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Family structure, gender and fertility in Botswana

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The 1991 census data revealed that about 60 per cent of the women in the childbearing age range (i.e. 15-49 years) had never been married but bore children. The paper therefore attempts to delineate family or household types within which decision-making processes and reproduction take place. The results of the analysis of census and surveys data indicate that the old traditional nuclear and/or extended family structures have been gradually replaced, to a large extent, by what we refer to as 'zero-couple' or single-parent family or household type which constitutes about 70 per cent of the households in Botswana and 90 per cent of these are headed by females. These households receive much lower average monthly incomes and are the poorest in the country. Nevertheless, the women in these households exercise greater autonomy. The locus of decision-making process with regard to the number of children to have and the use of resources is the woman herself. And this autonomy has played a major role in the on-going fertility transition in the country (Gaisie 1998).

However, the absence of male role models in these households does not augur well for socialization of the children, particularly the boys.

The problems facing the female-headed households underscore the need to understand the various dynamics of these households through research in order to devise appropriate strategies and interventions.

Introduction

A recent study of fertility transition in Botswana noted that childbearing outside marriage has had a depressing effect on the level of fertility. If all births were to occur within marriage, the total fertility rate (TFR) would have dropped to 2.6 children per woman by now. In fact, one half of the total number of births recorded in the 1991 census occurred outside marriage (i.e. among never married women—Gaisie 1998) and the 1996 Botswana Family Health Survey 111 data indicate that never married women and 'Living Together' couples account for 51 and 28 per cent of the births that occurred in the twelve months prior to the survey.

Thus, a sizeable number of families are being formed outside marriage, an institution which an eminent anthropologist claims 'is inescapable, if the social need for producing successive generations of the population and bringing up to replace their predecessors in keeping their society going is to be met' (Fortes 1971:4).

Fortes may have explained away the emerging new family forms as experimentations better adapted to the modern world (Fortes, 1971:13). But the cardinal question is: what is the nature of the social, cultural and economic structure within which reproduction, maintenance and socialization take place? How much of the decision-making authority with respect to the number of children to have is exercised by the women. The paper attempts to assess the extent to which family or household structure influences reproductive behaviour as well as the implications of the emerging family forms for socialization and schooling of young and future generations.

Nature of the problem

The influence of family structure on fertility has been a subject of considerable interest among sociologists, demographers and anthropologists since 1950s. Lorimer listed a number of cases to show that societies with corporate unilineal kinship structure tend to

exhibit high fertility. The extended family or joint family or any closely knit group of families provides 'strong economic and personal support for the marriage and procreation of its members' (Lorimer 1955:201). He, however, observed that although in most pre-modern societies extended families had a tendency to promote high fertility, such families do not 'necessarily stimulate high fertility, if disassociated from emphasis on competitive relations or sacred values that require high fertility' (Lorimer 1954:247). Davis explained high fertility in the developing countries by the need to match their higher mortality and thus secure survival. To do so societies 'evolved an institutional structure having an incentive system strong enough to induce their people to reproduce abundantly' (Davis 1955:33). As the main social unit responsible for fertility is the family, 'It is through the relations of the nuclear family to the rest of the society then, that one can expect to find the social factors controlling the level of fertility' (Davis 1955:34). For instance, high fertility is encouraged because economic cost of childbearing is shared among relatives in the household, and marriage occurs early because it is not necessary for the husband to be able to support a wife and family. Nag attempted an empirical examination of the theoretical propositions posited by Lorimer and Davis. The findings of his investigation did not support the hypothesis that extended family exhibited higher fertility than the nuclear family. He, however, warned that because the sample size was small and the ethnographic data for some of the societies were unreliable, the outcome of his research 'should not be taken as convincing evidence for the rejection of the proposition of Lorimer and Davis regarding family type and fertility' (Nag 1975:31). Similar studies using the family as the unit of analysis were conducted in India, Pakistan, Taiwan, Bangladesh, Korea, Malaysia, Tunisia and Mexico (see Caldwell et al. 1982: 54). The findings of most of these studies do not show any significant difference between fertility of the nuclear and extended families.

Problems of interpretation and measurement

If reproductive behaviour is influenced by socio-economic pressures and supports, then fertility differentials will reflect variations in these pressures and supports among the family types. Extended families may share the economic cost of childbearing and childrearing while within the nuclear family such costs may result in restriction of fertility. Our analysis is extended to all members of the family or households because increasing number of never married women are bearing children. There is also the problem of the definition of household. In the African context, decision-making with regard to the number of children to have and the use of resources is not confined to the separate households as delineated by the census (Schapera 1950:141). Separation of households becomes meaningful outside the traditional community such as cities and towns (C.S.O. 1991:4). In the traditional communities relatives may influence reproductive behaviour or practice of fertility control even if they live in separate households in the same dwelling or in different dwellings, but in the same urban areas the decision-making power is exercised by the couple or partners (living together). Generally, in sub-Saharan Africa the 'locus of reproductive decisions and the appropriate referent when considering the costs and benefits of children is the larger kin rather than one or another parent, as in the case of the Caribbean family system, or the conjugal unit, as in Asian systems' (Cain 1989:187).

As regards relationship of members to the head of the household, it is observed that there is a tendency among some respondents to give false information about non-relatives. However, the evaluation of the data indicates that the general features of family or household are not seriously distorted. The classification of households by composition and relation of members appear plausible and it reflects patterns portrayed by other types of data such as that on marital status and fertility.

Description of family or household type

This study is based on three data sets: 1991 Census, 1993/4 Household Income and Expenditure Survey (HIES) and 1996 Botswana Family Health Survey III (BFHS III). The data on the relationship to the head of the household are classified into three family or household types: Nuclear, Extended and Zero-Couple or Single Parent. The nuclear type consists of husband and wife with or without unmarried children. The extended type is similar to the nuclear type except that it includes other relatives and non-relatives. The zero-couple or single parent type includes a variety of situations such as widow or widower with or without children; a married person with spouse absent, a 'living together' person with partner absent, a divorced or separated person with or without children and a group of unmarried or unrelated persons or only one person. Slightly more than one-quarter of this household type contains only one person and nearly one-half includes never married persons. Six out of every ten of the zero-couple households are headed by women.

The linkage between family or household type and fertility level is a difficult enterprise because there is no certainty that the computed fertility index is related to the present nuclear, extended or zero-couple status. Household type might have changed over time while the census recorded the current status (i.e. during the census period). Although family or household type may change as a result of divorce, death, marriage and migration etc., analysis of the census and survey data is worthwhile for a number of reasons among which is the need to examine the data on the household structure in order to shed some light on certain aspects of the social structure (i.e. family structure) and its impact on reproductive behaviour. Furthermore, in a society where majority of families are formed outside marriage, policy-oriented study of the emerging family types in relation to decision-making process and reproduction and the implications for the socialization of successive generations is of paramount importance.

Social organization and family structure

Some understanding of the changing traditional family structure is necessary for the interpretation of the results of the analysis that follow. Descent is patrilineal and residence is patrilocal. The household is the smallest unit in the social system. A number of the households 'living together' in the same part of a village or ward settlements 'constitute a family - group that consists of families whose men are all agnatic descendants of the same grandfather or great-grandfather. The family-group is 'a form of extended family, dominantly but not exclusively patrilocal in character and a number of family groups, occupying a part of a village make up a ward' (Schapera 1950:141).

According to Schapera, the main objective of marriage was to produce legitimate children. Thus, only married women were entitled to bear children and if an unmarried girl bore a child, both she and her lover were punished severely and the child had no legal claims upon its father (Schapera 1938:42). The family was an integral part of the kinship system with the extended family playing a vital role in social, economic and political affairs.

Christianity, formal schooling, trade and labour migration transformed the traditional family system. Manufactured goods, taxation and labour migration made serious inroads into the economic life of the family. The social cohesion of the family was dismantled by labour migration, the long absence of the man or husband from home resulted in the women having greater personal freedom as well as increased domestic responsibility (Schapera 1938:352). The doctrine of the new form of religion also dented the traditional family life. The family which was 'formerly the group within which people had their home, obtained sexual satisfaction; begot their children, made their living, conducted their worship and their ritual observance, received education in tribal practices and beliefs, and made responsible for adherence to the recognized standards of social control' was stripped of most of its important traditional features and functions.' (Schapera 1938: 345-346). People

work for money with which to purchase imported goods and services and send their children to outside institutions for schooling. Though the family still performs functions such as reproduction and socialization and enforcement of certain customs and legal rules, its effectiveness and efficiency have been diminished. And Schapera writes: 'sexual and reproductive functions are no longer exclusively associated with marriage' (Schapera 1938:346; emphasis ours). This study therefore examines the changing family structure and its impact on family formation.

Family or household types

The 1991 census data reveal that 53 and 47 per cent of the total households in the country are headed by males and females respectively. The same pattern of headship by sex is virtually reflected by the 1993/94 HIES and 1996 BFHS III data: 54 versus 46 and 56 versus 44 per cent respectively. The three data sets indicate that between 12 and 18 per cent of the households are nuclear, 17 per cent are extended and between 66 and 71 per cent are zero-couple or single-parent households (table 1 and figure 1 [HIES and BFHS III not shown]). The average number of household members ranges from 4.4 to 5.0; the average is higher among female-headed than male-headed households. The three data sets also show that more than half of the total population live in zero-couple households, nearly seven (1991 census) and between 5 and 6 (HIES and BFHS III) out of every ten Batswana live in zero-couple type households. The nuclear families include between 13 and 16 per cent of the total population while the remainder subsist in extended family households.

The 1991 data are employed in examining in detail the structure of the zero-couple household.

The zero-couple households (i.e. households without a married couple present) constitute 71 per cent of total households and account for 69 per cent of the total population; their average number of household members is 4.5. Six out of every ten of these households (or 60 per cent) are headed by females and majority of the female-headed households include non-relatives: 63 per cent as compared with 37 per cent of the male-headed households. A major feature of the female-headed households is that virtually all of them (90.0 per cent) are zero-couple type.

Zero-couple households may be classified into two: zero-nuclear and zero-extended. The former include the head and the children only (i.e. one parent households) and it accounts for 44 per cent of the zero-couple households while the latter include relatives and non-relatives. Eighty four per cent of these zero-nuclear households are headed by females and only 16 per cent are headed by males. One-parent households are, therefore, more commonly found among female-headed households. Children are less likely to be found in male-headed zero-couple households than in the female-headed households, the proportion of households with children are 59 and 41 per cent among female and male headed households respectively.

Majority of the households are found in the urban villages¹ (49 per cent) followed by the rural areas with 39 per cent. Most of the rural households are zero-couple type (41 per cent) while extended families are prevalent in the urban villages where a sizeable number of the households (44 per cent) are zero-couple type. However, the zero-couple households are predominant in both towns, urban and rural areas, the proportion ranges from 67 per cent in the urban villages to between 71 and 74 per cent in Gaborone, Francistown and the rural areas. Nuclear families are more commonly found in the towns. Tables 1-6 present distribution of heads of households by age and sex, type of residence area, marital status, education, employment status and industry.

Male heads of the zero-couple households are, on the average, younger than their counterparts in the nuclear households, 52.6 per cent of the former and 31.5 per cent of the latter are aged between 20-39 years while 24.4 and 45.6 per cent respectively are aged 50

years and over. The heads of the extended family type also tend to be older, on the average, than the heads of the zero-couple households. Among the male headed households, the zero-couple households tend to be headed by young unmarried men in their twenties and thirties.

In all the female-headed households, majority of the heads are aged between 20-39 years, the proportions ranging from 46 per cent in the zero-couple households to 55.6 and 57.4 per cent in the extended and nuclear type respectively. However, the heads of the zero couple households include a sizeable proportion of much older women, 32.6 per cent of them are aged 50 years and over as compared with 20.8 per cent in the nuclear type, an indication of the strong presence of grandmothers as heads of households as well as child minders. The female age distribution of the zero-couple households peaks in the age group 30-39 years and declines gently to age group 50-59 years while the descent of the distribution of the nuclear type is precipitous after 30-39 years age group, evincing the dominance of the headship by older women in the former type as compared with the nuclear type. The opposite is noted among the male age distributions where the headship of the nuclear and extended types is dominated by older men (i.e. aged 50 years and over). These patterns also portrayed by HIES and BFHS III data (figures not shown). Another significant observation is the relatively sizeable proportions of male and female heads aged less than 20 years in the zero-couple households as compared with that of the nuclear type, indicative unmarried youth with children (e.g. teenage mothers).

Zero-couple households are headed mainly by never married persons, the proportions range from 40 to 44 per cent among the females and from 47 to 54 per cent among the males. The surveys (HIES & BFHS III) figures suggest that nearly one quarter of the female heads are widows and between six and eight per cent are widowers, the former figure reflects high male adult mortality and also explains why a comparatively high proportion of female heads are in the older age groups. Sizeable proportions of both male and female heads claim that they are married (see table 3). Since six out of every ten of the zero-couple households are headed by females, this group may be dominated by married females whose husbands are usually absent. Table 3 shows that while the proportion married among the male heads has been more or less increasing that of the female heads has been dwindling.

It is interesting to note that a substantial number of female heads of both nuclear and extended types are either cohabiting or are in visiting unions; the census data indicate that the proportion cohabiting may lie in the neighbourhood of between 40 and 46 per cent while the surveys figures, barring sampling errors, suggest that it may be either higher or rising. The proportion of cohabiting male heads is comparatively lower but higher among the heads of nuclear households than among their counterparts in the extended households. An important observation is the relatively high proportion of females who head nuclear and extended households; either their husbands were absent or their marital status was misreported.

Majority of the heads in the zero-couple households have received some kind of formal schooling, 65 per cent of them have been to school as compared with 54 and 52 per cent of those in the nuclear and extended types respectively. Higher proportion of the heads in the zero-couple households have received primary and secondary schooling as compared with the heads in the other types (see table 4) except at the tertiary level where the nuclear type out-spaces the other types: 8 per cent versus 3-4 per cent. The pattern of schooling reflected in table 4 portrays the comparatively young age structure of the heads of the zero-couple households as noted above. Besides raising opportunity cost of childbearing, education makes the individual receiving it a different person with respect to reproductive decisions. Furthermore, the structure of parental control is undermined when the younger generation are educated and/or trained for specialized roles in which parents have no competence. In

fact, education provides children with greater access to the key to social status. The zero-couple family type which account for 70 per cent of the households in the country exhibits some, if not all, of these features. These observations underline the changing social structure in the direction of formation of families outside marriage by the younger generations; agents of social change.

Slightly more than six out of every ten heads of the nuclear type households earn income, 54.1 per cent of them work for cash while 7.6 per cent are self-employed. The corresponding figures for the extended and zero-couple types are 46.9 and 7.8 per cent and 43.9 and 4.5 per cent respectively. The proportion engaged in family business and/or working at cattle-posts and/or in the land is much lower among the heads of the zero-couple households than among the heads of the other types. This is probably due to the fact that more than a quarter (i.e. 28 per cent) of the heads of the zero-couple households are 'housewives' and/or older women (see table 5). In other words, they do not earn any income. Thus, using employment status as proxy for a measure of standard of living (e.g. income), the zero-couple households have a lower income earning capacity than the other two types. In terms of proportion with tertiary education and proportion that earn income, the nuclear households enjoy higher standard of living than the zero-couple households. However, it is important to note that the zero-couple households include a large number of employed household members who send money to the heads for the upkeep of the households. In the households that include children of the working mothers or fathers the remittance may be frequent and handsomely.

Although a comparatively higher proportion of female heads of the zero-couple households are employed as noted above, two-fifths of them are employed in elementary occupations such as labourers in mining, construction and agriculture (e.g. cattle herders and domestic servants). Nearly two-fifths are service, shop and market sales workers, skilled agricultural workers, craft and related trade workers and about one-tenth of them are technicians and paraprofessionals. The same pattern is reflected in the figures for their male counterparts. Nearly six out of ten of the male heads of the zero-couple family are either plant and machine operators or as labourers in mining, construction, manufacturing, transport, agriculture as well as workers in sales and services occupations. Higher proportions of the female heads of both the nuclear and extended family are also engaged in elementary occupations. These occupations account for not less than 40 per cent of the women's jobs in the country. Many of these jobs are in low-status and low-pay sectors of the economy.

On the other hand, more than twice as many male heads of the nuclear and extended family types are legislators, administrators and managers and nearly four times as many of the male heads of the nuclear family are professionals (1991 census). HIES figures, however, indicate that an equal proportion of the male heads of the zero-couple family are in the high-paid jobs (i.e. administrative, managerial and professional). There is therefore a concentration of male heads of the nuclear family in high-paid jobs. The proportion of females in these jobs lies in the neighbourhood of only 4.0 per cent in all family types (1991 census table 6).

The occupational structure briefly outlined above underscores the income differentials and wide variations in the purchasing power of the male and female heads of the three family types. The majority of the female heads of the zero-couple households are engaged in occupations where lots of women work pay-levels tend to be low. This is certainly true in sales, services (e.g. domestic services), nursing and teaching. This has serious consequences for 90 per cent of the zero-couple households that are headed by females.

The majority of the male heads of the three family types are employed in agriculture and construction industries, the proportions range from 44 to 50 and 47 per cent of the heads of the nuclear, extended and zero-couple households respectively. Though substantial

proportions of female heads work in agriculture, they are also predominant in wholesales and related trades, domestic services, manufacturing as well as education and health services. A comparatively high proportions of the male heads are central and local government employees (1991 census) and they dominate the business services. Overall, males are employed in the industries where they are more likely to earn higher incomes than the females. With so many women concentrated in low-paying jobs and majority of whom head the zero-couple households, it is not surprising that there is a large gap between the earnings of the heads of the nuclear families and those of the zero-couple families. The seemingly income differentials are further assessed with data on income.

Family types and income distribution

This section draws together the available information on financial viability of the family types and provides an analysis of the extent to which the distribution of income affects the welfare of the members of the household types. The data are extracted from the 1993/94 Household Income and Expenditure Survey. One of the crucial indices we have employed in this analysis is the disposable cash income which refers to the 'sum of all cash incomes (wages, cash gifts received, business profits etc.) less taxes and cash transfers out of the household' (C.S.O. 1995:5).

The percentage distribution of disposable cash income by family types is shown in table 7 and figures 2a-2e. The male-headed nuclear households are generally better off than their extended and zero-couple counterparts in terms of cash incomes. More than one half of the male-headed zero-couple households (55 per cent) receive a monthly disposable cash income of less than P500 (Pula) compared with 48 per cent of the nuclear and extended households. Nearly eight out of every ten of the male-headed zero-couple households have a monthly disposable cash income of less than P1,000; proportion of the male-headed nuclear households with a monthly disposable cash income of P5,000 or more is 7 per cent compared with only 2.6 and 1.4 per cent of the extended and zero-couple households respectively. The female-headed households exhibit virtually the same pattern of income distribution except that between 76 and 88 per cent all the female-headed households irrespective of family type receive a monthly disposable cash income of less than P1,000, and six out of every ten female-headed family types have a disposable income of less than P500. And while about 5.8 and 4 per cent of the extended and zero-couple households do not receive any income at all, nearly 3 per cent of the female-headed nuclear households have a monthly disposable cash income of P5,000 or more as compared with only 0.4 per cent of the extended households and not a single zero-couple household female head earns P5,000. The sex differentials are very significant. The male-headed household types have a more enhanced financial capability than the female-headed households.

Inclusion of income in kind (i.e. disposable income: disposable cash income plus disposable income in kind) raises virtually all the proportions of the male-headed households with higher disposable income. For instance, the proportions with a monthly disposable income of P5,000 or more range from 1.6 per cent among the zero-couple households to nearly 8.9 per cent among the nuclear household type and about one-quarter or more of the male headed household type have disposable income of between P1,000 and P5,000. A similar pattern is depicted by the figures for the female-headed household types except that the increases are, on the average, much more marked among the zero-couple households, a reflection of the extent to which the income of single parent households is augmented by sale of produce and gifts. However, the female heads of the zero-couple households receive much less disposable income than the heads of the other family types (see table 8 and figures 3a- 3e).

The general pattern underscores the link between income, transfers or remittances etc. and members of the households residing within and outside the country. Income in kind

tends to widen the sex differentials with male-headed households commanding higher disposable income than the female-headed households, particularly among the households receiving an income of P5,000 or more. An important point to note here is that it appears higher income households have access to more resources.

HIES data further indicate that the male-headed nuclear, extended and zero-couple households have a mean monthly disposable cash income of P1,526.98, P1050.81 and P808.36 respectively, the corresponding incomes for female-headed household types are P808.55, P698.95 and P514.72. Thus, the zero-couple households headed by both males and females received the least monthly income. The mean monthly income of the male-headed zero-couple and extended households are 53 and 68 per cent of that of the nuclear households respectively. The differential is comparatively smaller among the female-headed household types; the mean incomes are 64 and 84 per cent of that of the female-headed nuclear households respectively. As regards the male- and female-headed households within each family type, the mean disposal cash incomes of the male-headed household are 1.9, 1.5 and 1.6 times that of the female-headed nuclear, extended and zero-couple households respectively (table 9).

Taking into account the in kind income, the mean monthly disposable income among male-headed nuclear household is P1,837.99 compared with P1,279.94 for extended and P921.01 for zero-couple households. The in kind income raises the total cash income by 17, 18 and 12 percent respectively. The corresponding incomes for the female-headed household types are P954.88, P909.96 and P671.65, raising the total incomes by 12, 23 and 23 percent respectively (see table 10, figures 4a-4c)

The mean monthly disposable income of the male-headed zero-couple households is 50 and 70 per cent of that of the nuclear and extended households respectively. The corresponding proportions for female-headed households are 70 and 73 percent of that for the nuclear and extended households. The in kind income is, on the average, higher among the male-headed nuclear households than that of the other household types. Among the female-headed households in kind income is, on the average, higher in the extended households than in the nuclear and zero-couple households. The zero-couple households receive the least income and the female-headed ones are the poorest households in the country. Bearing in mind, once again, that between 60 and 70 percent of the zero-couple households are headed by females and they account for about 70 per cent of the total population, female-headed zero-couple households shoulder greater social and economic burden with a comparatively meagre monthly income. The mean disposable monthly incomes also indicate that the richer nuclear households and, to some extent, extended households have an access to more resources, particularly those headed by males.

Analysis of the pattern of the income distribution among the urban and rural household types reveals important features of the social structure. In all the three family types, the rural communities receive the least mean monthly disposable income ranging from P603.05 to P648.55 and P784.87 for female-headed zero-couple, nuclear and extended households respectively. The corresponding incomes for male-headed households are P723.64, P728.37 and P986.02. The incomes of the rural female-headed household types are between 80 and 89 per cent of the mean incomes of the male-headed household types. The mean monthly disposable incomes for the male-headed nuclear, zero-couple and extended household types are P1,852.74, P1,327.95 and P2,085.99 of the households in the urban villages respectively. The average incomes of the male-headed household types are higher than that of the female-headed zero-couple and extended households by 43 and 23 per cent respectively and by only 4 per cent in the nuclear households. In Gaborone and Francistown, the mean monthly incomes of male-headed nuclear households are 3.0. and 3.6 times that of the female-headed households in Gaborone and Francistown respectively. The income of the female-headed zero-couple households is 82 per cent of that of the male-

headed zero-couple households in Gaborone and 68 per cent of that in Francistown. Among the extended families the average disposable income of the female-headed households is 47 per cent of that of the male-headed households in Gaborone and 80 per cent of that in Francistown.

Certainly, family type, sex and residence influence the distribution of income. Rural residents, zero-couple households headed by females receive much lower incomes in the country.

Family structure and fertility

Table 12 shows that household size is smaller among of zero-couple households than in the other two types, 53 per cent of the zero-couple families are three- person households as compared with 22 per cent of the nuclear type and not a single extended family type has less than three persons. On the other hand, 81.7 per cent of the extended type households have a household size of more than six persons, the corresponding proportions for nuclear and zero couple types are 37.6 and 27.3 per cent respectively.

Table 13 presents the average number of children ever born by age of women for each household type. The average numbers of children for the nuclear and extended types are almost the same except in the oldest age group (i.e. 50 years and over) but the figures are likely to be grossly affected by reporting errors. The women in zero-couple households have lower average parities. This of course is expected, since a greater proportion of them are never married, widowed and among the 27.6 per cent of them who are married, their husbands are probably absent from home much of the time. A computed completed family size based on 40-49 age group indicates that women in nuclear and extended household types exhibit, on average, higher parity than women in zero-couple households by 0.5 children. The zero-couple household type therefore exercises the greatest impact on the level of fertility: they constitute slightly more than six out of every ten women of the childbearing age (64.3 per cent).

The zero-couple household type exhibits the lowest fertility and there is no significant difference between the fertility levels prevalent in the nuclear and extended household types. The socio-economic and demographic characteristics inherent in a particular social structure, therefore, appear to be the major determinants of reproductive behaviour and not the household or family type *per se*. The prevailing social and economic conditions in the single-parent families as noted above, tend to discourage large family size. In other words, women belonging to zero-couple family type tend to disassociate themselves from emphasis on shared values that support high fertility.

Summary and discussion

The findings of the study indicate that the old traditional nuclear and/or extended family structures have been gradually replaced, to a large extent, by zero-couple or single-parent family or household type. According to the 1991 census results, the zero-couple households constitute about 71 per cent of the total households in the country and they contain about 69 per cent of the total population. Thus, seven out of every ten Batswana live in households whose heads have no spouses and 60 per cent of these households are headed by females. Ninety per cent of the female-headed households are zero-couple type and majority of heads have never been married.

Migration, non-marriage and higher male mortality are the principal determinants of the relatively high proportion of female heads of the zero-couple households but the statistics indicate that non-marriage is the major factor. In the rural areas, female headship arises as a result of the out-migration of the male heads and non-marriage and, to a lesser extent, widowhood. In the urban areas, female-headed households are largely a function of non-

marriage. Nevertheless, zero-couple households are predominant in both towns, urban and rural areas, underscoring the importance of non-marriage as the major factor.

The traditional extended family and the typical nuclear family where the conjugal bond is crucial are becoming rare. Domestic arrangements are evolving in the direction of zero-couple or single headed households that can gather other relatives (e.g. absentee working daughters and sons). Women in these households—unmarried mothers and/or heads—exercise greater autonomy and are adept at decision-making. They are able to cope with family problems involving children and their immediate needs whereas in the nuclear and extended families problems and serious issues are always referred to the male heads for the final decision.

The heads of the zero-couple households tend to be young unmarried men in their twenties and thirties but there is a sizeable number of older women among the female heads, an indication of the strong presence of grandmothers as *de facto* heads as well as child minders. A relatively high proportion of male and female heads of the zero-couple households are aged less than 20 years, an indication of increasing teenage parenthood and related problems.

The proportion of heads of the zero-couple households who have received some kind of formal schooling is higher than that of the heads of the nuclear and extended types. Higher proportion of the heads of the zero-couple households have received primary and secondary schooling as compared with the heads of the other family types except at the tertiary level where the nuclear type outpaces the other types. The pattern of schooling portrays the comparatively young age structure of the heads of the zero-couple households. These observations underline the changing social structure in the direction of formation of families outside marriage, especially by the young folks.

Although a comparatively higher proportion of female heads of the zero-couple households are employed, majority are employed in elementary occupations (e.g. domestic servants, sales and services). Many of these jobs are in low-status and low-pay sectors of the economy. On the other hand, more than twice as many male heads of the nuclear and extended family types are legislators, administrators and managers and nearly four times as many of the male heads of the nuclear family are professionals (1991 census). There is, therefore, a concentration of male heads of the nuclear family in high-paid jobs.

Overall, males are employed in the industries where they are more likely to earn higher incomes than the females. With so many women concentrated in low-paying jobs and majority of whom head the zero-couple households, it is not surprising that there is a large gap between the earnings of the heads of the nuclear families and those of the zero-couple families.

The zero-couple households receive the least income and the female-headed households are the poorest in the country (see tables 7-11). Bearing in mind that between 60 and 70 percent of the zero-couple households are headed by females and they account for about 69 per cent of the total population, female-headed zero-couple households shoulder greater social and economic burden with a comparatively meagre monthly income. The mean disposable monthly incomes also indicate that the richer nuclear households and, to some extent, extended households have an access to more resources, particularly those headed by males. Thus, family type, sex and residence influence the distribution of income. Rural residents, zero-couple households headed by females receive much lower incomes in country

The average family size of the nuclear and extended family type is larger than that of the zero-couple family type by one child. And since 63 per cent of the women of childbearing age belong to latter family type, zero-couple households exercise the greatest impact on the level of fertility in the country. They are a powerful force in the fertility transition process in the country (see Gaisie 1998).

Parental responsibility in the zero-couple households rests heavily on the women and their occupational roles are very crucial for the daily survival of their children and other relatives. The absence of fathers has highly undesirable consequences for the boys who grow up without male role models.

In both the *de facto* and *de jure* female-headed households, women exercise greater autonomy and are more adept in decision-making. In these households the locus of decision-making process with regard to the number of children to have and the use of resources etc. is the woman herself rather than a spouse or the larger kin though their mothers may be involved to some extent. The BFHS III data indicate that nearly 80 per cent of the women aged 15-49 years never discuss matters relating to reproduction and family planning with either their parents or guardians, the proportions range from 76 per cent among the extended and zero-couple households to 80 per cent among the nuclear households. Six out of ten of the teenagers (i.e. 15-19 year-olds) and 20-24 year-olds interviewed never discussed such issues with their parents though 89 per cent of them lived in the same yard with their parents/guardians before they conceived their first child (BFHS III 1996). Majority of the women in Botswana are therefore predisposed to assume greater decision-making role. They participate and/or make decisions ranging from those relating to childcare, feeding, family expenditure to contraception and family size limitation. And it is not surprising that the zero-couple households manifest the lowest fertility level in the country. Schooling, non-marriage and greater autonomy exercised by female single parents are prime movers of fertility through the on-going demographic transition. The results of this study indicate that it is the family or household structure rather than the family type per se that influences reproductive decisions and behaviour.

In sum, though reproductive behaviour is strongly conditioned by the degree of gender stratification in any culture, education has substantially contributed to the improvement of women's decision-making autonomy in Botswana. It has certainly enhanced women's awareness of both new forms of behaviour and the rationale underpinning these behaviours. Education has definitely had powerful effects on traditional values, norms and attitudes and has provided women with knowledge about, among other things, the prevention of unwanted births. Perhaps the most important is the contribution of education to women's social and economic self-reliance. Participation in income-earning activities has greatly enhanced women's control over material resources by giving them independent source of income. Greater control over material resources tend to reduce educated women's reliance on children for support and increase their ability to purchase health and contraceptive services. The economic environment has also played an important role in determining the consequences of female education for women's self-reliance. All told, historical and cultural heritage (see Gaisie 1996& 1998), and economic and social autonomy have been the major determinants of the emerging family forms and associated reproductive behaviour and fertility patterns.

Policy implications

A number of issues have surfaced in this study that need to be addressed. The analysis demonstrates quite clearly that the zero-couple or single parent households headed by females receive the least income and are the poorest in the country. They, therefore, lack the financial capability to provide adequate and sustainable support for the family members. The prevailing circumstances and socio-economic conditions call for interventions that would provide the women with knowledge, skills and access to resources in order to enable them to participate fully in development process.

The government approved the 'Policy on Women in Development' in 1996 and the strategy for the implementation of the policy as spelt out in the National Development Plan 8 (NDP 8) is intended to 'ensure, among other things, that programmes are initiated to

address household poverty, especially with respect to female-headed households' and 'the status and role of women in decision-making and leadership is enhanced' (Republic of Botswana 1997: 446). Among the strategies put in place for the achievements and goals of the National Population Policy, particularly those in connection of the enhancement of women's status and empowerment are:

- (1) support the development of appropriate institutional mechanisms and programmes for effective implementation of the women in development policy,
- (2) develop training programmes to provide women with the necessary skills for employment,
- (3) encourage women to participate in male dominated occupations and
- (4) identify vulnerable female-headed households and target programmes to enhance their participation in the economy.

However, the biggest challenge is the formulation and implementation of viable action programmes to address the issues under discussion.

Another related and equally important issue is the persistence of poverty despite positive achievements during NDP 7 in the economic and key social sectors of the economy. The BIDPA² study notes that 'Poverty is higher and more severe in rural and urban villages' (Republic of Botswana 1997:91). On the basis of the findings of the BIDPA study, programmes are purported to be designed that will aim at poverty reduction during NDP 8 (see Republic of Botswana 1997:96). As noted above, the crucial task yet to be effectively executed is the development and implementation of appropriate and integrated action programmes.

We have also noted in this study that the absence of fathers in the households has undesirable consequences for the children, especially the boys who may grow up without male role models. For example, it has been observed that 'the problem of juvenile delinquency is fast becoming evident in female-headed households, particularly among boys who in the absence of their fathers rebel against the mother's authority' (Adepoju & Mabura 1997: 11).

National Programme for Action (NPA) for Children was formulated during NDP 7 and Affiliation Proceedings Act that 'provides for the determination of paternity of an illegitimate child and for the making of orders for the maintenance of such children' was reviewed. Among the activities that will be undertaken during NDP 8 are (1) review of the legislation relating to child welfare to 'ensure that it is in conformity with the Convention on the Rights of the Child' and (2) implementation of international declaration on the improvement of the welfare of the child such as observing the Day of the African Child, the NPA for children and the Convention on the Rights of the child' (Republic of Botswana 1997:443).

It is noted in the National Population Policy that 'The legal provision pertaining to custody, guardianship and maintenance, exploitation, abuse and treatment of juvenile offences are embodied in a number of laws' (Republic of Botswana 1997:21) and among the strategies designed for implementation of aspects of the policy relating to children is 'Enact where applicable and strengthen enforcement of existing laws on child protection and welfare' (Republic of Botswana 1997:31). The time has arrived for these strategies to be translated into viable interventionist programmes that are monitored and evaluated.

Thus, underneath the enviable performance of the economy is a number of serious socio-economic problems that need to be addressed by integrated action programmes. The family is driven and sustained by a combination of cultural, socio-economic and institutional factors and the need for integrated policies, strategies and action programmes is very crucial in this regard. Sectoral policies, strategies and action programmes need to be integrated in order to effectively deal with the issues identified in this study.

The problems facing the female-headed households underscore the need to understand the various dynamics of these households through research in order to devise appropriate strategies and interventions. The legal support system should have the potential to resolve at least some of the structural problems. The existing laws, for instance, should have the potential to foster social integration and uphold male responsibility in order to create an enabling environment for the socialization process. This is an important area where one would like to take a cue from Durkheim's well-known study on the relationship between suicide and the degree of integration of individuals in a social group. Finally, but not the least, monitoring and evaluation of the outcomes of the action programmes is critical for effective assessment of the fulfilment of the stated objectives in any development plan, a paramount exercise which is seldom undertaken in many African countries.

Notes

1. In 1999, 19 villages in Botswana were classified as 'urban'—these were villages where less than 25 per cent of the workforce was engaged in traditional agriculture.
2. BIDPA, Botswana Institute of Development and Public Administration

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Table 1: Characteristics of Households by Type, Average Number of Household Members, sex and Age of Household Heads, 1991

	Nuclear	Extended	Zero-couple	Total
No. of Households	34,055	46,595	195,557	276,207
% of Total	12.3	16.9	70.8	100.0
Average number of household members	4.1	6.7	4.1	4.5
Household Head: Male (N)	28,506	39,308	78,318	146,132
% of Total	19.5	26.9	53.6	100.00
<20	0.3	0.6	8.6	5.9
20 - 29	5.7	17.6	30.2	19.1
30 - 39	25.8	25.4	22.4	23.9
40 - 49	25.6	13.4	14.4	18.3
50 - 59	20.1	11.1	10.5	13.9
60+	25.5	31.9	13.9	18.9
Household Head: Female (N)	5,376	7,126	117,239	129,741
% of Total	4.1	5.5	90.4	100.00
<20	0.9	3.6	5.3	5.0
20 - 29	21.9	34.5	21.9	22.2
30 - 39	35.5	21.1	24.1	24.8
40 - 49	21.9	11.9	16.1	16.4
50 - 59	13.0	10.8	12.8	12.8
60+	7.8	18.1	19.8	18.8

Source: 1991 census

Table 2: Distribution of Households by Residence: Number of Households and Average number of Household members by Town, urban and rural, 1991

	Nuclear	Extended	Zero-couple	Total
Gaborone, N	4,783	3,579	20,830	29,192
%	14.0	7.7	10.7	10.6
Average No. of Households	3.4	5.5	3.4	3.6
Francistown N	1,904	1,576	9,937	13,417
%	5.6	3.4	5.0	4.7
Average No. of Households	3.7	6.1	3.1	3.9
Other Urban, N	14,904	26,370	84,998	126,272
%	43.8	56.6	43.5	48.5
Average No. of Households	4.0	4.8	4.2	4.3
Rural, N	12,464	15,070	79,792	107,326
%	36.6	32.3	40.8	38.9
Average No. of Households	4.5	7.2	5.2	5.3
Total	34,055	46,595	195,557	276,207

Source: 1991 Census

Table 3: Family Type by Marital Status and Sex of Head of Household 1991-1996

Table 6. Family Type by Marital Status and Sex of Head of Household: 1991-1996												
Marital Status	Nuclear						Extended					
	Male			Female			Male			Female		
	1991	1993	1996	1991	1993	1996	1991	1993	1996	1991	1993	1996
Married	74.1	71.8	68.7	54.1	41.3	33.7	80.6	83.5	83.8	60.0	48.0	42.3
Living / T*	25.9	28.2	31.3	45.9	58.7	66.3	19.4	16.5	16.2	40.0	52.0	57.7
Marital Status	Zero Couple											
	Male			Female								
	1991	1993	1996	1991	1993	1996						
Married	30.0	23.8	28.2	25.9	28.2	18.2						
Living / T*	10.0	6.8	12.9	8.4	8.5	9.2						
Never Married	51.5	53.9	46.8	41.8	40.9	43.9						
Separated	1.6	1.3	1.6	1.8	1.3	1.3						
Divorced	2.8	3.9	2.9	3.3	3.7	4.2						
Widowed	4.2	5.9	7.6	18.8	21.7	23.2						

Sources: 1991 Census, 1993/1994 HIES and 1996 BFHS 111 *Living/Together/ Visiting Union

Table 4:

Percentage Distribution of Heads of Households by Household type, Sex and Education: 1991

Type of Education	Nuclear		Extended		Zero-couple	
	Males	Females	Males	Females	Males	Females
Never attended	47.7	39.5	50.1	38.6	35.6	34.7
Primary	32.6	49.8	33.8	48.9	39.1	46.9
Secondary	10.8	8.8	11.6	10.8	20.6	16.6
Higher	8.9	1.9	4.5	1.7	4.7	1.8

Source: 1991 census

Table 5: Percentage Distribution of Heads of Households by Household type, Sex and Employment Status within each household type 1991

Employment Status	Nuclear		Extended		Zero-couple	
	Males	Females	Males	Females	Males	Females
Employed	60.2	19.4	51.6	4.3	64.5	30.1
Self-employed	8.0	5.6	8.0	6.7	4.7	4.4
Family Business	1.0	1.3	1.1	1.5	0.2	1.0
Land/Family/Cattle Post	-	-	21.5	10.7	12.1	8.0
Seeking job	17.2	9.7	3.1	3.8	5.4	4.2
Housewife	5.3	6.0	5.4	53.8	3.7	43.7
Student	5.2	57.4	0.1	0.2	5.2	3.4
Retired	0.1	0.1	9.1	2.0	3.7	5.2
Other	3.0	0.5	0.1	-		

Source: 1991 Census

Table 6: Percentage Distribution of Heads of Households by Household Type and Occupation Group and Sex within each Household Type 1991-1993/4

Occupation Group	Nuclear				Extended			
	Male		Female		Male		Female	
	1991	1993	1991	1993	1991	1993	1991	1993
Administrators & Managers	5.7	10.1	2.2	-	5.2	4.6	2.6	-
Professionals	5.8	7.3	1.5	1.5	2.6	2.1	1.5	5.0
Technicians & Para-Professionals	6.0	5.2	8.1	4.1	6.5	6.4	8.8	10.3
Clerks	2.6	2.3	5.4	6.9	2.7	2.5	4.7	5.0
Service & Sales Workers	6.8	5.5	9.5	8.3	6.7	8.3	10.3	2.2
Agricultural Workers	11.0	14.9	10.4	-	15.9	32.8	12.4	3.6
Craft & Other Trades Workers	20.4	16.9	15.6	16.0	16.6	9.7	14.9	23.4
Plant & Machine Operators	8.3	10.8	4.0	-	8.1	11.2	3.3	1.4
Elementary Occupations	33.4	27.0	43.3	63.2	35.7	22.4	41.5	49.1
Occupation Group	Zero-couple							
	Male		Female					
	1991	1993	1991	1993				
Administrators & Managers	2.9	2.0	2.3	1.1				
Professionals	2.7	6.3	1.6	3.1				
Technicians & Para-Professionals	7.1	7.1	9.8	13.4				
Clerks	3.9	5.1	6.3	8.4				
Service & Sales Workers	9.1	8.7	10.8	11.0				
Agricultural Workers	9.1	11.9	13.2	9.5				
Craft & Other Trades Workers	8.7	15.7	13.0	15.9				
Plant & Machine Operators	21.2	10.3	3.2	1.1				
Elementary Occupations	35.5	33.0	39.8	36.5				

Source: 1991 Census, 1993/1994 HIES

Table 7: Percentage Distribution of Heads of Households by Disposable Cash Income by Household Type and Sex: HIES 1993/94

Income	Household Type					
	Nuclear		Extended		Zero-couple	
	Male	Female	Male	Female	Male	Female
< 0	3.7	-	2.1	5.8	5.1	3.8
0 - 50	10.2	0.9	6.6	9.4	8.2	9.1
50-100	6.3	16.9	4.2	9.6	9.5	12.5
100-200	9.1	7.7	13.0	16.2	8.7	3.7
200-300	8.1	5.2	9.1	10.6	8.2	5.7
300-400	6.1	22.8	6.5	11.2	8.4	21.4
400-500	4.4	6.0	6.7	6.3	7.0	1.0
500-600	5.1	7.0	3.7	5.3	5.9	5.1
600-700	4.3	8.9	4.8	2.8	5.3	9.5
700-800	4.6	6.6	6.4	2.6	4.5	2.2
800-900	3.3	4.0	2.2	3.2	3.6	1.8
900-1000	1.4	1.7	2.1	2.5	1.7	-
1000-2000	12.1	9.4	17.3	10.4	13.7	15.8
2000-3000	6.2	-	8.4	2.6	5.7	4.1
3000-4000	5.7	0.3	3.0	0.6	2.1	1.3
4000-5000	1.9	-	1.2	0.3	0.9	3.1
5000-6000	2.2	-	1.0	0.3	0.8	-
6000-7000	1.7	2.3	0.9	0.1	0.2	-
7000-8000	1.0	-	0.2	-	-	-
8000-9000	0.6	-	0.2	-	0.1	-
9000-10000	0.4	-	0.2	-	-	-
10000+	1.6	0.3	0.2	-	0.3	-

Table 8: Percentage Distribution of Heads of Households by Disposable Income by household type and Sex: HIES 1993/94

Disposable Income	Nuclear		Extended		Zero-couple	
	Male	Female	Male	Female	Male	Female
<0	-	-	-	-	1.5	0.8
0 - 50	1.7	-	0.8	4.5	1.9	1.9
50 - 100	4.8	3.3	2.1	1.9	4.8	3.4
100 - 200	9.1	11.4	4.2	9.2	8.9	12.5
200 - 300	6.2	5.8	7.9	5.6	14.2	13.3
300 - 400	10.6	14.7	6.2	8.1	8.6	12.1
400 - 500	7.9	13.6	10.0	15.4	9.2	11.1
500 - 600	5.9	2.9	7.6	3.9	7.7	7.5
600 - 700	4.1	6.9	7.5	4.4	3.9	6.6
700 - 800	6.6	10.8	4.6	6.9	4.1	4.4
800 - 900	4.9	8.0	5.9	4.1	4.9	4.0
900-1000	2.7	4.6	4.3	1.8	3.5	3.9
1000-2000	12.9	12.9	21.0	25.1	16.0	14.3
2000-3000	6.4	2.3	10.7	4.0	5.2	2.6
3000-4000	4.7	0.3	2.4	2.1	2.8	0.9
4000-5000	2.8	-	1.4	3.1	1.2	0.3
5000-6000	1.7	-	1.3	-	0.8	0.3
6000-7000	2.5	1.7	1.0	-	0.4	0.1
7000-8000	0.3	0.6	0.2	-	-	-
8000-9000	1.0	-	0.3	-	0.1	-
9000-10000	0.7	-	0.4	-	-	-
10000 +	2.5	0.2	0.2	-	0.3	-

Tables 9-11: Measures of Income and Expenditure Based on the Mean and Median by Household Type and Sex: HIES 1993/94

Table 9: DISPOSABLE CASH INCOME [Pula]

Family Type	Male		Female	
	Mean	Median	Mean	Median
Nuclear	1526.98	543.73	808.55	385.83
Zero-Couple	808.36	438.75	514.72	296.83
Extended	1050.81	553.17	698.95	357.00

Source: 1993/4 HIES

Table 10: DISPOSABLE INCOME

Family Type	Male		Female	
	Mean	Median	Mean	Median
Nuclear	1837.99	692.60	954.88	530.27
Zero-Couple	921.01	512.95	671.65	452.41
Extended	1279.94	765.00	909.96	648.00

Source: 1993/4 HIES

Table 11: DISPOSABLE INCOME (Mean)

District	Nuclear		Zero-Couple		Extended	
	Male	Female	Male	Female	Male	Female
Gaborone	4315.44	1438.76	1297.16	1063.94	2869.41	1348.62
Francistown	2389.03	665.04	966.85	656.39	1365.92	1095.63
Other Urban	1852.74	1779.70	1327.95	929.61	2085.99	1699.32
Rural	782.37	648.55	723.64	603.05	986.02	784.87

Source: 1993/4 HIES

Table 12: Percentage Distribution of Household Size by Household type and Sex

Household Size	Nuclear		Extended		Zero-Couple	
	Male	Female	Male	Female	Male	Female
1	-	-	-	-	41.8	15.1
2	-	-	-	-	20.0	12.0
3	21.7	23.4	-	-	12.1	12.0
4	21.8	22.1	6.7	7.6	7.8	12.4
5	18.4	19.1	11.3	12.5	5.3	1.7
6+	38.1	35.4	82.0	79.9	13.0	36.8

Table 13: Average Number of Children Ever Born by Age of Mother and Household Type: 1991 and 1996

Age Group of Women	Nuclear Family		Extended Family		Zero Spouse Family	
	1991	1996	1991	1996	1991	1996
12-14	0.25	-	0.21	-	0.19	-
15-19	0.34	0.10	0.30	0.17	0.27	0.19
20-24	1.34	0.94	1.13	1.03	1.10	0.98
25-29	2.53	2.03	2.27	1.84	2.14	1.73
30-34	3.72	3.01	3.47	3.05	3.23	2.52
35-39	4.92	4.05	4.36	4.16	4.18	3.54
40-44	5.96	4.61	5.19	5.12	4.92	4.44
45-49	6.56	4.87	5.72	6.69	5.36	4.45
50+	6.78	-	5.19	-	4.96	-

Sources: 1991 Population and housing census; 1996 BFHS 111