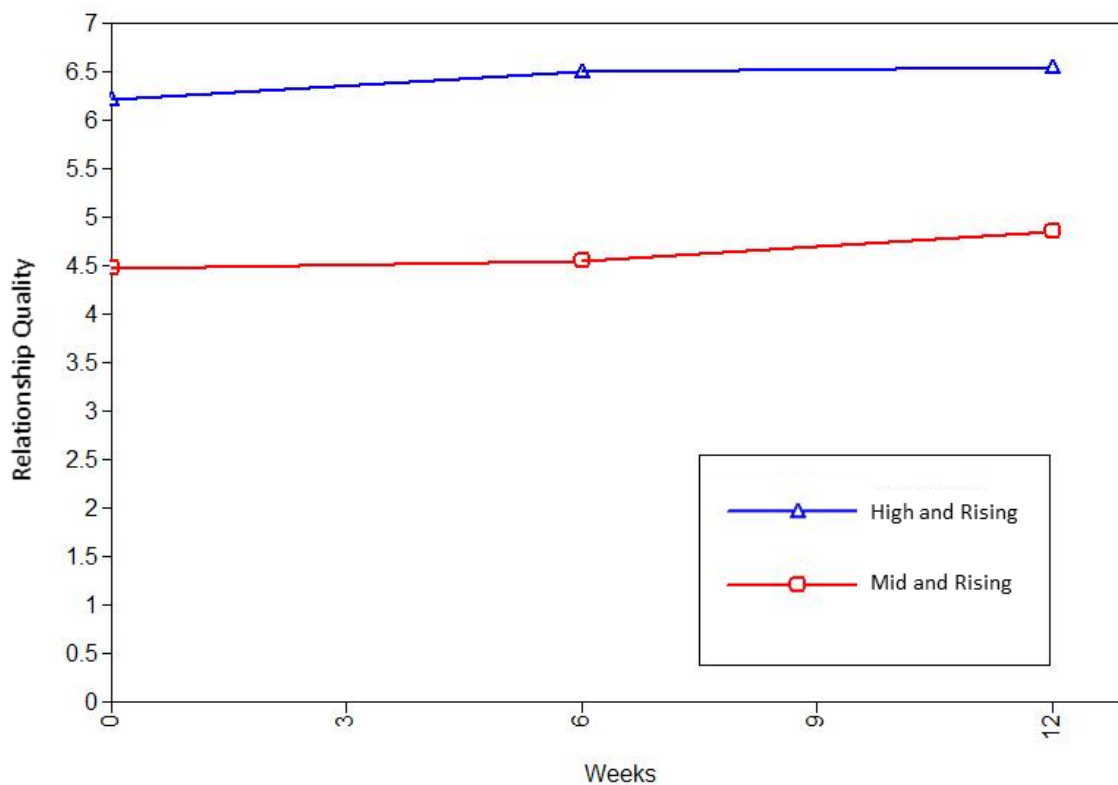


Figure 2. Men's latent relationship quality trajectories.

Table 7

*Growth Parameters for Each Class*

Gender	Class #	% of sample	Intercept $b$ (SE)	Linear slope $b$ (SE)
Men	1	74.1	6.27*** (.07)	.03*** (.01)
	2	25.9	4.42*** (.13)	.03** (.01)
Women	1	64.9	6.31*** (.07)	.03*** (.01)
	2	29.6	4.40*** (.09)	.05*** (.01)
	3	5.5	3.67*** (.30)	-.08† (.04)

†  $p < .10$ .\*\*  $p < .01$ .\*\*\*  $p < .001$ .

For the women participants, a three-class model was the best fit. Figure 3 shows the three class trajectories representing the three sub-populations within the data and Table 7 contains the growth parameters for each class. Similar to the male results, class 1 (64.9%,  $n = 281$ ) closely matched the growth curve in Figure 1 and was named “High and Rising” as it began with a high intercept and had a steady, rising slope. Class 2 (29.6%,  $n = 128$ ) was named “Mid and Rising” and followed approximately the same slope as Class 1, but began at a lower intercept. Finally, Class 3 (5.5%,  $n = 24$ ) was described as “Low and Falling” as it had a low intercept and a declining slope.

### Predictors of Relationship Quality Trajectories

Following the identification of the classes through the GMM, the R3STEP approach outlined by Asparouhov and Muthén (2014) was used to identify predictors of trajectory class membership. This approach regressed class membership onto the

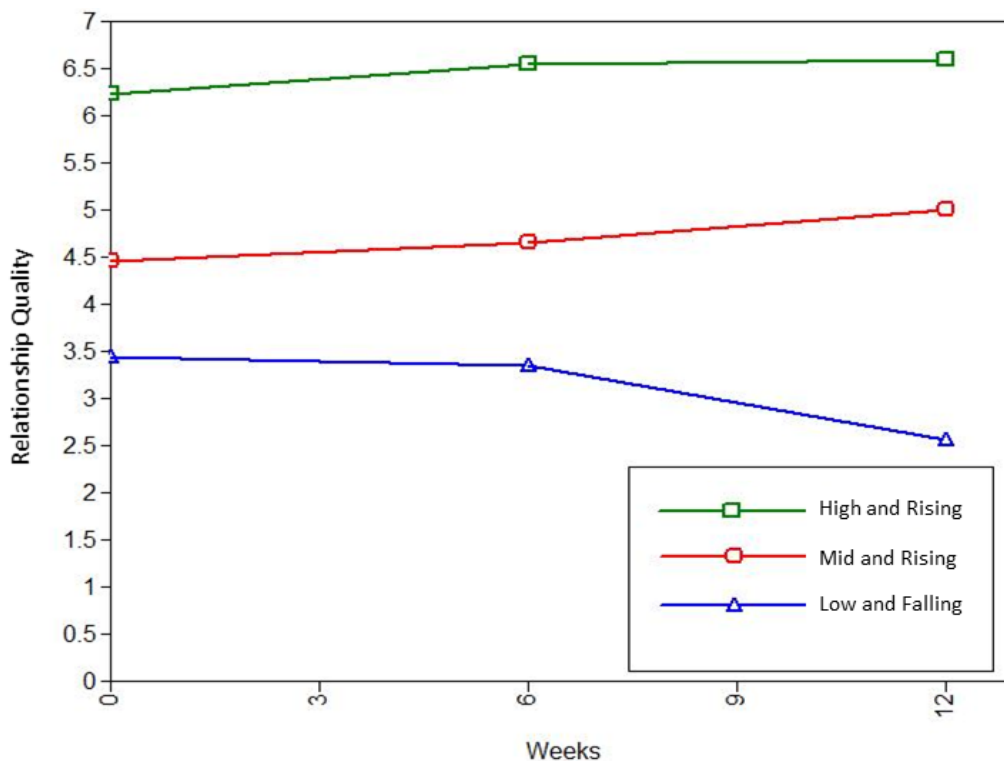


Figure 3. Women's latent relationship quality trajectories.

potential predictors (age, ethnicity, marital status, SES, commitment, and agreement over money, family, ex-spouse, and parenting). Regressions were conducted using all possible pairwise comparisons (see Tables 8 and 9 for male and female predictors, respectively).

## Men

For male participants, only a few covariates emerged as significant predictors of class membership. Class 2 (mid and rising) had slightly higher levels of financial agreement and significantly lower levels of agreement about parenting and commitment at pre-test than did Class 1 (high and rising). Of note, the difference in financial agreement was only significant at the  $p < .10$  level and the resulting odds ratio ( $OR = 1.05$ ) is only marginally above 1. This indicates that the actual effect of a higher level of



Table 8

*Logistic Regression Parameters Predicting Men's Class Membership*

Comparison category = 1	1 high and rising		
	Odds Ratio	b	SE
2 mid and rising			
Age	.99	-.01	.01
Ethnicity <sup>a</sup>	.49	-.71	.50
Marital status <sup>b</sup>	1.48	.39	.41
Medicaid <sup>c</sup>	1.01	.01	.01
Agree money	<b>1.05</b>	<b>.05</b>	<b>.03<sup>†</sup></b>
Agree family	1.00	-.00	.01
Agree ex-spouse	1.01	.01	.01
Agree parenting	<b>.61</b>	<b>-.50</b>	<b>.18<sup>**</sup></b>
Commitment T1	<b>.11</b>	<b>-2.19</b>	<b>.00<sup>***</sup></b>

*Note.* Significant values in bold text.

<sup>a</sup> Non-Hispanic = 0, Hispanic = 1.

<sup>b</sup> Cohabiting = 0, Married = 1.

<sup>c</sup> Not Receiving Medicaid = 0, Receiving Medicaid = 1.

<sup>†</sup>  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

increase in financial agreement on the class membership was extremely small. The odds ratios for parenting agreement and pre-program commitment ( $OR = .61$  and  $.11$ , respectively) are both below 1 and significant at the  $p < .01$  level, indicating that higher reported levels of either covariate significantly increased the likelihood of membership in Class 1 (high and rising) over class 2 (mid and rising).

### Women

The results for female participants were similar to those for males, albeit more complex as there were three trajectory classes (see Table 9 for full regression results).

Table 9

*Logistic Regression Parameters Predicting Women's Class Membership*

Comparison category = 1	1 high and rising			2 mid and rising		
	Odds ratio	b	SE	Odds ratio	b	SE
2 Mid and Rising						
Age	.99	-.01	.01	–	–	
Ethnicity <sup>a</sup>	.51	-.68	.50	–	–	
Marital status <sup>b</sup>	1.32	.28	.33	–	–	
Medicaid <sup>c</sup>	1.01	.01	.01	–	–	
Agree Money	<b>1.04</b>	<b>.04</b>	<b>.02**</b>	–	–	
Agree family	1.00	-.00	.01	–	–	
Agree ex-spouse	.99	-.01	.01	–	–	
Agree parenting	<b>.39</b>	<b>-.94</b>	<b>.17***</b>	–	–	
Commitment T1	<b>.14</b>	<b>-1.97</b>	<b>.38***</b>	–	–	
3 Low and Falling						
Age	<b>.98</b>	<b>-.02</b>	<b>.00***</b>	<b>.97</b>	<b>-.03</b>	<b>.01**</b>
Ethnicity <sup>a</sup>	.37	-.99	.80	.73	-.31	.76
Marital status <sup>b</sup>	<b>3.03</b>	<b>1.11</b>	<b>.62†</b>	2.29	.83	.60
Medicaid <sup>c</sup>	1.68	.52	.53	1.70	.53	.53
Agree Money	<b>1.05</b>	<b>.05</b>	<b>.02**</b>	1.01	.01	.01
Agree family	1.00	-.00	.01	1.00	.00	.01
Agree ex-spouse	1.30	.26	.37	1.31	.27	.29
Agree parenting	<b>.39</b>	<b>-.94</b>	<b>.17***</b>	1.01	.01	.01
Commitment T1	<b>.04</b>	<b>-3.14</b>	<b>.49***</b>	<b>.31</b>	<b>-1.17</b>	<b>.34***</b>

Note. Significant values in bold text.

<sup>a</sup> Non-Hispanic = 0, Hispanic = 1.

<sup>b</sup> Cohabiting = 0, Married = 1.

<sup>c</sup> Not Receiving Medicaid = 0, Receiving Medicaid = 1.

†  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

Just as with the male participants, Class 2 (mid and rising) had slightly higher levels of agreement with their spouse on financial matters and lower levels of agreement on parenting and on commitment at pretest ( $OR = 1.04, .39, \text{ and } .14$ , respectively) than those in Class 1 (high and rising).

The results were more nuanced in comparing Class 3 (low and falling) to the other two classes. Age was a significant predictor of class membership with higher age decreasing the likelihood of being in Class 3 (low and falling) compared to both Class 2 (mid and rising) and Class 1 (high and rising) ( $OR = .97$  and  $.98$ , respectively). Financial agreement was slightly higher in Class 3 (low and falling) and Class 2 (mid and rising) than in Class 1 (high and rising). Just as with the male results surrounding financial agreement, it should be noted that relative to Class 1 (high and rising) the odds ratios for Class 2 (mid and rising) and Class 3 (low and falling) ( $OR = 1.04$  and  $1.05$ , respectively) were only marginally above 1. This indicated that the actual effect of a higher level of increase in financial agreement on the class membership was rather small.

Marital status (married vs. cohabiting) was only a significant predictor of class membership when comparing Class 3 (low and falling) with Class 1 (high and rising) ( $OR = 3.03$ ,  $p < .10$ ). This result indicates that married participants were more likely to be in Class 3 (low and falling) than in Class 1 (high and rising). As marital status was not a significant predictor of membership in Class 3 over Class 2, or Class 2 over Class 1, and as the statistic was only significant at the  $p < .10$  level, this result seems to be more of a statistical anomaly than an indicator that cohabiting couples are more likely to experience positive relationship quality trajectories.

Just as it was in the comparison between Class 2 (mid and rising) and Class 1, (high and rising), agreement on parenting was also a significant predictor on class membership in the comparison between Class 3 (low and falling) and Class 1 (high and rising) ( $OR = .14$ ,  $p < .001$ , and  $OR = .39$ ,  $p < .001$ , respectively). This indicates that

participants with higher levels of parental agreement were more likely to be in Class 1 (high and rising) over Classes 2 and 3 (mid and rising and low and falling, respectively).

Commitment at pretest was the most consistent predictor of class membership and the only significant predictor across all possible class comparisons. Higher levels of commitment resulted in lower likelihood of membership in Class 3 (low and falling) relative to Class 2 (mid and rising) and Class 1 (high and rising) ( $OR = .31, p < .001$ , and  $OR = .04, p < .001$ , respectively). Higher levels of commitment also resulted in a lower likelihood of membership in Class 2 (mid and rising) relative to Class 1 (high and rising) ( $OR = .14, p < .001$ ).

## CHAPTER V

### DISCUSSION

This study of participants in a stepfamily RE course had two aims. The first was identifying differential trajectories of relationship quality within stepfamily couples. This was accomplished through the use of growth mixture modeling, providing a more nuanced evaluation of the *Smart Steps* program and highlighting the possible differential impact of that program on relationship quality within stepfamily couple relationships. As differential trajectories were found within the data, the second aim of the study was to identify significant predictors of membership in those differing relationship quality trajectories. This was accomplished by regressing a number of potential predictors on trajectory class membership. Using a prevention science lens (Coie et al., 2000), the predictors that emerged from the model provide preliminary evidence that can now be discussed as risk and protective factors influencing relationship quality within stepfamilies. The findings of this study highlight some significant risk and protective factors for relationship quality in stepfamilies during participation in a stepfamily relationship education course. Below, findings are discussed in the context of intervention theory and the extant literature. Implications for researchers and RE practitioners as well as study limitations are also included.

#### **Latent Trajectories of Relationship Quality**

The first research aim in this study was to identify the latent relationship quality trajectory classes present within a sample of men and women participating in a

stepfamily relationship education course. As hypothesized, and consistent with the analyses reported in past trajectory studies (Anderson et al., 2010; Bruce, 2012) present data show that rather than a single trajectory of relationship quality over time, the participants were better described through a series of latent trajectory classes. This suggests that these participants are better represented as multiple subgroups, each with their own relationship quality trajectories rather than a monolithic group. Indeed, participants in this study both came to the program with a wide variety of relationship quality levels, and also differed significantly in their relationship quality trajectories as the program continued and through the 6-week booster session. Growth mixture modeling resulted in two subgroups for men, and three subgroups for women. Despite the difference in number of subgroups (or “classes” in the language of mixture modeling), the groups were rather consistent across gender, with similar relative group sizes present in both men and women’s data (see Table 6). Fit indices indicated the presence of three subgroups for both genders, but the resulting group size for the smallest group in the men’s three-subgroup solution was smaller than the limits recommended by Nylund et al. (2007), and thus a two-subgroup solution was selected for the men.

The implications of multiple groups emerging from the data cannot be overstated. Whereas prior studies have focused on overall changes in a participant population, treating those participants as one monolithic group may have hidden important differences within subgroups of their participants. Reck’s (2013) analysis of the same overall participant population from which this study’s sample was drawn found a significant-yet-slight increase in overall relationship quality over time. By contrast, the

present study's more nuanced analyses yielded the same overall improvement in relationship quality as other evaluations of the *Smart Steps* program (e.g., Higginbotham & Skogrand, 2010; Lucier-Greer et al., 2014; Reck, 2013; Skogrand et al., 2011), while also highlighting the presence of distinct subgroups within the participants. This has important theoretical and practical ramifications for scholars and practitioners moving forward.

### **High and Rising**

Both men and women's results included a "high and rising" class that was typified by a high intercept and rising slope across the three time points (see Table 7) indicating increases in relationship quality during the program. For both men and women, this was the largest trajectory class representing 74.1% and 65.9% of participants, respectively. This number of participants reporting high and rising levels of relationship quality has an interesting implication for practitioners. The participants' increase in relationship quality over time despite beginning at a relatively high level demonstrates that participants in RE programs do not need to be "broken" in order to benefit from their participation. This is encouraging to practitioners as they need not only seek out participants who are actively experiencing relationship difficulty, but can feel confident offering their programs to potential participants at all relationship quality levels. While a high level of participants in this subgroup may be reassuring to program providers, it is most informative when compared to the other trajectory classes described below.

### **Mid and Rising**

The second class that emerged in both men and women's analyses, was the "mid and rising" class. The class was typified by an intercept lower than that of the high and rising class and a slope that consistently increased across the three time points. Just as was the case with the first trajectory class described above, the mid and rising class was similar in intercept and slope for both men and women (see Table 7). This was the second-largest class for men and women comprising 25.9% and 29.6% of their respective participants. While participants in this class reported lower initial relationship quality values than those in the high and rising class, they experienced similar rates of improvement (i.e., similar slopes) from pretest to posttest to booster session. Taken in combination with the high and rising class, this further demonstrates the potential effectiveness of the *Smart Steps* program as all but a very small minority of participants belong to classes with significant increases in relationship quality over the course of the program and booster session.

The presence of this group has some important implications for practitioners and scholars. Relative to the high and rising group, the mid and rising group may appear to be more distressed as they have lower reported relationship quality at each time point, but their similar slopes suggest they are benefitting from the program in a similar fashion as their high and rising peers. This should be encouraging to practitioners as it highlights that despite their starting points, those who choose to participate in RE programs overwhelmingly benefit from their participation. Rather than view participants in this group as at-risk, it may be more helpful to view them as having more room for



improvement. This would allow the practitioner to simultaneously acknowledge the likelihood that their programs are helping those in this group, while also shifting their focus to future efforts (perhaps in the form of refresher courses, or online/self-study follow-up programs) that may continue to support these participants who have more room to improve. Similarly, scholars may need to look to the emergence of this group as evidence of the need for a more nuanced understanding of what it means to benefit from a program. Rather than a raw focus on programmatic gains from pre to post, this analysis highlights the qualitative differences of two populations with similar gains, but different starting points.

### **Low and Falling**

The third relationship quality trajectory class was named the “low and falling” class as it was typified by a low intercept and a declining slope. Unlike the other classes, this trajectory class was only present within the women’s data. Although there was some indication within the fit indices that a third trajectory class existed within the men’s data, the resulting class size was smaller than the recommended 5% cutoff (Nylund et al., 2007) and so it was not retained. Had the overall sample of men been slightly more diverse in their reported relationship quality levels, it is possible that this might have emerged as a class for the men as well.

While the low and falling class only represents 5.5% of the female participants, it is interesting in that it represents the only group for whom the program did not increase relationship quality. Importantly, the declining slope in this class does not necessarily mean that the program was ineffective within this population. As there is no comparison

or control group, it is unknown whether the participants in this group would have experienced similar relationship quality declines absent the program, or whether the program may have mitigated the severity of decline within this lowest trajectory class. This is the very kind of nuance that the use of growth mixture modeling was created to help identify (Padilla-Walker et al., 2017; Tofghi & Enders, 2008). Had the assumption of a single population with one overall intercept and trajectory been made, there would have been no indication of this sub-population who experienced a dramatically different trajectory from their fellow participants. Discerning these different latent trajectory classes was key to addressing this study's first aim of determining differential impact. Furthermore, it serves as the basis for identifying the risk and protective factors that predict those differing trajectories.

### **Gendered Differences in Relationship Quality Class Trajectories**

While there was remarkable similarity in the intercepts and slopes of the first two trajectory classes, and while a third trajectory class may have emerged from the men's data were the sample slightly more diverse in relationship quality levels, there were some interesting gendered differences in the relationship quality variable that warrant discussion. Prior research on relationship quality is split as to whether men and women experience relationship quality differently. Although a large corpus of research suggests that women tend to experience lower relationship quality than men (Bernard, 1982; Schumm, Jurich, Bollman, & Bugaighis, 1985; Stevenson & Wolfers, 2009; Umberson et al., 2006), several recent studies have challenged this notion, finding no gendered

differences in relationship satisfaction (Bruce, 2012; Carr et al., 2014; Jackson et al., 2014).

In the present study, despite remarkable similarity in intercepts and slopes of the first two trajectory classes across genders (see Table 7), the results seem to indicate a slight but consistent gendered difference both in trajectory class membership and in the mean relationship quality value across each time point. At the trajectory class membership level, a higher percentage of the men were in the high and rising class (74.1% compared to 64.9%, respectively) while a higher percentage of the women were in the mid and rising class than in the men's results (29.6% for women and 25.9% for men). While the high and rising class remains the largest, it is less so for women than men and this corresponds to lower overall levels of relationship quality for women. This difference becomes more apparent when looking at the mean levels of relationship quality at each time point; it becomes evident that the level for women is consistently about two tenths of a point lower than the men's levels (see Table 5). Independent samples *t* tests confirmed that these gendered differences were significant for all three time points at the  $p < .001$  level. While this is a small difference on a 7-point scale, its presence across three waves of data suggest this may be a persistent difference. This finding is consistent with studies finding that men and women experience relationships differently and women may have somewhat lower levels of relationship satisfaction (Bernard, 1982; Schumm et al., 1985; Stevenson & Wolfers, 2009; Umberson et al., 2006). This also highlights the importance of multiple analyses in order to best understand a phenomenon. In this case the trajectories were the same, but a comparison

of the mean level at each time point revealed gendered differences.

### **Predictors of Latent Trajectory Membership**

While it has been well-established that stepfamilies are complex and face a variety of challenges unique to stepfamilies (Adler-Baeder & Higginbotham, 2004; Kang et al., 2016; Robertson et al., 2006; Teachman, 2008) prior studies examining stepfamily risk and protective factors have yielded mixed results; no cohesive set of factors have emerged from the extant research (Bruce, 2012; Coleman et al., 2000; Gold, 2009; Reck, 2013). This study uses prevention science (Coie et al., 2000, 1993) as a basic organizing framework for understanding the risk and protective factors that influence relationship quality for individuals in stepfamilies. A central aim of the present study was the use of growth mixture modeling with the R3STEP approach (Asparouhov & Muthén, 2014) to empirically identify predictors of membership in the identified trajectory classes. The tested predictors included in the model are discussed below.

#### **Commitment**

Consistent with the emphasis prevention science places on identifying risk and prevention factors (Coie et al., 2000, 1993), Fincham et al. (2007) noted that high commitment is a strong protective factor toward relationship quality. In the present study, participants' self-reported commitment levels at the beginning of the program emerged as the strongest predictor of trajectory class membership for both men and women. Results show that higher levels of commitment were associated with a greater likelihood of membership in the high and rising trajectories over the mid and rising trajectories for

both men and women and the low and falling trajectory for women. As such, it appears that commitment is a strong protective factor (and a risk factor when levels are low). These results are consistent with those of Johnson et al. (2002), who found that low commitment was frequently cited by divorcees as the primary reason for their divorce. Overall, the differential associations between commitment and relationship quality found in the present study add to the extant commitment literature by emphasizing the importance of fostering and maintaining higher levels of commitment within a stepfamily couple context in order to protect against the challenges unique to these families.

### **Agreement on Parenting**

Agreement on parenting emerged as the second strongest predictor of trajectory class membership among both men and women. Overall, higher levels of agreement on parenting were predictive of membership in the high and rising over the mid and rising relationship quality trajectory classes for men and women, and the low and falling trajectory for women. The importance of agreement on parenting among remarried couples represents a somewhat novel finding as past studies that have addressed parenting agreement have not done so with a focus on relationship quality within a stepfamily context. Somewhat similarly, Le et al. (2016) found reciprocal associations between relationship quality and co-parenting (agreement and cooperation on parenting efforts), but that was in a sample of first-time parents in intact relationships. Within stepfamilies there has been little research on the role of parenting agreement. In their analysis of agreement on a number of areas including parenting and communication, Schultz et al. (1991) found higher levels of agreement within “simple” stepfamilies over

their “complex” peers. Other studies have found lower levels of relationship quality and commitment within more complex stepfamilies (Bruce, 2012; Downs, 2004; O’Connor & Insabella, 1999).

While this finding is somewhat novel, it is hardly unexpected. Agreement on parenting, by its nature, requires a significant amount of communication between parents. Stepfamilies may require even higher levels of communication in order to navigate the additional challenges present in stepfamily parenting like custody schedules, new relationships between stepparents and children, and managing new stepsibling interactions (Adler-Baeder & Higginbotham, 2004; Coleman et al., 2000; Visher & Visher, 1985). Additionally, research suggests that the stepparent/stepchild relationship is best fostered when the stepparent takes on a permissive parenting style and allows the biological parent to maintain an authoritative role, a strategy that requires significant communication between the two parents (Papernow, 2013). Relationship education courses have long focused on increasing the amount and quality of communication between romantic partners, noting the connection between communication and relationship quality (Hawkins, 2009; Hawkins & Fellows, 2011; Hawkins & VanDenBerghe, 2014). The present study extends the extant literature by identifying a direct connection between parenting agreement and relationship quality trajectories within stepfamily couples and underscores the importance of co-parenting as a key challenge for stepfamily couples.

### **Null Findings**

Some of the most encouraging results to emerge from this study were those

covariates that were not predictive of trajectory class membership. As significant predictors could then represent risk or protective factors for stepfamily relationship quality, it would be concerning to RE providers if demographic variables such as ethnicity, age, or marital status emerged as significant predictors as that would suggest that the program was less effective within a particular ethnic, age, or other demographic group. Either through a lack of statistical significance, or in some cases, practical significance evidenced by extremely small odds ratios, the results of this study show that ethnicity, age, marital status, and SES (as measured by Medicaid eligibility) were not predictors of relationship quality trajectory class membership. These results should be encouraging for RE practitioners, as they can feel confident in presenting stepfamily RE programs to a wide variety of participants.

Null findings were present within some of the couple dynamic variables as well. Levels of agreement about extended family or agreement about the relationship with an ex-spouse were also not predictive of relationship quality trajectory class membership. Agreement about money was predictive of class membership, but only slightly, as evidenced by odds ratios very near 1. These three variables stand in stark contrast to agreement on parenting, which emerged as a significant predictor of class membership for both men and women. Again, this is an encouraging finding as it suggests that couples with disagreements about finances, extended families, and ex-spouses can still benefit from stepfamily RE efforts. Practitioners need not only seek out couples in perfect agreement on these issues in order to expect relationship quality improvements within their RE participants.

## **Implications for Future Relationship Education Research and Interventions**

This study highlights a number of important implications for future research as well as for future interventions. Relative to both research and intervention, first and foremost, it stands as further empirical evidence that relationship education can be effective in supporting relationship quality within stepfamily couples. Secondly, the results of this study highlight the value of looking at the individual experiences of RE participants in order to overcome the obfuscation of a strict focus on the population mean. Future studies can use this same process to identify potential subgroups within their participants as a means to a more nuanced evaluation of risk and protective factors. As commitment and parenting agreement emerged as the strongest risk and protective factors for stepfamily relationship quality, interventionists may want to evaluate their curricula to ensure that these two individual and couple dynamics are being properly supported and emphasized. Perhaps additional efforts could be made to intervene with couples who score low in either of these variables at pretest in order to supplement the regular curriculum for these more fragile couples. Additionally, the number of demographic variables which were not significant risk or protective factors in this study should be encouraging to interventionists as it highlights the effectiveness of stepfamily RE programs across a wide range of participants.

Although ethnicity was not a significant predictor of trajectory class in the present study, future research using a more racially and ethnically diverse sample should evaluate whether this finding is replicable. Additionally, future studies of stepfamily RE would



also benefit from a more in-depth survey design with more contextual variables to better identify the potential risk and protective factors that may influence relationship quality within stepfamilies. Also, while the gendered differences in the present study were small, they were also consistent and future studies should focus on the lower relationship quality levels reported by women in stepfamilies to better assess what may be influencing this gendered difference. Finally, as few participants in the present study reported low levels of relationship satisfaction at the pre-test, there may be a need for future studies and intervention efforts to better recruit those couples who are already in relationship distress. While relationship quality gains can be made by participants at all levels, a similar analysis looking at trajectories and risk and protective factors among a more distressed sample may provide more insight into those factors which have the greatest impact on stepfamily relationship satisfaction.

### **Limitations**

This study is not without its limitations. First, participants in this study were not selected at random, but self-selected into the course. Additionally, there was no control group for comparing results. This study was uniquely constructed with a pre, post, and follow-up survey that took place following an additional intervention in the form of the booster session. Without a comparison or control group, there is no way to discern whether the trajectories outlined in these findings represent trajectories that are present in populations “because of” or “despite” the interventions that were a part of this study. Although historically RE studies have been associated with gains in relationship quality

(Hawkins, Allen, & Yang, 2017; Hawkins et al., 2008; Hawkins & Fellows, 2011) it is possible that the findings in the present study are merely due to changes in the participants reported relationship satisfaction that were not related to their participation in the two interventions. The question remains as to whether the observed trajectories would remain the same were there no interventions between the surveys. Consequently, evidence of the effect of the program on study variables or relationships between study variables cannot be claimed. Future research on stepfamily RE outcomes should employ the use of a control group design to aid in drawing causal inferences from study results. This is a common limitation of RE program studies as they are often focused on program outreach (Hawkins et al., 2008; Lucier-Greer & Adler-Baeder, 2012).

A lack of participant diversity is often a limitation of RE studies (Hawkins et al., 2008) and this study is no exception. The stepfamily RE courses analyzed in this study were conducted across the state of Utah and this contributes to some demographic limitations. While this study included a larger portion of Hispanic participants than would normally be found in the state (23%, compared to the state's population of only 14.2%) ("Utah population," 2019), there was little ethnic diversity beyond Hispanic/Non-Hispanic distinctions. Additionally, only a small percentage of the participants were African American, Asian/ Pacific Islander, or Native American, (1%, 1%, and 1%, respectively). Although, ethnicity did not emerge as a significant predictor of trajectory class membership in the present study, future studies should seek to oversample participants from these groups in order to better evaluate the applicability of RE programming within more racially/ethnically diverse audiences.

This study is also limited by two other demographic trends specific to Utah. Utah's fertility rates are higher than average, leading to larger family sizes than those found in other states (Martin, Hamilton, Osterman, Driscoll, & Drake, 2018). Additionally, Utahns are more likely to identify as members of the Church of Jesus Christ of Latter-day Saints (just under 60% in the present study's sample) than any other religious affiliation. As fertility and religion have both been linked to marital quality and couple commitment in past studies (Call & Heaton, 1997; Karney & Bradbury, 1995; Lichter & Carmalt, 2009) the present findings may be limited in their generalizability to populations with smaller family sizes or to those with more diverse or non-religious backgrounds.

The level of attrition and the resulting diminution of sample size also represent a limitation to the generalizability of the findings. While researchers strive for as little attrition as possible, it is often a natural occurrence within relationship education courses (Duppong-Hurley, Hoffman, Barnes, & Oats, 2016; Frey & Snow, 2005; Snow, Frey, & Kern, 2002). In the present study, attrition took on two forms. First, attrition occurred as participants attended the first session of the course, completed the pretest, but then dropped out of the program prior to completing the final session. The second form of attrition in this study came from the need for complete data on the dependent variable of relationship quality across the three time points necessary for growth mixture modeling. This second form of attrition was particularly salient in the present study as entire classes of participants were missing data for either the post or booster session. This was not due to participant characteristics, but was a byproduct of some program providers electing not

to collect data at all waves. These two types of attrition narrowed the sample in the present study from a pretest sample of 3,044 participants to a final complete data sample of  $n = 777$  (344 men and 433 women). The resulting attrition rate of 74.4% may seem high in comparison to the “normal” range of 30-50% for courses of this type reported by Frey and Snow (2005), but Duppong-Hurley et al. (2016) reported rates as high as 80% to be “common” in parenting education courses due to the number of challenges in attending with young children. *Smart Steps* participants faced many of those same challenges and the attrition rate reflects that. It is also of note that the two studies discussed above only addressed attrition due to participant dropout and not due to missing data within a growth mixture model framework, as is the case here. This further limits the number of viable cases to analyze as dependent variable data cannot be imputed in growth mixture modeling (Asparouhov & Muthén, 2014). Missing data analysis showed that the missing data patterns were not random as those with complete data were more likely to be non-Hispanic, younger, married, attending the program with their partner or spouse, and receiving Medicaid than those with missing relationship quality data at any of the three needed time points. As age and ethnicity were not associated with differing trajectories and spousal attendance was not tested as a potential moderator as the vast majority of attendees were with their spouse, it is likely that the patterns of missing data related to these variables did not influence the findings of this study. As marital status was a significant predictor of trajectory class among women (though only slightly so), it is possible that the missing data influenced the findings. This limits the generalizability of the findings in this study, and future studies of this kind may benefit

from greater attention and efforts toward incentivizing participation in both the program and the surveys in order to minimize attrition rates.

The Cronbach's alpha levels for the commitment measure represents another limitation. They were lower than those reported by Stanley and Markman (1992) with values on the post and booster surveys for men, and the post survey for women dipping below .70 ( $\alpha = .62, .66, \text{ and } .66$ , respectively). While this is not ideal, it is also not too alarming as alpha levels tend to be lower in scales with fewer items (Cortina, 1993), and it is acceptable for alphas to be lower in relatively new fields of research such as this (Nunnally & Bernstein, 1994).

This study also shares a limitation with many other RE studies in that it may have been impacted by social desirability and ceiling effects (Blanchard et al., 2009). Although best practices in survey implementation were used including instructing participants to answer openly and honestly and by reassuring them that their answers would be kept confidential through the use of unidentified envelopes during data collection (Dillman, Smyth, & Christian, 2014), social desirability (i.e., the motivation to give a "right" answer rather than an honest one) may still have influenced participants' responses (Edwards, 1957; Vogt & Johnson, 2016). Ceiling effects are the limitations in variability present when a participant gives a high response on a pretest and is then limited as to how much higher they can respond on a posttest to show improvement in a construct (Ary, Cheser Jacobs, Sorensen Irvine, & Walker, 2018). In the present study this was observed in the limited variability within the relationship quality score at pretest. A large percentage of both men and women (37.4% and 33.7%, respectively) reported a 6.5 or

higher relationship quality scale score on a scale from 1 to 7 at pretest. This leaves little room for these participants to report improvements on subsequent surveys and may limit the interpretability of the relationship quality slope for those in the highest trajectory classes.

The high levels of relationship quality at pretest may also highlight another limitation of this study due to selection effects. It is quite possible that those step couples with healthy, resilient relationships self-select into the *Smart Steps* program. This can be seen in the rather high percentage of participants who fit into the highest trajectory class for both men and women (74.1% and 64.9%, respectively). Were the study participants to have included a greater number of distressed couples, the resulting trajectory classes may have looked rather different and it more risk and protective factors may have emerged from the analyses.

Finally, this study is limited by the very complexity of stepfamilies and the resulting difficulty in capturing all possible risk factors that may influence their relationship quality over time. However, this is a limitation echoed in other studies of these diverse family forms (Ganong & Coleman, 2018; Lucier-Greer & Adler-Baeder, 2012; Vemer et al., 1989). Although program design often limits the length of surveys and thereby limits the depth of contextual variables that can be collected, future studies focused on capturing the complex differences that may exist from stepfamily to stepfamily and their impact on relationship quality would be a beneficial addition to the stepfamily relationship quality literature.

## Conclusion

Although not without its limitations, this study makes a number of important contributions to the stepfamily RE literature. Using a sample of 777 participants in a *SmartSteps: Embrace the Journey* stepfamily relationship education program, growth mixture modeling was used to identify latent trajectories in relationship quality across pre, post, and booster sessions. Findings show that three distinct relationship quality trajectories were present within female participants and two trajectories within male participants. Overall, the best-fitting models showed the vast majority of participants in trajectory classes with increasing relationship quality across time (94.5% and 100% for females and males, respectively) providing further evidence of the beneficial effects of participation in stepfamily RE programming on the relationship variable. Further analyses were conducted to determine which of a series of possible risk and protective factors act as predictors of trajectory class membership. Two variables emerged as significant predictors. Participants who were in the “high and rising” class reported higher levels of commitment and parenting agreement at pretest than did those in the “mid and rising” classes for both men and women. Additionally, for women, lower scores at pretest on the commitment and parenting agreement variables predicted membership in the “low and falling” trajectory class. Age, ethnicity, marital status, and SES were not significant predictors of trajectory status suggesting that the course is effective across a wide range of participants. These findings add to the growing body of stepfamily RE research showing beneficial impacts from program participation and further illustrating the utility of such programs across the diverse array of modern stepfamilies.

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APPENDICES

Appendix A  
IRB Approvals



## Protocol # 1654

Institutional Review Board  
 4460 Old Main Hill, SER 140  
 Logan, UT 84322-4460  
 Telephone: (435) 797-1821  
 Fax: (435) 797-3769



12/20/2006

SPO #: 061879  
 AES #: UTA00

## MEMORANDUM

TO: Brian Higginbotham  
 Scot Allgood, Linda Skogrand

FROM: Richard D. Gordin, Acting IRB Chair  
 True M. Rubal, IRB Administrator

SUBJECT: Teaching Healthy Marriage Skills to Ethnically Diverse, Low-income Couples  
 in Stepfamilies

Your proposal has been reviewed by the Institutional Review Board and is approved under expedite procedure #7

- There is no more than minimal risk to the subjects.  
 There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file for the period of one year. If your study extends beyond this approval period, you must contact this office to request an annual review of this research. Any change affecting human subjects must be approved by the Board prior to implementation. Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Institutional Review Board.

Prior to involving human subjects, properly executed informed consent must be obtained from each subject or from an authorized representative, and documentation of informed consent must be kept on file for at least three years after the project ends. Each subject must be furnished with a copy of the informed consent document for their personal records.

The research activities listed below are expedited from IRB review based on the Department of Health and Human Services (DHHS) regulations for the protection of human research subjects, 45 CFR Part 46, as amended to include provisions of the Federal Policy for the Protection of Human Subjects, November 9, 1998.

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.



## Institutional Review Board

USU Assurance: FWA#00003308

### Request for Determination of Non- human Subjects Research



## Approved

FROM:

Melanie Domenech Rodriguez, IRB Chair

Nicole Vouvalis, IRB Administrator

To: Kay Bradford, Bryan Spuhler

Date: February 05, 2019

Protocol #: 9912

Title: Relationship Quality Before, During, And After Stepfamily Education: A Latent Trajectory Analysis

Based on the information provided to USU's IRB, it has been determined that this project does not qualify as human subject research as defined in 45 CFR 46.102(d) and (f) and is not subject to oversight by USU's IRB.

4460 Old Main  
Hill

Logan, UT 84322-  
4460

PH: (435)  
797-1821

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3769

WEB: [irb.usu.edu](http://irb.usu.edu)

EMAIL: [irb@usu.edu](mailto:irb@usu.edu)

Appendix B  
Pre-Survey Evaluation Form



14. Will you be attending these classes with your spouse/partner? ① Yes ② No

15. How many years of school have you completed? (*High School graduate = 12; College = 13-16*) \_\_\_\_\_

16. Please indicate your primary religious affiliation (*mark only one*):

- ① Baptist                      ④ Catholic                      ⑦ Episcopalian  
 ② Jewish                      ⑤ Methodist                      ⑧ Latter-day Saint  
 ③ Atheist                      ⑥ No religious affiliation      ⑨ Other: \_\_\_\_\_

17a. How many biological children do you have from other relationships? \_\_\_\_\_

17b. How many of your biological children, from other relationships, live with you during any part of the year? \_\_\_\_\_

18a. How many biological children does your partner have from other relationships? \_\_\_\_\_

18b. How many of your partner's biological children, from other relationships, live with you during any part of the year? \_\_\_\_\_

19. How many biological children have you and your current partner had together? \_\_\_\_\_

Do you or any of your children receive the following services?

- 20a. Free or reduced school lunches      ① Yes      ② No  
 20b. Food stamps                              ① Yes      ② No  
 20c. Medicaid                                  ① Yes      ② No  
 20d. Head Start or Early Head Start      ① Yes      ② No  
 20e. WIC    ① Yes      ② No

21. Approximately, what is your total personal income per year (*Do not include your partner's income*)?

- ① Less than \$5,000                      ③ \$20,001 to \$25,000                      ⑤ \$40,001 to \$50,000  
 ② \$5,001 to \$10,000                      ④ \$25,001 to \$30,000                      ⑥ \$50,001 to \$75,000  
 ③ \$10,001 to \$15,000                      ⑦ \$30,001 to \$35,000                      ⑧ \$75,001 to \$100,000  
 ④ \$15,001 to \$20,000                      ⑨ \$35,001 to \$40,000                      ⑩ More than \$100,000

22. Approximately, what is your partner's or spouse's total personal income per year (*Do not include your own income*)?

- ① Less than \$5,000                      ③ \$20,001 to \$25,000                      ⑤ \$40,001 to \$50,000  
 ② \$5,001 to \$10,000                      ④ \$25,001 to \$30,000                      ⑥ \$50,001 to \$75,000  
 ③ \$10,001 to \$15,000                      ⑦ \$30,001 to \$35,000                      ⑧ \$75,001 to \$100,000  
 ④ \$15,001 to \$20,000                      ⑨ \$35,001 to \$40,000                      ⑩ More than \$100,000

23. Do you and your partner/spouse "pool" or combine your earnings?      ① Yes ② No ③ Some of it

**PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR RELATIONSHIP WITH YOUR CURRENT PARTNER/SPOUSE  
 IT WILL HELP US EVALUATE OUR PROGRAM. YOUR RESPONSES WILL NOT BE SEEN BY YOUR PARTNER/SPOUSE**

24. On a scale from 1 to 7, how happy are you with your relationship with your current partner/spouse?

①	②	③	④	⑤	⑥	⑦
Completely Unhappy	Moderately Unhappy	Slightly Unhappy	Neither Happy or Unhappy	Slightly Happy	Moderately Happy	Completely Happy

25. Do you agree with the following statements about your relationship with your current partner/spouse?	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A. My relationship with my partner/spouse is more important to me than almost anything else in my life.	①	②	③	④	⑤
B. I may not want to be with my partner/spouse a few years from now.	①	②	③	④	⑤
C. I like to think of my partner/spouse and me more in terms of "us" and "we" than "me" and "him/her."	①	②	③	④	⑤
D. I want this relationship to stay strong no matter what rough times we may encounter.	①	②	③	④	⑤

26. Regarding your current relationship...	Never	Yes, in the past but not recently	Yes, recently
A. Have you ever thought your relationship might be in trouble?	①	②	③
B. Has the thought of getting a divorce or separation crossed your mind?	①	②	③
C. Have you discussed divorce or separation with a close friend?	①	②	③
D. Have you or your partner/spouse ever seriously suggested the idea of divorce or separation?	①	②	③

27. How often do you and your current partner/spouse agree or disagree about...	Always Disagree	Frequently Disagree	Equally Agree/Disagree	Frequently Agree	Always Agree
A. Finances	①	②	③	④	⑤
B. Dealing with family/relatives	①	②	③	④	⑤
C. Dealing with ex-spouses or ex-partners	①	②	③	④	⑤
D. Parenting	①	②	③	④	⑤

28. Regarding your current relationship with your partner/spouse...	Very Strongly Disagree	Strongly Disagree	Disagree	Mixed	Agree	Strongly Agree	Very Strongly Agree
A. We have a good relationship	①	②	③	④	⑤	⑥	⑦
B. My relationship with my partner is very stable	①	②	③	④	⑤	⑥	⑦
C. Our relationship is strong	①	②	③	④	⑤	⑥	⑦
D. My relationship with my partner makes me happy	①	②	③	④	⑤	⑥	⑦
E. I really feel like part of a team with my partner	①	②	③	④	⑤	⑥	⑦

**WE WOULD LIKE TO KNOW IF THESE CLASSES HELP FAMILIES OVER TIME. WE WOULD LIKE TO SEND YOU UPDATES AND AN ANNUAL FOLLOW-UP SURVEY IN THE MAIL. PLEASE PROVIDE YOUR MAILING AND CONTACT INFORMATION.**

Your Mailing Address	Apt. #	City	State	Zip Code
( ) - ( ) -				
Phone Number	Cell Phone Number	E-mail Address		

**IN CASE YOU MOVE, PLEASE PROVIDE THE CONTACT INFORMATION OF A FRIEND OR RELATIVE (E.G., MOTHER, NEIGHBOR, ETC.) THAT WE CAN REACH TO GET YOUR CURRENT ADDRESS.**

First and Last Name	How is this person related to you?			
Mailing Address	Apt. #	City	State	Zip Code
( ) - ( ) -				
Phone Number	Cell Phone Number	E-mail Address		

**PLEASE SEAL THIS FORM IN THE ATTACHED ENVELOPE AND RETURN IT TO YOUR CLASS FACILITATOR.**

Appendix C  
Post-Survey Evaluation Form

### *Adult Post Program Evaluation Form*

(To be completed at the end of the last class)

**PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOURSELF AS HONESTLY AND ACCURATELY AS POSSIBLE. THERE ARE NO "RIGHT" ANSWERS. ALL RESPONSES WILL REMAIN CONFIDENTIAL AND WILL NOT BE SEEN BY YOUR SPOUSE/PARTNER OR THE CLASS FACILITATOR.**

PART A. Please mark the appropriate box.		Very Poor	Poor	Average	Good	Excellent
1.	Rate the overall quality of the Smart Steps program.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
2.	Rate the overall quality of the facilitator's work.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
3.	Rate the overall level of participation by group members.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
4.	Rate the overall quality of discussions.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
5.	Rate the overall quality of the program materials.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

**PART B. Please mark the boxes that reflect your opinion BEFORE and AFTER attending the *Smart Steps* classes.**

	<u>BEFORE this class:</u>					<u>Now, AFTER this class:</u>				
	Was Really False	Was False	Was Neither	Was True	Was Really True	Is Really False	Is False	Is Neither	Is True	Is Really True
1. I understand how stepfamilies develop.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
2. I understand what it takes to have a healthy remarriage.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
3. I have a lot of parenting knowledge and skills.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
4. I understand the legal issues facing stepfamilies.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
5. I communicate well with my partner/spouse.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
6. I communicate well with all my children/stepchildren.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
7. I communicate well with my ex-partner/ex-spouse.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
8. I have good conflict management skills.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
9. There are a lot of positives in my relationship with my partner.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
10. There are a lot of negatives in my relationship with my partner.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
11. There is a lot of conflict in our family.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
12. We show respect for each other.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

**Please write anything that you think would improve the program, classes, and/or evaluation process.**

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PART C. Please indicate if you agree or disagree with the following statements.		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1.	The meeting site was accessible.	①	②	③	④	⑤
2.	The length and time of sessions fit well with my work/family schedule.	①	②	③	④	⑤
3.	The program exceeded my expectations.	①	②	③	④	⑤
4.	I would refer this program to family and friends.	①	②	③	④	⑤
5.	I have learned knowledge and skills about healthy relationships.	①	②	③	④	⑤

**PART D. PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR RELATIONSHIP WITH YOUR CURRENT PARTNER/SPOUSE. IT WILL HELP US EVALUATE OUR PROGRAM.**

**1. On a scale from 1 to 7, how happy are you with your relationship with your current partner/spouse?**

①	②	③	④	⑤	⑥	⑦	
Completely Unhappy	Moderately Unhappy	Slightly Unhappy	Neither Happy or Unhappy	Slightly Happy	Moderately Happy	Completely Happy	
<b>2. Do you agree with the following statements about your relationship with your current partner/spouse?</b>							
			Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A.	My relationship with my partner/spouse is more important to me than almost anything else in my life.		①	②	③	④	⑤
B.	I may not want to be with my partner/spouse a few years from now.		①	②	③	④	⑤
C.	I like to think of my partner/spouse and me more in terms of "us" and "we" than "me" and "him/her."		①	②	③	④	⑤
D.	I want this relationship to stay strong no matter what rough times we may encounter.		①	②	③	④	⑤

3. Regarding your current relationship...		Never	Yes, in the past but not recently	Yes, recently
A.	Have you ever thought your relationship might be in trouble?	①	②	③
B.	Has the thought of getting a divorce or separation crossed your mind?	①	②	③
C.	Have you discussed divorce or separation with a close friend?	①	②	③
D.	Have you or your partner/spouse ever seriously suggested the idea of divorce or separation?	①	②	③

4. How often do you and your current partner/spouse agree or disagree about...		Always Disagree	Frequently Disagree	Equally Agree/Disagree	Frequently Agree	Always Agree
A.	Finances	①	②	③	④	⑤
B.	Dealing with family/relatives	①	②	③	④	⑤
C.	Dealing with ex-spouses or ex-partners	①	②	③	④	⑤
D.	Parenting	①	②	③	④	⑤

5. Regarding your current relationship with your partner/spouse...		Very Strongly Disagree	Strongly Disagree	Disagree	Mixed	Agree	Strongly Agree	Very Strongly Agree
A.	We have a good relationship	①	②	③	④	⑤	⑥	⑦
B.	My relationship with my partner is very stable	①	②	③	④	⑤	⑥	⑦
C.	Our relationship is strong	①	②	③	④	⑤	⑥	⑦
D.	My relationship with my partner makes me happy	①	②	③	④	⑤	⑥	⑦
E.	I really feel like part of a team with my partner	①	②	③	④	⑤	⑥	⑦

Appendix D  
6-Week Booster Session Evaluation Form

### *Booster Session Evaluation Form*

(To be completed at the end of the booster session)

**PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOURSELF AS HONESTLY AND ACCURATELY AS POSSIBLE. THERE ARE NO "RIGHT" ANSWERS. ALL RESPONSES WILL REMAIN CONFIDENTIAL AND WILL NOT BE SEEN BY YOUR SPOUSE/PARTNER OR THE CLASS FACILITATOR.**

PART A. Please indicate if you agree or disagree with the following statements.		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1.	The booster session was fun.	①	②	③	④	⑤
2.	The booster session was educational.	①	②	③	④	⑤
3.	Attending the booster session was worth my time.	①	②	③	④	⑤
4.	The length and time of this booster session fit well with my work/family schedule.	①	②	③	④	⑤
5.	I have learned knowledge and skills about healthy relationships.	①	②	③	④	⑤

**PART B. What did you like MOST about the booster session?**

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**PART C. What did you like LEAST about the booster session?**

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**PART D. Please mark the boxes that reflect your knowledge BEFORE and AFTER attending the booster session**

	BEFORE this booster session:					Now, AFTER this booster:				
	Was Really False	Was False	Was Neither	Was True	Was Really True	Is Really False	Is False	Is Neither	Is True	Is Really True
13. I understand that it may take work and time to build close relationships in stepfamilies.	①	②	③	④	⑤	①	②	③	④	⑤
14. I understand communication requires listening to understand, before responding.	①	②	③	④	⑤	①	②	③	④	⑤
15. I understand that stepfamilies can succeed if they work together.	①	②	③	④	⑤	①	②	③	④	⑤
16. I understand the need to work on all relationships in a stepfamily.	①	②	③	④	⑤	①	②	③	④	⑤

**Part E. Please think about your overall experience in the Stepfamily course (6 classes AND the booster).**

- If this stepfamily course was NOT free, would you have attended?      ① Yes      ② No
- How much would you be willing to pay for a stepfamily educational course such as this? \$ \_\_\_\_\_

3. What is the most important outcome/result that has occurred in your family due to participation in this course?

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**PART F. AT THE END OF THE LAST CLASS WE ASKED A NUMBER OF QUESTIONS ABOUT YOUR RELATIONSHIP WITH YOUR CURRENT PARTNER/SPOUSE. PLEASE ANSWER THE QUESTIONS AGAIN TO HELP US EVALUATE THE LONG-TERM EFFECTS OF PARTICIPATING IN THIS COURSE.**

1. Since attending the *Smart Steps* classes, on a scale from 1 to 7, how happy are you currently with your relationship with your partner/spouse?

①	②	③	④	⑤	⑥	⑦
Completely Unhappy	Moderately Unhappy	Slightly Unhappy	Neither Happy or Unhappy	Slightly Happy	Moderately Happy	Completely Happy

2. Since attending the <i>Smart Steps</i> classes, do you agree with the following statements?		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A.	My relationship with my partner/spouse is more important to me than almost anything else in my life.	①	②	③	④	⑤
B.	I may not want to be with my partner/spouse a few years from now.	①	②	③	④	⑤
C.	I like to think of my partner/spouse and me more in terms of "us" and "we" than "me" and "him/her."	①	②	③	④	⑤
D.	I want this relationship to stay strong no matter what rough times we may encounter.	①	②	③	④	⑤

3. Since attending the <i>Smart Steps</i> classes...		Never	Yes, in the past but not recently	Yes, recently
A.	Have you ever thought your relationship might be in trouble?	①	②	③
B.	Has the thought of getting a divorce or separation crossed your mind?	①	②	③
C.	Have you discussed divorce or separation with a close friend?	①	②	③
D.	Have you or your partner/spouse ever seriously suggested the idea of divorce or separation?	①	②	③

4. Since attending the <i>Smart Steps</i> classes, how often do you and your current partner/spouse agree or disagree about...		Always Disagree	Frequently Disagree	Equally Agree/Disagree	Frequently Agree	Always Agree
A.	Finances	①	②	③	④	⑤
B.	Dealing with family/relatives	①	②	③	④	⑤
C.	Dealing with ex-spouses or ex-partners	①	②	③	④	⑤
D.	Parenting	①	②	③	④	⑤

5. Regarding your current relationship with your partner/spouse...		Very Strongly Disagree	Strongly Disagree	Disagree	Mixed	Agree	Strongly Agree	Very Strongly Agree
A.	We have a good relationship	①	②	③	④	⑤	⑥	⑦
B.	My relationship with my partner is very stable	①	②	③	④	⑤	⑥	⑦
C.	Our relationship is strong	①	②	③	④	⑤	⑥	⑦
D.	My relationship with my partner makes me happy	①	②	③	④	⑤	⑥	⑦
E.	I really feel like part of a team with my partner	①	②	③	④	⑤	⑥	⑦

## CURRICULUM VITAE

### BRYAN K. SPUHLER

Human Development and Family Studies  
Utah State University  
2705 Old Main,  
Logan, UT 84322-2705

Cell: (702) 807-1707  
Email: [bryan.spuhler@aggiemail.usu.edu](mailto:bryan.spuhler@aggiemail.usu.edu)

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## EDUCATION

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### **Doctor of Philosophy, Human Development and Family Studies**

May 2020 Utah State University, Family Relations Emphasis

Dissertation: *Relationship Quality Before, During, and After Stepfamily Education: A Latent Trajectory Analysis*

Major Professor: Kay Bradford, Ph.D.

### **Bachelor of Science, Integrated Studies – Psychology / Business**

Dec 2011 Utah Valley University, Magna Cum Laude

## EMPLOYMENT AND RELATED EXPERIENCE

**Graduate Student Instructor (Instructor of Record), Utah State University  
2014-Present**

Department of Family, Consumer, and Human Development, College of Education and Human Services. FCHD 2400: Marriage and Family Relationships (3 Credit Hours) Fall 2014 (104 students), Spring 2015 (102 students), Fall 2015 – Interactive Broadcast Course (46 students), Spring 2016 (110 students), Fall 2016 (108 students), Spring 2017 (67 students).

Designed and taught six semesters of an undergraduate Marriage and Family Relationships course. This course fulfilled a general education requirement and its students are predominantly non-FCHD majors. Determined which subjects to include, wrote syllabi including assignments and rubrics and created all lecture material for the course. Taught in both traditional and online/broadcast formats. Adapted course content and presentation to students' needs and interests. Managed course webpage on Canvas (classroom management portal) including posting course content, maintaining communication with students, and overseeing and posting grades. Maintained office hours and met with students to address grading issues, provide additional explanation/instruction as necessary, and to mentor and support students seeking assistance. Supervised graduate

teaching assistants in grading and giving occasional lectures. Mentored fellow graduate instructors as they began teaching a course of their own.

**Research Assistant, Utah State University  
2013-Present**

Department of Family, Consumer, and Human Development, College of Education and Human Services. Kay Bradford Ph.D., Brian Higginbotham Ph.D., & Linda Skogrand Ph.D. (Supervisors)

Conducted applied research within a Cooperative Extension setting. Primary data analyst for a multi-curriculum training series including parenting and relationship courses taught in the community, select high schools and jails, and within the Department of Workforce Services across the state of Utah. Responsible for semi-annual reports to the funding agency as well as various in-house reports and analyses for program managers and principal investigators. Conducted and analyzed qualitative interviews in the form of focus groups with program participants. Developed new instruments for the various curricula being taught. Coordinated with Extension agents, facilitators, and staff to ensure a smooth data flow from data collection and management and data analysis. Contributed in the drafting of a grant proposal awarded 7.6 million dollars for Fatherhood Education. First author of 6 semi-annual summary reports and multiple monthly reports for the funding agency. Contributed to five articles in various stages of preparation and publication including three as first author. Presented as first author at three NCFR national conferences and three UTCFR conferences. Transitioned several of our survey instruments from pen and paper to Qualtrics online survey system. Compiled datasets for various projects and served as a data consultant for other students working on their theses or other research projects. Met in bi-weekly research team meetings to contribute feedback to, and receive it from other research team members as we progressed on our various projects.

**Teaching Assistant, Utah State University  
2018-2019**

Department of Human Development and Family Studies, College of Education and Human Services. HDFS 2400: Marriage and Family Relationships – Gonca Soyer, M.S. (Supervisor) (3 Credit Hours) Fall and Spring Semesters – 125 Students per semester Graded papers, recorded grades, contacted students outside of class, and assisted with curriculum development.

**Teaching Assistant, Utah State University  
2017-2018**

Department of Family, Consumer, and Human Development, College of Education and Human Services. FCHD 4230 Online: Families and Social Policy – Susan Talley, Ph.D.

(Supervisor) (3 Credit Hours) Fall and Spring Semesters – 45-56 Students per semester  
Graded papers, recorded grades, contacted students outside of class, assisted with curriculum development, and evaluated group projects.

**Teaching Assistant, Utah State University  
2013-2014**

Department of Family, Consumer, and Human Development, College of Education and Human Services. FCHD 2000: Careers and Life Planning in FCHD – Cindy Stokes M.S.  
(Supervisor) (3 Credit Hours) Fall and Spring Semesters - 111 Students per semester  
Lectured, graded papers, recorded grades, met with students outside of class, assisted with curriculum development, evaluated group presentations, and recorded guest speakers.

**Teaching Assistant, Utah State University  
2012-2013**

Department of Family, Consumer, and Human Development, College of Education and Human Services. FCHD 2400: Marriage and Family Relationships – Jeffrey Dew Ph.D.  
(Supervisor) (3 Credit Hours) Fall and Spring Semesters - 110 Students per semester  
Lectured, graded papers, recorded grades, assisted with curriculum development, and conducted exam review sessions.

**Case Manager/ Foster Parent Recruiter/ Trainer/ Group Home Supervisor, Maple Star Nevada (Jennifer Erbes, Supervisor)  
2006-2011**

Managed the adolescent boys' group home, a caseload of 35+ treatment-level foster children, and up to ten foster homes. In charge of recruiting, licensing, and training of new foster parents and psycho-social rehabilitation workers. Taught 40-hour foster parent training series to all new foster parents. Drafted treatment plans and reports for Medicaid. Coordinated efforts of treatment providers.

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## TEACHING AND ADVISING

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### TEACHING EXPERIENCE

Utah State University

HDFS 2400

Marriage and Family Relationships

Fall 2018, Spring 2019

FCHD 4230

Family and Social Policy

Fall 2017\*\*,  
Spring 2018\*\*

**FCHD 2400**

**Marriage and Family Relationships**

**Fall 2014, 2015\*, 2016,  
Spring 2015, 2016, 2017**

FCHD 2000	Careers and Life Planning in FCHD	Fall 2013 Spring 2014
FCHD 2400	Marriage and Family Relationships	Fall 2012, 2018 Spring 2013
<i>Maple Star Nevada</i>		
<i>CPI - Training</i>	<i>Non-Violent Crisis Intervention</i>	<i>Fall 2007, 2008, 2009, 2010 Spring 2008, 2009, 2010, 2011*</i>
<i>40 Hour Initial Foster Parent Training - Required for Licensure in Nevada</i>	<i>Open Your Home, Open Your Heart</i>	<i>Fall 2006, 2007, 2008, 2009, 2010 Spring 2007, 2008, 2009, 2010, 2011</i>
<i>Bold and italics: Served as instructor of record</i>		
*Broadcast course ** Online course		

#### INVITED TEACHING PRESENTATIONS:

**Spuhler, B. K.** Sexual Functioning and Sexual Expectations within Couples. Guest Lecture given February 6, 2019, HDFS 2400, Marriage and Family Relationships (Gonca Soyer, instructor).

**Spuhler, B. K.** Union Formation, Cohabitation, and Marriage. Guest Lecture given October 8, 2018, HDFS 2400, Marriage and Family Relationships (Gonca Soyer, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given October 4, 2018, HDFS 2000, Careers and Life Planning in HDFS (Cindy Stokes, instructor).

**Spuhler, B. K.** Successes and Failures of the Foster Care System; A Social Policy Case Study. Guest Lecture given October 17, 2017, FCHD 4230, Family and Social Policy (Darcy Keady, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given October 5, 2017, FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Parting within Foster and Adoptive Families. Guest Lecture given March 4, 2017,

FCHD 2660, Parenting and Child Guidance (Sheryl Goodey, instructor).



**Spuhler, B. K.** Social Work and Case Management. Presentation given February 13, 2017,

FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Foster Care and Adopted Youth. Guest Lecture given December 2, 2016, FCHD 2660, Parenting and Child Guidance (Sheryl Goodey, instructor).

**Spuhler, B. K.** Divorce. Guest Lecture given September 29, 2016, FCHD 2400, Marriage and Family Relationships (Mitchell Rhodes, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given September 22, 2016,

FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given April 6, 2016, FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Foster Care and Adopted Youth. Guest Lecture given December 4, 2015, FCHD 2660, Parenting and Child Guidance (Sheryl Goodey, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given September 24, 2015,

FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Marriage: Building a Strong Foundation. Guest Lecture given March 31, 2015,

FCHD 2400, Marriage and Family Relationships (J. Wade Stewart, instructor).

**Spuhler, B. K.** Friendship, Intimacy, and Singlehood. Guest Lecture given March 17, 2015,

FCHD 2400, Marriage and Family Relationships (J. Wade Stewart, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given January 26, 2015, FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** Social Work and Case Management. Presentation given September 22, 2014, FCHD 2000, Careers and Life Planning in FCHD (Cindy Stokes, instructor).

**Spuhler, B. K.** FCHD Careers and Graduate School Paths. Presentation given April 18, 2014, FCHD 1500, Human Development through the Lifespan (Travis Parry, instructor).

**Spuhler, B. K.** Race and Ethnicity and Their Influence on Families. Guest Lecture given March 26, 2013, FCHD 2400, Marriage and Family Relationships (Jeffrey Dew,

instructor).

**Spuhler, B. K.** Divorce and its Effects on Children and Future Relationship Formation. Guest Lecture given February 12, 2013, FCHD 2400, Marriage and Family Relationships (Jeffrey Dew, instructor).

**Spuhler, B. K.** Race and Ethnicity and Their Influence on Families. Guest Lecture given November 1, 2012, FCHD 2400, Marriage and Family Relationships (Jeffrey Dew, instructor).

**Spuhler, B. K.** Divorce and its Effects on Children and Future Relationship Formation. Guest Lecture given October 2, 2012, FCHD 2400, Marriage and Family Relationships (Jeffrey Dew, instructor).

### **CURRICULUM DEVELOPMENT/ COURSE DESIGN**

**FCHD 2400** is a course which covers a wide array of topics related to marriage and family relationships. When I was asked to teach this course I was given quite a bit of latitude to determine the course content, structure, and aims. Over the next few semesters, I made significant changes to the course and developed what has become the template for many of the instructors who have come behind me.

**Cindy Stokes, MS** designed a new course for our department entitled Careers and Life Planning in FCHD. This required course was designed to help FCHD majors identify possible career paths within their area of interest as well as develop personal and professional skills to aid them as they transitioned to careers and life beyond college. As her teaching assistant, I worked closely with Cindy during the first two semesters the course was taught and helped with topic selection, lecture content, assignment development, and exam writing.

### **GRADUATE STUDENT TEACHER ASSISTANT MENTORING/SUPERVISING**

**Fall 2014 - Jesse Higgins, Spring 2015 - Collette Evans, Fall 2016 - Ty Aller, Spring 2016 - Marshall Grimm, Fall 2016 - Jennifer Johnson, Spring 2017 - Loni Stookey**

Each semester that I taught I had a graduate student assigned as my teaching assistant. I supervised their grading and mentored them by providing teaching experiences, feedback, and training.

### **GRADUATE STUDENT INSTRUCTOR MENTORING**

#### **2014-Present**

Provided support, training, guidance, and mentorship to over 20 fellow graduate student instructors. Advised on topics such as course development, content selection, syllabi

creation, drafting of assignments and rubrics, exam creation, classroom management, grading practices and procedures, online and broadcast course development, and other pedagogical issues. Within this capacity I assisted both informally and through formal observations and feedback.

## **UNDERGRADUATE RESEARCH ASSISTANT SUPERVISION**

**2019**

### **Keaton Sutter**

Trained an undergraduate student in the qualitative analysis of short-response survey data. Met weekly to evaluate progress and hone analytic skills.

**2015-2016**

### **Courtney Nielsen**

Supervised and trained an undergraduate student in the qualitative analysis of focus group and short-response survey data. Supervised work on instrument development and formatting. Met weekly to evaluate progress and hone analytic skills.

**2015**

### **Jennifer Henninger**

Supervised and trained an undergraduate student in the qualitative analysis of focus group and short-response survey data. Met weekly to evaluate progress and hone analytic skills.

## **ADDITIONAL INSTRUCTIONAL TRAINING:**

**2014-2017**

USU Graduate Student Instructor Forum. Logan, Utah.

Bi-weekly meetings of all FCHD graduate student instructors and our supervisor. We shared successes and failures, discussed challenges and solutions, and discussed all aspects of teaching from policy to pedagogy with a variety of faculty members. I attended for seven semesters, resulting in roughly 60 hours of continuing training and discussion in the art and science of teaching.

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## **RESEARCH**

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### **RESEARCH INTERESTS:**

Relationship education impacts and program evaluation

Couples processes within a stepfamily context

“Hooking up” and its influences on later relationship patterns

Inter-cultural marriage – expectation discrepancies and effective tools for balancing differing cultural expectations.

Financial influencers on family processes

Foster and adoptive family processes

### **PUBLISHED MANUSCRIPTS**

Goodey, S., **Spuhler, B. K.**, & Bradford, K. (In Press). Relationship education within incarcerated populations: A theoretical call to action. *Marriage & Family Review*.

**Spuhler, B. K.**, Dew, J., (In Press). Sound financial management and happiness: Economic pressure and relationship satisfaction as mediators. *Journal of Financial Counseling and Planning*.

### **MANUSCRIPTS SUBMITTED FOR PUBLICATION**

Bradford, K., **Spuhler, B. K.**, Higginbotham, B. J., Laxman, D., & Morgan, C. (Under Review Following Revision). "I don't want to make the same mistakes:" Examining relationship education among low-income single adults. *Family Relations*.

### **MANUSCRIPTS IN PREPARATION:**

**Spuhler, B. K.**, Rhodes, M. R., & Novak, J. R. (Under Review). Predictors of sexual assertiveness among highly religious single emerging adults. *Theology and Sexuality*.

**Spuhler, B.K.**, Goodey, S., & Bradford, K., & Higginbotham, B. J. Pre-relationship education for inmate populations: A pilot study. *Family Process (Submission Pending)*.

**Spuhler, B.K.**, Bradford, K., Novak, J., & Higginbotham, B. J. Relationship satisfaction and need for change as predictors of relationship education outcomes. *Marriage and Family Review (Submission Pending)*.

**Spuhler, B. K.**, Goodey, S., Bradford, K., & Higginbotham, B. J. Parenting education for low-income participants; A mixed methods study.

**Spuhler, B. K.**, Rhodes, M., & Novak, J. Hooking up trends and trajectories within highly religious emerging adult college students; A descriptive study.

**Spuhler, B. K.**, Novak, J., Bradford, K., & Higginbotham, B. J. Relationship satisfaction trajectories and their driving forces over a stepfamily relationship education course: A latent trajectory analysis.

### **TECHNICAL REPORTS TO FUNDING AGENCIES:**

**Spuhler, B. K.**, Bradford, K., & Higginbotham, B. J. (June, 2018). *USU Parenting and Relationship Skills Sponsor Award ID # 18DWS0126, USU Contract # 201090*. Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., & Higginbotham, B. J. (January, 2018). *USU Parenting and Relationship Skills Sponsor Award ID # 18DWS0126, USU Contract # 201090.* Semi-Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., & Higginbotham, B. J. (June, 2017). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., & Higginbotham, B. J. (January, 2017). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Semi-Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., Higginbotham, B. J., & Skogrand, L. (June, 2016). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., Higginbotham, B. J., & Skogrand, L. (January, 2016). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Semi-Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., Higginbotham, B. J., & Skogrand, L. (June, 2015). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Annual Report to Funding Agency.

**Spuhler, B. K.,** Bradford, K., Higginbotham, B. J., & Skogrand, L. (January, 2015). *USU Parenting and Relationship Skills DWS contract # 142617, USU Contract # 140984.* Semi-Annual Report to Funding Agency.

**Spuhler, B. K.,** Skogrand, L., Bradford, K., & Higginbotham, B. J. (February, 2014). *Finding Healthy Relationships and Parenting with Love and Logic: Focus group evaluation report 2013.* Report of qualitative interviews on program efficacy and formative feedback provided the Utah Department of Workforce Services.

**Spuhler, B. K.,** Bradford, K., Higginbotham, B. J., & Skogrand, L. (Submitted monthly from 9/2013 to 5/2014). *DWS and USU Baseline Survey of Relationship Education DWS contract # 142617, USU Contract # 140984.* Monthly reports on participant satisfaction and program efficacy provided to the Utah Department of Workforce Services.

#### **NATIONAL PRESENTATIONS (Peer-Reviewed):**

**Spuhler, B. K.,** Bradford, K., Novak, J., & Higginbotham, B. J. (November, 2018). *Hitting the mark: A latent trajectory analysis of relationship quality across a stepfamily education course.* Paper presented at the annual conference of the National Council on Family Relations, San Diego, CA.

Rhodes, M., Novak, J., & **Spuhler, B. K.** (November, 2018). *Predictors of sexual assertiveness among highly religious single adults*. Paper presented at the annual conference of the National Council on Family Relations, San Diego, CA. Presented by **Bryan Spuhler**

Bradford, K., Boehme, R., Harris, J., **Spuhler, B. K.**, & Higginbotham, B. J. (November, 2018). *A mixed methods study of reaching youth in high schools: Youth relationship concerns and gains from relationship education*. Poster presented at the annual conference of the National Council on Family Relations, San Diego, CA.

Laxman, D., Goodey, S., Bradford, K., **Spuhler, B. K.**, & Higginbotham, B. J. (November, 2018). *Focus on them and they will come: A statewide case study on involving men in relationship education*. Poster presented at the annual conference of the National Council on Family Relations, San Diego, CA.

**Spuhler, B. K.**, Bradford, K., Novak, J., & Higginbotham, B. J. (November, 2017). *Relationship satisfaction and need for change as predictors of relationship education outcomes*. Poster presented at the annual conference of the National Council on Family Relations, Orlando, FL.

**Spuhler, B. K.**, Goodey, S., Bradford, K., Higginbotham, B. J., & Skogrand, L. (November, 2016). *An exploratory study of relationship education among incarcerated populations*. Poster presented at the annual conference of the National Council on Family Relations, Minneapolis, MN.

**Spuhler, B. K.**, Skogrand, L., Bradford, K., Higginbotham, B. J., & Nielsen, C. (November, 2015). *Parenting education for low-income participants – a mixed methods study*. Poster presented at the annual conference of the National Council on Family Relations, Vancouver, BC.

**Spuhler, B. K.**, Skogrand, L., Bradford, K., & Higginbotham, B. J. (November, 2014). *Relationship education for low-income job seekers – a mixed methods study*. Paper presented at the annual conference of the National Council on Family Relations, Baltimore, MD.

#### **STATE & REGIONAL PRESENTATIONS (Peer-Reviewed):**

**Spuhler, B. K.**, Rhodes, M. R., & Novak, J. R. (March, 2018). *What Makes a Hookup Memorable for LDS Emerging Adults? Quantitative and Qualitative Descriptions*. Poster session at the annual conference of the Utah Council on Family Relations. Provo, UT.

Rhodes, M. R., Novak, J. R., & **Spuhler, B. K.** (March, 2018). *Predictors of Sexual Assertiveness among Highly Religious Single Young Adults*. Paper session at the annual conference of the Utah Council on Family Relations. Provo, UT.

**Spuhler, B. K.**, Goodey, S., Bradford, K., & Higginbotham, B. J. (February, 2018). *Quantitative and Qualitative Outcomes of Relationship Education within Incarcerated Populations*. Utah State University Human Development and Family Studies Research Day. Logan, Utah.

**Spuhler, B. K.**, Rhodes, M. R., & Novak, J. R. (February, 2018). *What Makes a Hookup Memorable for LDS Emerging Adults? Quantitative and Qualitative Descriptions*. Utah State University Human Development and Family Studies Research Day. Logan, Utah.

Rhodes, M. R., Novak, J. R., & **Spuhler, B. K.** (February, 2018). *Predictors of Sexual Assertiveness among Highly Religious Single Young Adults*. Utah State University Human Development and Family Studies Research Day. Logan, Utah.

Goodey, S., **Spuhler, B. K.**, & Crapo, S. (January, 2017) *What Goes on Down the Hill? Research in Extension-based Relationship Education*. USU Brown Bag Research Forum. Logan, Utah

**Spuhler, B. K.**, Goodey, S., Bradford, K., Higginbotham, B. J., & Skogrand, L. (April, 2016). *Breaking into Jails: A Pilot Study of Relationship Education Courses with Incarcerated Populations*. Poster session at the annual conference of the Utah Council on Family Relations. Ogden, UT.

**Spuhler, B. K.**, Skogrand, L., Bradford, K., Higginbotham, B. J., & Nielsen, C. (March, 2015). *Relationship Education for Low-Income Job-Seekers – A Mixed Methods Study*. Poster session at the annual conference of the Utah Council on Family Relations. Logan, UT.

**Spuhler, B. K.**, Skogrand, L., Bradford, K., & Higginbotham, B. J. (March, 2014). *Relationship Education for Low-Income Job Seekers – A Qualitative Study*. Poster session at the annual conference of the Utah Council on Family Relations. Provo, UT.

#### **ADDITIONAL RESEARCH TRAINING:**

*R For the Health, Behavioral, Educational, and Social Scientists II – CEPS 5700 LTI*  
T. Barrett, M.S., Logan, UT, Aug 29-Dec 5, 2017.

*R For the Health, Behavioral, Educational, and Social Scientists – CEPS 5700 LTI*  
T. Barrett, M.S., Logan, UT, May 9-June 29, 2017.

*Intro to R – Methodology Center Workshop*  
S. Schwartz, M.S., Logan, UT, Oct. 14, 2016.

*Data Visualization in R – Methodology Center Workshop*  
S. Schwartz, M.S., Logan, UT, Feb. 19, 2016

*Getting Started as a Successful Grant Writer and Academician*, Peg AtKisson, Ph.D., Logan, UT, Feb 26, 2013.

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## **SERVICE**

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### **PROFESSIONAL SERVICE:**

2016 – Present, Reviewer for multiple articles with *Family Relations* and the *Journal of Financial Counseling and Planning*.

March 2015, Utah Council on Family Relations Annual Conference, Logan UT.

- Assisted conference director in all aspects of planning, coordinating, and hosting a conference on the USU campus with roughly 150 participants.

### **UNIVERSITY SERVICE:**

2012-2015, Utah State University, FCHD Department, Graduate Student Senate Assistant

- Assisted FCHD Graduate Student Senate in carrying out graduate student functions and FCHD graduate student orientation.

### **COMMUNITY SERVICE:**

2009-2016, Scoutmaster / Assistant Scoutmaster – Boy Scouts of America; Hyde Park, UT, Providence, UT, Henderson, NV.

### **PROFESSIONAL AFFILIATIONS:**

#### **Current Memberships:**

##### **2014-Present**

National Council on Family Relations, Student Membership

#### **Past Memberships:**

##### **2006-2011**

Nevada Youth Care Providers, Member

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## **HONORS AND AWARDS**

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### **AWARDS:**

**2016 Outstanding Graduate Researcher of the Year** – Utah Council on Family Relations, Weber State University, Ogden, UT.



**2015-2016 Graduate Student Instructor of the Year** – Emma Eccles Jones College of Education and Human Services, Utah State University, Logan, UT.

**2010 Foster Parent and Home of the Year Award** – Nevada CASA Foundation;  
Awarded to the Delores Glass Group Home – under my management.

**SCHOLARSHIPS:**

**2016 Brent and Kevon Miller Scholarship;** Utah State University, College of Education and Human Services, Department of Family, Consumer, and Human Development.

**2016 Ferne Page West Scholarship;** Utah State University, College of Education and Human Services

**2015 Frederick Q. Lawson Fellowship;** Utah State University, College of Education and Human Services

**2015 T. Clair and Enid Johnson Brown Scholarship;** Utah State University, College of Education and Human Services

**2015 Leah D. Widtsoe Scholarship;** Utah State University, College of Education and Human Services, Department of Family, Consumer, and Human Development.

**2014 Charles J. and Rae Perkins Scholarship;** Utah State University, College of Education and Human Services

**2014 Brent and Kevon Miller Scholarship;** Utah State University, College of Education and Human Services, Department of Family, Consumer, and Human Development.