



HHS Public Access

Author manuscript

Demography. Author manuscript; available in PMC 2021 December 01.

Published in final edited form as:

Demography. 2020 December ; 57(6): 2047–2056. doi:10.1007/s13524-020-00921-4.

The Enduring Case for Fertility Desires

Sara Yeatman^{1,2}, Jenny Trinitapoli³, Sarah Garver³

¹Department of Health and Behavioral Sciences, University of Colorado–Denver, Campus Box 188, PO Box 173364, Denver, CO 80217, USA

²University of Colorado Population Center, Boulder, CO USA

³Sociology Department, University of Chicago, Chicago, IL USA

Abstract

Persistently high levels of unintended fertility, combined with evidence that over- and underachieved fertility are typical and not exceptional, have prompted researchers to question the utility of fertility desires writ large. In this study, we elaborate this paradox: widespread unintendedness and meaningful, highly predictive fertility desires can and do coexist. Using data from Malawi, we demonstrate the predictive validity of numeric fertility timing desires over both four-month and one-year periods. We find that fertility timing desires are highly predictive of pregnancy and that they follow a gradient wherein the likelihood of pregnancy decreases in correspondence with desired time to next birth. This finding holds despite the simultaneous observation of high levels of unintended pregnancy in our sample. Discordance between desires and behaviors reflects constraints to achieving one's fertility and the fluidity of desires but not their irrelevance. Fertility desires remain an essential—if sometimes blunt—tool in the demographers' toolkit.

Keywords

Fertility; Fertility desires; Malawi

Terms of use and reuse: academic research for non-commercial purposes, see here for full terms. <http://www.springer.com/gb/open-access/authors-rights/aam-terms-v1>

(corresponding author) Sara Yeatman sara.yeatman@ucdenver.edu.

Authors' Contributions Sara Yeatman developed the idea for the study and conducted the analyses with the assistance of Sarah Garver. Jenny Trinitapoli contributed heavily to the framing of the study, and the first draft of the manuscript was written by Sara Yeatman. All authors commented on previous versions of the manuscript and approved the final version.

Ethics and Consent Ethical approval for the Tsogolo la Thanzi study was obtained in Malawi from the National Health Sciences Research Committee (NHSRC) and in the United States from the Office for Research Protections at The Pennsylvania State University and the Social and Behavioral Sciences Institutional Review Board at the University of Chicago. Respondents gave consent at the time they were recruited for the study, before each interview, and before biomarker collection. Unmarried women aged 15–17 in the core sample enrolled in the study only after the study team obtained informed consent from a parent or guardian and assent from the minors themselves.

Conflict of Interest The authors declare that they have no conflicts of interest.

Publisher's Disclaimer: This Author Accepted Manuscript is a PDF file of a an unedited peer-reviewed manuscript that has been accepted for publication but has not been copyedited or corrected. The official version of record that is published in the journal is kept up to date and so may therefore differ from this version.

Introduction

Fertility scholars tend to treat fertility desires¹ as instructive tools for understanding fertility trends broadly, but they disagree about how seriously desires should be taken as predictors of fertility behaviors at the individual level (Bongaarts 1992; Cleland et al. 2019; Morgan 2001; Ni Bhrolchain and Beaujouan 2019; Schoen et al. 2000).² High levels of unintended fertility and the so-called unmet need for family planning despite expanded access (Bearak et al. 2018; Kuang and Brodsky 2016) are being read in support of claims that fertility desires themselves may be so problematic as to lack predictive validity (Aiken et al. 2016; Machiyama et al. 2017; Morgan and Bachrach 2011; Rocca et al. 2019; Sable 1999). Despite growing criticism of fertility desires, survey items about desired number of children and desired timing to next birth remain cornerstones of fertility research.

The critiques of fertility desires are particularly acute in research on sub-Saharan Africa, where both over- and underachieved fertility are high at the end of women's reproductive lives (Casterline and Han 2017; Channon and Harper 2019; Günther and Harttgen 2016; Machiyama et al. 2019). Indeed, some researchers have returned to old lines of inquiry, asking whether women in the region are able to realize their fertility desires and questioning whether desire is a useful construct for understanding behavior (Evens et al. 2015; Günther and Harttgen 2016; Van der Sijpt 2014).

A series of recent studies specifically assessed the predictive validity of fertility desires in sub-Saharan Africa. Many found that women who report wanting more children are more likely to have additional children than are women who report a desire to stop childbearing (Gibby and Luke 2019; Hayford and Agadjanian 2012; Kodzi et al. 2010; Machiyama et al. 2015, 2019; Speizer and Lance 2015). Yet a 2019 systematic review of timing desires found inconsistent results. Assessed across a variety of contexts and over multiple years, women who reported a desire for a child soon were not reliably more likely to have one than those who reported a desire to delay (Cleland et al. 2019). As a defense of the predictive validity of fertility desires, this evidence can be considered modest at best.

In this study, we assess the correspondence between fertility desires and pregnancy using data from Malawi and extend the current literature in three ways. First, we simultaneously estimate both the prevalence of unintended pregnancy and the relationship between desires and pregnancy to demonstrate that fertility desires can have strong predictive validity even in the face of high levels of unintended pregnancy. Second, we focus on timing desires, which remain understudied despite comprising a critical dimension of fertility. We assess evidence for a gradient between timing desires and likelihood of pregnancy, operationalizing desires along a numeric continuum (i.e., number of years) rather than only as a binary (i.e., soon vs. later). Third, we use closely spaced data and a biomarker for pregnancy to examine the link

¹We refer to desires throughout the text despite frequently citing literature that uses the language of "intentions." Although some surveys actually measure intentions, it is far more common for surveys (e.g., NSFG, DHS, PRAMS) to measure desires (e.g., "Did you yourself want to have a(nother) baby?"; "How long would you like to wait before the birth of a(nother) child?"). Responding to calls from fertility researchers, we endeavor to align our terminology with our measurement (Kost and Zolna 2019; Kost et al. 2018; Miller et al. 2004).

²Aspects of this debate parallel broader conversations about the "attitudinal fallacy" taking place across the social sciences, specifically those questioning the predictive power of attitudinal survey items (Jerolmack and Khan 2014; Vaisey 2014).

between timing desires and pregnancy over four-month and one-year periods. Given broad recognition that fertility desires are moving targets that evolve in response to life circumstances (Lee 1980; Liefbroer 2009; Sennott and Yeatman 2012; Trinitapoli and Yeatman 2018; Yeatman et al. 2013), our focus on the short-term predictive validity of desires brings our methods and theory into close alignment.

Data

Tsogolo la Thanzi (TLT) is a longitudinal study of young adults in a community in southern Malawi (for details, see Yeatman et al. 2019). The first phase of TLT (2009–2011) consisted of eight waves, each spaced four months apart. At baseline, a representative sample of 1,505 women aged 15–25 were interviewed and asked about their fertility desires, including how long they would like to wait before having their first/next child.³ Response categories were as soon as possible, within two years, two to three years, three to four years, four to five years, five or more years, no preference/whenever, don't want another, and don't know. Immediately following each interview, all female respondents were offered a pregnancy test (84% to 94% acceptance rate across waves, with current menstruation the modal reason for refusal).⁴ We use pregnancy biomarker data from Waves 1–4 (June–August 2009 to June–August 2010) to identify pregnancies, using data from Wave 2 to identify new pregnancies within the four-month window and data from Waves 2–4 for generating our one-year estimates.⁵

Our analyses include both married and unmarried women to assess whether the link between desires and outcomes varies for those who are married and those who are not in a context where premarital sex and pregnancies are common (Clark et al. 2017) but still carry social costs (Levandowski et al. 2012). Thus, we run analyses for (1) all women, and separately for women who were (2) married or (3) unmarried (either never or formerly married) at baseline. We exclude women who were pregnant at baseline ($n = 192$), missed at least one of Waves 2–4 ($n = 189$),⁶ answered “no preference” ($n = 14$) or “don't know” ($n = 2$) to the fertility timing question, or reported having been sterilized ($n = 3$). The final analytic sample is 1,105 women, 427 of whom were married and 678 of whom were not married at baseline.

Results

Table 1 presents the sociodemographic characteristics, baseline fertility-timing desires, and prevalence of prospectively identified pregnancies for each sample. Married women, on

³Researchers have pointed out that questions on timing desires may be easier to answer for women who seek to space their births or who have yet to start childbearing than for women who seek to postpone their next birth indefinitely (Cleland et al. 2019; Hayford and Agadjanian 2019; Timaeus and Moultrie 2008). These women may introduce some noise into our measurement, although the exceedingly rare responses of “don't know” or “no preference” and our focus on the short-term suggest the impact will be limited.

⁴Importantly, this allows us to examine the predictors of *pregnancy*, not just births, in a context where the health risks of abortion, largely illegal and unsafe, can be severe (Polis et al. 2017). Even with the close spacing of surveys within TLT, however, some early miscarriages and abortions may be missed, and thus the total number of pregnancies will still be underestimated. These missed pregnancies may introduce some bias (in both directions) to our results. As a sensitivity analysis, we include self-reported miscarriages and abortions during the intersurvey period; the findings do not change.

⁵Women who tested not pregnant or refused a test are considered not to be pregnant. As a sensitivity analysis, we rerun all analyses classifying refusers by their self-reported pregnancy status as well as dropping these women from analyses. The cumulative incidence of pregnancy increases with these approaches, but the key relationships do not change.

⁶In another sensitivity analysis, we include women who participated in any wave; the results do not change.

average, are older, more likely to be mothers, and more likely to have had a birth in the past 12 months. One-tenth (11%) of married women reported wanting a child as soon as possible, compared with just 1% of unmarried women. One-half of unmarried women reported wanting to wait at least five years to have a birth.

In Table 2, we impose strict criteria⁷ to classify pregnancies as intended (vs. unintended).⁸ In the four-month interval, pregnancies are considered intended if the woman reported wanting the child as soon as possible at her baseline interview. Over the one-year interval, pregnancies to women who reported wanting a birth as soon as possible or within two years are considered intended because, allowing for gestation, this would result in a birth within the desired time frame. Given that few unmarried women reported wanting a child in the near future, their pregnancies are overwhelmingly characterized as unintended using our criteria. Pregnancies to married women are more likely to be intended; still only 45% of them are over the one-year period. Taken alone, these findings suggest that women are not enacting their fertility desires and that desires may not be particularly salient in the context.

Examined from an alternative perspective, however, the predictive value of timing desires becomes readily apparent. Figure 1 illustrates the overall relationship between desired fertility timing and actual pregnancy four months and one year later. Panel a shows a clear relationship—indeed, a gradient—between desired fertility timing and pregnancy. Among women who reported wanting a child as soon as possible, 34% were pregnant four months later, and 57% were pregnant by one year. Among women who report some desire to delay, there is evidence of a linear relationship between the amount of time they report wanting to delay and their likelihood of pregnancy in the short term. Panel b illustrates that the relationship is driven by married women. There is a less precise relationship between timing desires and subsequent pregnancy for women who were not married at baseline (panel c). In part, this is due to the limited number of unmarried women who report wanting a child as soon as possible (1%), which reflects Malawian ideals about childbearing within marriage. Still, 36% of women who reported wanting a child within two years despite not being married were pregnant within a year. A similar percentage (36%) of unmarried women who reported wanting a child in two to three years were pregnant within the year, a little earlier than their stated desire. The prevalence of pregnancy falls below 10% among unmarried women reporting a desire to delay a birth for at least five years.

Figure 2 presents odds ratios for pregnancy estimated from a series of logistic regression models. These show the odds of a woman becoming pregnant in accordance with her stated desire relative to a woman who reported a desire to delay a pregnancy beyond the specified time frame.⁹ As shown in the top panel, women who reported wanting a child as soon as possible had eight times the odds of being pregnant four months later compared with women who desired to delay. This fell to five times when controls for age, education, parity, marital

⁷Of the small set of prospective studies of unintended births, it is most common for researchers to allow a one-year grace period before labeling a birth as unintended (see, e.g., Koenig et al. 2006; Singh et al. 2013; Yeatman and Sennott 2015).

⁸Here, we revert to the terminology of intended and unintended pregnancy as widely used in the literature, with the acknowledgment that what we—and most researchers—actually measure is *desires* rather than *intentions*.

⁹Thus, for the four-month period, women who reported a desire for pregnancy as soon as possible are compared with women who reported a desire for any delay. For the one-year time frame, women who reported a desired birth within two years are compared with women who expressed a desire to delay a birth beyond two years.

status (full sample only), and having had a birth in the past year (proxy for postpartum insusceptibility) were added, but this figure still reflects the strong predictive power of a woman's desire to become pregnant over the short term. The bottom panel suggests that the link between desires and pregnancy weakens over the one-year period. Nonetheless, net of controls, women who reported wanting a child within two years had three times the odds of becoming pregnant within a year relative to women who wanted to delay a birth. The relationship was particularly strong for married women, but even unmarried women had twice the odds of becoming pregnant within the year if they had expressed a desire for a birth within two years.

Discussion

The simultaneous facts of widespread unintended pregnancy and desires as powerful predictors of fertility need not be treated as mutually exclusive phenomena. Indeed, we show that both are true for young women in southern Malawi. We identify a strong relationship between desires and pregnancy and, notably, a clear gradient between numeric fertility timing desires and the odds of pregnancy in the short term.¹⁰ In other words, timing desires are manifest as a true likelihood, where a desired birth two years from now is more proximate than one desired in three years.

The correspondence between timing desires and pregnancy weakens when assessed on a one-year time frame and might deteriorate further over longer time horizons. Women's fertility desires are flexible and sensitive to changing life circumstances (Mueller et al. 2019; Trinitapoli and Yeatman 2018). Heightened recognition of the flexibility and contingency of fertility desires, however, does not mean that desires cannot be highly predictive in the short-term. Again, we find that they are.

To conclude, we return to another noteworthy paradox: the high levels of under- and overachieved fertility that demographers observe worldwide. These mismatches are neither unique to sub-Saharan Africa nor unique to the particular set of constraints generated by the social and economic conditions that characterize the region. Demography is replete with examples of such mismatches in higher-income settings too (Bongaarts 2001; Harknett and Hartnett 2014; Morgan and Rackin 2010; Régnier-Loilier et al. 2011; Schoen et al. 1999; Toulemon and Testa 2005). Disjunctions can be troublesome for researchers, but they present opportunities to examine the constraints people face in meeting their fertility desires and to improve our theories to accommodate these constraints.

The realm of human fertility is governed not just by biology but also by partners, families, and broader social structures. Within this realm, fertility desires should be categorized as imperfect forecasters; they are probabilistic rather than deterministic and do not capture all relevant elements of pregnancy planning. Fertility desires are blunt instruments, but their ease of measurement and predictive value—in the short term—suggest that they remain essential tools for every demographers' toolkit.

¹⁰The TLT study focuses on a specific age range in a particular context. However, the gradient that we identify is similar to that found recently among postpartum women in urban Kenya slums (Machiyama et al. 2019).

Acknowledgments

This research uses data from Tsogolo la Thanzi, a research project designed by Jenny Trinitapoli and Sara Yeatman and funded by Grants R01-HD058366, R01-HD077873, and R03-HD095690 from the National Institute of Child Health and Human Development. This research was also supported by the population centers at the University of Colorado (CUPC; P2C-HD066613) and the University of Chicago. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Data Availability

Tsogolo la Thanzi data are available through Data Sharing for Demographic Research within ICPSR at the University of Michigan (<https://www.icpsr.umich.edu/web/DSDR/series/767>).

References

- Aiken AR, Borrero S, Callegari LS, & Dehlendorf C (2016). Rethinking the pregnancy planning paradigm: Unintended conceptions or unrepresentative concepts? Perspectives on Sexual and Reproductive Health, 48, 147–151. 10.1363/48e10316 [PubMed: 27513444]
- Bearak J, Popinchalk A, Alkema L, & Sedgh G (2018). Global, regional, and subregional trends in unintended pregnancy and its outcomes from 1990 to 2014: Estimates from a Bayesian hierarchical model. Lancet Global Health, 6, e380–e389. 10.1016/S2214-109X(18)30029-9 [PubMed: 29519649]
- Bongaarts J (1992). Do reproductive intentions matter? International Family Planning Perspectives, 18, 102–108.
- Bongaarts J (2001). Fertility and reproductive preferences in post-transitional societies. Population and Development Review, 27, 260–281.
- Casterline J, & Han S (2017). Unrealized fertility: Fertility desires at the end of the reproductive career. Demographic Research, 36, 427–454. 10.4054/DemRes.2017.36.14
- Channon MD, & Harper S (2019). Educational differentials in the realisation of fertility intentions: Is sub-Saharan Africa different? PLoS One, 14(1), e0219736 10.1371/journal.pone.0219736 [PubMed: 31318943]
- Clark S, Koski A, & Smith-Greenaway E (2017). Recent trends in premarital fertility across sub-Saharan Africa. Studies in Family Planning, 48, 3–22. [PubMed: 28134987]
- Cleland J, Machiyama K, & Casterline JB (2019). Fertility preferences and subsequent childbearing in Africa and Asia: A synthesis of evidence from longitudinal studies in 28 populations. Population Studies, 74, 1–21. [PubMed: 31694465]
- Evens E, Tolley E, Headley J, McCarraher DR, Hartmann M, Mtinkulu VT, ... FEM-PrEP SBC Preparedness Research Groups in South Africa and Malawi. (2015). Identifying factors that influence pregnancy intentions: Evidence from South Africa and Malawi. Culture, Health & Sexuality, 17, 374–389.
- Gibby AL, & Luke N (2019). Exploring multiple dimensions of young women's fertility preferences in Malawi. Maternal and Child Health Journal, 23, 1508–1515. [PubMed: 31228145]
- Günther L, & Harttgen K (2016). Desired fertility and number of children born across time and space. Demography, 53, 55–83. [PubMed: 26786205]
- Harknett K, & Harknett CS (2014). The gap between births intended and births achieved in 22 European countries, 2004–07. Population Studies, 68, 265–282. [PubMed: 24804573]
- Hayford SR, & Agadjanian V (2012). From desires to behavior: Moderating factors in a fertility transition. Demographic Research, 26, 511–542. 10.4054/DemRes.2012.26.20 [PubMed: 23626485]
- Hayford SR, & Agadjanian V (2019). Spacing, stopping, or postponing? Fertility desires in a sub-Saharan setting. Demography, 56, 573–594. [PubMed: 30652298]
- Jerolmack C, & Khan S (2014). Talk is cheap: Ethnography and the attitudinal fallacy. Sociological Methods & Research, 43, 178–209.

- Kodzi IA, Johnson DR, & Casterline JB (2010). Examining the predictive value of fertility preferences among Ghanaian women. *Demographic Research*, 22, 965–984. 10.4054/DemRes.2010.22.30 [PubMed: 23970826]
- Koenig MA, Acharya R, Singh S, & Roy TK (2006). Do current measurement approaches underestimate levels of unwanted childbearing? Evidence from rural India. *Population Studies*, 60, 243–256. [PubMed: 17060052]
- Kost K, Maddow-Zimet I, & Kochhar S (2018). Pregnancy desires and pregnancies at the state level: Estimates for 2014. New York, NY: Guttmacher Institute Retrieved from 10.1363/2018.30238
- Kost K, & Zolna M (2019). Challenging unintended pregnancy as an indicator of reproductive autonomy: A response. *Contraception*, 100, 5–9. [PubMed: 31059700]
- Kuang B, & Brodsky I (2016). Global trends in family planning programs, 1999–2014. *International Perspectives on Sexual and Reproductive Health*, 42, 33–44. [PubMed: 28825913]
- Lee RD (1980). Aiming at a moving target: Period fertility and changing reproductive goals. *Population Studies*, 34, 205–226. [PubMed: 22077121]
- Levandowski BA, Kalilani-Phiri L, Kachale F, Awah P, Kangaude G, & Mhango C (2012). Investigating social consequences of unwanted pregnancy and unsafe abortion in Malawi: The role of stigma. *International Journal of Gynecology & Obstetrics*, 118(Suppl. 2), S167–S171. [PubMed: 22920622]
- Liefbroer AC (2009). Changes in family size intentions across young adulthood: A life-course perspective. *European Journal of Population/Revue européenne de Démographie*, 25, 363–386.
- Machiyama K, Baschieri A, Dube A, Crampin AC, Glynn JR, French N, & Cleland J (2015). An assessment of childbearing preferences in northern Malawi. *Studies in Family Planning*, 46, 161–176. [PubMed: 26059988]
- Machiyama K, Casterline JB, Mumah JN, Huda FA, Obare F, Odwe G, ... Cleland J (2017). Reasons for unmet need for family planning, with attention to the measurement of fertility preferences: Protocol for a multi-site cohort study. *Reproductive Health*, 14, 23 10.1186/s12978-016-0268-z [PubMed: 28183308]
- Machiyama K, Mumah JN, Mutua M, & Cleland J (2019). Childbearing desires and behaviour: A prospective assessment in Nairobi slums. *BMC Pregnancy and Childbirth*, 19, 100 10.1186/s12884-019-2245-3 [PubMed: 30922262]
- Miller WB, Severy LJ, & Pasta DJ (2004). A framework for modelling fertility motivation in couples. *Population Studies*, 58, 193–205. [PubMed: 15204253]
- Morgan SP (2001, 10). Should fertility intentions inform fertility forecasts? Paper presented at the U.S. Census Bureau Conference on the Direction of Fertility in the United States, Alexandria, VA Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.232.747&rep=repl&type=pdf#page=165>
- Morgan SP, & Bachrach CA (2011). Is the theory of planned behaviour an appropriate model for human fertility? *Vienna Yearbook of Population Research*, 9, 11–18.
- Morgan SP, & Rackin H (2010). The correspondence between fertility intentions and behavior in the United States. *Population and Development Review*, 36, 91–118. [PubMed: 20414471]
- Mueller MW, Hicks JH, Johnson-Hanks J, & Miguel E (2019). The illusion of stable preferences over major life decisions (NBER Working Paper No. 25844). Cambridge, MA: National Bureau of Economic Research.
- Ní Bhrolcháin M, & Beaujouan É (2019). Do people have reproductive goals? Constructive preferences and the discovery of desired family size In Schoen R (Ed.), *Analytical Family Demography* (pp. 27–56). Dordrecht, Netherlands: Springer.
- Polis CB, Mhango C, Philbin J, Chimwaza W, Chipeta E, & Msusa A (2017). Incidence of induced abortion in Malawi, 2015. *PLoS One*, 12(4), e0173639 10.1371/journal.pone.0173639 [PubMed: 28369114]
- Régnier-Loilier A, Vignoli D, & Dutreuilh C (2011). Fertility intentions and obstacles to their realization in France and Italy. *Population*, 66, 361–389.
- Rocca CH, Ralph LJ, Wilson M, Gould H, & Foster DG (2019). Psychometric evaluation of an instrument to measure prospective pregnancy preferences: The desire to avoid pregnancy scale. *Medical Care*, 57, 152. [PubMed: 30550399]

- Sable MR (1999). Pregnancy intentions may not be a useful measure for research on maternal and child health outcomes. *Perspectives on Sexual and Reproductive Health*, 31(5), 248–253. 10.1363/3124999
- Schoen R, Astone NM, Kim YJ, Nathanson CA, & Fields JM (1999). Do fertility intentions affect fertility behavior? *Journal of Marriage and the Family*, 61, 790–799.
- Schoen R, Astone NM, Nathanson CA, Kim YJ, & Murray N (2000). The impact of fertility intentions on behavior: The case of sterilization. *Social Biology*, 47, 61–76. [PubMed: 11521457]
- Sennott C, & Yeatman S (2012). Stability and change in fertility preferences among young women in Malawi. *International Perspectives on Sexual and Reproductive Health*, 38, 34–39. [PubMed: 22481147]
- Singh A, Singh A, & Mahapatra B (2013). The consequences of unintended pregnancy for maternal and child health in rural India: Evidence from prospective data. *Maternal and Child Health Journal*, 17, 493–500. [PubMed: 22527770]
- Speizer IS, & Lance P (2015). Fertility desires, family planning use and pregnancy experience: Longitudinal examination of urban areas in three African countries. *BMC Pregnancy and Childbirth*, 15, 294 10.1186/s12884-015-0729-3 [PubMed: 26559486]
- Timaeus IM, & Moultrie TA (2008). On postponement and birth intervals. *Population and Development Review*, 34, 483–510.
- Toulemon L, & Testa MR (2005). Fertility intentions and actual fertility: A complex relationship. *Population & Societies*, 415(4), 1–4.
- Trinitapoli J, & Yeatman S (2018). The flexibility of fertility preferences in a context of uncertainty. *Population and Development Review*, 44, 87–116. [PubMed: 29695890]
- Vaisey S (2014). The “attitudinal fallacy” is a fallacy: Why we need many methods to study culture. *Sociological Methods & Research*, 43, 227–231.
- Van der Sijpt E (2014). Complexities and contingencies conceptualised: Towards a model of reproductive navigation. *Sociology of Health & Illness*, 36, 278–290. [PubMed: 24111549]
- Yeatman S, Chilungo A, Lungu S, Namadingo EL, & Trinitapoli J (2019). *Tsogolo la Thanzī: A longitudinal study of young adults living in Malawi’s HIV epidemic*. *Studies Family Planning*, 50, 71–84.
- Yeatman S, & Sennott C (2015). The sensitivity of measures of unwanted and unintended pregnancy using retrospective and prospective reporting: Evidence from Malawi. *Maternal and Child Health Journal*, 19, 1593–1600. [PubMed: 25636647]
- Yeatman S, Sennott C, & Culpepper S (2013). Young women’s dynamic family size preferences in the context of transitioning fertility. *Demography*, 50, 1715–1737. [PubMed: 23619999]

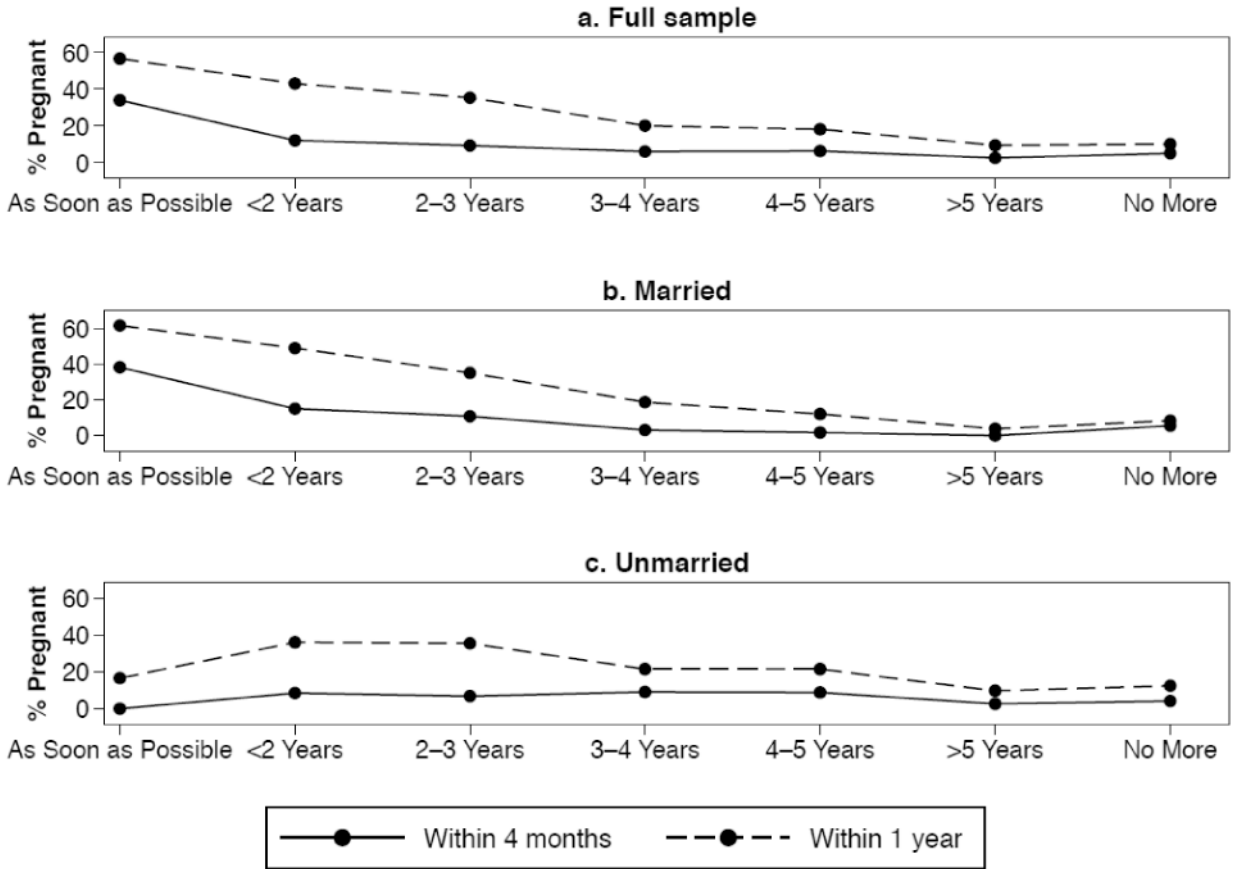


Fig. 1. Relationship between desired timing of next birth and subsequent pregnancy over four months and over one year

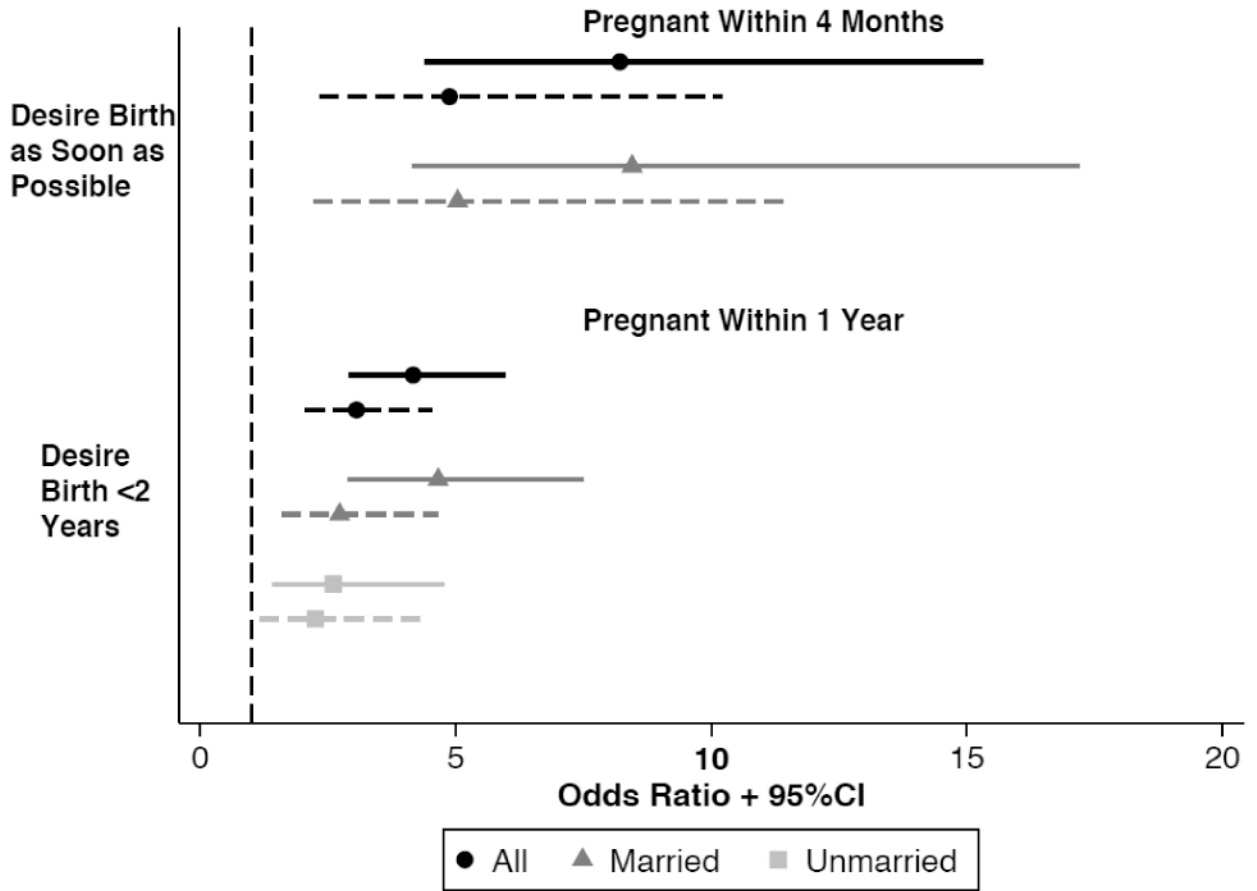


Fig. 2. Odds ratios (ORs) of pregnancy within four months and within one year for women desiring a pregnancy in the corresponding time frame versus women desiring to delay. Results of 10 logistic regression models across three analytic samples (full sample, married women only, unmarried women only). Solid lines indicate 95% confidence intervals (CIs) around unadjusted odds ratios of pregnancy within a given time frame by a stated desire to be pregnant within that time. Dashed lines indicate 95% confidence intervals around adjusted ORs from models that include controls for age, years of education, parity, marital status (full sample only), and having had a birth in the past year. Unmarried women are excluded from the top panel because the small number of unmarried women ($n = 6$) who reported a desire for pregnancy as soon as possible predicted failure perfectly.

Table 1

Sociodemographic characteristics and fertility timing desires at baseline and subsequent pregnancies, by marital status

	All	Married	Unmarried
	Mean (SD)	Mean (SD)	Mean (SD)
Age	19.3 (3.3)	21.7 (2.4)	17.8 (2.9)
Years of education	7.2 (2.7)	6.8 (2.7)	7.4 (2.6)
Number of living children	0.8 (1.0)	1.6 (0.9)	0.3 (0.7)
Birth in prior year	0.2 (0.4)	0.4 (0.5)	0.1 (0.3)
Desired timing of next birth	%	%	%
ASAP	4.8	11.0	0.9
<2 years	9.1	12.4	6.9
2-3 years	16.7	26.0	10.8
3-4 years	16.7	22.5	13.0
4-5 years	14.5	13.6	15.0
>5 years	32.9	6.1	49.9
No more	5.4	8.4	3.5
Pregnant at 4 months	7.2	10.3	5.3
Pregnant within 1 year	22.1	28.8	17.9
N	1,105	427	678

Table 2

Percentage of pregnancies prospectively classified as unintended, by marital status and time frame

Pregnancy Intendedness (%)	All		Married		Unmarried	
	Four Months	One Year	Four Months	One Year	Four Months	One Year
Intended	22.5	29.9	40.9	44.7	0.0	14.9
Unintended	77.5	70.1	59.1	55.3	100.0	85.1
Number of Pregnancies	80	244	44	123	36	121

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript