

Relationship Dynamics and Young Women's Contraceptive Use

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Abstract

Research from sub-Saharan Africa has shown that women's relationships and partners influence their contraceptive use. Most relevant studies focus on relationship status with few considering how the quality of a relationship might influence women's use of contraceptives. This study is the first to examine how both positive and negative relationship dynamics are associated with young women's modern contraceptive use among those who want to postpone pregnancy for at least two years or stop childbearing altogether. We analyze survey data collected in 2010 and 2011 from 723 young women aged 16-26 in partnerships in southern Malawi. The data include positive relationship dynamics such as expressions of love, communication, and partner support (relationship unity) and negative dynamics including unequal power and intimate partner violence. Logistic regression models show that relationship unity is significantly and positively associated with modern contraceptive use whereas negative relationship dynamics are not associated with contraceptive use among the sample. When stratified by relationship status, model results show the effects are driven by unmarried women. Results suggest that positive relationship dynamics among unmarried couples can facilitate modern contraceptive use among those who want to avoid pregnancy. Efforts to encourage partner communication and support surrounding the use of contraception, and expanding access to a variety of modern methods, may be beneficial for reducing unintended pregnancies and enhancing unmarried young women's reproductive autonomy to meet their contraceptive and fertility desires.

Key Words: contraception; relationship quality; relationship status; intimate partner violence; sub-Saharan Africa

Introduction

Worldwide the unintended pregnancy rate has been declining over the past several decades, though roughly half of all pregnancies remain unintended (Bearak et al., 2020). In sub-Saharan Africa, 29% of all pregnancies are unintended, although there is substantial variation across the region (Ameyaw et al., 2019). For instance, in Malawi, the setting for the present study, 47% of pregnancies are reportedly unintended whereas in Nigeria the rate is 11% (Ameyaw et al., 2019). Unintended fertility is associated with detrimental outcomes for mothers and infants (see D'Souza, Bailey, Stephenson, & Oliver, 2022; Gipson, Koenig, & Hindin, 2008) and is indicative of reduced reproductive autonomy if women are unable to make decisions about contraception to control the timing and number of their births (Senderowicz & Higgins, 2020; Upadhyay, Dworkin, Weitz, & Foster, 2014). Using contraception is one of the most effectual ways to reduce the risks of unintended pregnancies and births (Singh, Bankole, & Darroch, 2017; UNDESA 2022). Though modern contraceptive use has increased over the last few decades in sub-Saharan Africa, just over half (56%) of women in the region have their need for family planning satisfied by modern methods (indicator of Sustainable Development Goal (SDG) 3.7.1), which is one of the lowest rates in the world (UNDESA 2022). The biggest gaps in terms of fulfilling needs for family planning exist among young women and adolescents (UNDESA 2022).

Ensuring that women have access to the contraceptive method of their choice is a critical tenet of reproductive autonomy (Bingenheimer et al., 2023; Senderowicz & Higgins, 2020). Across sub-Saharan Africa, young women experience barriers to accessing contraception due to method availability, social norms, concerns about health and other side effects, and attitudes about contraception among partners, family members, and the community (Bhushan et al., 2021;

Bornstein, Gipson, Failing, Banda, & Norris, 2020; Bornstein, Huber-Krum, Kaloga, & Norris, 2021; Obare, Odwe, & Cleland, 2021; Skiles et al., 2015; Zimmerman et al., 2021).

Consequently, in Malawi, two-thirds of young contraceptive users are not using their preferred method, which can hinder consistent use (Huber-Krum et al., 2021). Additionally, research from sub-Saharan Africa has shown that a woman's relationship is one of the most influential predictors of her contraceptive use (Mandiwa, Namondwe, Makwinja, & Zamawe, 2018; Nkoka et al., 2020). Although most studies in this vein focus on relationship status, a growing body of work has broadened the scope to consider how the quality of a relationship might influence women's use of contraceptives. For example, studies from sub-Saharan Africa have shown that positive relationship dynamics, such as trust, relationship satisfaction, and partner support can facilitate women's contraceptive use (Bornstein et al., 2021; Cox, Hindin, Otupiri, & Larsen-Reindorf, 2013; D'Exelle & Ringdal, 2022; Sarnak et al., 2021). On the other hand, power imbalances in relationships can manifest in partners' controlling women's use of contraceptives, determining which type of method women use, and engaging in reproductive coercion, especially among young women (Aventin et al., 2021; Decker et al., 2021; Govender, Naidoo, & Taylor, 2020).

In this study we dig deeper into the relationship context to discern how the quality of a young woman's relationship is associated with her contraceptive use. We rely on novel survey data collected in 2010 and 2011 from young women aged 16-26 in rural Malawi that includes multiple measures of relationship quality collected across two survey waves (see Yeatman, Chilungo, Lungu, Namadingo, & Trinitapoli, 2019). We conceptualize relationship quality as encompassing both positive dynamics such as expressions of love, open communication, and partner support, (i.e., relationship unity) and negative dynamics including unequal power in the

relationship and experiences of intimate partner violence (see also Conroy, 2014, 2015; Conroy, McKenna, & Ruark, 2019; Conroy, Ruark, & Tan, 2020). Malawi is an opportune site for this study because although its total fertility rate remains high at 3.91 children per women (World Bank, 2021), over half (55%) of reproductive age women use modern contraception (Forty, Rakgoasi, & Keetile, 2021). Nonetheless, estimates suggest that only one-third of young women (aged 15-19) in Malawi use modern contraception (Mandiwa et al., 2018), and unintended pregnancies remain common (Palamuleni & Adebawale, 2014).

This study is one of the first to examine how relationship quality is associated with women's contraceptive use in sub-Saharan Africa (see Cox et al., 2013; Stephenson, Bartel, & Rubardt, 2012 for exceptions). We build on the limited body of work in this area by focusing specifically on young women in Malawi and including both married and unmarried women. Several studies have examined the associations between young Malawian women's relationship quality and various outcomes, including intimate partner violence (Conroy, 2014), HIV testing (Conroy, 2015), depressive symptoms (Tuthill et al., 2019), and alcohol use (Conroy et al., 2019). However, no studies to date have examined the relationships with young women's contraceptive use. This is critical as young women have a high unmet need for contraception in this context (see Mandiwa et al., 2018; Nkoka et al., 2020), making it important to understand the factors that facilitate or prevent contraceptive use. Additionally, no studies have analyzed whether the association between relationship dynamics and contraceptive use might vary depending on the type of relationship a young woman is in. In this paper, we analyze data from married and unmarried young women in Malawi, incorporate several measures that tap into different dimensions of relationship quality, and examine the associations with contraceptive use among those who want to postpone or stop childbearing.

Theoretical Perspective

We conceptualize relationship quality through the lens of Ridgeway and Correll's (2005) theory of the gender system, which emphasizes the role of gender beliefs and social relations on men's and women's statuses and relative power. A key tenet of this perspective is that "social relational contexts" serve as the key site wherein hegemonic gender beliefs and their effects maintain or challenge the gender system (Ridgeway & Correll, 2005). Social relational contexts are defined as "any situation in which individuals define themselves in relation to others in order to act" (Ridgeway & Correll, 2005, p. 511), which is important given our study's focus on women's relationships. Within this perspective, widely held gender beliefs, along with resources, serve as a key component of the societal gender system, which reinforces and maintains inequalities between men and women (Ridgeway, 2011; Ridgeway & Correll, 2005; Risman, 2004, 2018).

This perspective is useful for understanding how, taken together, everyday interactions within a relationship constitute how a relationship is experienced and viewed. In other words, the specific ways that couples in intimate relationships interact and treat one another on a day-to-day basis are what lead someone to characterize a relationship as loving, supportive, and/or violent. That is, these interactions constitute the overall quality of a relationship. Thus, women define themselves in relation to their partner in order to make meaning in interactions and act accordingly such as by communicating openly with their partner or by assuming that their partner is sleeping with other women depending on the circumstances and previous interactions within the relationship (see Ridgeway & Correll, 2005). In such an example, women's views of their partner are also embedded within widely held gender beliefs about men's behavior, such as their propensity to engage in outside sexual relationships, which in Malawi could lead to heightened risks given the HIV prevalence rate of 7.7% (UNAIDS, 2022). Moreover, as we

discuss further below, young women's decisions about using contraception are likely to be made in the context of their relationship with their partner and how it may facilitate or hinder women's contraceptive autonomy.

Relationship Quality and Contraceptive Use

Relationship quality is a multidimensional concept comprised of distinct but related aspects such as satisfaction, communication, support, conflict, and power. Research from sub-Saharan Africa has identified several indicators of positive relationships, including romantic love, emotional support, trust, commitment, and communication between partners (e.g., Conroy et al., 2020; Frye & Trinitapoli, 2015; Gevers, Jewkes, & Mathews, 2013; John, Seme, Roro, & Tsui, 2017; Lesch & Adams, 2016; Lesch & Furphy, 2013; Pettifor, MacPhail, Anderson, & Maman, 2012; Ruark et al., 2017; Tuthill et al., 2019). For instance, young women in Pettifor and colleagues' study in South Africa expected romantic partners to be "loving, caring, understanding, respectful and faithful (honest/not cheating)" (2012, p. 480). Open communication between partners is also considered an ideal of positive relationships among young women in South Africa (Gevers et al., 2013; Lesch & Furphy, 2013; Pettifor et al., 2012), and research from Ethiopia found that communication for conflict resolution as well as trust and commitment were important for relationship wellbeing (John et al., 2017).

Research on contraception has generally found that positive relationship dynamics can facilitate women's use. For example, a study from Ghana found that women's relationship satisfaction and higher levels of constructive communication with romantic partners were associated with increased contraceptive use (Cox et al., 2013). Relatedly, research from Ethiopia and Kenya found that Kenyan women in more balanced relationships in terms of power were more likely to report contraceptive use (Stephenson et al., 2012).

Research on relationship ideals in sub-Saharan Africa has also identified several characteristics that are associated with poor relationship quality. A key criterion that is emphasized in this work is a partner's propensity for violence. For example, young mothers in Mali defined an ideal partner one who "avoids violence against women" (Solbeck, 2010, p. 420) and the South African adolescent girls in Lesch and Furphy's (2013) study felt that a relationship was not ideal if the couple had serious conflicts, shouted at each other, or engaged in violence. Studies have also found that inequality and unequal power between partners are commonly defined as negative relationship dynamics (Conroy, 2014, 2015; Pettifor et al., 2012; Tuthill et al., 2019).

Whereas studies from sub-Saharan Africa have shown that unequal power in relationships is often tied to men controlling women's contraceptive access and use (Aventin et al., 2021; Decker et al., 2021; Govender et al., 2020), the association between intimate partner violence (IPV) and contraceptive use is more mixed (see Adjiwanou & N'Bourke, 2015). Several studies from across sub-Saharan Africa have found a positive association between IPV and contraceptive use (Alio, Daley, Nana, Duan, & Salihu, 2009; Kidman, Palermo, & Bertrand, 2015). For example, cross-national research using DHS data from 17 African countries found that experiencing physical or sexual violence was associated with an increase in modern contraceptive use (Fan & Loria, 2020). However, a number of studies from the region have found no association between IPV and contraceptive use (Oluwaseyi & Ibisomi, 2015; Wandera, Kwagala, & Odimegwu, 2018; Yusuf, Dongarwar, Yusuf, & Salihu, 2020) and others have found a lower likelihood of contraceptive use among women who have experienced IPV (Kabir & Kordowicz, 2021).

We build on this work by examining the associations of both positive and negative relationship dynamics with young women's contraceptive use. In doing so, we add nuance to past work on relationship quality by allowing for comparisons of the relative contribution of positive factors, such as expressions of love, and negative factors, such as IPV. This is critical as relationships are rarely unidimensional and women may weigh factors differently in their thinking about future childbearing with a given partner and thus in their decisions about whether to use contraception.

Methods

Data

We analyze data from women who participated in Tsogolo la Thanzi (TLT), a longitudinal panel study of young adults in southern Malawi (see Yeatman et al., 2019). TLT began as a simple random sample of 1,505 women and their sexual partners and 574 men between the ages of 15 and 25. TLT comprises 8 survey waves in which information was collected every four months between 2009 and 2011. All interviews were conducted in Chichewa by female interviewers in private rooms at the TLT research center in Balaka.

We analyze data from waves 3 and 5 because these waves included questions about relationship quality. Our sample is limited to non-pregnant young women who provided valid data on items about relationship quality, contraceptive use, and all control variables. We also limited the sample to those who desired to postpone childbearing for at least 2 years or to stop having children to focus our analysis on women "in need" of effective contraception. Women were only asked the relationship quality questions if they were in a romantic relationship at that wave; thus, some women in the sample provided responses at both waves and others at only one

wave. For this analysis, we limit women to one wave of data, prioritizing wave 3 when women had responses across both waves. Our final sample is comprised of 723 women.

Measures

Our dependent variable is a partner-specific indicator of women's current contraceptive use. At each survey wave, respondents who were in romantic relationships were asked to report on their contraceptive behavior with up to three male partners. We combine women's responses on several questions to create a dichotomous indicator of modern contraceptive use (Y/N). Those who were regularly using condoms with their primary partner or who were using the following family planning methods were coded as yes on modern contraceptive use at the current wave: birth control pills, injection, implant, or loop (IUD). Women who were sterilized or whose partner was sterilized (n=7) were also coded as using modern contraception. Because our focus is on the most effective methods of contraception, respondents who reported using traditional methods (n=14) were grouped with those not using contraception. For each respondent, contraceptive use was measured at the same wave as the independent variables (wave 3 or 5 as described above).

We assessed several distinct aspects of relationship quality, focusing on both positive and negative dimensions. To capture positive dimensions of relationship quality, we included two variables. The first variable assesses closeness or unity between partners. We follow Conroy (2014) and create a scale of three variables measuring relationship unity: expressions of love, support, and open communication between partners. This scale has been validated as an appropriate measure of relationship quality and used in several previous studies in this setting (see Conroy, 2014, 2015; Conroy et al., 2019, 2020). In this section of the survey, respondents were read several statements and asked to indicate their level of agreement. For this item, the

statements included: “My partner shows that he cares about me.” (love); “When I need my partner’s assistance, he is always there to help me.” (support); and “My partner and I sit down and discuss important matters together.” (communication). Response options included strongly agree, agree, disagree, strongly disagree. The scale was created by taking the respondent’s mean value across all three items; a higher score indicates more relationship unity or closeness between partners. Cronbach’s alpha for unity was 0.71.

The second positive dimension of relationship quality measures a respondent’s trust in her partner (see also Conroy, 2015). For this item, respondents were asked to indicate their level of agreement with the following item: “My partner is probably having sex with someone else.” We reverse-coded this item to indicate a higher level of trust in a partner’s commitment and relationship exclusivity. This variable is coded dichotomously where responses of strongly disagree or disagree are coded as 1 (higher level of trust) and responses of strongly agree or agree are coded as 0 (lower level of trust).

We included three variables capturing negative relationship dynamics, including unequal power in relationships and intimate partner violence. The item capturing relationship power is derived from the question: “In your relationship, who would you say is generally in charge?” Response options included respondent, partner, equal control. Because less than 1% (n=7) of the sample reported that the respondent had more power, this variable is coded dichotomously into “respondent” or “equal control” (0) versus “partner” (1).

We include two dichotomous (Y/N) variables assessing intimate partner violence. The first question focused on physical violence and asked the following: “Has your partner ever hurt you by beating you?” The second item focused on sexual violence and asked: “Has your partner

ever forced you to have sex when you didn't want to?" Both questions had response options of yes or no.

We also include several sociodemographic control variables that have been shown to be associated with contraceptive use in past research. For each respondent, control variables were assessed at the same wave as the other variables (wave 3 or 5, as described above). We measure religious affiliation with two dichotomous variables: whether a respondent is a Muslim versus a Christian (reference) and whether a respondent is a "born again" Christian (Y/N). Relationship status is a dichotomous variable: married vs. unmarried (reference). We assess socioeconomic status via a continuous measure that is created using principal component analysis of working household goods. The index measures household working items (bed with mattress, television, radio, land line or mobile phone, refrigerator, bicycle, motorcycle, animal-drawn cart, car or truck, Bible or Koran), personal ownership (watch, mobile phone, pair of jeans, luggage, working bicycle, number of pairs of shoes), and household structure (roof, toilet, flooring, electricity, water source). We also include continuous variables for respondents' age, years of completed education, and children ever born.

Analysis

We first provide descriptive statistics for women's contraceptive use, relationship quality, and sociodemographic characteristics (Table 1). Then we present a series of cross-sectional models using logistic regression to analyze separately the relationship between each independent variable and our outcome of interest (Table 2). We also include a full model to compare the effects of each independent variable and the sociodemographic controls on women's contraceptive use. Lastly, we present models stratified by marital status to examine whether the associations between relationship quality and contraceptive use vary by the type of partnership a

young woman is in. Results are presented in odds ratios where a number greater than one indicates increased odds of the event and a number less than one indicates reduced odds of the event.

Results

Table 1 provides descriptive statistics for the sample. On average, respondents were 22 years old, had completed 7 years of education, and had two children. Average household socioeconomic status as measured by an index of household goods was low (-0.32). In terms of religious affiliation, 21% identified as Muslim and 42% identified as “born again” Christian. Nearly three-fourths (74%) of women in the sample were currently married.

Overall, 59% of the sample reported using modern contraception, which is slightly higher than the contraceptive prevalence rate (55%) among reproductive age women in Malawi (Forty et al., 2021). When we compare young women based on their relationship type, 59% of married women versus 62% of unmarried women report using modern contraception (not shown).

Turning to the independent variables, for the measures of positive relationship dynamics, the average unity score was high at 3.66 out of 4. A majority of respondents (73%) reported trusting that their partner was committed to the relationship and did not have other sexual partners. For the negative relationship dynamics, 82% of women reported that their partner was in charge in the relationship, 4% reported experiencing physical violence, and 23% reported experiencing sexual violence.

TABLE 1 ABOUT HERE

Table 2 shows odds ratios from logistic regression models of the association between each measure of relationship quality and women’s modern contraceptive use. Each independent variable is modeled separately with sociodemographic controls (Models 1-5), with a full model

presented in Model 6. As shown in Table 2, with the exception of the unity score in Model 1, none of the relationship quality variables were significantly associated with women's modern contraceptive use. Women with higher unity scores were significantly more likely to use modern contraception net of sociodemographic characteristics ($p < 0.05$). Across the models, years of education was statistically significant or borderline ($p < 0.10$ in Model 1) and positively associated with modern contraceptive use net of other variables. Model 6 shows the full model including all independent and dependent variables. The results again show that a higher score on relationship unity was significantly ($p < 0.05$) associated with a higher likelihood of using modern contraception among young women wanting to avoid childbearing. The association between years of education and modern contraceptive use was again positive and of borderline significance ($p < 0.10$) net of other variables.

TABLE 2 ABOUT HERE

Table 3 shows odds ratios from logistic regression models of the association between each measure of relationship quality and modern contraceptive use stratified by young women's relationship type. The models include all measures of relationship quality and the sociodemographic controls. As shown in Table 3, the significant associations between relationship dynamics and modern contraceptive use are fully driven by unmarried women as none of the associations are significant in the model for married women. Relationship unity is significant ($p < 0.01$) and positively associated with modern contraceptive use only among unmarried women. Additionally, trust in a partner's relationship exclusivity is positive and associated (borderline significance, $p < 0.10$) with modern contraceptive use among unmarried women. None of the negative relationship dynamics or sociodemographic control variables are significantly associated with contraceptive use among unmarried women.

TABLE 3 ABOUT HERE

Discussion

Sub-Saharan Africa continues to have high rates of unintended pregnancy and levels of unfulfilled need for modern contraception, particularly among young women (Hubacher, Mavranezouli, & McGinn, 2008; Mandiwa et al., 2018; Nkoka et al., 2020). Modern contraception enables women to exercise agency to postpone or stop childbearing, thus helping young women meet their reproductive goals and avoid unintended pregnancies and births (see Blackstone, Nwaozuru, & Iwelunmor, 2017). Since unintended births are associated with worse health outcomes for women and infants (D'Souza et al., 2022; Gipson et al., 2008), contraceptive use also aligns with SDG Goal 3, which aims to “ensure healthy lives and promote well-being for all at all ages” by 2030 (Doclova et al. 2016; D'Souza et al. 2022). Relationships with partners and family expectations play an important role in young women’s use of contraceptives (e.g., Blackstone et al., 2017; D'Souza et al., 2022). Thus, in order to understand young women’s contraceptive behavior, it is imperative to understand the type of relationship they share with their partners.

The present study is one of the first in sub-Saharan Africa to examine the association between relationship quality and young women’s contraceptive use when they want to postpone or stop childbearing. We expand on past work on reproductive-age married/cohabiting women (see Cox et al., 2013; Stephenson et al., 2012) by analyzing data from married and unmarried young women and limiting our sample to those who want to postpone or avoid future childbearing. Building on past work on romantic relationships in Malawi, we incorporated both positive and negative measures of relationship quality (see Conroy, 2014, 2015; Conroy et al., 2020). To capture the positive aspects of a relationship we focused on relationship unity –

defined as expressions of love, support, and open communication—and trust in a partner’s sexual exclusivity. For negative dimensions of relationship quality, we included measures of unequal relationship power and experiences of physical and sexual violence. Our results indicate that greater relationship unity is associated with a higher likelihood of using effective contraception among young women who want to postpone or avoid childbearing. These findings align with a study in Ghana that found that characteristics such as relationship satisfaction and constructive communication with a partner were positively associated with women’s contraceptive use (Cox et al., 2013). Our findings from the full model also show that women’s education is associated with a greater likelihood of using modern contraception. Much research has noted the positive relationship between education and contraceptive use in sub-Saharan Africa (see Blackstone et al., 2017; Gahungu, Vahdaninia, & Regmi, 2021). Young women with more education are likely to have enhanced knowledge about effective contraceptive methods and may be more empowered to use contraception despite a partner’s objection or social norms that may impede use (Mandiwa et al., 2018; Palamuleni, 2013).

Unequal power dynamics in relationships were not significantly associated with young women’s contraceptive use in this study. Past research on power and contraception from sub-Saharan Africa has shown that unequal relationship power is often associated with men controlling women’s contraceptive access and use (Aventin et al., 2021; Decker et al., 2021; Govender et al., 2020). At the same time, power dynamics in relationships could work in a variety of ways in terms of women’s contraceptive use. If men have more power in a relationship, this could work in the opposite way of relationship support (a dimension of unity) and make contraceptive use more difficult. Alternatively, in unequal relationships, a partner could force a woman to use a method she does not prefer, which could increase contraceptive use

even as it reduces her reproductive autonomy. Research identifying the different ways that power plays out in different types of relationships and couple interactions would be useful for understanding the conditions under which unequal relationship power might influence young women's contraceptive use. We also found that experiences of IPV were not associated with modern contraceptive use among the young women in our sample. Past research on relationship violence and contraception has produced mixed results. Our findings align with other research from Malawi, as well as Zambia, Uganda, and a cross-national study of five regions in Africa, all of which found no association between IPV and contraceptive use (Oluwaseyi & Ibisomi, 2015; Wandera et al., 2018; Yusuf et al., 2020). Future research investigating how negative relationship dynamics might influence contraceptive decisions and behaviors could help disentangle these associations.

As shown in Table 3, the associations between positive relationship dynamics (unity, trust) and a higher likelihood of modern contraceptive use were significant only for unmarried young women. Although the sample size of unmarried young women in our study is relatively small (n=187), ours is the first to examine relationship dynamics and contraceptive use among unmarried young women who want to postpone or avoid childbearing. The few studies from the region that have examined these associations have focused on married or cohabiting women of reproductive age (i.e., Cox et al., 2013; Stephenson et al., 2012). Our results provide some evidence that higher quality relationships with partners may facilitate unmarried young women's contraceptive use and reproductive autonomy when they want to postpone or stop childbearing.

Although the present study provides a better understanding of the associations between relationship quality and contraceptive use among young women who want to prevent childbearing, there are some limitations. First, even though most past studies evaluating

relationship quality are based on self-reported measures similar to the ones investigated here, such measures are bound by the respondent's own insights and understanding about the quality of their relationship and may therefore be subject impression management or other biases (see Fincham & Rogge, 2010). Second, our study relies on data collected from women about their relationship with their partners. Including data from men would be beneficial for gaining a more complete picture of the ways in which relationship dynamics might be tied to women's contraceptive use. For instance, analyzing data from women's partners could provide insight into whether the desire to postpone a pregnancy is shared within the couple or whether their pregnancy desires diverge, which may help explain the lack of contraceptive use among some young women, such as those that are married (e.g., Do & Kurimoto, 2012). Additionally, we recommend that future research assess other relevant factors, such as women's beliefs about the health effects of contraceptive use (Gueye, Speizer, Corroon, & Okigbo, 2015; Stevens, Machiyama, Mavodza, & Doyle, 2023), method availability (Skiles et al., 2015), and women's own contraceptive desires (Burke & Potter, 2023; Senderowicz et al., 2023), which are all likely to affect young women's contraceptive use. The majority of young women that were using modern methods in this study were using injectables (66%), which may indicate a limited selection of contraceptive methods at local clinics. Finally, this study is cross-sectional and therefore cannot establish causal relationships between relationship dynamics and contraceptive use. Future research employing longitudinal data would be useful for determining how relationship dynamics might influence contraceptive use and change over time.

Conclusions

In sub-Saharan Africa much research has documented the importance role that relationships and partners can play in women's contraceptive behavior (e.g., Blackstone et al., 2017; Dodoo, 1998;

Kriel et al., 2019; Mandiwa et al., 2018; Tumlinson et al., 2013). Our paper digs deeper into what it means to be in a relationship and the quality of that relationship. Our findings from southern Malawi suggest that positive relationship dynamics can facilitate modern contraceptive use among unmarried young women who want to avoid pregnancy. Given the important role that partners play in women's contraceptive decision-making and use, interventions focused on attitudinal change regarding family planning should incorporate men (see Blackstone et al., 2017). Efforts to encourage partner communication and support surrounding the use of contraception, and expanding access to a variety of modern methods, may be beneficial for reducing unintended pregnancies and enhancing unmarried young women's reproductive autonomy to meet their contraceptive and fertility desires.

	Percent or Mean(sd)	Range
Modern Contraceptive Use	59.3	0-1
Unity score	3.66 (0.6)	1-4
Trust in partner	73.7	0-1
Unequal relationship power	82.3	0-1
Physical abuse	4.4	0-1
Sexual abuse	23.0	0-1
Age	21.5 (2.9)	16-26
Years of education	7.3 (2.9)	0-15
Children ever born	1.6 (1.0)	0-5
SES index	-0.3 (2.2)	-3.3-7.9
Muslim	21.2	0-1
"Born again" Christian	41.6	0-1
Married	74.1	0-1
N	723	

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Unity score	1.40*					1.41*
Trust in partner		1.20				1.12
Unequal relationship power			0.85			0.86
Physical abuse				1.15		1.28
Sexual abuse					1.00	1.11
Age	1.01	1.01	1.01	1.01	1.01	1.01
Years of education	1.07†	1.07*	1.07*	1.07*	1.07*	1.07†
Children ever born	1.06	1.05	1.05	1.05	1.05	1.07
SES index	1.02	1.02	1.02	1.02	1.02	1.02
Muslim	0.85	0.89	0.87	0.88	0.87	0.87
"Born again" Christian	0.93	0.95	0.94	0.95	0.95	0.94
Married	0.84	0.94	0.98	0.96	0.96	0.83
Pseudo X ²	0.015	0.010	0.010	0.009	0.009	0.016
N	723	723	723	723	723	723
† p<0.10, * p<0.05 ** p<0.01 *** p<0.001						

Table 3. Odds Ratios from Logistic Regression Models of Young Women's Modern Contraceptive Use by Relationship Status		
Variables	Married	Unmarried
Unity score	1.07	2.06**
Trust in partner	0.89	2.04†
Unequal relationship power	0.96	0.69
Physical abuse	1.05	-
Sexual abuse	0.94	1.49
Age	1.03	0.96
Years of education	1.06	1.14
Children ever born	1.07	1.30
SES index	1.04	0.98
Muslim	0.90	0.56
"Born again" Christian	0.96	0.74
Pseudo X ²	0.009	0.089
N	536	185
† p<0.10, * p<0.05 ** p<0.01 *** p<0.001		

Note: The two cases that were dropped both reported experiencing physical abuse and using modern contraception.

References

- Adjiwanou, V., & N’ Bourke, A. (2015). Exploring the Paradox of Intimate Partner Violence and Increased Contraceptive Use in sub-Saharan Africa. *Studies in Family Planning*, 46(2), 127–142.
- Alio, A. P., Daley, E. M., Nana, P. N., Duan, J., & Salihu, H. M. (2009). Intimate partner violence and contraception use among women in Sub-Saharan Africa. *International Journal of Gynecology and Obstetrics*, 107(1), 35–38.
- Ameyaw, E. K., Budu, E., Sambah, F., Baatiema, L., Appiah, F., Seidu, A.-A., & Ahinkorah, B. O. (2019). Prevalence and determinants of unintended pregnancy in sub-Saharan Africa: A multi-country analysis of demographic and health surveys. *PLoS ONE*, 14(8), e0220970.
- Aventin, A., Gordon, S., Laurenzi, C., Rabie, S., Tomlinson, M., Lohan, M., ... Skeen, S. (2021). Adolescent condom use in Southern Africa: narrative systematic review and conceptual model of multilevel barriers and facilitators. *BMC Public Health*, 21(1228).
- Bearak, J., Popinchalk, A., Ganatra, B., Moller, A.-B., Tuncalp, O., Beavin, C., ... Alkema, L. (2020). Unintended pregnancy and abortion by income, region, and the legal status of abortion: estimates from a comprehensive model for 1990–2019. *The Lancet*, 8(September), e1152–e1161.
- Bhushan, N. L., Fisher, E. B., Maman, S., Speizer, I. S., Gottfredson, N. C., Phanga, T., ... Rosenberg, N. E. (2021). Communication, social norms, and contraceptive use among adolescent girls and young women in Lilongwe, Malawi. *Women’s Health*, 61(5), 440–451.
- Bingenheimer, J. B., Hardee, K., Hindin, M., Jain, A., Mumah, J., & van Dam, J. (2023). Introduction to the Special Issue: Indicators in Sexual and Reproductive Health and Rights. *Studies in Family Planning*, 54(1), 9–16.

- Blackstone, S. R., Nwaozuru, U., & Iwelunmor, J. (2017). Factors Influencing Contraceptive Use in sub-Saharan Africa: A Systematic Review. *Community Health Equity Research & Policy*, 37(2), 79–91.
- Bornstein, M., Gipson, J. D., Failing, G., Banda, V., & Norris, A. (2020). Individual and community-level impact of infertility-related stigma in Malawi. *Social Science & Medicine*, 251, 112910.
- Bornstein, M., Huber-Krum, S., Kaloga, M., & Norris, A. (2021). Messages around contraceptive use and implications in rural Malawi. *Culture, Health & Sexuality*, 23(8), 1126–1141.
- Burke, K. L., & Potter, J. E. (2023). Meeting Preferences for Specific Contraceptive Methods: An Overdue Indicator. *Studies in Family Planning*, 54(1), 281–300.
- Conroy, A. A. (2014). Gender, Power, and Intimate Partner Violence: A Study on Couples From Rural Malawi. *Journal of Interpersonal Violence*, 29(5), 866–888.
- Conroy, A. A. (2015). The Influence of Relationship Power Dynamics on HIV Testing in Rural Malawi. *The Journal of Sex Research*, 52(3), 347–359.
- Conroy, A. A., McKenna, S. A., & Ruark, A. (2019). Couple interdependence impacts alcohol use and adherence to antiretroviral therapy in Malawi. *AIDS and Behavior*, 23(201–210).
- Conroy, A. A., Ruark, A., & Tan, J. Y. (2020). Re-conceptualising gender and power relations for sexual and reproductive health: contrasting narratives of tradition, unity, and rights. *Culture, Health & Sexuality*, 22(sup1), 48–64.
- Cox, C. M., Hindin, M. J., Otupiri, E., & Larsen-Reindorf, R. (2013). Understanding Couples' Relationship Quality And Contraceptive Use in Kumasi, Ghana. *International Perspectives on Sexual and Reproductive Health*, 39(4), 185–194.

- D'Exelle, B., & Ringdal, C. (2022). Women's use of family planning services: An experiment on the husband's involvement. *Journal of Development Economics*, 158, 102915.
- D'Souza, P., Bailey, J. V., Stephenson, J., & Oliver, S. (2022). Factors Influencing Contraception Choice and Use Globally: A Synthesis of Systematic Reviews. *The European Journal of Contraception & Reproductive Health Care*, 27(5), 364–372.
- Decker, M. R., Wood, S. N., Byrne, M. E., Yao-N'dry, N., Thiongo, M., Gichangi, P., ... Tsui, A. O. (2021). Gendered power dynamics and threats to sexual and reproductive autonomy among adolescent girls and young adult women: A cross-sectional survey in three urban settings. *PLoS ONE*, 16(11), e0257009.
- Do, M., & Kurimoto, N. (2012). Women's Empowerment and Choice of Contraceptive Methods in Selected African Countries. *International Perspectives on Sexual and Reproductive Health*, 38(1), 23–33.
- Dodoo, F. N.-A. (1998). Men matter: Additive and interactive gendered preferences and reproductive behavior in Kenya. *Demography*, 35, 229–242.
- Fan, X., & Loria, M. V. (2020). Intimate partner violence and contraceptive use in developing countries: How does the relationship depend on context? *Demographic Research*, 42, 293–342.
- Fincham, F. D., & Rogge, R. (2010). Understanding Relationship Quality: Theoretical Challenges and New Tools for Assessment. *Journal of Family Theory & Review*, 2(4), 227–242.
- Forty, J., Rakgoasi, S. D., & Keetile, M. (2021). Patterns and determinants of modern contraceptive use and intention to use contraceptives among Malawian women of reproductive ages (15–49 years). *Contraception and Reproductive Medicine*, 6(21), 1–12.

- Frye, M., & Trinitapoli, J. (2015). Ideals as Anchors for Relationship Experiences. *American Sociological Review*, 80(3), 496–525.
- Gahungu, J., Vahdaninia, M., & Regmi, P. R. (2021). The unmet needs for modern family planning methods among postpartum women in Sub-Saharan Africa: a systematic review of the literature. *Reproductive Health*, 18, 35.
- Gevers, A., Jewkes, R., & Mathews, C. (2013). What do young people think makes their relationships good? Factors associated with assessments of dating relationships in South Africa. *Culture, Health & Sexuality*, 15(9), 1011–1025.
- Gipson, J. D., Koenig, M. A., & Hindin, M. J. (2008). The Effects of Unintended Pregnancy on Infant, Child, and Parental Health: A Review of the Literature. *Studies in Family Planning*, 39(1), 18–38. <https://doi.org/doi: 10.1111/j.1728-4465.2008.00148.x>
- Govender, D., Naidoo, S., & Taylor, M. (2020). “My partner was not fond of using condoms and I was not on contraception”: understanding adolescent mothers’ perspectives of sexual risk behaviour in KwaZulu-Natal, South Africa. *BMC Public Health*, 20(366).
- Gueye, A., Speizer, I. S., Corroon, M., & Okigbo, C. C. (2015). Belief in Family Planning Myths at the Individual And Community Levels and Modern Contraceptive Use in Urban Africa. *International Perspectives on Sexual and Reproductive Health*, 41(4), 191–199.
- Hubacher, D., Mavranouzouli, I., & McGinn, E. (2008). Unintended Pregnancy in sub-Saharan Africa: Magnitude of the Problem and Potential Role of Contraceptive Implants to Alleviate It. *Contraception*, 78, 73–78.
- Huber-Krum, S., Bornstein, M., Garver, S., Gipson, J., Chapotera, G., & Norris, A. H. (2021). Are rural Malawian women using their preferred contraceptive method and that of their male partners? *Contraception*, 104(2), 132–138.

- John, N. A., Seme, A., Roro, M. A., & Tsui, A. O. (2017). Understanding the meaning of marital relationship quality among couples in peri-urban Ethiopia. *Culture, Health & Sexuality, 19*(2), 267–278.
- Kabir, R., & Kordowicz, M. (2021). Exploring the relationship between intimate partner violence and contraception use by Tanzanian women. *Health Care for Women International, 42*(10), 1220–1233.
- Kidman, R., Palermo, T., & Bertrand, J. (2015). Intimate partner violence, modern contraceptive use and conflict in the Democratic Republic of the Congo. *Social Science & Medicine, 133*, 2–10.
- Kriel, Y., Milford, C., Cordero, J., Suleman, F., Beksinska, M., Steyn, P., & Smit, J. A. (2019). Male partner influence on family planning and contraceptive use: perspectives from community members and healthcare providers in KwaZulu-Natal, South Africa. *Reproductive Health, 16*(889). Retrieved from <https://doi.org/10.1186/s12978-019-0749-y>
- Lesch, E., & Adams, A. R. (2016). Sexual Intimacy Constructions of Heterosexual Couples Living in a Low-Income, “Colored,” Farmworker Community in South Africa. *The Journal of Sex Research, 53*(9), 1082–1095.
- Lesch, E., & Furphy, C. (2013). South African Adolescents’ Constructions of Intimacy in Romantic Relationships. *Journal of Adolescent Research, 28*(6), 619–641.
- Mandiwa, C., Namondwe, B., Makwinja, A., & Zamawe, C. (2018). Factors associated with contraceptive use among young women in Malawi: analysis of the 2015–16 Malawi demographic and health survey data. *Contraception and Reproductive Medicine, 3*(12), 1–8.
- Nkoka, O., Mphande, W. M., Ntenda, P. A. M., Milanzi, E. B., Kanje, V., & Guo, S. J. G. (2020). Multilevel analysis of factors associated with unmet need for family planning

- among Malawian women. *BMC Public Health*, 20, 705.
- Obare, F., Odwe, G., & Cleland, J. (2021). Men's needs and women's fears: gender-related power dynamics in contraceptive use and coping with consequences in a rural setting in Kenya. *Culture, Health and Sexuality*, 23(12), 1748–1762.
- Oluwaseyi, S. D., & Ibisomi, L. (2015). Intimate Partner Violence and Contraceptive Behaviour: Evidence from Malawi and Zambia. *Southern African Journal of Demography*, 16(1), 123–150.
- Palamuleni, M. E. (2013). Socio-Economic and Demographic Factors Affecting Contraceptive use in Malawi. *African Journal of Reproductive Health*, 17(3), 91–104.
- Palamuleni, M. E., & Adebawale, A. S. (2014). Prevalence and Determinants of Unintended Pregnancies in Malawi. *African Population Studies*, 28(1), 551–563.
- Pettifor, A., MacPhail, C., Anderson, A. D., & Maman, S. (2012). 'If I buy the Kellogg's then he should [buy] the milk': Young Women's Perspectives on Relationship Dynamics, Gender Power and HIV Risk in Johannesburg, South Africa. *Culture, Health & Sexuality*, 14(5), 477–490.
- Ridgeway, C. L. (2011). *Framed by Gender: How Gender Inequality Persists in the Modern World*. New York: Oxford University Press.
- Ridgeway, C. L., & Correll, S. J. (2005). Unpacking the Gender System: A Theoretical Perspective on Gender Beliefs and Social Relations. *Gender & Society*, 18(4), 510–531.
- Risman, B. (2004). Gender as a Social Structure: Theory Wrestling with Activism. *Gender & Society*, 18(4), 429–450.
- Risman, B. (2018). *Where the Millennials Will Take Us: A New Generation Wrestles with the Gender Structure*. (O. U. Press, Ed.). New York.

- Ruark, A., Chase, R., Hembling, J., Davis, V. R., Perrin, P. C., & Brewster-Lee, D. (2017). Measuring couple relationship quality in a rural African population: Validation of a Couple Functionality Assessment Tool in Malawi. *PLoS ONE*, *12*(11), e0188561.
- Sarnak, D. O., Wood, S. N., Zimmerman, L. A., Karp, C., Makumbi, F., Kibira, S. P. S., & Moreau, C. (2021). The role of partner influence in contraceptive adoption, discontinuation, and switching in a nationally representative cohort of Ugandan women. *PLoS ONE*, *16*(1), e0238662.
- Senderowicz, L., Bullington, B. W., Sawadogo, N., Tumlinson, K., Langer, A., Soura, A., ... Sie, A. (2023). Assessing the Suitability of Unmet Need as a Proxy for Access to Contraception and Desire to Use It. *Studies in Family Planning*, *54*(1), 231–250.
- Senderowicz, L., & Higgins, J. (2020). Reproductive Autonomy Is Nonnegotiable, Even in the Time of COVID-19. *International Perspectives on Sexual and Reproductive Health*, *46*, 147–151. <https://doi.org/doi:10.1363/intsexrephea.46.2020.0147>
- Singh, S., Bankole, A., & Darroch, J. E. (2017). The Impact of Contraceptive Use and Abortion on Fertility in sub-Saharan Africa: Estimates for 2003-2014. *Population and Development Review*, *43*(Suppl 1), 141.
- Skiles, M. P., Cunningham, M., Inglis, A., Wilkes, B., Hatch, B., Bock, A., & Barden-O'Fallon, J. (2015). The Effect of Access to Contraceptive Services on Injectable Use and Demand for Family Planning in Malawi. *International Perspectives on Sexual and Reproductive Health*, *41*(01), 020–030. <https://doi.org/10.1363/4102015>
- Solbeck, D. E. (2010). 'Love of the heart': romantic love among young mothers in Mali. *Culture, Health & Sexuality*, *12*(4), 415–427.
- Stephenson, R., Bartel, D., & Rubardt, M. (2012). Constructs of power and equity and their

- association with contraceptive use among men and women in rural Ethiopia and Kenya. *Global Public Health*, 7(6), 618–634.
- Stevens, R., Machiyama, K., Mavodza, C. V., & Doyle, A. M. (2023). Misconceptions, Misinformation, and Misperceptions: A Case for Removing the “Mis-” When Discussing Contraceptive Beliefs. *Studies in Family Planning*, 54(1), 309–321.
- Tumlinson, K., Speizer, I. S., Davis, J. T., Fotso, J. C., Kuria, P., & Archer, L. H. (2013). Partner communication, discordant fertility goals, and contraceptive use in urban Kenya : original research article. *African Journal of Reproductive Health*, 17(3), 79–90.
- Tuthill, E. L., Neilands, T. B., Johnson, M. O., Saucedo, J., Mkandawire, J., & Conroy, A. A. (2019). A Dyadic Investigation of Relationship Dynamics and Depressive Symptoms in HIV-Affected Couples in Malawi. *AIDS and Behavior*, 23, 3435–3443.
- UNAIDS. (2022). Malawi Country Profile. Retrieved July 25, 2023, from <https://www.unaids.org/en/regionscountries/countries/malawi>
- United Nations Department of Economic and Social Affairs Population Division (UNDESA). (2022). *World Family Planning 2022: Meeting the Changing Needs for Family Planning: Contraceptive Use by Age and Method*.
- Upadhyay, U. D., Dworkin, S. L., Weitz, T. A., & Foster, D. G. (2014). Development and Validation of a Reproductive Autonomy Scale. *Studies in Family Planning*, 45(1), 19–41. <https://doi.org/doi:10.1111/j.1728-4465.2014.00374.x>
- Wandera, S. O., Kwagala, B., & Odimegwu, C. (2018). Intimate partner violence and current modern contraceptive use among married women in Uganda: a cross-sectional study. *Pan African Medical Journal*, 30(1), 85.
- World Bank. (2021). Fertility rate, total (births per woman) - Malawi. Retrieved July 25, 2023,

from <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=MW>

Yeatman, S., Chilungo, A., Lungu, S., Namadingo, H., & Trinitapoli, J. (2019). Tsogolo la

Thanzi: A Longitudinal Study of Young Adults Living in Malawi's HIV Epidemic. *Studies in Family Planning*, 50(1), 71–84. <https://doi.org/doi:10.1111/sifp.12080>

Yusuf, R. A., Dongarwar, D., Yusuf, Z. I., & Salihu, H. M. (2020). Association between Intimate

Partner Violence, Knowledge and Use of Contraception in Africa: Comparative Analysis across Five African Regions. *International Journal of Maternal and Child Health and AIDS*, 9(1), 42–52.

Zimmerman, L. A., Sarnak, D. O., Karp, C., Wood, S. N., Moreau, C., Kibira, S. P. S., &

Makumbi, F. (2021). Family Planning Beliefs and Their Association with Contraceptive Use Dynamics: Results from a Longitudinal Study in Uganda. *Studies in Family Planning*, 52(3), 241–258.