

Navigating livelihood uncertainty: prevailing wisdoms guiding fertility preferences in rural Malawi

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Abstract

Context/Background: Malawi has experienced social and demographic change although economic livelihoods remain characterized by uncertainty. Economic models of fertility posit shifts in the value of children but the role of uncertainty in shaping prevailing wisdoms about good childbearing is often overlooked.

Data Source and Methods: Thematic content analysis with 48 in-depth interviews collected with 29 women in Central Malawi at two time points during 2016.

Findings: Three dominant schema, or prevailing wisdoms, about good childbearing emerged as guiding individuals through uncertain futures. When implemented, they can both encourage and discourage further childbearing. Economic considerations are dominant in discussions of fertility goals but these don't always reflect individualistic calculations of available resources. Furthermore, normative uncertainty can encourage less contingent fertility preferences.

Conclusion: How individuals navigate fertility goals matters for reducing unintended pregnancy, and for economic and health policy. Investment in stable livelihoods, not just poverty alleviation, and expanded family planning services represent long-term investments.

Keywords: fertility preferences; economics; uncertainty; postponement; qualitative

Introduction

A growing body of work theorizes and documents how fertility preferences are flexible, dynamic, and influenced by uncertain and changing contexts (Johnson-Hanks 2006; Kodzi et al. 2010; Trinitapoli and Yeatman 2017; Yeatman et al. 2013; Hayford and Agadjanian 2017). While economic models of fertility decline have long been framed in reference to different forms of uncertainty and risk (e.g. Becker 1960; Cain 1983; Kirk 1996), only more recently have studies directly investigated individual's perceived uncertainty and its impact on fertility preferences and behavior (Kreyenfeld 2010; Trinitapoli and Yeatman 2011).

The present work defines livelihood uncertainty as the degree to which household economic conditions are perceived as difficult to anticipate or respond to by nature of the future having not yet materialized (Dequech 2000, 2003). Key is that individuals experience different levels of uncertainty about the future as opposed to its being unquantifiable in a Knightian sense (Knight 1921). Since fertility preferences are defined as the desirability of a future birth, the degree to which that future is difficult to envision due to perceived uncertainty becomes a potentially important influence on childbearing

desires and thus how subsequent fertility behavior unfolds (Morgan 1981). This article takes the case of Malawi, a site of social and demographic change, to understand how uncertainty about future livelihood is incorporated into prevailing wisdoms of good childbearing during a fertility transition, including the ways in which these social wisdoms are implemented among women.

Literature review and theoretical framework

In recent decades, Malawi has undergone social and demographic change with contraceptive use rising dramatically and access to education expanding (MDHS 2017). However, returns to education are modest, particularly in rural areas (85% of the population), and the country has been marked by persistent economic struggles as a function of both institutional and climatic conditions (Rasmussen 2018; Smith et al. 2016). Although there is still a high value placed on children and fertility, desired family size and birth rates are declining (Barden-O'Fallon 2005). Since the early 1990s, contraceptive prevalence has increased from 7% to 58% and the most recent estimates show a decline from 5.7 to 4.1 births per

woman between 2010 and 2014 (MDHS 2010; 2014).

If modernization generally induces fertility decline (Bryant 2007), it could be argued that Malawi is an unlikely participant. The country consistently ranks among the poorest countries in the world on a variety of development indicators (UNDP 2016). The expansion of education is argued as important for reproductive health (Behrman 2015; Lloyd et al. 2005; McIntosh and Finkle 1995). Educational aspirations are high (Frye 2012). However, school quality is poor and few are educated through secondary school and beyond which can weaken the positive relationship between education and age at first birth (Grant, 2015).

Households remain vulnerable to food insecurity and absolute poverty, even more so over the study period of 2013-2016 due to combinations of drought and flooding which hampered household and export-oriented crop production (ODI Insights 2016; Rasmussen 2018). Most Malawians depend on subsistence, rain-fed agriculture and thus livelihood struggles have created a norm of engaging in “multiplex livelihoods”, the pursuit of multiple strategies for finding income and food for the family (Bryceson 2002). These climate-dependent and unpredictable cash flows mean uncertainty is an ongoing and normative feature of life in a way that is distinct from high-resource settings.

For theoretical and empirical support of how economic considerations and future uncertainty may guide childbearing, this article draws on two areas of fertility research: 1) theories of fertility decline that speak to the direction in which perceived (economic) uncertainty impacts fertility, and 2) the contingent and dynamic nature of preferences themselves.

Several models of fertility decline argue that economic considerations and uncertainty matter for understanding the value ascribed to children, and hence parents' motivations for further childbearing. Cain (1981, 1983) argues that childbearing is a response to uncertainty as children bring economic security in low-resource settings. Even in high-resource settings, intimate partners may seek to reduce uncertainty through entry into parenthood for stability and individual purpose (Friedman et al. 1994). The value of children as future security continues to matter for how parents think about fertility attitudes, including sex preference (Edewor 2006), and minimum desired family size (LeGrand et al. 2003).

With economic development, the value of children shifts from a source of security to one of required investment as a result of expanding education and career opportunities, particularly for women (Brewster and Rindfuss 2000; Caldwell

1982). Future children come to be viewed as risky, and parents engage in a quality-quantity tradeoff, having fewer children to maximally invest in each child (Becker 1960; Becker and Tomes 1976).

In Sub-Saharan Africa, Moultrie and colleagues (2012) argue that uncertainty has been a driving force behind postponement, a third type of fertility behavior distinct from the desire to limit or space. Postponement has contributed to fertility declines as women of all parities are choosing to delay their births indefinitely for non-childbearing reasons. This desire to postpone reflects the assumption that children are viewed as risky (even if desirable) in a climate of volatile institutional settings and unstable economic positions. Some women adopt a “not now” mindset towards future fertility, delaying the formation of concrete fertility intentions while waiting for an uncertain future to unfold (Johnson-Hanks 2004). Taken together, uncertainty might encourage childbearing as future economic security and support, or it may discourage childbearing if parents view children as risky or presently untenable given present economic downturns or hardship.

Beyond an effect of increasing or decreasing fertility, an environment of pervasive uncertainty impacts the nature of fertility preferences (Hayford and Agadjanian 2012). Fertility preferences are flexible (Trinitapoli and Yeatman 2017) and responsive to life changes (Hayford and Agadjanian 2017; Yeatman et al. 2013) and future outlooks (Kodzi et al. 2010). In Malawi, half of young adults report a change in their preferred timing of the next child over a four month period, and changes in desired family size are common and nonrandom (Sennott and Yeatman 2012; Yeatman et al. 2013). In Ghana, a negative future outlook is positively associated with revising goals towards limiting childbearing (Kodzi et al. 2010). In Mozambique, Agadjanian (2005) finds that disadvantaged material positions often invoke a desire to stop childbearing. Changing circumstance further lends itself to a greater likelihood of one being uncertain about their desires (Hayford and Agadjanian 2011; Morgan 1981).

That preferences are dynamic highlights their contingent nature as they are formed in reference to unrealized imagined futures (Johnson-Hanks, 2006). Since uncertainty is often tied to experiences of instability, we might expect preferences to be highly malleable in response to chronic perceived uncertainty. This environmental characteristic may also focus the individual on relatively short-term conditions given an inability to anticipate future events (Johnson-Hanks, 2005). This would be reflected in desires expressed as highly contingent

(e.g. “if that happens, then I will [have a child/stop childbearing]”) rather than certain and/or fixed.

I draw on the Theory of Conjunctural Action (TCA) and the concept of schemas, the “ways of perceiving and acting through which we make sense of the world and motivate our actions” (Johnson-Hanks et al. 2011, p. 2), to investigate socially-defined and individually enacted wisdoms about “good childbearing”. Schemas are ways of knowing that are often abstract or under-specified, and learned through recurrent exposure including social interaction. They can be enacted in multiple ways and act only as mental maps or social scripts, a means of evaluating and making sense of situations beyond what is discernible. In that way, they are informed by but more inclusive than a social norm. They are defined by recurring patterns, material and institutional structures, and more. TCA offers a useful framework for thinking about the interplay between the social world and individual intentions. The theory draws attention first to social structure and then to the individual rather than viewing intentions as a predominantly individual-level process (e.g. Ajzen 1991). Therefore, I draw on the concept of schema for its utility in thinking at the intersection of an environment that is uncertain, a social world that is changing, and a demographic process (i.e. fertility).

Data and methods

In the following analysis I use in-depth interviews collected as part of a multidisciplinary research program called Umoyo wa Thanzi (UTHA). Initiated in 2013, UTHA includes community and clinic-based research within the catchment area of a rural hospital founded by an international nonprofit organization and located in Lilongwe District, central Malawi. Following the Anomalous Case Analysis sampling approach (Pearce 2002), I drew a sample of respondents for in-depth interviews from UTHA's 2014 baseline wave of a cohort study which included 1,034 women and a set of male partners. I and a research assistant collected 68 in-depth interviews in total from February to September of 2016 with 29 women and 20 male partners. In this analysis, I leverage a total of 48 interviews conducted with 29 women. Women ranged in age from 19 to 42 with zero to six living children. Only two women were childless: one had experienced two child deaths and the other was currently pregnant. The majority of women ($n=25$) were fairly evenly distributed between parities one and five. Of the 29 women, seven were divorced, one widowed, and 21 married. I conducted follow-up interviews roughly three months after the initial interview (July to September 2016). An important component of expected livelihood conditions in this rural setting revolves

around the uncertain outcome of the harvest. By straddling the harvest season I'm able to: 1) observe whether perceived uncertainty and fertility desires fluctuated with met and unmet expectations of the harvest, and 2) expand upon the depth and quality of the data within key sections.

A trained Malawian research assistant conducted all interviews in Chichewa, the dominant local language in Malawi's central region. I was present for nearly all interviews to observe the flow of conversation and to contribute additional probes during the interview. We captured the interview using audio recorders before translating and transcribing them for analysis. Following both the interviews and the initial transcription, I sat with the interviewer and additional UTHA research program staff to discuss initial interpretations of the data and to clarify or elaborate upon specific cultural content. At a later stage, I employed an additional research assistant who had worked previously with the research program to independently translate and transcribe roughly one half of the interviews, primarily as a form of validating the quality of translation. All research was evaluated for ethical integrity and approved by the institutional review boards at Ohio State and the University of Malawi College of Medicine.

Definitions, concepts and interview content

The first round of interviews inquired about fertility preferences and behaviors, including relationship, reproductive, and contraceptive-use histories, before asking more specifically about livelihoods. The topics were considered independently before explicitly linking the two (e.g. “If you felt uncertain about your future livelihood, would this influence your fertility goals?”) at the end of the interview. The follow-up interviews centered on four vignettes, each regarding a hypothetical couple at various points in their reproductive careers but all considering further childbearing. Vignettes varied the household condition and future outlook, the degree of concordance between husband and wife in childbearing goals, and the number of living children. Vignettes were meant as starting points of discussion to capture shared beliefs surrounding common scenarios before asking about the respondent. In this way, the vignettes provided natural talking points to investigate the respondent's own experience and rationale for childbearing. Based on the first round of interviews, we also expanded upon the value of children including their support for the household and the level of parental investment required to see them be successful as adults and thus able to support their parents.

Below I highlight briefly some key concepts emphasized in the following results section:

Livelihood Uncertainty – I conceptualize livelihood uncertainty broadly based on research in similar settings (Bryceson 2002; Devereux 2002). Livelihood uncertainty is the degree to which individuals feel unsure of what will happen in the future including how they will achieve their economic goals and secure their economic wellbeing. In qualitative interviews, respondents emphasized financial and food resources, their ability to work (i.e., health status), and access to land as primary components of economic wellbeing. Thus my conceptualization of livelihoods is broader than a strict consideration of income, wealth, or employment given the limited size of the formal economy .

Economic hardship – I identify economic hardship based on statements that described the economic condition of the household. This includes insufficient food resources, needing to borrow from friends or relatives, and lacking financial opportunities. Language of “struggling to support” often denoted a more severe form of hardship that extends beyond a lack of resources to a difficulty to feed and clothe children. This severe hardship often coincided with uncertainty insofar as there was not only a lack of food and possessions but also a high degree of uncertainty regarding available strategies for improving the household condition.

Childbearing Schema – I use this term to denote on the one hand the prevailing wisdom about how to best pursue childbearing and, on the other hand, the reasons people give when describing and elaborating on their own childbearing goals. I refrain from referring to these as strategies because in some cases the same reason, or rationale, is given for different behaviors or outcomes (i.e. strategies of implementation). As discussed, schema provide the mental maps which are shared through recurrent exposure and can be enacted in various ways given their potentially abstract and under-specified nature (Johnson-Hanks et al. 2011).

Methods

I use thematic, qualitative coding analysis, to consider how (persistently) uncertain livelihoods influence – both directly and indirectly -- the schemas that guide childbearing. I conducted rounds of thematic coding in Nvivo 11 which moved from open coding (identifying topics expressed in the interview) to analytic coding (organizing codes through interpreting meanings and connections among the manifest topics) (Charmaz 2014). I report the three schema that were most prevalent for describing fertility preferences, and examine them in relation to considerations of economics and future uncertainty.

Results

The first round of interviews took place from February through April, the “hunger season” months, when households are waiting to harvest. At the time of interviews, almost no one expected to have a good harvest given the poor rainy season. I say this to highlight the very severe disadvantage that the majority of Malawians in the area were experiencing. That said, in relative terms, not all households were struggling to provide basic necessities such as food or clothing. While life was quite difficult, it was worse for some more than others.

In discussions of livelihood conditions and uncertainty, individuals emphasized three guiding schema regarding childbearing in light of uncertainty. First, one should have children that s/he can support but acting upon this wisdom depended on the uncertain quality of the future. Second, one should have more children for the sake of security in old age which reflects certainty that support will come from children but uncertainty over which child will offer the needed support. Third, one should have a plan because the future is always uncertain and changing.

The key analytic observation is that the first two schema are framed in reference to economics and suggest opposing motivations for fertility – avoiding versus continuing. However, individuals often drew upon both in describing their approach to childbearing. This appears as an apparent contradiction if we understand these statements as reflecting individual calculations of available resources. Instead, these were first and foremost prevailing wisdoms, socially defined, about good childbearing. Their enactment depended on one’s future outlook and the process of situating present conditions within a deteriorating or optimistic future. Furthermore, the lack of contingency sometimes observed between social wisdoms (or schema) and present conditions is directly linked to the experience of navigating chronically uncertain and changing social contexts. Amidst persistent uncertainty, socially defined beliefs rather than individual circumstance are viewed as more dependable than a present situation of hardship. As individuals make sense of their present situation, they differentially draw upon economically-framed schema to motivate their fertility goals.

Schema 1: “Have children you can support”

Using vignettes, we asked women to advise a couple on their childbearing plans given the a particular household condition and future expectation. In the vast majority of cases, participants advised the hypothetical couple to delay or stop childbearing if parents were “struggling to support” the household.

This language often referred to the inability to provide basic necessities, namely food.

“They would tell [the couple] not to continue having children at the moment until the situation at the household has improved.” Judith

Having children that could be supported was a reoccurring wisdom of childbearing. It was offered as advice and used to explain personal childbearing goals, both in terms of desired family size and the desire for the next child. However, it was first a socially-defined belief rather than a reflection of calculated resources. This is underscored by the frequency with which people desired four children, stating that “you can support that many”, but struggled to elaborate further on this justification. Those who could articulate a response to why they felt they could support a given number of children rarely explained it in terms of specific resources or livelihood strategies. Instead, they asserted the government mandated this number, they learned it from the local clinic, or they observed smaller families and a parent’s ability to support their children. None of these reasons are dependent on available resources, per se, but on information provided by authorities and peers.

In the interview, we began with the vignettes and moved from what the hypothetical couple should do to what most people do and finally to what the participant does. When operationalized for present intentions, enactment of this schema involved situating present hardship within an optimistic or deteriorating perception of future change. Doing so often clarified why this rationale was or was not motivating a desire to avoid childbearing. Those who viewed present hardship as a broader trend of deteriorating conditions typically fit one of two scenarios:

(1) they held a limiting mindset from the outset of childbearing and were pursuing smaller families, or (2) at later stages of childbearing, after experiencing prolonged struggle, they subsequently revised their childbearing goals. The first scenario is represented by Emily who framed childbearing with attention to risks (e.g. “cannot risk having many children”) that were borne of persistent and common threats to household wellbeing.

“You have to consider the food status; how much food do you need to feed the family. As you know, food shortages are common these days and also with the change in the climate we cannot risk having many children thinking things will work out by themselves.” Emily

Emily viewed an optimism that “things will work out by themselves” to be an unwise approach to childbearing given the more common trend of deteriorating conditions and ongoing challenges. These individuals cautiously pursued childbearing, making sure they had enough resources before having additional children.

More commonly, individuals described changing their childbearing goals after “coming to see” how hardship was affecting their household and believing that the future was more threatening than imbued with opportunity.

“Our decision to have children has changed...looking at the economic situation this country is going through, and this also has affected our family, we decided to have three children instead of four children... There are persistent food shortages and economic problems so we had to adjust our decisions.” Florence

In telling her story, Florence described at least one period of acute hardship but her statement emphasized long-term challenges. Respondents often used language such as “nowadays things are expensive, changing, and/or difficult” to denote hardship extending beyond a single bad harvest or economic crisis. Once hardship was understood within a time horizon of deteriorating change, parents revised downward their goals and used language that their existing children “were enough”. For some this revision was quite delayed, and I return to this point in describing the effects of persistent and prolonged uncertainty.

Alternatively, some individuals situated hardship alongside an optimistic future outlook. If present hardship was perceived as temporary, individuals were more willing to continue childbearing or to advise others to do so:

“They should go ahead and have a girl child [despite their hardship]. Things change. The conditions will never be permanent.” Mercy

The fact that uncertain and changing circumstances are assumed in this context provided individuals a sense of potential improvement. And since a birth does not come right away, there was time for conditions to improve. The belief that things could serendipitously improve despite a lack of identifiable resources and strategies allowed people to rationalize further childbearing or remain confident in their goals despite present hardship.

Schema 2: “Children will help you in old age”

In addition to having children one could support, respondents expressed motivation to pursue childbearing for future security and respondents often asserted both schema. When salient, “childbearing as security” motivated further childbearing.

“All of the children can’t be with the same mind. Some of them can be with bad manners – they can’t help you. So having more children, some will help me while some are not going to help me.”
Eliteck

This mindset reflects a value of children as a response to limited avenues for future support. It is defined not by uncertainty over future sources of security -- indeed, parents assumed that children would be their source of support in old age – but rather the uncertainty over which child would offer the needed support. It is not that more-is-better for multiplying the level of support but as a way to maximize the chances of support from one or two.

In a few cases, parents rejected the more-is-better mindset but still assumed help from children. These parents felt more certain that one or two children, raised well with an education, could guarantee future support: In only a few cases did parents fail to mention children as a form of help and support and instead described alternative income sources such as leasing land or property. Given the state of the economy and lack of investment in the welfare state, the rural uneducated poor will have few avenues for non-family income in old age. Thus it’s not surprising that children are looked to as assumed security. As a socially-defined wisdom about childbearing, many experienced pressure from peers and elders to have more children for the sake of security but did not necessarily tie this to ideas of how children succeed or with specific examples of families who followed this pattern.

Schema 3: “Stick to a plan”

A third schema further encouraged a lack of contingency between present conditions and childbearing preferences, and is derived directly from the normative nature of uncertain and changing economic conditions. For some, uncertainty over how to achieve one’s goals led to greater uncertainty and expressed contingency of fertility desires (e.g. “When/if things improve, I will have more children”), but individuals from a range of economic backgrounds also emphasized needing to “stick to a plan” in order to feel a greater sense of control over changing and uncertain circumstances. Individuals like Mary described the importance of “sticking to a plan”

precisely because of the expected uncertainties and changes that the future would bring.

“When you don’t have a plan whatever you do is like you are doing the things because the situation or circumstances have forced you to do that thing.” Mary

For those with a limiting mindset, a plan prevents someone from giving in to having more children than they originally intended simply in response to prosperous economic conditions. With a plan, a downturn in conditions or a change in available livelihood strategies need not require a revision of goals because a “good plan” could weather a multitude of changes:

When the harvest is good, will you immediately have another child?

“No, the key thing here is what you planned as a family [not the outcome of the most recent harvest]. If your plan was to have two children then you should also plan on the spacing so that you will not have to worry as to whether the season is good or not.” -Faith

As shown in previous sections, individuals change their goals as different schema for securing household wellbeing become salient. However, the prevailing wisdom from Mary, Faith, and others is that planning reduces the degree of contingency that’s required between present conditions and future goals.

In many cases, this process presented itself as a slow realization of “coming to see poverty in the household”. For example, a woman described struggling to feed her two children but also wanted two more children.

“Because of the lack of resources, I can’t manage to have more than 4 children because I can’t manage to feed more than 4 children.” Eliteck

The interview closes with her expressing regret over having her existing two children given her economic struggles. On the one hand she asserted that her ideal family size was dependent on having the children she could support but she also appeared unresponsive to and even regretful of a current situation of hardship and its implications for supporting her existing children. Ideas of support were dominant in her guiding schema for childbearing but not contingent on present circumstance. Mary, Faith and Eliteck exemplify a reluctance to enact schema that are too highly contingent on the present given life’s instabilities but these women also varied in their specific childbearing plans. Schema, as under-

specified by definition, do not mandate a specific strategy nor are they mutually exclusive. Rather than require a constant calculation of present resources, women drew upon these prevailing, socially-defined wisdoms to help make sense of their present and to guide future action.

Discussion

This analysis has outlined three schema that inform childbearing preferences amidst livelihood uncertainty. First, one should have children that can be supported. Individuals enacted this schema based on their evaluation of an uncertain future and whether present hardship was a sign of deterioration or a temporary crisis accompanied by optimism towards the future. Second, one should have (more) children for old-age security. When salient, this schema worked to encourage further childbearing, particularly when individuals remained optimistic towards the future or, the third schema, they emphasized the importance of sticking to an original plan to avoid feeling controlled by uncertain and changing times.

Taken together, these three schemas operate first as prevailing wisdoms which guide individuals through uncertain and constrained livelihood conditions. They are not mutually exclusive ideas but instead individuals endorse multiple schema to explain their childbearing goals. Social scripts need not actively define the desire for (another) child. Socially defined beliefs of good childbearing, although economically framed, can operate as guiding beliefs rather than specific calculations of available resources. Once implemented, there are shared patterns for understanding how people define and revise their fertility goals but a given schema does not mandate a single type of fertility preference.

The dominant schema operating in rural Malawi are evidence that both Cain's (1983) theory of childbearing as old-age security, and of economic models of fertility decline where children come to be viewed as costly (Becker 1960; Moultrie et al. 2012) are operating in this period of fertility decline. Importantly, it is not the case that these views are divided among those women who have "transitioned" in their mindset against those with "traditional" thinking. Instead, I've shown that these ideas operate first as socially-defined and under-specified prevailing wisdoms about childbearing, and individuals often invoke both points of view in explaining their own childbearing goals.

In a rapidly changing social and demographic context, individuals find stability in shared social wisdoms. Theories of fertility decline that assume an individualistic rational-choice approach (such as Becker 1960) risk misinterpreting economic

statements about childbearing as having uniform effects. Economic considerations dominated women's explanations and decisions regarding childbearing but these were not necessarily concrete calculations of present resource availability. To neglect the socially-defined nature of childbearing beliefs – as reflections of particular types of social, institutional, and environmental contexts – is to miss the complex and deliberate ways that people navigate their social position and future trajectory (Beckert 2013). Here, the Theory of Conjunctural Action (Johnson-Hanks et al. 2011) offers a useful approach for analyzing and interpreting women's explanations of their fertility goals. While other more individually-centered theories have garnered important insights and productive scholarship (e.g. Azjen), they may more easily miss the important interplay between the social and material when seeking to understand complex demographic processes.

When particular schema were actively defining fertility intentions, these findings suggest that severe economic hardship, in combination with a negative future outlook, is antinatal. For some this resulted in a downward revision of goals, similar to the findings of Agadjanian (2005) in Mozambique and Kodzi and colleagues (2010) in Ghana. The more general advice offered, and sometimes described personally, was to postpone childbearing until conditions improved (Johnson-Hanks 2006; Moultrie et al. 2012). However, the underlying motivation to pursue childbearing for security was prevalent, and in some cases this allowed individuals to continue childbearing even when conditions were poor.

This work further speaks to a growing body of work on the contingent and changing nature of fertility preferences (Hayford and Agadjanian 2017; Moultrie et al. 2012; Trinitapoli and Yeatman 2017; Yeatman et al. 2013). The normative experience of uncertainty calls into question how frequently and with what degree of contingency, fertility preferences are redefined. Here, I find support for postponement theory which argues that fertility preferences are contingent on non-childbearing circumstances (Moultrie et al. 2012). However, findings caution against assuming that goals are always highly responsive to economic crisis. When uncertainty is normative, sometimes staying the course is a justifiable approach, and a less stressful one, when navigating uncertain times. Future work should take these contextual features into account when formulating hypotheses as to the nature of fertility intentions.

Regarding study limitations, as a qualitative inquiry readers cannot assume that the same statements and patterns would be observed in other contexts, or with a different population. Malawi is characterized

by a changing social landscape, consistently poor economic conditions, and an environment highly influenced by international donors (Esacove 2016; Storeng et al. 2018; Swidler and Watkins 2017). These features should be kept in mind when drawing parallels to other contexts. This work also does not attempt to explain the source of and process by which these economically-framed schema have come into being. For example, respondents alluded to the important role of healthcare centers and government messaging. Future work should consider how Malawi's institutions and relationships with international donor organizations have facilitated demographic change (see Angotti et al. 2014; Storeng et al. 2018; Swidler and Watkins 2017). Although there is admirable diversity among the women interviewed, it's likely that young, never-married women who have not initiated childbearing, or urban, educated elite-women would offer a somewhat different picture of the schema most relevant for their childbearing goals. Finally, a general critique of reproductive health research is the absence of male voices (Bankole and Audam 2011), and the same applies here. In a society of hegemonic masculinity (Kabeer 2013), livelihood considerations (and family size) are also highly relevant questions and topics for men. Based on preliminary analysis, there were not substantial differences in how men talked about livelihood uncertainty and fertility goals. Future work will do well to investigate the qualitative understandings of fertility preferences, and to expand upon the sample and context under study.

Conclusion

When environments are rapidly changing, the prevailing wisdoms, socially-defined, that guide childbearing goals are defined in relation to these shifting foundations. Livelihood uncertainty can both encourage and discourage future fertility, and families dislike feeling controlled by fluctuating circumstances. Malawi has witnessed substantial increases in contraceptive use and declines in fertility (MDHS 2016), often in the absence of enduring economic progress (Rasmussen 2018). Livelihood uncertainty and present hardship is likely playing a role in decisions to avoid births as people adopt negative outlooks towards the future. However, the underlying motivation to have children as security remains prevalent which calls into question the sustainability of the most recent declines in fertility levels. Policy and programs should aim to bring stability (not just poverty alleviation) to climate-dependent livelihoods (Baro and Deubel 2006; Devereux 2002; ODI Insights 2016), and should assist individuals in planning early for their childbearing plans. Increasing school quality and economic

opportunities such that children can adequately support their families, as well as providing older adults with non-family sources of support, should be viewed as an investment strategy in Malawi's steps towards economic growth and sustainability (Edewor 2006; Peet et al. 2015; Smith et al. 2016; Soler-Hampejsek et al. 2018).

At a programmatic level, Malawi has high levels of unintended pregnancies, particularly in the Central Region (Palamuleni and Adebawale 2014). However, women and men were highly receptive to discussing their childbearing goals and often expressed admiration for those families who could maintain smaller families and manage changing and scarce resources. Many desired a "good plan" for the future. At present, relatively little of this planning is happening before the first child, sometimes not before the second. Programs will do well to capitalize on women and men's willingness to plan and to use fertility control as a means of sustaining household wellbeing.

Acknowledgements

Funding for this research was provided by the U.S. Student Fulbright Program and the Institute for Population Research, supported in part by NICHD (P2C-HD058484). Many thanks goes to Dr. Alison Norris at Ohio State and the UTHA research team for making possible this research and assisting in its development and formulation from early stages. Dr. Jenny Trinitapoli and colleagues at the University of Chicago were instrumental in helping finalize this work.

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