Unmet Need for Family Planning among Teenage Women in Kenya

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Abstract: Logistic regression analysis was applied on 2008/09 KDHS data in order to analyse the determinants of unmet need among teenage women in Kenya. Similar factors were found to affect both unmet need for spacing and total unmet need at bivariate level. Teens who had attained secondary or higher education, of medium and high wealth indices, and those who had an almost daily exposure to mass media were less likely to experience unmet need. Those who were ever married, aged at least 17 years and residents of Coast, Nyanza, Rift Valley and Western provinces were more likely to report unmet need for family planning. Multivariate analyses revealed that teenagers in the medium and high wealth indices households were less likely, while those aged 17 and 18 years, in the ever-married category, and whose exposure to mass media frequency is of a weekly basis were more likely, to experience unmet need for family planning.

Keywords: Unmet need, teenage, fecundity, amenorrhea

Introduction

Unmet need remains to be a global indaba on this world of seven billion people. A woman is characterised as having an unmet need if she is sexually active, not currently pregnant, states that she does not desire to become pregnant and is not using any method of contraception for reasons not related to subfecundity. The woman may not wish to conceive, or she may wish to limit or space her pregnancies but fails to realise her intentions of postponing or preventing another pregnancy. It is thus decisive to address the problem which faces women with unmet need for them to enjoy the rights of timing their pregnancies, spacing them and limiting the number of children they bear. Much as Family Planning Programmes recognise that an unmet need for family planning should include not only women but all persons of reproductive age, more attention need to be given to teenage women- a group of people that have a significant role to play in the reproductive life of women.

Teenagers are not prepared for the possible consequences of sex: they do not have information about their bodies and on how to take care of themselves. They mostly indulge in unprotected sex giving rise to early pregnancy, unsafe abortions and infection by cervical cancer, sexually transmitted diseases and HIV and AIDS. Besides death, unsafe abortion can have devastating consequences such as cervical tearing, perforated uterus, haemorrhage, chronic pelvic infections and infertility. To the worst, they experience complications during pregnancy leading to maternal death, still births and if live, their births suffer higher risks of illnesses and death during childhood. In his review on "Out of wedlock, into school: combating child marriage through education", Brown (2012) indicated that complications during pregnancy and child birth are the largest killers of girls aged 15 to 19, accounting for 70,000 deaths annually, and that girls of that age are twice as likely to die as those who give birth over the age of 20. Further, lives of 166,000 infants could be saved if their child mothers could delay birth until after the age of 20.

According to 2008/09 KDHS, 12 percent of women aged 20-49 had sex before age fifteen and 48 percent had their first sexual intercourse by their eighteenth birthdays. The survey further reported that 18 percent of teenagers have begun childbearing. Such mothers are more likely to drop out of school, and this eventually affects their welfare and social status and hence limits access to many reproductive health programmes. Although 14 percent of teenagers have ever used any method of contraception, only 6 percent are currently on contraception (KNBS & ICF Macro, 2010). Teenagers who are not on any contraception might be those who want to prove their fertility, who think that they are lesser victims of conception due to infrequent sex, who are socio-economically unable to afford contraceptives, or who are ignorant of family planning products and services. This study sought to analyse the determinants of unmet need among Kenyan teenage women. Such information is fundamental because of the existing health complications and the future of the welfare of the population. Continued rapid population growth contributed to by the unplanned pregnancies remains to be the biggest threat to poverty reduction in Kenya.

Why Unmet Need?

Unmet need is a valuable indicator for national family planning programmes as it shows how well they are achieving a key mission: meeting the population's felt need for family planning (Cleland et al., 2006). Estimation of unmet need reveals the size and characteristics of the potential market for contraceptives. The concept of unmet need places women's personal reproductive preferences rather than numerical targets for fertility and population growth at the centre of family planning services (Casterline & Sinding, 2000). Data on unmet need can help family planning programmes target activities by identifying women who are at the greatest risk of unintended pregnancy and more likely to adopt a method other than nonusers. Policy-wise, data on unmet need allows analysts to project how much fertility could decline if the additional need for family planning were met (Ashford, 2003). Gapping the high unmet need among

adolescents will lead to reduction in maternal and infant mortality rates, increased opportunities for education and employment and control over their own reproductive health.

Literature Review

Unmet need for family planning is a statistical measure that calculates how many sexually active women say they want to stop childbearing or delay their next birth by at least two years but are not using any method of contraception. Such a woman must be sexually active and able to conceive, that is, not pregnant, amenorrheic or infertile. Westoff and Pebley (1981) noted that pregnant or amenorrheic women are considered to have an unmet need if their current or most recent pregnancy was unwanted or mistimed and they were not using a method of family planning. However, as noted by Dixon-Muller and Germain (1992), the standard definition of unmet need fails to consider women who are using contraception but need a more effective, safer method that better fits with their personal circumstances.

A lot of work exists on unmet need for family planning. Singh et al. (2009) estimate that universal access to family planning services can save about 150,000 women lives worldwide each year. UNFPA (2007) documents that adequate spacing between births can save lives of infants and children in that increasing the intervals between births to three years could prevent the death of 1.8 million children aged under-five each year.

Poverty is the best incentive to creativity, with such creativity coming in myriad ways. In these hard economic times, teenagers' urge to temporarily eschew poverty cause them to exchange sex for material goods. In such scenarios, there is absolutely no freedom for the teenager to negotiate safe sex, thus increasing the risk of pregnancy. Family planning knowledge becomes meaningless to a starving teen who discovers that she can peddle her wares to see the day through. A study by Ilika and Igwegbe (2004) on unintended pregnancy among unmarried adolescents and young women in

Anambra State of South East Nigeria found that over 95 percent of the respondents had sex for economic reasons, exchanging sex for money or gifts and that only 13.5 percent of them ever used condoms.

Poor people remain destitute in terms of access to media messages on the benefits of family planning and the utilisation of family planning services. KNBS and ICF Macro (2010) indicated that only 40 percent of women in the lowest wealth quintile had heard of a family planning message on radio compared to 80 percent of women in the highest wealth quintile. Further, the proportion of women using any modern method of contraception was higher among the wealthiest women compared to that of the poor women. For instance, oral pills and condoms are used by less than 3 percent of the poorest women, compared with 12 percent of the wealthiest women. UNFPA (2002) reported that contraceptive prevalence in sub-Saharan Africa is more than five times higher among women in the highest wealth quintile compared with those in the lowest wealth quintile, cost and accessibility having been identified as barriers to use of family planning products and services for the poor rural women (Tuoane et al., 2004).

A study by Okech et al. (2011) found that among women who had knowledge about family planning services, 72 percent were using family planning services while 28 percent were not using the services. Based on the level of education of the respondent, the study found women with no formal education to be the least users of family planning while those with post-primary education qualifications had higher chances of using contraceptives. Ashford (2003) found the most educated women to have the lowest levels of unmet need, presumably because they are most able to act on their intentions. However, while studying new estimates for unmet need and demand for family planning, Westoff (2006) found an initial increase in unmet need with education and attributed it to the gap between increasing desire to control fertility and the ability to do so. The work of Ojakaa (2008) that found total unmet need to be 16 percent higher among women with primary education qualifications compared to those with no any education qualification tend to agree with this.

Unmet need for contraception vary across marital status. Married women are more likely to be in need of the services compared to their unmarried counterparts due to the high coital frequency expected in the unions. In such scenario, the use of contraceptives is aimed at helping to space or prevent unwanted pregnancies. In one of their findings, Ross and Winfrey (2002) asserted that the low proportion of unmet need among unmarried women is a reflection of the fact that these women are not sexually active or tend to practice contraception whenever they are sexually engaged. Counter-intuitively, marital status may signify financial support among the married unlike the unmarried. This will yield to high unmet need among the unmarried than the married. World Health Organisation (2011) states that low contraceptive use among young women is often considered to reflect a desire to become pregnant, especially in settings where there is socio-cultural pressure to prove fertility.

Most recently, while studying determinants of unmet need among women in rural Kenya, Nyauchi and Omedi (2014) found marital status, current age, level of education of women, number of living children, employment status, region of residence, household wealth index and exposure to mass media communications to be significantly related to unmet need for spacing childbearing, limiting childbearing and total unmet need for family planning. Especially for spacing, where most, if not all teenagers lie, the study found women with primary educational qualifications to be more likely to have unmet need for spacing childbirths compared to those with post-primary educational qualifications. Regionally, women in the rural areas of Coast, Nyanza and Rift Valley were more likely to report unmet need for spacing childbirths compared to women in rural Central. Further, ever married women and women who have never listened to a mass media channel were more likely to experience unmet need for spacing than those women who have never been married and ever listened to mass media channels.

A catalogue of family planning methods is in existence. However, lack of information, fear of side effects and geographic, social and economic barriers prevent

teens from obtaining and using either method. The methods include oral contraceptives, commonly known as the pill, hormonal injectables, subdermal implants, intrauterine devices, male and female sterilisation, and barrier methods such as male and female condoms, diaphragms and spermicides. Other methods are lactational amenorrhea method (LAM), fertility awareness methods such as keeping track of when the fertile time of the menstrual cycle starts and ends, and symptoms-based methods which depend on observing signs of fertility. We also have emergency contraceptive pills that carry the same hormones used in the oral contraceptives and they can be obtained using higher doses of regular packets of pills or buying pills designed for that purpose. Such are not intended to be used as a regular family planning method but can help a woman avoid pregnancy if used up to five days after having unprotected sex.

While some studies have assumed that traditional methods result in high failure rates thus numerous unwanted pregnancies, abortions, maternal deaths and births (example, Ross & Winfrey, 2002), Caldwell et al., (1988) found that women preferred traditional methods to modern methods and exhibited the lowest fertility levels among all the South Asian countries. Such traditional methods include withdrawal, rhythm and folk. As a matter of fact, demographic transition theory shows that declines in fertility in Western Europe were achieved prior to the invention of modern methods.

Study Variables

Explanatory Variables[1]

The independent variables of study were: the respondent's level of education, partner's level of education, type of place of residence, wealth index of the household, region, age of the respondent, knowledge of contraception, exposure to mass media and marital status of the respondent. Level of education represented the highest level of formal schooling attained. It was categorised as: none[1], primary, and secondary and higher.

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[1] Reference category

Type of place of residence referred to the place where the respondent stayed at the time of interview. It was categorised as either rural or urban[1]. Wealth index is a measure of the socioeconomic level for a household. It was categorised into three: low[1], medium and high wealth index. Region was synonymously used to refer to the province of residence, which entailed Central[1], Nairobi, Coast, Eastern, Nyanza, Rift Valley, Western and North Eastern. Respondent's age was classified in single years as: 15[1], 16, 17, 18, and 19. Contraception knowledge was categorised as either has no knowledge[1] or has some knowledge of contraception, while exposure to mass media was categorised as: not at all[1], less than once a week, at least once a week, and almost every day. A respondent was said to be either never married[1] or ever married.

Outcome Variables

Unmet need for spacing and total unmet need were the anticipated outcome variables. One is said to be suffering unmet need for spacing if she expresses a wish to space her pregnancies but fails to realise her intentions of postponing the pregnancy. On the other hand, a woman is said to be suffering total unmet need if she does not wish to conceive or wishes to limit or space her pregnancies but fails to realise these intentions. The study did not consider unmet need for limiting childbearing because the study population are teenagers who hold hope of bearing children in future.

Methodology

Source of Data

This is an analytical cross-sectional study through secondary data analysis of the 2008/09 Kenya Demographic and Health Survey women data-file. The survey collected information on family planning, entailing knowledge of contraception, use of contraception, trends in contraceptive use, differentials in contraceptive use, source of modern contraception, contraception discontinuation and unmet need for family planning. Respondents were asked whether they would like to have a child, or, another child and if so, how soon, or whether they would prefer not to have any more children.

The respondents here, numbering 8,444, were women aged 15-49 years who were either usual residents or visitors present in the selected households on the night before the survey. The study population for this analysis include women respondents who were aged less than 20 years on the day of the survey, herein referred to as teenagers. The number of observations was 1,767 teenagers.

The 2008/09 KDHS dataset was downloaded from Macro International Inc website after making a request to do so from Macro International, USA. The data set was opened by the Statistical Package for Social Scientists (SPSS) software for windows version 13.0. Since teenagers were the unit of analysis, the data was transformed in a manner that each teenager constituted a unit of observation.

Method of Analysis

Logistic regression analysis was done to estimate the likelihood of a teenage woman experiencing unmet need given the prevailing social, economic, cultural, geographic and demographic condition. The logistic regression model allows the estimation of the occurrence of an outcome due to the effect of several explanatory variables. It allows for the adjustment of many explanatory variables and controlling for many confounders at the same time as it enables easy detection of the interaction between explanatory factors.

Analyses were done at two levels: bivariate and multivariate levels. Bivariate analysis examined the relationship between each respective variable and teenage unmet need. This was done by the calculation of the odds ratios using bivariate logistic regression model. Multivariate analysis entailed the spontaneous inclusion of all the explanatory variables that were found to be significantly related to unmet need by fitting them in the multivariate logistic regression model. This was aimed at testing the net effect of each of the variable on the likelihood of experiencing unmet need for family planning.

Determinants of Unmet Need among Teenage Women

   Bivariate Analyses

Logistic regression models were plotted separately for each variable and the analyses segregated by unmet need for spacing and overall unmet need so as to give a clear picture of the individual effects of the different selected explanatory variables on both unmet need for spacing childbearing and overall unmet need. As already mentioned, unmet need for limiting was excluded from the analyses given that the study population comprise of teenagers- a group of people who are being ushered into childbearing and therefore not having any intentions of limiting births at such an age.

The analytical results in Table 1 indicate that unmet need for birth spacing and overall unmet need is high among women teenagers who are residents of Coast, Nyanza, Rift Valley and Western provinces, those aged 17 to 19 years and those who are ever married. For instance, teenage women of Coast and Rift Valley provinces were 4.50 and 2.93 times respectively, more likely to experience unmet need for spacing relative to their counterparts in Central region. The ever-married teenagers had an alarming unmet need, at 16.64 and 17.49 higher chances respectively, of reporting unmet need for spacing and overall unmet need than the never-married teenagers. Teenage women with some secondary education, them in medium and high wealth quintile households, and them that get exposed to mass media on an almost daily basis were less likely to experience unmet need for spacing unlike their counterparts with no education, in the low wealth quintile and those with no exposure to mass media. The study found out that women who listen to radio, watch television and read newspapers on daily basis were 70 percent less likely, at $\varrho < 0.01$, to report unmet need when compared to those women who have no access to radio, television and newspapers.

Table 1: Results of bivariate analyses for the association between selected explanatory variables and unmet need for spacing and overall unmet need among teenagers in Kenya

Variable name	Unmet need for spacing		Overall unmet need	
	S.E.	Odds Ratio	S.E.	Odds Ratio
Level of education of the respondent				
None[a]	-	1.000	-	1.000
Primary	0.339	0.795	0.324	0.845
Secondary and higher	0.403	0.389**	0.381	0.423**
Level of education of the partner				
None[a]	-	1.000	-	1.000
Primary	0.411	1.433	0.394	1.573
Secondary and higher	0.466	1.801	0.449	1.854
Type of place of residence				
Urban[a]	-	1.000	-	1.000
Rural	0.239	0.802	0.220	0.725
Household wealth index				
Low[a]	-	1.000	-	1.000
Medium	0.387	0.309*	0.351	0.358*
High	0.231	0.634**	0.214	0.733
Region/Province				
Central[a]	-	1.000	-	1.000
Nairobi	0.717	2.841	0.656	2.119
Coast	0.627	5.499*	0.548	5.248*
Eastern	0.822	0.746	0.770	0.556
Nyanza	0.619	5.566*	0.541	5.076*
Rift Valley	0.631	3.949**	0.556	3.296**
Western	0.653	3.008***	0.580	2.441
North Eastern	0.772	1.755	0.716	1.309
Age of the respondent				
15[a]	-	1.000	-	1.000
16	0.596	1.919	0.589	2.116
17	0.556	5.438*	0.548	6.677*
18	0.534	8.053*	0.531	9.107*

19	0.546	6.374*	0.539	7.830*
Marital status				
Never married[a]	-	1.000	-	1.000
Ever married	0.244	17.644*	0.229	18.485*
Exposure to mass media				
Not at all[a]	-	1.000	-	1.000
Less than once a week	0.301	1.127	0.284	1.113
At least once a week	0.296	1.510	0.280	1.483
Almost everyday	0.435	0.261*	0.381	0.302*
Contraceptive knowledge				
Has no knowledge[a]	-	1.000	-	1.000
Has some knowledge	0.328	1.446	0.314	1.550

[a] Reference category; S.E. is the standard error; * $\varrho< 0.01$; ** $\varrho< 0.05$; *** $\varrho< 0.10$

Multivariate Analyses

Multivariate logistic regression analyses were done by impulsively fitting all the variables that were found to be significantly associated with both unmet need for spacing and the overall unmet need in the multivariate logistic regression model. The results were as shown in Table 2. From the table, we see that the significant explainers of unmet need are household wealth index, age of the woman, her marital status and exposure to mass media. Unmet need for birth spacing was 65 percent and 42 percent less likely to be experienced among women in the medium and high wealth indices, respectively, when compared to their counterparts in the low wealth index category. The influence of unmet need for family planning increases as a teenage age. The study found a 15 percent increase in the overall unmet need as a woman grows from age 17 to 18 years. Also observed is the fact that the probability of experiencing unmet need with regard to age and marital status increases from when the analysis is done for spacing to when the analysis is done for the overall unmet need.

Table 2: Results of multivariate analyses for the association between selected explanatory variables and unmet need for spacing and overall unmet need among teenagers in Kenya

	Unmet need for spacing		Overall unmet need	
Variable name	S.E.	Odds Ratio	S.E.	Odds Ratio
Level of education of the respondent				
None[a]	-	1.000	-	1.000
Primary	0.430	1.493	0.414	1.507
Secondary and higher	0.523	1.387	0.500	1.376
Household wealth index				
Low[a]	-	1.000	-	1.000
Medium	0.421	0.354**	0.388	0.409**
High	0.310	0.576***	0.290	0.714
Region/Province				
Central[a]	-	1.000	-	1.000
Nairobi	0.778	2.670	0.716	1.802
Coast	0.684	1.827	0.605	1.985
Eastern	0.868	0.418	0.815	0.337
Nyanza	0.667	2.353	0.591	2.378
Rift Valley	0.685	1.922	0.611	1.797
Western	0.699	1.670	0.627	1.458
North Eastern	0.875	0.772	0.816	0.646
Age of the respondent				
15[a]	-	1.000	-	1.000
16	0.622	1.319	0.614	1.478
17	0.591	2.778***	0.581	3.584**
18	0.573	3.418**	0.568	3.967**
19	0.600	1.882	0.589	2.385
Marital status				
Never married[a]	-	1.000	-	1.000
Ever married	0.292	12.967*	0.274	13.022*
Exposure to mass media				
Not at all[a]	-	1.000	-	1.000
Less than once a week	0.355	1.742	0.340	1.613
At least once a week	0.363	2.640*	0.347	2.469*
Almost everyday	0.508	0.504	0.452	0.569

[a] Reference category; S.E. is the standard error; * $\varrho < 0.01$; ** $\varrho < 0.05$; *** $\varrho < 0.10$

Discussions

Much as Kenya has witnessed a rise in contraceptive prevalence rate, from 7 percent in 1970s to 33 percent in 1993 to 39 percent in 2003 and to 46 percent in 2008 (Magadi, 2003; KNBS & ICF Macro, 2010), access to, and use of modern contraceptives remain poor for many Kenyan women (Izugbara et al., 2011). Agwanda, Khasakhala and Kimani (2009) assert that besides the unaffordability of family planning products and services to many poor women and girls, most hospitals and clinics in Kenya where family planning products and services are subsidised or provided free of charge regularly experience stock-outs and a dearth of qualified providers. To further it up, Aloo-Obunga (2003) states that stigma, inadequate sexuality information and cultural pressure hinder utilisation of family planning services among women and girls. The study findings show that level of education of the respondent, household wealth index, region of residence, age of the respondent, marital status and exposure to mass media are statistically related to unmet need for family planning among teenage women in Kenya.

Education is an empowerment tool. An educated teen is able to differentiate between right and wrong and has some knowledge on family planning methods and why it is necessary. Unlike their uneducated counterparts, such women are more likely to be engaged in an income generating activity that enables them afford family planning methods at their disposal. It is more likely that some are still in pursuit of higher education attainment and some are careful not to conceive as such might keep them adrift their potential husbands besides curtailing their academic dreams and life prospects. The study found teenagers with some secondary educational qualifications to be 0.61 and 0.58 times less likely to experience unmet need for spacing and overall unmet need respectively, compared to teenage women with no education.

Poor girls engage in unprotected sexual intercourse for material gains such as money, clothing, cosmetics, food, drinks and free rides to school oblivious of its consequences. Some of these girls engage in sex so as to get some income to fend for their families that are wallowing in abject poverty and even to supplement their school fees (Omedi, 2014). The worst of all happens when the teenagers in question lack parenthood because of either orphan-hood or being born out of wedlock and the poor mother fails to reveal the identity of the father to such a girl. On conceiving, majority of them get extremely worried and quite a good portion attempt abortion which carries a basket full of downbeat consequences. With some parents not wanting their daughters to give birth out of wedlock, some of these teenagers are forced into early marriages and others experience domestic violence from family members. Results in Tables 1 and 2 show that teenagers in the low wealth index households were more likely to experience unmet need than their counterparts in the medium and high wealth index households.

Much as a people would want to use contraception, some parts of this nation are inaccessible by family planning service providers and occasionally experience frequent stock-outs. Media stations have reported cases where people recycle condoms, and even to the worst, use polythene bags as condoms in parts of North Rift; an indicator that the availability, accessibility and affordability of such services and products will yield to an increased usage. Especially among school-going girls, hard economic times and long distance to schools makes them fall prey to taxi operators who give them rides to schools in exchange for sex, a lot of time, not prepared to use any contraception.

A correlation exists between wealth index and exposure to mass media. Households in the medium and high wealth indices are able to afford such communication models as radio, television and newspapers, things that are hard to come by in those households in the low wealth index. This communicates a message that teenagers in low wealth index households have no or minimal, if any, exposure to

mass media, thus exposure to family planning products and services. National Council for Population and Development and Population Services International are some of the institutions that air programmes on family planning methods and the reasons as to why family planning should be done in various media stations. Results of bivariate analyses indicated that teenagers who had an almost daily exposure to mass media were 0.74 and 0.70 times, less likely to experience unmet need for spacing and total unmet need, respectively, relative to those who had no exposure to mass media.

Conclusions

The subject of unmet need remain to be a concern of not only the government but also other stakeholders, researchers included. Reduction of unmet need would significantly reduce unintended pregnancies thus curbing its health and socio-economic consequences. Unintended pregnancies result from unmet need for contraception, contraceptive failure, or improper use of contraceptives, and include pregnancies that are either unplanned or undesired. Such health consequences of unintended pregnancies include increased risks of maternal deaths, pregnancy and birth-related complications such as excessive bleeding, anaemia, obstructed labour, still births and infant deaths. The socio-economic consequences include termination of education and job, stigmatisation, loss of self esteem and perpetuation of the poverty trap and cycle. A pregnant teenage will, many a time, lack material and social support and suffer physiological harm. Their children are at greater risks of lower intellectual and academic achievement, health complications, social behaviour problems and problems to do with self control than are children of older mothers primarily due to the effect of single parenthood and lower maternal education. This upholds the vicious cycle of poverty.

Teenage women, representing a surprisingly large group of women, deserve careful programme attention. A lot of weight should be placed on improving and

expanding contraceptive information, education and counselling services to teenage women with little or no education, those in the low wealth index households, and residents of Coast, Nyanza, Rift Valley and Western provinces. The media should come in handy to dispel misconceptions and misinformation about specific methods of family planning, knowing that every woman has a safe and effective method. Nonetheless, there remains unmet need wherever contraceptive technology is faulty and users rely on defective methods for lack of better alternatives.

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