WOMEN'S STATUS AND FERTILITY IN KENYA

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THIS PROJECT IS SUBMITTED IN PARTIAL FULFILLEMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN POPULATION STUDIES AT THE POPULATION STUDIES AND RESEARCH INSTITUTE OF THE UNIVERSITY OF NAIROBI
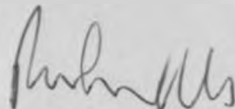
OCTOBER 2003

DECLARATION

THIS DISSERTATION IS MY ORIGINAL WORK AND HAS NOT BEEN

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SIGNED_____DATE____29|10|03____

THIS PROJECT HAS BEEN APPROVED FOR SUBMISSION FOR

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DEDICATION

This work is dedicated to my father Julius Manyange Ombati and mother Mary Kwamboka for giving me the opportunity to attain an education.

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I would like to express my heart-felt gratitude to the United Nations Population Fund for giving me a scholarship that made this possible.

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ABSTRACT

This study examined the effect of the women's status on fertility. This study uses the 1998 Kenya Demographic and Health Survey (KDHS) results to establish whether the status of the woman at the micro and macro levels affects fertility measured by the number of children ever born.

A woman status was measured using a combination of four variables two at the individual level; women's education and occupation and two at the household level spousal communication on family planning and decision making on money use. Other household variables where her husbands educational attainment and occupational characteristics. Other variables included as women status proxies' demographic variables such as; her age at first marriage, contraceptive use or known use, age at first birth, her age and desired family size. Socio-cultural variables such as; her exposure to the mass media and region of residence.

The results reveal that women's status has a negative effect on fertility, those with the highest status were shown to have the lowest fertility at the multivariate level.

The study recommends that the government put in place policies that improve the general status of women to reduce fertility and that future research in these areas should involve qualitative research methodologies to improve on the data so collected.

TABLE OF CONTENTS

List of tables

List of figures

CHAPTER ONE

BACKGROUND ON WOMEN' S STATUS AND FERTILITY

1.1   Introduction

In the past decades, the need to promote the status of women for demographic purposes has been advocated in all international forums such as the United Nations Decade for peace, Equality, Development and Peace UN (1976-1985), the world population plan of action Bucharest (1974), the forward looking strategies for the advancement of women to the year 2000 (Nairobi, 1985), International Conference on Population and Development, Cairo (1994), The United Nations World Conference on Women, Beijing (1995) among other International agreements and Declarations .

The status of women and their involvement in decision-making is crucial for the diffusion of small family values and the long run reduction in fertility of a country (Chaudhury 1978; Mason 1984, 1987; Gage 1995). Although this generalization is widely accepted, the evidence from studies worldwide including Kenya has not been successfully demonstrated. Understanding of this is critical for the country where fertility is high despite recent declines and an understanding of the underlying determinants will go along way in putting in place appropriate

policy measures that can reduce fertility in line with its goal of achieving industrialization by the year 2020.

Evidence from populations undergoing fertility transition from natural to controlled fertility has involved several mechanisms in the initiation of fertility control. Some scholars emphasize the importance of mass education in raising costs and lowering the benefits of larger family size, and reversing the inter-generational transfer of wealth flow from parents to children (Caldwell 1980). Some others argue that cultural factors such as willingness to innovate and women's rights can account for the diffusion of fertility control (Van de Walle and Knodel 1980), other studies have also emphasized on the importance of women's status and their role in reproduction decision making for family size reduction (Mason 1984, 1987; Gage 1995).

Factors such as the educational attainment of women, occupational involvement and decision making on matters pertaining to reproduction promote low fertility, these factors are also related to individual modernity, and psychological will to innovate (Fallon 2000). Low education status, low occupational involvement, subordination of women to men, and lack of communication between wife and husband are obstacles to small family size values.

1.2   Background information

Kenya has undergone a transition from a country with one of the highest fertility levels in the 1970s to a country that has experienced the most exceptional fertility transitions in Human history *(APHRC, 2001)*. Kenya's contraceptive prevalence rate of 39percent is ranked third in Africa after Botswana and Zimbabwe.

Age at first marriage has gone up from 18 to 19 years in the past two years *(CBS 1999)*. The proportion of women married by age 20 has dropped from two-thirds for those aged 35-49 to less than a half for those under 30 years of age. Only 16percent of women aged 15-49 years had never experienced sexual intercourse, while 40percent of currently married women would like to have another child, only 14percent want a child in the next 2 years. One out of four women would like to space their children. As at 1998, the mean ideal family size for women 15-19 years was 3.5 children in 1998, while for women aged 45 – 49yrs. was 4.9 children. Between 1978 and 1989, the mean ideal family size declined from 6.4 children to 4.2 children and finally to 3.7 according to 1993 estimates. Data from the *1998 Kenya Demographic and Health Survey (1997)* suggest that Kenya experienced a fertility decline from 7.7 births per woman in 1984 to 6.7 per woman in 1984 and 5.4 births to 4.7 births per woman between 1993 and 1998.

Status is a person's socio-economic and legal rank in society in relation to others. Women's status has been defined using such terms as women's empowerment, female autonomy, gender inequality, access to and control over resources and even prestige (Mason, 1986). Women's status is multifaceted making it difficult to measure uniquely; not only can it vary along different dimensions such as decision-making power, freedom of movement, access to education, etc., but it can also vary between the different spheres in which women function, such as the domestic and non-domestic (Mason, 1986; white, 1978). Anthropological studies by Epstein (1992) define a woman's role as 'the way she is expected to behave in certain situations' and her status as the 'the way in which she is perceived by different individuals and groups who come in contact with her'.

Women globally have in the past been seen as of lower rank than men have. Social and cultural institutions have in the past and present ascribed different roles to the sexes, of which the female roles are perceived as of low status. Cultural and customs exist to help reinforce these statuses. This predetermined lower status has created inequalities and inequities over history that have had profound effect on the major demographic characteristics of a population mainly; fertility, mortality and migration.

Status in the modern society is ascribed through education, occupation and the ability to participate in communal welfare. This, however, has not overtaken the historical disadvantage of women. In day-to-day life the female disadvantage takes place in the form of unequal access to the labour market, and hence income generating activities and bias against girls also exists in access to food, health care and education and this is experienced both in and out of the household (Chen, Huq, and D'Souza 1981).

Nevertheless, some women however, have been able to acquire higher status through education, taking up occupations that earn income and are able to make decisions for themselves and their communities. This has created interest on the demographic consequences of these newly acquired statuses of women and implored researchers to analyze these women's achievements in relation to fertility, mortality and migration.

In the area of fertility, studies have evolved over the years to seek understanding and the relations of women's status and fertility, especially so in the 1970s. This has however evolved from the narrow focus on specific indicators, such as women's education, which according to (Schultz 1992; Summers 1992) among others: is critical for not only the intrinsically important question of gender justice but also the long-term well-being of both men and women, to the broader concern with

women's autonomy and decision-making power. However, the relations between fertility and women's access to gainful employment did not give any simple correlation.

By the mid 1980s, researchers and advocates for women's rights recognized that women's status depends on many factors and has multiple dimensions: They also recognized, that status is related in complex ways to demographic behavior.

In the literature of the 1990s, these complexities are examined with a shift in focus from statistical correlations between women's status and fertility to the interconnections among the exercise of human rights (such as the right to work, to acquire an education, and to enjoy the freedom of movement), women's perception of their own-well being and self-efficacy, and a broad range of reproductive health decisions such as contraception, entry into sexual unions, breastfeeding and parities and spacing of their children. Such studies have assessed the role of women's autonomy in decision-making, and have considered the resources needed to alter or circumvent restrictions on this autonomy at many cultural and institutional levels.

Research, policy debates and action programs are beginning to recognize the centrality of gender-based power relationships in influencing the decision-making processes by which reproduction is determined.

The pathways of influence from women's increased autonomy to their fertility and childcare behavior may be both indirect and direct: This could be empowering experience that changes women's perceptions of self-worth and well-being, which affect women's dependence on men and their ability to make decisions. These impacts flow back into the hierarchical social structure through women's existing relationships with men and 'powerful' women (women who achieve status due to experience and household headship such as mothers-in law). This also exerts influence indirectly to reduce gender inequalities in prestige, control over resources, and decision-making power. Such changes in turn affect fertility and childcare behavior by enhancing women's ability to take their own needs or health and well-being into account.

Important impacts also emerge through the formation in different social locations (household, community, state and market) of new relationships that enhance self-esteem and self-efficacy, through access to independent information and peer support, and through physical mobility. Such relationships foster women's ability to weigh their own well-being relative to family size preferences, the health needs of their

children, birth control preferences, and employment alternatives. Since empowerment is a dynamic process, the effects on reproductive behavior are continuous, responding to external forces and life cycle events as they unfold.

1.3 Problem statement

Fertility in Kenya has over the years declined rapidly in terms of the total fertility rate (TFR) from a high of 7.9 in the 1979 census to a low of 4.7 in the 1998 KDHS, this however has regional differentials indicative of the socio-economic status of the region. Over this period, women have also registered increased education attainment, higher employment participation, which stands at 30 percent involvement in the wage market and 70 percent in the agricultural labour force participation (UNDP 2002) and increased involvement in decision-making in and outside their home environments.

This is also supported by the very fact that the general educational attainment, occupation and decision-making among women have been on the rise more so in the 1990s, thereby increasing their general status. Women have also had increased involvement in-group activities through the self-help groups that have provided credit hence raising the general

economic situation of women as well as their visible decision-making at the community and household levels (G.o.K economic abstracts)

The ascription of status to women in Kenya depends on their culture, educational attainment, occupational characteristics and their involvement in decision-making processes. The effects of the social changes within and between these statuses have not been fully documented though the demographic and health surveys show marked differences on the total fertility according to region of residence.

Studies in Kenya have been carried out mainly on the effect of education on fertility; they include Osiemo (1986), Onguti (1987), Omagwa (1985), and Mwabobia (1982). All show that fertility is negatively related to the level of women's education and that the place of residence and religion determine total fertility outcomes.

The combined effect of women's status indicators such as her educational attainment, her occupational characteristics, her decision making involvement and autonomy within the household measured by dimensions such as spousal communication on family planning and decision making on money use in the home, her husbands educational and occupational characteristics, her exposure to the environment through the mass media, her demographic characteristics such as age at

first marriage, age at first birth, desired family size and contraceptive use have not been documented in one study which is the focus of this particular study.

The study, therefore, aims to establish these links to the number of children ever born to each women taking into account status in terms of: her educational attainment, occupation, decision making and spousal communication and therefore hopes to answer the question: What then has been the effect of these achievements in the observed fertility declines in Kenya.

Answering the broad questions:

1. What is the effect of women's status on the number of children ever born?

2. What are the effects of demographic variables such as age at first marriage, age at first birth, a woman's current age, her desired family size and contraceptive use on the total children ever born.

3. What are the effects of women's husband's status such as his education and occupation on the number of children she bears?

4. What are the effects of other environmental characteristics such as exposure to the mass media and region of residence on her fertility outcomes.

1.4   Study objectives

General objective

The study aims to determine the effect of various variables associated with women's status with fertility in Kenya.

Specific objective

1. To show the effect of women's education attainment, occupation, decision-making and spousal communication and decision making on their association with the total number of children ever born (CEB)

2. To determine the effects of women's status variables such as: a woman's husband's educational and occupational characteristics, a woman's environmental characteristics such her exposure to the mass media and region of residence and her demographic characteristics with the total children ever born

3. To determine the factors that are relevant and important to policy makers in Kenya and derives appropriate recommendations.

1.5   Justification

Many studies have called for further research on the female education fertility relationship (UN 1986, 1987) and indeed these studies have over the years been done. The shift though has been the investigation on the statuses of women and the total fertility outcome, however only a few

studies have been carried out in Africa and Kenya in particular. In a developing country like Kenya where the reduction of fertility rate is of great concern and resources are very scarce a study that will set priorities to allocate the scarce resources to the important variables that could greatly reduce fertility is needed.

A study on women's status and fertility will provide an understanding of the complex involvement of factors that relate to the control of ones behavior such as education, work participation and decision-making on income, spousal communication on family planning, husbands individual characteristics such as education and occupation and environmental factors such as exposure to the mass media and region of residence and individual woman's demographic characteristics.

This will be important at the policy level as it will enable policy makers have insights on the intricate factors that influence fertility outcomes. They thus can be able to plan for policies that will enhance fertility reduction effectively and more efficiently.

At the academic level it will enable researchers have a better understanding of the influence of women's status on fertility and other demographic outcomes.

1.6   Scope and limitation of the study

This study is limited to the variables in the KDHS: i.e. the woman's education, occupation, decision-making, spousal communication, and exposure to the mass media, region of residence, husband's education and occupation age at first marriage, age at first birth, desired family size and contraceptive use.

Other indicators such access to capital resources, human rights provision, freedom from fear and coercion and others dimensions that affect the status of women will not be included in the study. This will have an effect on the human rights analysis of the effect of the status of women on fertility.

However, it is noted that the stipulated variables will not be the only ones that influence the status of women and this shortcoming will be accepted. It is also difficult to establish how the existence of the other variables affects the status of a woman and her fertility outcomes.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1   Women's status and fertility

The socio-economic status of women relative to men has been recognized as a key determinant of fertility transition (Knodel and Van de Valle, 1979; Mason, 1984). Recent studies have argued that women's status is the single most important and useful element in understanding the demographic situation in the developing world (Dyson and Moore, 1982).

A number of previous studies (Bhargawa and Saxena 1987; Sipila1975) have defined women's status by taking such factors such as education, employment, salary and nature of work. Several studies On South Asia have used indicators of women's status such as in the study of the sexual division of labour in Bangladesh in 1975 Cain et. Al. looked at the economic class, stage in the life cycle and relationship within the household and found that that all women had heavy workloads and received fewer rewards compared to man in terms of prestige and income.

Studies conducted in different parts of India have evaluated the status of women using the caste, education, occupation of the husband and their influence on fertility. Some studies have also been conducted to explore

other equally relevant dimensions of women's status, such as autonomy in decision-making, their role in society, interaction with the media, ownership of property by females, and the influence of these factors on fertility (Audinarayan 1986, Jejeebhoy 1986, mahadevan 1979, 1987: Rao, Kulkarni, and Rayappa 1986).

These Studies status and fertility have revealed a negative correlation between highs status and fertility outcomes.

Berhanu and Hogan (1997) found that women with high status; those with higher education, working out of the home and those who discuss contraceptive issues with their spouses have higher contraception rates hence lower fertility than those who work in the home and do not discuss with their spouses.

Fallon (2000) concurs that education and gender play a large role in determining an individual's social status and power, which in turn determines their fertility behavior.

Ayehu (1998) found that that correlates of fertility where negative to fertility in cases where the women had higher socio-economic status. Durant and Sather (2000) using six indicators of women status such as mobility, financial freedom, household decision-making, and freedom

from coercision (through fear of and abuse by husband), empowered women, or those with high status, are better able to make positive investments in their children through increasing their chances of survival during infancy and increasing their likelihood of attending school.

Gage (1995) in a study on women's socio-economic position and contraceptive behaviour in Togo found that the impact of education on spousal communication and contraceptive use was both positive and significant and women economic power was responsible for widening their contraceptive options. Kimondo (2003) on a study of the correlates of fertility preference in Central and Coast provinces of Kenya found that women with high socioeconomic positions generally desired lower numbers of children than those with low education.

Henin (1979) revealed that women with primary education in Kenya have higher fertility than those with no education because they become more conscious of the importance of hygiene and other basic health requirements that prevent pregnancy wastage. Onguro (1987) found that the total fertility rate starts declining after five years of education and declines further after 9 years of education; he also found that women who were currently working had the lowest fertility followed by those who had worked in the past.

In Kenya, Henin and Mwobobia (1982) found a negative correlation between female employment and total fertility rate due mainly to urbanization and contraception. Ikamari (1985) found that wife's employment status was positively related to contraceptive use (r= 0.1826) and this explained 0.01percent variance in current use of contraception. It was also found that working Kenyan women have higher motivation to use contraception than non-working women do.

Otieno (1992) found a negative effect of postpartum variables to be mother's level of education, work status and place of residence. Wandia (1996) established that education was the most important variable in determining ages at first birth, ages at last birth and generally the spacing of children. Wabende (1998) also concurs with these and concludes that women with secondary plus education and wage earners had lower fertility compared to others.

Many studies provide a strong correlation between the educational status level of the woman and a couple's fertility, while the education level of the man correlates less well (Cleland and Rodiguez 1988: cochrane 1979). This is consistent with the world fertility survey data, which also indicate a strong association between women's education status and marriage age, desired family size, and contraception in developing countries (United Nations 1987).

The evidence of significant returns to female education status includes; reduced fertility reduced infant and maternal mortality, enhanced family health and welfare, improved children's education and increased agricultural productivity, earnings and overall economic productivity for women and the larger economy (Odaga, Adhiambo and Ward henveld, 1995). This is by indirectly working to reduce fertility in a number of ways: by delaying marriage and increasing the chance that a woman may never marry; by reducing desired family size by stimulating aspirations for a higher standard of living and increased investments in fewer children; by preparing women for employment, especially in the formal sector; and by exposing women to new knowledge attitudes, and practices regarding contraceptive use (Le Vine et al.1991). Education also prepares women to respond to more opportunities, challenge traditional values and weakens the authority of the old over the young, as well as of men over women and is the most influential variable in the improvement of child health and reduction of infant deaths (Caldwell 1982,1986a,b). Hence, a woman's individual status in society is heavily determined by her educational attainment.

Some studies have however attempted to assess how education may influence women's personal attitudes and their roles in reproductive decision-making. Cochran, Leslie and O'Hare (1992) found that education not only delayed the wife's age at marriage, but also increased

husband-wife communication and knowledge, and access to birth control, all of which were negatively related to fertility.

The importances of individual attitudinal changes, both in their own right and in combination with other factors have been frequently emphasized in analyses of the channels through which formal education operates (Cochran, Leslie, and O'Hara 1982; Le Vine 1982). Several plausible models of the impact of schooling on the attitudes and later behavior of girls have been set out (Le Vine 1982; Le Vine et al 1991). These include the cognitive growth model, which assumes that " schooling endows the girl with an expanded awareness of means-end relationships in her environment and the capacity to see it in novel contexts as she encounters them"; the self-development model, which posits that schooling ' bolsters the self-esteem, sense of personal efficacy, and belief in internal control' of persons in a 'position of sub-ordination and compliance"; and the identification model, which hypothesizes that girls are exposed to a new kind of interaction with the adult teacher, which they later imitate as mothers(Le Vine 1982). All of these models describe the impact of education on childcare, parenting, and, to a lesser extent, fertility behavior.

In discussing complex mechanisms through which improved maternal education raises child survival in rural Punjab, Das Gupta (1990)

concludes that education raises maternal skills and self-confidence, increases maternal exposure to information, and alters the way in which others respond to women. A study in Nigeria by Caldwell (1979), examining child mortality differentials by mothers' education for Yoruba women in western Nigeria, found that women who have been to school feel more responsible for the health and welfare of their children than those with no formal education.

Women's education also influences attitudes and knowledge and hence contraception behavior (Dixon-Mueller: 1993). Most studies assess the easily quantifiable years of schooling, but do not address such other forms of training such as adult literacy programs, informal education, and exposure to extension services, which are more difficult to measure.

It then can be assumed that effective use of birth control, and the adoption of behavioral and investment strategies to maximize the survival and well-being of fewer children depend on the woman's attitude toward, experience of, and knowledge about family planning and health services irrespective of whether she has ever attended school. A variety of sources such as peer and support networks, women's credit and savings groups, informal education and other women's programs may be important (Mahmud and Johnston 1994). For example, in an examination of regional differences in mortality levels in India, the level

and nature of political awareness was found to explain differential access to, demand for, and utilization of health services, after income differences were controlled for (Nag 1989).

Research on the effects of women's employment status has had two foci: implication for women's autonomy, and the extent of incompatibility between women's roles as mothers and as income earners. Employment outside the home has the potential to reduce women's dependence on others; provide alternative sources of social identity and support; increase women's desire to delay marriage; motivate women to terminate unsatisfactory relationships and space or limit births (Dixon-Mueller 1978; Safilios-Rothchild 1982).

Women's economic activity influence on her reproductive decision-making is determined largely by underlying institutional structures that govern the value of women's labour in any society and the conditions under which women, engage in economic activity. The relationship between gainful employment and greater reproductive and sexual choices is dependent on the myriad of factors, such as type of occupation, income, motivation, whether the woman works for someone or is self-employed, duration and continuity of work, and whether the work is full- or part-time.

Empirical observations suggest that the impact of women's non-domestic work on fertility differs by type and magnititude of remuneration, workplace, type of activity, and occupation; but there has been little consistency in either the strength or the direction of the observed relationships (Youssef 1982).

Investigations of the association relate fertility to the gender division of labour in society, the demand for female labour, and the economic opportunities available for women (Youssef 1982). In situations where women are forced to take up market employment, women not only continue to bear the burden of domestic work, but also suffer the consequence of gender-based inequities in the labour market, such as lower wages, less regular employment, and higher level of underempoyment than men. In such situations, women's employment may do little, if anything, to strengthen their capabilities to implement their reproductive preferences (Bruce and Dwyer 1988).

Some evidence however exists for a negative association between women's employment and fertility; other studies demonstrate no relation between the two. Studies of maternal incompatibility conclude that it is the 'household 's opportunity structure,' through which it accumulates

status and resources, rather than role conflicts between 'mothering' and 'working', that determines the relationship between women's work and fertility (Mason and Palam 1985). The lack of clarity regarding the existence and direction of the relationship may be due not only to the nature of the employment and women's broader circumstances, but also to the methodological inconsistency and simplistic analytic approaches (Wainerman 1981). Available evidence is insufficient to determine whether women who enter the labour force bear fewer children than others or whether women with fewer children tend to have higher levels of labour force participation (Wainerman 1993).

In some contexts, independent earnings by poor women do appear to affect traditional gender relations within the household, enhance women's participation and voice in decision-making. For instance research shows that compared with women who depend entirely on their husband's incomes, poor rural South Asian women who are involved in credit programmes supported by government or nongovernmental organizations hold a better position relative to men in the household; the women studied appear to exercise a degree of autonomy, as evidenced particularly by their higher use of birth control and significant greater physical mobility (Amin and Pebley 1990; Mahmud 1993; Nelson 1979). Outside earning provides women with critical support mechanisms in

crises, an enhanced capability to deal with threats, and a higher value in the family as perceived by themselves and others (Bruce and Dwyer 1988).

Autonomy is further enhanced if cooperative work settings are available that allow participation in decision-making, provide credit and marketing facilities, and improve access to job-related services such as health and childcare. The greatest benefits accrue when women not only earn income, but also directly control that income and achieve economic security as a result. Research in a number of countries concludes that control over income is a better predictor of demand for children and subsequent fertility (Kritz ND Makinwa-Adebusoye 1993). In Nigeria, a study on currently married women reveals that women's control over their earnings has a strong negative effect on the demand for children (Kritz and Makinwa- Adebusoye 1993).

With respect to the impact of maternal employment on child welfare, the importance of the institutional context is even more evident. A number of studies reveal a significantly greater allocation of women's income than men's to subsistence consumption, including food, and a positive correlation between children's nutrition status and women's income and subsistence food inputs (Bruce and Dyer 1988). In contrast, there are

situations where maternal employment has been associated with higher infant or child mortality and under nutrition (Basu and Basu 1991).

Research in South India shows that the impact of women's income-earning work on child welfare is mediated by pervasive poverty and women's access to basic infrastructure (Desai and Jain 1992). All in all the choice between caring for children and engaging in employment hardly exists for women who are completely dominated by the physical demands of their domestic tasks, the imperative to earn an income, or both.

Increasing understanding of the complexity of women's status has led to the development of alternative concepts such as female autonomy, women's rights, and men's situational advantage. Mason's (1984) review of these diverse concepts indicates that most focus on gender inequity. Three dimensions of gender inequity high-lighted most commonly are inequalities in prestige, in power, and in quality in access and control over resources.'

Women's status and autonomy are affected not only by attitudes and customs but also by legal traditions. Dyson and Moore (1983) define equality of autonomy between men and women as 'equal decision-making ability with regard to personal affairs.' The gap between status and autonomy is evident in the fact that, although women may rise to higher

status levels either as producers, as reproducers of labour, as mother-in-law, or in other social roles, their subordination to men is not necessary reduced (Safilios-Rothschild 1982).

An understanding of the power relations between men and women is essential if women's capability to participate in decisions affecting reproduction is to be enhanced. Furthermore, reproductive decision making, while very much a personal concern for women, is also significantly influenced by family and often community concerns especially so as young bride's initiation into fertility behavior and childcare responsibilities.

However from the large scale surveys carried out in many developing countries in the 1980s and the 1990s only provide a broad picture of both demographic characteristics of women and the differing patterns of pregnancy, birth and child mortality found among various groups of the population, however there are not designed to measure women's status or autonomy directly, and they do not provide the more telling individual and community level information needed to understand fully the many-stranded links that exist between female empowerment, levels and patterns of fertility and trends in population growth.

The inadequacies of women's education and employment as indicators of women's status has provided motivation for growing, though limited studies on other aspects of women's status in Kenya this has been mainly in the fields of land tenure and human rights provisions.

This study envisions using four indicators of women status at the individual level: their education attainment, employment, decision making on money use and spousal communication on family planning. Together this will be seen as an index of women's status, which will be related to their total fertility outcomes in the form of the number of children ever born to each individual woman. This will be in an effort to capture the dependant contexts of the different levels of status. For example, a woman may have high status within the household but low status outside the household or vice-versa. Thus, a woman's status will be conceptualized at two levels: (i) a micro - level within the household and (ii) a macro - level within the society. This will be so because women are considered the primary socializing agents and trendsetters in the family as their views and practices are likely to influence the thinking and attitudes of other members of the family.

2.2 Theoretical model

In this section, various theoretical orientations are explored, in order to derive a framework to guide the analysis in this study. This study is grounded on the sociological theory of Baker.

Oppong (1984) states that in many communities' women in different types of employment and with contrasting levels of education have different family sizes and varying attitudes and practices towards fertility regulations. This is supported by theoretical and empirical literature that women's status is multidimensional in nature. Women's status comprises multiple characteristics of the woman and her relationship with others such that it is impossible to capture the influence of and understand women's status through a single measure.

Dimensions including, but not limited to, freedom of movement, access to financial and non-financial resources, decision making, autonomy, gender attitudes, freedom from fear and coercion and equality in her relationship with her partner are arguably important but distinct aspects of a woman's position in relation to men, other family members and other women (Federici, Mason and Segner 1993; Mason 1993). Moreover, concurrently examining multiple dimensions of women's status informs us about the pathways through which women's status operates on demographic outcomes (Mason, 1993).

Cultural and historical context is important in the study of women's status (Federic, Mason and Sogner 1993). At the core of the framework is the notion that gender inequality at the individual level and within the household is related to but distinct from 'gender system of stratification' at the macro-level (Mason 1993) and that comprehensive and accurate models of outcomes believed to be affected by gender inequality must incorporate women's status at multiple (albeit theoretically appropriate) levels. In other words, behavior at the individual level occurs within gender norms at the household and community levels, and the multiple layers of women's status, and how they overlap, have implications for the actions of women (Durrant and Sathar 2000). For example in Kenyan communities where women make decisions on their reproductive outcomes have a different fertility implication than where men make decisions on women's reproductive outcomes.

Finally, the relationship between various aspects of women's status and demographic outcomes will differ with the demographic outcome under consideration. Mason (1993) supports this on a general level by using findings from several studies to show that status (often measured by women's education and/or employment) appears to have a direct or conditional influence on the mortality transition but an indirect and more speculative effect on fertility change.

Because the number of children ever born to a woman differs, it is expected that the pathways through which women's status is influential to differ as well. These differences will enable us to better explore the mechanisms through which women's -status influences the number of children ever born- thus gaining insight of fertility as well as women's status, relationships.

2.3 Conceptual framework

The impact of children on a woman is traced through their impact on each of the major roles a woman plays in her life; as a mother, a wife, a member of the household, a worker, a kinsman and as an individual. Children provide various economic, social and psychic rewards but women may have alternative sources of satisfaction available to them. On the other hand, children also impose opportunity costs and create role conflict. A woman is a rational being who will take into account constraints imposed by income, price and time in deciding the number of children she bears.

CONCEPTUAL FRAMEWORK


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│   WOMEN'S        │ ──────────────────────────────────┐
│                  │                                    │
│   STATUS         │                                    │
└──────────────────┘                                    ▼
                                                 ┌──────────────┐
┌──────────────────┐                             │              │
│  DEMOGRAPHIC     │                             │  FERTILITY   │
│                  │ ──────────────────────────▶ │              │
│  FACTORS         │                             │              │
└──────────────────┘                             └──────────────┘
                                                    ▲
┌──────────────────┐                                │
│  SOCIO-CULTURAL  │                                │
│                  │ ───────────────────────────────┘
│  FACTORS         │
└──────────────────┘
```
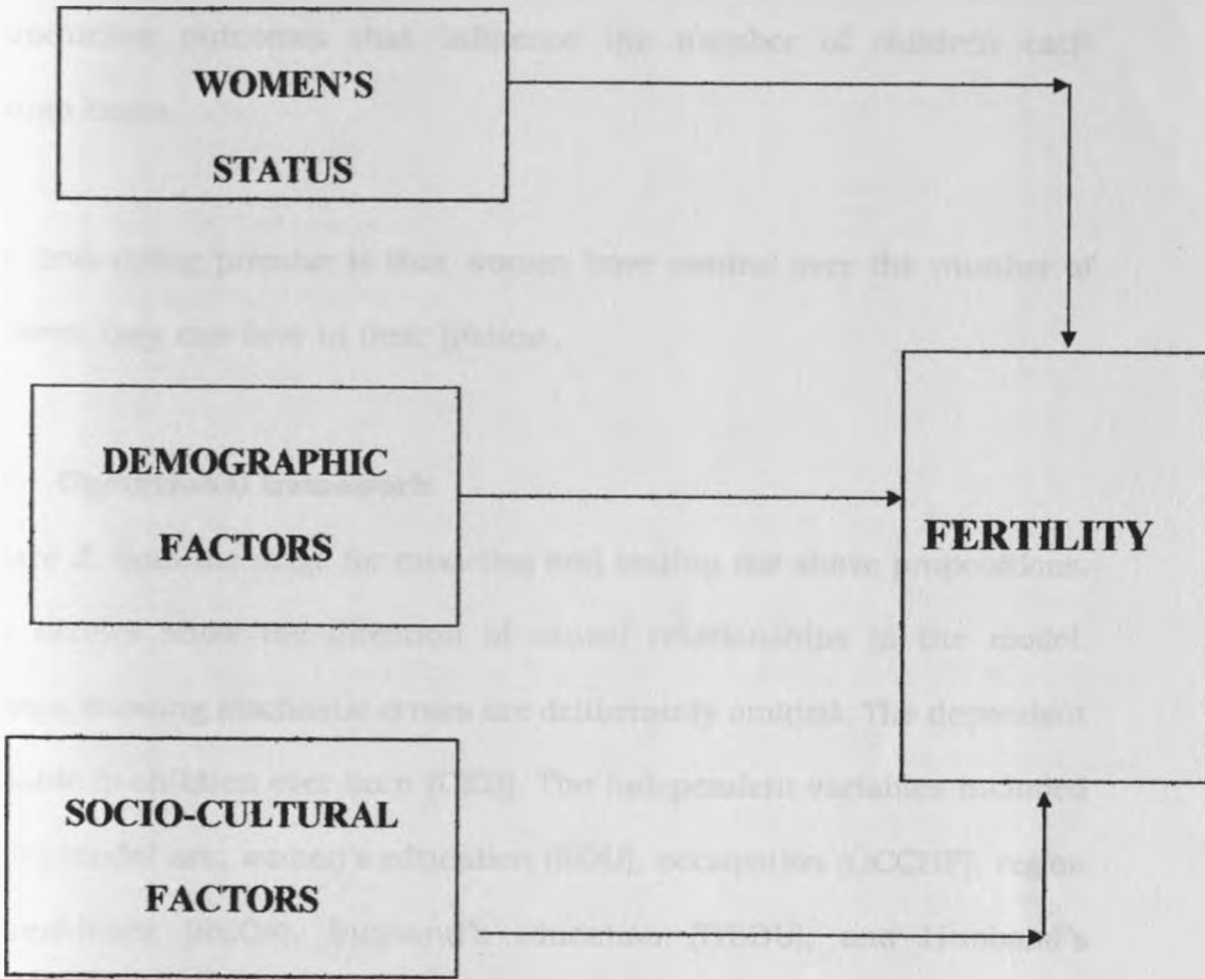
Fig 1: Source: adopted and modified from Oppong (1984)

Key

Hypothesized relationships ⟶

The data to be used in this analysis will be from the 1998 KDHS. Relating to 4107 women aged 15-49 years who where currently married by the time of the survey.
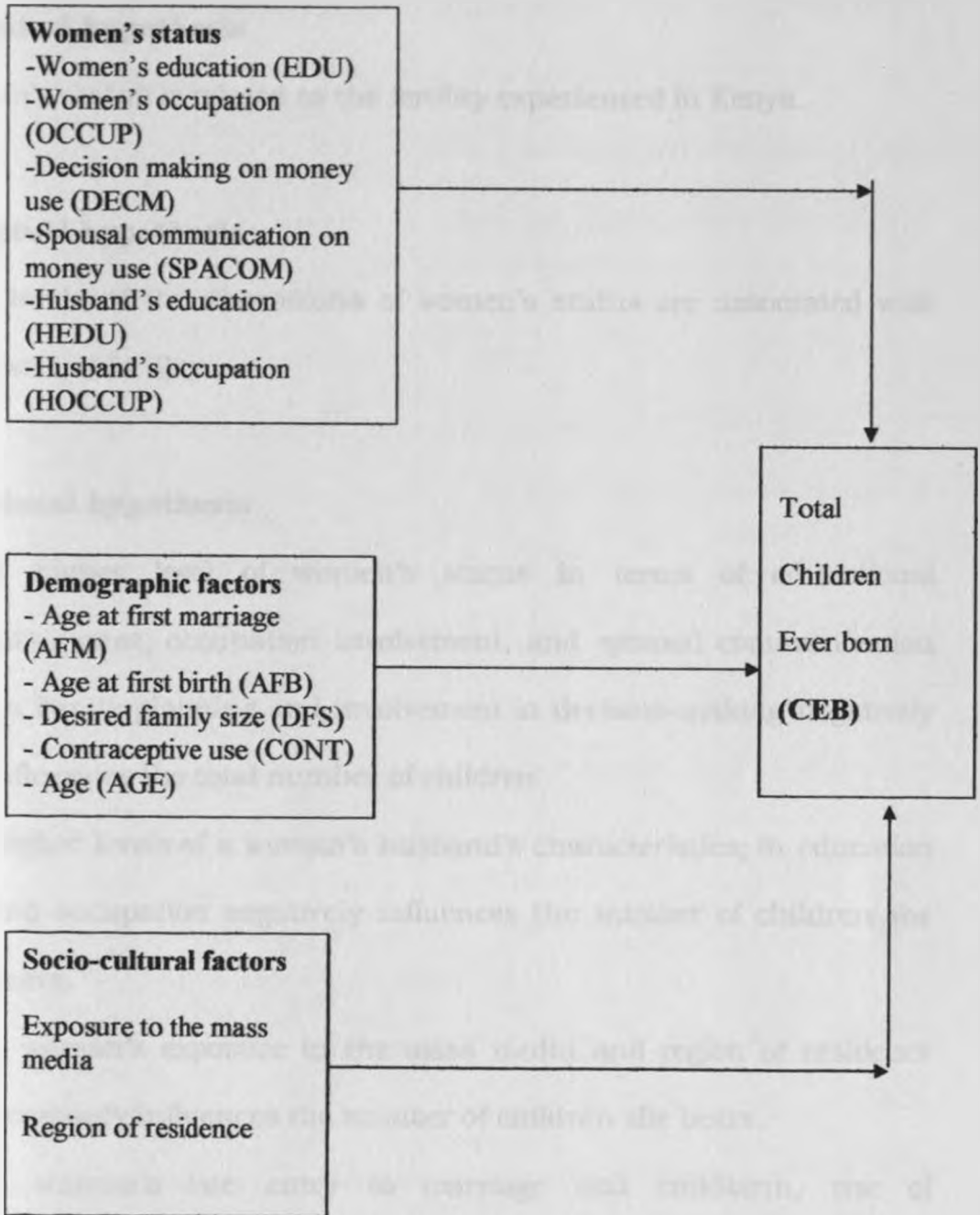
-31-

In this analysis, women's status is to be derived from the individual woman's educational attainment, type of occupation and involvement in the decision-making use of money in the household and on her reproductive outcomes that influence the number of children each woman bears.

The underlying premise is that women have control over the number of children they can bear in their lifetime.

2.4   Operational framework

Figure 2. Sets the stage for modeling and testing the above propositions. The arrows show the direction of causal relationships in the model. Arrows showing stochastic errors are deliberately omitted. The dependent variable is children ever born (CEB). The independent variables included in the model are; women's education (EDU), occupation (OCCUP), region of residence (REGR), husband's education (HEDU), and Husband's occupation (HOCCUP) are the contextual variables. The proximate variables will be contraception (CONT), age at first marriage (AFM), age at first birth (AFB), decision-making (DECM), spousal communication (SPACOM) exposure to media (EXPM) and desired family size (DFS) and the age of the woman (AGE).

OPERATIONAL MODEL

Women's status
-Women's education (EDU)
-Women's occupation (OCCUP)
-Decision making on money use (DECM)
-Spousal communication on money use (SPACOM)
-Husband's education (HEDU)
-Husband's occupation (HOCCUP)

Total Children Ever born (CEB)

Demographic factors
- Age at first marriage (AFM)
- Age at first birth (AFB)
- Desired family size (DFS)
- Contraceptive use (CONT)
- Age (AGE)

Socio-cultural factors

Exposure to the mass media

Region of residence

Fig.1. Adopted and modified from Oppong (1984)

Key

Hypothesized relationships ⎯⎯⎯⎯➤

2.5 Hypotheses

Theoretical hypothesis

A woman's status is related to the fertility experienced in Kenya.

Conceptual hypothesis

Higher levels of the dimensions of women's status are associated with lower levels of fertility.

Operational hypothesis

1. A higher level of women's status in terms of educational attainment, occupation involvement, and spousal communication on family planning and involvement in decision-making negatively influences the total number of children

2. Higher levels of a woman's husband's characteristics; in education and occupation negatively influences the number of children she bears.

3. A woman's exposure to the mass media and region of residence negatively influences the number of children she bears.

4. A woman's late entry to marriage and childbirth, use of contraceptives and low number of desired family size negatively influences the total number of children born to an individual woman.

CHAPTER THREE

SOURCE OF DATA AND METHODOLOGY OF ANALYSIS

3.1   DATA SOURCE

This section describes the data utilized in the study and methods of data analysis. The data used in the study was drawn from the Kenya Demographic and Health Survey.

This is suitable for the studies because women aged 15-49 years were interviewed and these are the women in the reproductive age group. From this sample, 5506 women were found to be currently married or have ever been in a marital relationship. From this population a sample will be drawn of only those women who are currently married and responded to the questions of interest to the study. A final sample of 4107 women is utilized in this study.

3.2   Sample Design and Study Area

The 1998 KDHS covered the populations living in private households through out the country with the exclusion of the sparsely populated northern part of the country, which accounted for about 4percent of the total population. The KDHS used a two-stage stratified sampling approach whose first step involved selecting clusters then selecting households from those clusters. The stratified sample consisted of 536

clusters, six of which were not surveyed due to inaccessibility. 9,465 households were further selected (NCPD, 1998).

3.3   Variables and their measurement

This study aims to use the educational attainment, occupation, spousal communication and decision making of an individual woman as an index of the main indicators of the statuses of women. The interpretation of survey data on the effect of this on fertility has been demonstrated in a wide range of contexts. For example studies have been on the socio-economic correlates of fertility preferences, couples desired family size among others using DHS data.

In order to ascertain the women status, women were asked questions about: their educational attainment, current occupational status, age at first marriage, age at first birth, involvement in decision making concerning use of money, ever use of contraception, and the number of children they consider to be ideal and whether or not they have discussed with their husbands issues concerning family planning use, their exposure to the mass media, their current age and their region of residence. Information was also obtained about husband's level of education and occupation. These data therefore makes it possible for the effect of women status on fertility to be quantified.

Dependent variable

Children Ever Born

This is a measure of the number of children ever born to an individual woman in a population. The data was at the individual level hence appropriate for this study.

Independent variables

Women's status index

This variable women's educational attainment, occupation type, decision making on money use, spousal communication on family planning use are condensed into an index in the bivariate analysis and the derivation of the index is as follows; for all women who answer that they have secondary and or plus education, are in high cadre employment, make decisions on discuss more often with their spouses on family planning issues are considered high status while those who answered that they did not attend school , work in low cadre occupations, only their husband decides on money use and have never discussed family planning issues with their husbands were considered to be low status while those whose answers varied were considered to be of middle status.

Women's status variables

Education attainment

This will be measured in terms of the level of education attained by each individual woman and her husband. Women's education and husbands' education are measured at three categories: secondary education and or plus, primary education and none.

Occupation

This will measure the economic activity being undertaken by women and their husbands and this will be condensed using convectional economic indexes to three categories: high cadre, middle cadre and low cadre.

Decision-making

Decision-making is a measure of a woman's autonomy and this has a strong influence on the actual fertility outcomes of women. Women who decide on their actual reproductive outcomes have the power to implement these unlike where a couple decides, hence the couple need supercedes the women's desires or where only the husband decides the number of children a woman should bear. This variable will be measured thus: where the wife decides, where the husband decides and where the couple decides.

Spousal communication on family planning

This determines whether a woman is actively involved in deciding her family size. In the KDHS survey, women were asked whether they discuss family planning issues with their spouses their responses were categorized into three categories namely; never, discussed once or twice and more often. These three categories are used in this analysis.

Control variables

Demographic variables

Contraceptive use

Contraception is negatively related to the number of children ever born. The women in the sample were asked if they used any of the types of contraceptives. These responses were labeled in four categories. This study will decode this into three categories namely none use, use of traditional or folkloric and use of modern methods.

Desired family size

This will be taken to be an independent variable in measuring the number of children ever born. A family size may be defined as the number of living children that a man or a woman has at any given time. This variable may connote some information beyond a simple number. The information on the desired family size was obtained by asking women two questions. Respondents who had no children were asked to

state the number of children they would choose to have in their whole life, for those who had children, they were asked if they could go back to the time they did not have any children, how many children they would choose to have in their whole lifetime.

It is important to note that majority of women were able to give numerical responses to this question. A minimal percentage of both men and women gave nonnumeric responses such as:

'It is up to god'

'Any number'

'Do not know'

These desires will be categorized as those desiring 1-2, 3-4 and 5+children.

Age at first marriage

The timing of the first marriage is an important dimension of women's reproductive behavior and their status. Early marriage results in exacerbated poverty and women who marry early find motherhood to be sole focus of their life, at the expense of other areas of personal development such as formal education and occupation. These marriages often are unstable leading to high probability of divorce. Marriage dissolution creates social and economic challenges for women who, as

single parents further alienate them from achieving economic power and autonomy, which results in even lower status.

This variable is categorized as: those married aged 17 years and below, 18-23
In addition, 24 years plus.

Age at first birth
Age at first birth negatively influences the number of children ever born to a woman because it determines the exposure time for child bearing.

Women who bear children earlier in life are more likely to have access to societal and economic resources necessary for the bringing up of quality children and will be empowered to have control over the number of children she can bear. Women who bear children early are exposed longer to the risk of childbirth, have low access to economic resources and are powerless in deciding the number of children she will bear.
This variable is categorized in the analysis as: those aged 17 years, 18-23 and 24+ years at first childbirth experience.

Socio-cultural variables

Region of residence

The region of residence determines a woman's status. In Nairobi and Central provinces which are cosmopolitan areas where the cultural and social change has been rapid and capitalist mode of production and individualism has taken place, women are more empowered as opposed to the rift valley and eastern regions where the cultural and social change has been slow but women are relatively regarded as autonomous and can make certain decisions only. The Coast, Nyanza and Western provinces have strong cultural beliefs and practices that impede women's autonomy and women's lives are according to cultural dictates.

Exposure to mass media

Exposure to the mass media makes women more aware of their rights as individuals and provides role models to women for self-determination. This will be measured using a compound variable derived from compressing three variables into one: whether one reads a newspaper, listens to radio and watches television. This variable was then categorized into three: those exposed to all comprised of all those people who responded yes to all the three, none exposure comprises of all those people who responded no to all the media channels exposure and those two-responded yes to one or two where groups in were put in another category.

3.4 Methods of Data Analysis

Descriptive measures

Descriptive measures such as frequency distributions and percentages are used. The aim is to condense into manageable proportions. Descriptive statistics are used to examine the basic distribution of characteristics of each variable. This statistics is computed using SPSS computer statistical package.

Bivariate Regression Analysis

The simple linear regression will be used in this study to examine the nature of association between the dependent variable and each of the independent variables. Each variable will be will be analyzed using all its dummy variables (Retherford and Choe 1980).

Dummy variables are created for the different categories of the independent variables in this study. The dummy variables take only two values, usually 0 and 1. In all this categories the lowest category was taken as the reference category and where accordingly assigned the value 0 the category to be regressed in reference to was assigned 1, this is because it is easy to interpret a and b as we assigned 0 and 1.

For example in defining education, three categories where used none, primary and secondary plus. Two dummy variables where used to represent these three categories:

B_1: 1 if primary, 0 otherwise

B_2: 1 if secondary plus, 0 otherwise

Then the three categories of education are presented as

Primary: $B_1=1, B_2=0$

Secondary plus: $B_1=0, B_2=1$

None: $B_1=0, B_2=0$

The category for which both dummies are zero, which in this case is those with no education, is the reference category.

In general it takes *j-1 dummy variables to represent a variable with j categories*. This was applied to all the explanatory categories in the analysis.

The regression involves the following equation, denoting fertility as F

Children ever born = $B_0 + B_1$ primary $+B_2$ secondary

This equation was then interpreted thus, the values of F fertility where found thus:

Primary	$(B_1=1, B_2=0)$:	$F= B_0 + B_1$
Secondary plus	$(B_1=0, B_2=1)$:	$F= B_0 + B_2$
None	$(B_1=0, B_2=0)$:	$F=B_0$

The intercept a is the fertility of the reference category, b is the fertility difference between primary school attainment and the reference category, and c is the fertility difference between secondary plus education attainment and the reference category.

The testing of the bivariate model will be tested using the F- test while for the multivariate will use the t- test statistic.

Multivariate analysis

Testing of the key study hypothesis to determine the role of status of women on fertility will be undertaken using multivariate regression which by extending the bivariate linear model to include more than one predictor variable is appropriate technique for this case as a number of independent variables will be in use.

The general form of the multiple regression model is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots \beta_k \beta_{ki} + \varepsilon_i$$

Where:

ε is the independent error term.

Y is the random variable

β_0 is the regression coefficient for the reference category

β_1 is the slope of the plane as we move in the X_1 direction keeping X_2 constant,

K denote the number of the independent variables

Similarly β_2 are the slope of the plane as we move in the X_2 direction keeping X_1 constant.

The assumptions of linearity, homoscedasticity, and independence assumed earlier in the bivariate regression are also applied here but 'linearity' means that the mean of the disturbances is zero at each combination of the predictor variables; that is $E(\varepsilon) = 0$ at every point (X_1, $X2 \ldots\ldots X_k$). 'Homoscedasticity' means that the variance of ε is the same for each combination of the predictor variables; that is, $Var(\varepsilon) = \sigma^2$ at every point

$(X_1X_2 \ldots\ldots X_k)$ 'Independence 'again means that the ε_i is statistically independent

The inclusion of other dependent variables in the analysis will help to reduce the size of disturbance ε_i and the residual e_i and reduces bias.

The results are interpreted as in the bivariate analysis as still in this case dummy variable are used

For example if the desired family size is regressed against fertility using age as the control variable it then implies that:

Taking M as those desiring 3-4 children and H as those desiring 1-2 children. Then

Desiring 5+	(M=0, H=0):	F=a
Desiring 3-4	(M=1,H=0):	F= a + b
Desiring 1-2	(M =0, H=1):	F= a + c

Hence desiring

5+ children	$F = a$
3-4 children	$F = a + b$
1-2 children	$F= a + c$

CHAPTER FOUR

WOMEN'S STATUS AND FERTILITY

4.1   INTRODUCTION

In this chapter the results of the analysis of the study are presented in order to test the hypotheses: A higher level of women's status in terms of women's educational attainment, occupation involvement, and spousal communication on family planning and involvement in decision-making negatively influences the total number of children, Higher levels of a woman's husband's characteristics; in education and occupation negatively influences the number of children she bears, a woman's exposure to the mass media and region of residence negatively influences the number of children she bears and a woman's late entry to marriage and child birth, use of contraceptives and low number of desired family size negatively influences the total number of children born to an individual woman.

The chapter is organized in three sections. Section 5.1 gives a description of the variables used in the analysis, while the association of the various variables with fertility is examined in section 5.2. The final section presents the results of the study on the relationship between the status of women and fertility.

4.2   Description of variables

Table 1 presents the distributions of variable used in the analysis. These variables are presented according to the theoretical framework, which conceptualizes the relationship between the status of women and fertility presented in chapter two. The dependent variable children ever born were measured as a continuous variable. The sample size for this study comprises of 4107 currently married women who responded to the parameters under investigation in this study KDHS (1998) survey.

The key independent variables are women status, these was measured using different variables at the individual and household level. In this study four variables were compressed together to form an index of women status. These were two variables at the individual level (women's educational attainment and women's occupational characteristics) and two variables at the household level (spousal communication on family planning and decision making on money use). These index was then categorized to three levels of status where all those who answered positive to all indicators were considered high status according to the study and a; those who responded negative were considered low status those responding either positive or negative in the four categories were considered medium status.

According to this: 59.8 percent of these women belonged to the low status, while 31.8 were in the middle status while 8.4percent where of high status. The variables that make up the women's status index showed that 15.9 percent of the women had no education, 60.5 percent had primary education while 23.6 percent had attained secondary education or higher. The occupational status of the women revealed that 56.7 percent were in the low cadre level of employment, 37.7 percent were in the medium cadre while 5.4 where in the high cadre employment.

In the households: 63.2 percent of the women reported that their husbands made decisions on money use, 18.4 percent said the couple decides while 18.4 of the women decided on money use. 34.4 percent of these women never discuss family planning issues with their husbands while 38.5 percent sometimes discuss and 27.1 percent always discussed family planning issues.

Other individual level variables not include in the index were: a woman's Age at First Marriage; this was categorized into three categories namely: those aged below 17 years, those aged 18-23 years and 24+ years. The distributions show that a majority of the women 90.1 percent were married when they were 23 years and below with 40.3 percent having been married when 17 years or below and 49.8percent being married

between 18-23, while 9.9percent of these women were married when 24 years of age and above.

The husband's characteristics were measured using a husband's educational and occupational characteristics. Education was categorized into three levels namely; no schooling, primary and secondary plus, while occupation was categorized into low, medium and high cadre occupations.

The results reveal that 15.9 percent of the husbands of the women who were currently married had not attained any schooling, 51.6 percent had attended primary schooling, while 39.2 percent had attained secondary schooling or higher. Occupation distributions revealed that 49.1percent belonged to the middle cadre while 30.8 percent belonged to the higher cadre and 20.2 percent belonged to the low cadre rank.

The control variables included: demographic variables such as: Age at First Birth: This was categorized into three groups such as: those whose age was reported to be below 17years, those whose age was 18-23 years and those aged 24+ years. The distributions reveal that 92 percent of these women had their first babies while aged 23 years and below out of which 56.4 percent had this event while aged 18-23, 35.6 percent had their first birth while below 17 years. 8.1 percent of the women had their babies while aged 24 years and above.

Desired Family Size; this variable was categorized into the following categories; those who desired family size of 5+ children, 3-4 and 0-2 children respectfully. The results from these distributions reveal that a majority of the women desired large family sizes with 85.4 percent desiring 3 children and over out of whom 32.1percent desired five children or more, 53.3 percent desired 3-4 children and 14.6 percent desired 1-2 children.

Contraceptive use; was measured in three levels namely; none use, use of traditional of folkloric methods and use of modern methods. The results reveal that 36 percent of the women were not using any method of contraception, 64 percent of the women were using contraception, of these 54 percent were using modern methods while 10percent were using traditional of folkloric methods.

Age of the woman is also used as a basic variable in the analysis of women's fertility. The age of the individual woman was measured using 10-year age group for this analysis divided into three; 15-24 years, 25-34 and 35+. Those aged 25-34 years were 38.2 percent, while 37.6 percent where aged 35 years and above, those aged 24 and below where 24.2 percent.

Socio-cultural variables include; respondents Region of Residence: This was in three categories namely Nairobi and Central, Rift valley and Eastern and Coast, Nyanza and Western provinces. The distributions reveal that of these women who were currently married 45 percent lived in Coast Province, Western and Nyanza provinces, while 40 percent resided in Rift Valley and Eastern province and 15 percent in Nairobi and Central Provinces.

Exposure to mass media: Media in the survey was measured by the number of radio listener ship everyday, reading of newspaper and watching television. This variable was categorized into three levels to check for its effect in the analysis, this include; those exposed to all media, exposed to one or two types of media and those not exposed to media at all. The analysis show that of these women, 57.6 5percent were exposed at least to one or two media, 12.0 percent were exposed to all while 30.4 percent were not exposed to any media.

Table 1: Percentage Distribution of the Population

Variable	Percentages
DEPENDENT VARIABLE	
100.0	
INDEPENDENT VARIABLES	
WOMEN'S STATUS VARIABLES	
Women' s index:	
Low status	59.8
Medium status	31.8
High status	8.4
Women's status index variables	
Women's education (EDU):	
None	15.9
Primary	60.5

Secondary +	23.6
Women's occupation (OCCUP):	
Low cadre	56.9
Medium cadre	37.7
High cadre	5.4
Decision Making on money use (DECM):	
Husband decides	63.2
Couple decides	18.4
Wife decides	18.4
Spousal Communication on Family	
Planning (SPACOM):	
Never discuss	34.4
Sometimes discuss	38.5
Always discuss	27.1
Husband's education (HEDU):	
None	9.4
Primary	51.4
Secondary	39.2
Husbands occupation (HOCCUP):	
Low cadre	20.2
Medium cadre	49.1
High cadre	30.8
CONTROL VARIABLES	
DEMOGRAPHIC VARIABLES	
Age at first birth (AFB):	
<17	35.6
18-23	56.4
24+	8.1
Age at first marriage (AFM):	
<17	40.3
18-23	49.8
24+	9.9
Desired family Size (DFS):	
5+	32.1
3-4	53.3
0-2	14.6
Contraceptive use (CONT):	
Never used	36.0
Folkloric + traditional	10.0
Modern method	54.0
Age of the woman	
15-24	24.2
25-34	38.2
35+	37.6
SOCIO-CULTURAL VARIABLES	
Region of residence (REGR):	
Nyanza, Coast and western	45
Rift valley and Eastern	40
Nairobi and Central	15
Exposure to mass media (EXPM):	
No exposure	30.4
Fairly exposed	57.6

Exposed to all	12.0

Sample size: 4107
ᵃ dependent variable children ever born

4.2 ASSOCIATION BETWEEN FERTILITY AND WOMEN STATUS VARIABLES

The association between fertility and each of the independent variables is summarized in table 2.

The analysis utilized dummy variables with the lowest categories as the reference category in each case.

The regression involved an ordinary regression analysis in the equation that utilizes a regression model

$$Y=\alpha+\beta_1X_1$$

The regressions where run on all the independent variables against the total children ever born.

The results show when those with low status (those with no education who are in lower cadre occupations, who have never discussed family planning issues with their husbands and whose husbands decide on money use in their households) that a woman of higher level of women'

status (one who has achieves secondary or higher education, is in high cadre occupation category, discusses family planning issues with her husband often and decides on money use) is a negatively associated with the number of children ever born as expected.

In the analysis a woman with low status will have an average of about 5 children or fertility of 4.620, while a woman who is of middle status has 4 children with a fertility of 3.983.while one with high status has 3 children or achieves fertility of 3.440. This is as expected.

When the individual variables used to construct women's status are considered in the bivariate analysis the result reveal that women's education has a negative effect on the number of children born to any individual woman, the coefficient is highest for women with primary school attainment who achieved fertility of 4.314 as compared to those with secondary schooling with a fertility of 4.357 and above. This gives an average 5 children for those who did not attend school and 4 for those with primary and secondary and above, those with no education who where the reference category. This conform with literature that says that women', education is negatively related to fertility but shows that the most effect is upon attaining primary education.

Occupational characteristics had the results that; those in the low cadre who are the reference category had achieved a fertility of 4.107 or had 4 children, for those in middle cadre occupation a fertility of 3.614 or 4 children, while those in higher cadre a fertility of 4.421 or 4 children, revealing that a woman who actually takes semi-skilled employment reduces the number of children she bears while that one with professional schooling has a positive effect hence achieving the highest number of children or fertility this is in confirms previous studies on occupation and fertility.

Household level characteristics show that to spousal communication on family planning; taking those who never discuss as the reference category the analysis revealed that they ended up having fertility of 4.624 or 5 children, while in the cases where the couple sometimes discusses had a fertility of 3.969 or 4 children, as contrasted to where there always discuss the coefficient was –0.210 or the fertility of 4.414or 4 children. The results are as expected that spousal communication on family planning as a negative effect on fertility.

Decision-making on money use using those whose husbands only decide on money use as the reference category yielded a fertility of 4.251, in cases where the couple is involved in making decisions on money use a woman has a fertility of 4.493 or about 5 children and where a wife

decides a fertility of 4.257. The results show that involvement in decision-making has a positive effect on the number of children a woman will bear and that where a woman decides the total outcome of the fertility are almost same as those where the husband decides but higher for where the couple decides on money use.

A woman married to a man who did not go to school had 5 children with a fertility of 4.590 while those whose husband had attained primary schooling will have 4 children and fertility of 4.283 the lowest as compared with those who have secondary and above who have 4 children and fertility of 4.444, revealing that the most effect is felt on attaining primary education for husbands. This results are not as expected because according to theory men with higher education achieve small family sizes.

With the variable of a husbands occupation on average, a woman currently married to a man working in the low cadre work that is unskilled labour and wage employment will get an average of 4 children with a fertility of 4.050, while one whose husband works in the semiskilled work or clerical jobs will get an average of get 5 children with a fertility of 4.624 while that of one in the high cadre (professional category) will also have an average of 4 children with a fertility of 4.046 hence a husbands occupation does have an effect on the number of

children the wife will bear though the difference is marginal as the analysis shows that those in the high cadre occupations overall achieve the least fertility.

The age at first marriage when those marrying below <17 years are taken as the reference category the analysis reveals that those marrying when below 17 years had a total of 5 children or a fertility of 5.036, while those marring 18-23 years had a fertility of 3.879 and 4 children as compared those marrying at 24 or later whose fertility is 4.321and 4 children hence an increase in the age at first marriage gives rise to a lower number of children being born. This is as expected

Taking the women in the younger age group of 15-24 years as the reference category, the result reveals that these women give birth to 4 children with a fertility of 4.189, the analysis revealed that the age of a woman has a positive effect on the number of children born to the effect that those in the age group 25-34 had fertility of 4.198 while those who were aged above 35 years had fertility of 4.313 or 4 children. This is as expected that older women have high fertility.

Demographic control variables show that: Age at first birth taking those whose age was <17 years at their first experience child birth as the reference category, on average they get 5 children with fertility of 5.073,

those aged 18-23 had fertility of 4.029 or get 4 children while those who start child bearing at 24 years and above had 4 children with a fertility of 4.042.

In the variable of desired family size in the analysis yielded the following results: For those desiring 5 children or more they get a total of 6 children with a fertility of 5.513, those who desired 3-4 children ended up with 4 children with fertility of 3.907 or 4 children, while those who wanted 1-2 children had fertility of 4.355 and ended up with 4 children. The results are as expected that those desiring smaller family sizes actually achieve these sizes.

The results for contraceptive use show an overall of 5 children or a fertility of 4.503 for women who do not use contraceptives, while those who used folkloric and/or traditional method had fertility of 3.992 and 4 children, while those using modern contraceptives had fertility of 4.255, hence had 4 children showing great difference between the modern and traditional methods. The results show that traditional methods are more effective in reducing family sizes as opposed to modern one indicating that cultural acceptance of family planning is important, these results are as expected.

The control variable region of residence revealed that the most negative effect on the number of children born results if one lives either in eastern or Rift Valley provinces which had fertility of 2.649 or 3 children, while living those living in Nairobi and Central provinces resulted in fertility of 4.031. This shows that on average women living in the Rift Valley and Eastern Provinces have on average 2 children less than those in Nyanza, Western and Coast provinces which has a fertility of 4.492 while those in Nairobi have just one less. This confirms with literature that those in the more traditional and cultural conservativeness in the western, Nyanza and coast province have the highest observed fertilities.

Women who were not exposed to any mass media had 5 children or a mean fertility of 4.920 while being exposed to at least one of the media reports a fertility of 4.206 while those exposed to all forms of media yield fertility of 4.124, showing a woman if well exposed to media will lower her fertility, as evidenced in the study where those exposed to media have 4 children while those not exposed have five children. This has conformed to what is expected since exposure to the mass media shapes ones worldview and changes attitudes, shapes tastes and provides examples of different ways of living quality life.

Table 2: Bivariate Regression Coefficients of the Association between women's status and Fertility

Variables		
Model	B	Std.error
WOMEN'S STATUS VARIABLES		
Women's Status index		
Low status (constant)	**4.620**	**0.054**
Medium status	-0.637*	0.091
High status	-1.180*	0.153
Women's education (EDU)		
None	**4.529**	**0.105**
Primary	-0.215**	0.118
Secondary+	-0.170*	0.068
Decision making on money use (DECM)		
Husband decides (constant)	**4.251**	**0.053**
Couple decides	0.242*	0.111
Wife decides	0.006**	0.111
Women's occupation (OCCUP)		
Low cadre (constant)	**0.107**	**0.055**
Medium cadre	-0.493*	0.188
High cadre	0.315*	0.087
Spousal Communication on Family Planning (SPACOM)		
Never discuss (constant)	**4.624**	**0.08**
Discussed once and twice	-0.655*	0.107
Discuss most times	-0.210*	0.105
Husbands Education (HEDU)		
None (constant)	**4.590**	**0.136**
Primary	-0.307**	0.148
Secondary+	-0.146*	0.076
Husbands occupation (HOCCUP)		
Low cadre (constant)	**4.050**	**0.093**
Medium cadre	0.574*	0.110
High cadre	-0.004**	0.119
CONTROL VARIABLES		
DEMOGRAPHIC VARIABLES		
Age at First Marriage (AFM)		
<17 yrs. (constant)	**5.036**	**0.064**
18-23 yrs.	-1.157*	0.087
24+	-0.715*	0.073
Age at First Birth (AFB)		
<17yrs (constant)	**5.073**	**0.068**
18-23 yrs.	-1.044*	0.087
24 +	-1.031*	0.080
Desired Family Size (DFS)		
5+ children (constant)	**5.513**	**0.070**
3-4 children	-1.606*	0.089
0-2 children	-1.158**	0.063
Contraceptive Use (CONT)		
Never Used (constant)	**4.503**	**0.070**
Used folkloric or traditional	-0.511*	0.150
Used modern methods	-0.248*	0.090

Age of a woman (AGE)		
15-24	**4.189**	**0.085**
25-34	0.009	0.109
35+	0.124	0.055
Table 2 continued		
SOCIO-CULTURAL VARIABLES		
Region of residence		
Western+ Nyanza+Coast (constant)	**4.492**	**0.045**
Rift valley + Eastern	-1.743*	0.203
Nairobi + central	-0.461*	0.068
Exposure to Mass (EXPM)		
No exposure (constant)	**4.920**	**0.075**
At least one or two media types	-0.714*	0.093
All media types	-0.796*	0.070

INDIVIDUAL WOMEN'S STATUS VARIABLES

ᵃ dependent variable total number of children ever born.

Note: * p<0.00 **p<0.05

4.3   CORRELATES OF FERTILITY

Our discussion for the multiple regression starts with the women's status index variables to indicate how much variation they explain in the dependent variable using the R^2 to examine whether they are related to the dependent variable in the first model, the significance of the model is tested using the F stastic.

The results of model 1 are shown in the table three. This model contains all the variables that measure the women's status: women's education, occupation, spousal communication, decision-making, husband's education and occupation and age as the basic control variable. The F

value indicates that the overall model in these variables is significant at the 100 percent level. However the model only explains only explains 3.6 percent of the variation in the dependent variable.

In examination the results of the model, it's revealed that the women status variables are related to the dependent variable in the expected manner. For example women's education is still inversely related to fertility with the most effects being on attaining secondary education. The overall effect of the effect of women's status on fertility is given by the equation given in chapter three.

Fertility in the high status category is computed thus:

Fertility = a+ B1secondary education+B2 high education+B3 discusses family planning issues often with the husband+B4 a woman decides on how on money use+B5 her husband has secondary level education+B6 her husband is in the high cadre employment

Women in the lowest status categories had fertility of 4.3, while those in the highest status had a fertility of 4.2 showing little difference between those in the high status and in the low status.

The prevailing socio-cultural and socio-economic environment in Kenya and the fact that only about 5 percent of the women in the sample belonged to the high status category could explain this.

In the second model; all the women status variables and the control variables are put in a regression model to examine the effects of R^2 to see the differences in the dependent variables explained and to examine whether the status variables are still related to fertility.

In the second model the F value indicates that these variables are related to women's fertility at the 0.00 percent level. The model is improved as it explains 18.1 Percent in the dependent variables. Women's status variables related to fertility in the expected manner but their effects are comparatively reduced. Eighth of the variables are seen to be negatively related to fertility while five showed a positive relation to fertility. These were women's occupation, husband's occupation, decision making on money use, contraceptive use and the current age of women in five-year age groups.

Women in the lowest status show fertility of 5.712 in the second mode while those in the high status have fertility of 4.352, showing that when more variables are included various levels of high women's status indicators show that women's status inversely affects fertility.

CORRELATES OF FERTILITY REGRESSION COEFFICIENTS

	MODEL 1	MODEL2
Women's education (EDU)		
Primary	-0.137(0.128)	0.004(0.119)
Secondary plus	-0.149 (0.079)	-0.002(0.074)
Women's occupation (OCCUP)		
Middle cadre	-0.390(0.195)	0.182(0.186)
High cadre	0.258 (0.046)	0.160*(0.043)
Decision – making on money use (DECM)		
Couple decides	0.238 (0.112)	0.275*(0.104)
Wife decides only	0.007 (0.058)	0.128*(0.054)
Spousal communication		
On family planning (SPACOM)		
Discussed once or twice	-0.568(0.107)	0.164**(0.106)
Always discuss	-0.182 (0.104)	-0.003(0.099)
Husbands Education (HEDU)		
Primary	-0.206* (0.155) -	-0.132*(0.144)
Secondary+	-0.003 (0.085) -	0.002*(0.079)
Husband's Occupation (HOCCUP)		
Medium cadre	0.505 (0.110)	0.358* (0.102)
High cadre **(0.112)	0.002 (0.120)	0.163
CONTROL VARIABLES		
DEMOGRAPHIC FACTORS		
Age of the woman (AGE)		
18-23	0.101(0.108)	0.008(0.100)
24+	0.009 (0.056)	0.120(0.052)
Age at First Marriage (AFM)		
18-23yrs		-0.554**(0.097)
24+yrs		-0.262*(0.080)
Age at First Birth (AFB)		
18-23yrs		-0.491*(0.097)
24+yrs		-0.608*(0.088)
Contraceptive use (CONUSE)		
Traditional		0.001(0.138)
Modern		0.506*(0.092)
Desired family size		
3-4 children		-1.377*(0.089)
1-2 children		-0.938*(0.064)
Region of residence		
Eastern + Rift valley		-0.875*(0.195)
Central + Nairobi		-0.181*(0.065)
Exposure to the mass media (EXPM)		
Exposure to two		-0.416*(0.088)
Exposure to all		-0.441*(0.071)
(Constant)	4.273 (0.207)	5.712 (0.207)
	R² 0.036	R² 0.181
	F 10.933	F 34.615

* P < 0.00 **p <0.05.
() Standard errors

In summary the results of the multivariate analysis confirm that women's higher status using indicators such as: in high education attainment, high cadre occupation, woman's late entry to marriage, and first birth, low family size, a woman's exposure to the mass media and place of residence are negatively related to fertility. Thus, the hypothesized association of the total children ever born with these variables in this study is confirmed.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter summarizes the findings of the study and presents recommendations.

5.1 SUMMARY

This study examined the relationship between women's status and fertility. Women's status has been hypothesized as one of the important determinant of fertility outcome in a population. The study focused on assessing the impact of women's status on fertility in Kenya. The assessment was done using ordinary least square regressions.

The dependent variable fertility is represented by the variable, number of children ever born and the key independent variables were; an index created from the women's status variables (this was created out of two at the individual level characteristic; the woman's educational attainment and her occupational characteristics and two household level characteristics; spousal communication on family planning and decision making on money use), her husband's educational attainment, husbands occupational characteristics, age at first marriage, age at first birth,

- 68 -

desired family size, contraceptive use, exposure to the mass media and the region of residence as the control variables.

The results reveal that the individual women's status variables and other control variables were related to fertility behaved as expected, except for occupation, and decision-making on money use.

Overall the study revealed that majority of women in Kenya belonged to the low status, these comparatively low status of these women contributes to the observed high fertility in the country as the quantity and quality of a nation's population is heavily dependant on the status of women which is deeply rooted in gender relations that determine power relationships, as well as access to resources and decision making.

5.2   CONCLUSION

The underlying theme in this study is that women's status affects fertility in Kenya. As expected because of the inherently different statuses of women in the Kenyan society, the results of the description reveal that most women belong to the low statuses category with a minority in the high status category. The multiple regression analysis indicates that women's status negatively affects fertility. These results are in table 1, 2 and 3.

This study concludes that the status of women should be improved so that t fertility declines. Population programmes and other social and public policies also need to ensure that women find their value and social status; from sources other than the number of children they bear. The removal of gender barriers for women at all levels of society is a prerequisite to achieving lower fertility.

5.3.   RECOMMENDATION FOR POLICY

The third objective of the study was to make recommendations for policy makers and other relevant organs in Kenya based on the results from the study.

This study has found out that women's status does indeed affect the fertility experienced in the country.

To enhance the above the government should advance the following policies; This study has supported the fact that education for both men and women does affect the fertility outcomes and reaffirms the fact that women's education does indeed have a much felt negative effect on total fertility, then the programmes for increasing girl-child education should be encouraged and more resources put in to them with a special emphasis on the local felt needs of the different regions and cultural

situations. It has also found out that the husband's education was also significantly important. The government should therefore increase efforts for increasing the general literacy levels of the population.

The government should also beef up its efforts to monitor and respond to the issues of primary school enrollment, retentions and completion rates with special emphasis on the girl-child.

Educational and occupational opportunities to women should be increased, in addition to, financial incentives for business start up and voluntary activities such as in the army and Foreign Service and to encourage latter ages at marriage should also be provided by the state.

Affirmative action in the start will be among the smart choices the government chooses. This will ensure that more women are mainstreamed into the higher cadre occupations to increase their status.

5.4   RECOMMENDATIONS FOR RESEARCH

Due to limitations such as time and funds, among others, this study was limited to secondary data. There is need for such kind of study to be conducted through collection of data targeted at testing women's status specific hypothesis. Such a study can be useful in singling out the relevant demographic, socio-economic and socio-cultural characteristics that determine women's status at the micro-level and macro-levels and

how this affects fertility. This will be important to policy makers to bring in interventions to lower fertility to economical levels.

In spite of the fact that several explanatory variables where taken into account in investigating the effect of women's status on fertility, they did not fully explain all the variations in fertility n Kenya. This is due to the fact that that such attitudinal responses are often shaped by a multitude of factors of which socio-economic and demographic factors are few of the correlates. It is recommended that future research on women's status and fertility attitudes and behaviour incorporate the norms and value systems which bear an effect on the decision making process of women including cultural pressures such as religion, peer groups norms and the personal aspirations of individual woman and adopt research and sampling strategies which incorporate these situations and circumstances.

A qualitative approach should be undertaken to collect views that are contextual to each respondent's circumstances and situations.

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