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Fertility Patterns and Family Planning Acceptance Among Slum Dwellers in Kanpur

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Introduction

During the last two decades, a large number of studies [A] [B] [C] [D] [E] [F] [G] [H] have been published on slums. The studies have usually been conducted by various agencies as a part of successive population censuses, or as a part of general physical and socioeconomic surveys. Yet, very few have concentrated on the fertility of slum populations.

Conceptually, most of the slum studies have treated the slum as a unit of analysis. They have explained slum life in the context of dual economy assuming that slums are inhabited by poor rural-urban migrants of recent origin who are employed in the formal sector. The slums have often been projected as places of despair, and their life as being disorganized. This conceptualization has emerged largely from studies conducted in the slums of some of the largest tan cities of the country. However, on has been paid to fertility differentials within slums and to alternative concepts of slums; slums in one city have been compared to slums in other cities or with the city outside them. That slums are internally differentiated and fertility patterns in slums may vary considerably among various groups that comprise its population has been largely ignored. The present study then was conducted with the purpose of examining the differentials in fertility patterns and family planning acceptance among two distinct categories of respondents living in slums, namely those working in the formal sector and those working in the informal sector.

Conceptual Framework

The present study divides all the slum residents into two categories on the basis of their working in the formal or informal sectors. The assumption is that since workers in the formal sector have regular employment and the majority get social security benefits, and are less isolated from the modernizing tendencies of the city outside their slum, their attitudes towards family planning would be more favorable than those of slum dwellers working in the informal sector who have irregular jobs and face greater uncertainties.

According to Leibenstein [I] fertility depends on the degree to which social influence groups (which is not the same as socioeconomic groups) are open or closed, and the movement of households between social influence groups. Applying this model to slums, one may hypothesize that workers in the formal sector will have lower fertility than workers in the informal sector. As regards the definition of formal-informal sectors, it may be said that the recognition of economic activities and the regulation of products and labor markets by the State are taken as lines that demarcate the formal sector from the informal sector. An unprotected labor market gives rise to insecure jobs underemployment and depressed wages [J] [K].

In the present study, the respondents working in the formal sector were engaged in sweeping or scavenging jobs under the municipal administration or in semi-skilled or unskilled work in woolen or textile mills. On the other hand, the respondents from the informal sector were engaged in a variety of economic activities such as manufacturing (small-scale); construction (as skilled or unskilled labor); transport (motor mechanics, rickshaw pullers, in cycle repairing shops, etc.); trade (vendors, small shops), and services (barbers, tailors, washer-men, domestic servants, etc.).

In the literature, fertility is stated to be influenced primarily by intermediate' variables, reproductive norms and expectations from children. Further, expectations and norms are determined by objective utilities and disutilities of children and the level of awareness. They, in turn, affect intermediate variables [L]. The formal/informal sectors and background variables determine the objective costs and benefits of children, the intermediate variables including family planning practices and abortion, and communication.

In the light of the above, the present study was planned to (a) look at the socio-economic background characteristics of slum residents in Kanpur; (b) study their general fertility level and reproductive norms; and (c) study the differentials in the knowledge, attitudes towards and practice of family planning and abortion, as also the fertility differentials among slum dwellers who work in the formal and informal sectors.

Research Design

Data for the study were collected form male respondents living in eight selected slums of Kanpur, the capital city of the State of Uttar Pradesh (U.P.). Only currently and first-time married Hindu males whose wives were in the age group of 15-44 years were contacted. In all, 232 workers in the informal sector and 138 workers in the formal sector were interviewed. Though the plan was to select an equal number of respondents from both formal and informal categories,

since the pilot study revealed a far greater diversity of occupations in the informal category, a larger sub-sample was drawn from it.

The Kanpur Development Authority (KDA) office has a comprehensive Master Plan of Kanpur Agglomerations (1988-89) which contains rich data on the slums of Kanpur. It lists 89 slums consisting of 20,300 households (91,145 persons) as of 31st January 1981. During their field visits however, the authors found that this list of slums was not exhaustive. There are sprawling slum settlements particularly along the railway tracks, which had not been included in the KDA report. In all, eight slums were purposively with the following considerations:

(a) It should be predominantly populated by Hindus, as those belonging to other religious faiths were not to be included in the study.

(b) A sizeable number of its residents shout, be working in both formal and informal sectors; and

(c) It should not be very small and should broadly cover the whole of the main city area, since logistic constraints permitted only a limited number of slum clusters to be studied.

Tools and Techniques

Data were collected through a combination of open-ended, close-ended and Likerttype scalar questions, which were analyzed largely by descriptive statistics and by collating unquantifiable responses. The SPSS package was used to analyze quantitative data. Appropriate tests of significance such as Kolmogoro D [M] and X^2 for difference, of difference [N] were used. Due to the small size of the sample and multivariate regression was not used. In developing the questionnaire the authors took the help of the various Contraceptive Prevalence Surveys, the World Fertility Survey Questionnaire, the Kanpur Study [O] and Resurveyed Questionnaire [P].

A pilot study was conducted in a selected slum of Kanpur. The main aim of the pilot study was to test the viability and suitability of the interview schedule. It also helped in deciding appropriate strategies for building up rapport with the respondents and in enlarging the scope of the questionnaire to serve the purpose of the study. The fieldwork was conducted by the first author. It lasted for about six months during the second half of 1989.

Analysis and Major Findings

Kanpur is a growing industrial capital of state of Uttar Pradesh, and is well contented to other parts of the country by rail, road and air. It has a long history of slums. Expressing shock and surprise at the inhuman conditions of Kanpur's slums during his visit to the city in 1962, Pt. Nehru, the then Prime minister of India, had said' "Burn here and move." Yet, the slums being largely private properties, the civic authorities could do little to ameliorate the situation.

Profile Of the Respondents

Most of the respondents (88 per cent) were between 21 and 40 years of age. Those classified as working in the formal sector were somewhat older than their counterparts m the informal sector, the average ages being 33.0 and 29.7 years respectively. The average ages of their wives were 30.3 and 26.6 years respectively. Kolmogorov D gave a statistically significant difference between the age distributions of the respondents in the two sectors at a five per cent level of significance but not so in the case of their wives.

About 70 per cent of the respondents were literate. The literacy levels of respondents from the formal and informal sectors were 68.8 and 71.5 percent respectively - the difference was not significant at a five percent level when tested by Kolmogorov D. The literacy rates among the corresponding groups of wives were 44.6 and 40.1 percent, and the difference was, again, statistically insignificant.

About 88 percent of the respondents from the formal sector and 50 per cent from the informal sector belonged to low castes -the difference was statistically significant at a five per cent level. A large number of the formal-sector respondents were from the "bhangi" community of the scheduled caste. Most of them had been residing there for more than two generations and their fathers were in the same occupation in the formal sector. On the other hand, there was an increasing proliferation in other caste-based jobs, and due to the diverse jobs that the informal sector provides, a large number of upper and intermediate caste respondents had joined the informal sector.

The slum dwellers had low incomes-only 17 percent of the respondents had a family income of more than Rs. 1250 per month. A little more than half (51.4 percent) had a family income of Rs. 750 per month or less. Sector-wise income differences were quite significant; while 84.8 per cent of the workers earned more than Rs. 750 per month in the formal sector, only 27.2 percent in the informal sector did so. But few could save money; particularly the informal-sector workers lived on a day-to-day basis and were exposed to greater hazards than

those from the formal sector. Even though the latter were also unable to save, they were, at least, the beneficiaries of some social security grants from their respective organizations.

Contrary to expectation, the majority of the workers (63.5 per cent) were non-migrants, i.e. born in Kanpur city itself. Among those who had migrated, a great majority had come from the villages of other neighboring districts of Uttar Pradesh largely because they neither had any land nor any employment there.

The age at marriage is also low among slum populations. About 69 per cent of the respondents and 76 per cent of their wives had been married at less than the current legal age of marriage - 21 years for mates and 18 years for females.

Fertility Level and Norms

Table 1, presents the parity and number of surviving children of the respondents by the wife's age. The findings show a rather high fertility in the slum population. Within the limits of sampling fluctuations, the levels of infant and child mortality are also high. An average of 7.5 children were born to women by the age of 40-45 years, of whom half were born by the time they were 27.5 years of age. In fact, the fertility of the slum population was higher than that of the State of U.P. as a whole during 1981, and of rural U.P. in particular. For example, the average parity 40-45 year-old women for U.P. 5.03 was that for rural U.P. was 5.07. Figure 1(Figure 1 is missing) compares the pattern of parity by age in that of the State.

Table 1: Distribution by average parity and number of surviving children by wife's age

Age (years)	No. of women	No. of children ever born	Average parity	No. of children surviving	Average no. of surviving children	Proportion of children who died
15-19	51	64	1.255	54	1.059	0.156
20-24	101	221	2.188	188	1.861	0.149
25-29	99	381	3.849	304	3.071	0.202
30-34	39	226	5.795	188	4.821	0.168
40-45	10	75	7.500	54	5.400	0.280

An important feature of this pattern, which Figure 1(Figure 1 is missing) brings out is the particularly high values of early and late fertility in the slum population as compared to the corresponding values for the State as a whole.

An attempt was also made to estimate fertility and child mortality in the slums using the Coale and Demeny and Brass formulae. West Model Tables were used for estimating child mortality. The results are presented in Table 2.

Table 2: Fertility and child mortality estimates for slums

Estimate	Formal sector	Informal sector	Total
Average parity of women aged 40-45 years	8.1	6.0	7.5
Total fertility rate (Coale and Demeny's method)	6.9	6.6	6.8
Total fertility rate (Brass method)	5.8	6.8	6.5
Child mortality*	201.1	166.8	192.2

* The probability of dying before five years of age.

Since a fair number of relatively older couples were using family planning methods, the Brass method may not be very reliable. Considering the Coale and Demeny method then, fertility among the formal-sector respondents was observed to be higher than the fertility of informal-sector respondents. At the same time, fertility levels among both formal and informal sector respondents were much below the levels associated with natural fertility.

However, the norms appeared to be changing. The average ideal family size for the sample was only 2.98 which is close to the average number of surviving children (2.94), though the average desired family size, that is, additional children desired plus children surviving was 4.2. This difference in ideal and desired family size is largely an effect of the desired sex composition of children on family size. It is encouraging to note that almost all the respondents were able to give a numerical response to the question on ideal family size.

Table 3 summarizes the findings with regard to ideal and desired family size and their relationship with caste, income, and literacy, of the respondent and his wife among the two groups.

Table 3: X2 for effects of background factors on ideal and desired family size

Background / Interaction effect	Effect on	
	Ideal family size	Desired family size
Formal-informal sector	0.208	2.45
Caste	11.83*	3.05
Literacy (husband)	1.825	6.96*

Literary (wife)	1.203	1.202
Income	5.63*	2.02
Interaction between sector and		
- caste	0.728	0.855
- literacy of husband	0.237	0.475
- literacy of wife	1.123	0.009
- income	1.295	0.898

* Significant at 5 percent level.

The findings show that ideal family size was significantly related only to caste and income, and desired family size only to the husband's literacy. The differences between the reproductive ideals of formal and informal-sector respondents, and their interactions with the background variables were statistically insignificant.

Family Planning Knowledge, Attitude & Practice

The findings also showed an almost universal awareness of the possibility of birth regulation among the respondents. Thus, as many as 93 percent of the respondents stated that the number of children can be determined by the couples themselves, and that children are not "sent by God". There was not a single respondent who did not know about at least one effective family planning method; about 94 percent from either sector knew about at least three methods. Twenty eight percent of all respondents - 33 percent from the formal sector and 25 percent form the informal sector- knew as many as four methods. Usually, the methods known were male and female sterilization, the condom, the IUD and oral pills.

Of the methods known to the respondents, the condom was most preferred as can be see from Table 4 which gives a distribution of the respondents from both sectors according to their opinion about the family planning method which they thought to be best.

Table 4: Distribution of respondents from formal and informal sectors by opinion on best method of family planning.

Best method	Formal sector	Informal sector	Total
Condom	57 (41.3)	76 (32.8)	133 (35.9)
Sterilization *	24 (17.4)	46 (19.8)	70 (18.9)
Other methods **	19 (13.8)	25 (10.80	44 (11.9)
No response/Not using any	38 (27.5)	85 (36.6)	123 (33.3)

method			
Total	**138 (100.0)**	**232 (100.0)**	**370 (100.0)**