

Paper

Assessment of fertility control efforts in a selected area of Karachi, Pakistan

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ABSTRACT

Aims: To investigate the impact of fertility control efforts on reducing fertility and to study the contributory role of fertility inhibiting factors viz, age of the marriage, breast feeding and post-partum amenorrhoea, abortion and use of contraceptives in selected area in Karachi, Pakistan. The aim was to estimate the gap between knowledge of contraceptives and its practice i.e. KAP-GAP as well as to determine the level of unmet need in the PIB colony in Karachi.

Data Source: A sample survey was conducted in PIB colony in Karachi from October 2005 to November 2005 by interviewing 340 married women in reproductive ages. The data was tabulated and John Bongaarts technique¹ was used to analyse the success of fertility control efforts in the selected area.

Results: Of the total of 340 respondents, 38% were currently using contraceptive methods with 26% using OCP's and 12% were condom users. A slight reduction in total fertility (TFR) was noticed.

Conclusion: The population policy of Pakistan envisages achieving population stabilization in 2020 by reducing the annual rate of population growth from 1.9% to 1.3% and TFR at 2.1. This target requires strenuous efforts to make the concept of small family an accepted milieu through an eagerly designed communication and education campaign. Concentration on proximate determinants of fertility particularly breast feeding and prolonging birth interval will not generate opposition from the community because these concepts are in accordance with Islamic injunctions and teachings.

INTRODUCTION:

The recent extraordinary proliferation of human species has been unparalleled in the history of mankind. It has never happened in the past and most probably will never happen in the future. It is an irony that the steep decline in mortality caused an imbalance between fertility and mortality which has resulted in a population explosion. The developed countries of world are in a position to keep pace with the level of mortality by reducing fertility but the developing countries are still confronted with the hazards of high population growth.

The high rate of population growth has socio-economic, health and demographic implications. One serious problem is heavy population pressure in rural areas with resources subsequently depleting and a resultant increase in pressure

on urban areas. Karachi is one of the important cities of Asia revealing an urban agglomeration causing demographic fallout resulting in oppressive poverty, unemployment, poor health and general unrest. It has witnessed the first agglomeration of population due to a heavy influx of population in 1947 from India to Pakistan. The population of Karachi was 435,000 in 1941. The national census showed Karachi's population to be 9.856 million in 1998, an increase of more than 8 times in 47 years. The crude birth rate was 32 per 1000 and contraceptive prevalence rate (CPR) was only 22.8%^{2,3}. According to United Nations urban agglomerations⁴, Karachi was the 16th most populated city in the world having a population of more than 11 million.

METHODS

This exploratory study comprised currently married women aged 15-49 years (MWRA) living in PIB colony boundaries. An interviewing questionnaire was drawn, pre-tested and finalised. A representative sample was deployed from a selected area in Karachi with an estimated population of

TABLE I

Population data of PIB colony

Total population of PIB colony: 98,750
Reproductive women: 19,750
Currently married women (MWRA): 15,405
Total fertility rate (TFR): 4.3
Marital total fertility rate (MTFR): 5.7
Size of sample at 95% level of confidence: 340 respondents

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TABLE II
calculated indices

1. Index of marriage:	2. Index of contraceptive	3. Index of abortion	4. Index of breast feeding and postpartum amenorrhea
TFR = 4.3 MTFR = 5.2 Cm = 0.75	U (contraceptive prevalence rate) = 38% E (effectiveness of contraceptive) = 82% Cc = 0.66	TA= 1 Ca = 0.88	Breast feeding = 20 months Ci = 0.65

about 100,000. PIB colony has a mixed population from high, medium and low socio-economic groups, located in the heart of Karachi – table I. The data was tabulated and John Bongaarts technique¹ was used to analyse the success of fertility control efforts in the selected area.

The TFR was calculated using the formula: $TFR = 15.3 \times Cm \times Cc \times Ca \times Ci$

Where Cm = index of marriage = $TFR/MTFR$; Cc = index of contraception = $1 - 1.08 \times u \times e$; (u = use of contraceptive (CPR) and e = effectiveness of contraception); Ca = index of abortion = $TFR / (TFR + 0.4 \times (1+u) \times TA)$; (TA = total abortion per woman in her reproductive period); and Ci = index of post-partum infecundity = $20 / (18.5 + i)$ (i = length of breast feeding)

RESULTS:

Four indices were calculated – (table II):

This allowed calculation of the $TFR = 15.3 \times 0.75 \times 0.66 \times 0.88 \times 0.65 = 4.3$

DISCUSSION:

Breast feeding and post-partum amenorrhea seem to be influencing fertility highest (35%) followed by contraceptive use (24%) and age at marriage (25%). The lowest contribution is due to abortion (11%). Induced abortion is not permissible in Pakistan except to save the life of a woman.

KAP-GAP and unmet need: An overwhelming majority of MWRA (95%) knew about contraceptives but only 38% were practicing any methods, showing KAP-GAP to the tune of 57%. However, 75% of MWRS expressed that they did not

want to have more children but only 38% were current users. This indicates unmet need to the extent of 37%.

CONCLUSION AND RECOMMENDATIONS:

The survey findings suggest that population stabilisation can be achieved in a stipulated period provided fertility inhibiting indices take the following or similar value:

Index of marriage = 0.73

Index of contraception = 0.37

Index of abortion = 0.77

Index of breast feeding = 0.67

TFR = 2.1

The above can only be achieved through an effectively implemented communication and education campaign coupled with fertility control methods universally acceptable and affordable.

The authors have no conflict of interest.

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