

Original Article

Retrospective Analysis of Fertility Rate and Family Planning Programme in One Thousand Families of Industrial Workers

Dilip Kumar Dutta¹, Indranil Dutta²

Objectives : The socio-economic factors, which were correlated with increasing fertility rate in industrial area, were studied to understand how these factors exert their influence on the increase in population in industrial sectors especially in developing countries like India.

Introduction : Family planning is important to development of nation. Family planning is often neglected or misunderstood in rural areas or in poor socioeconomic group of people leading to early unplanned pregnancies or more number of pregnancy leading to malnutrition and economic pressure on the earning member.

Material and Methods : One thousand families of Industrial workers were interviewed between January 2012 to January 2014 in and around Kalyani, West Bengal, India to find out various socio-economic factors responsible for high fertility rate & failure of family planning programme in industrial area.

Results : Eighty five percent of women are married before 20 years of age and 82 percent have 4 or more children. 91% did not have any basic education. Economic status of 90% was found to be very poor. 80% were reluctant to undergo any family planning operation. Only 11% tubectomy & 9% vasectomy operation cases were reported. The reason for non acceptance of sterilization operation were found to be desire for more children (50%), opposition from husband (10%), fear of operation (7.5%), religious prejudices (12%) alien to traditional culture (8.5%), interference with natural method of stopping childbirth (5%) and no reason (4.5%).

Conclusion : Success of family planning programme in an industrial area depends particularly on socio economic status of the family. Therefore vigorous promotion of family planning problem is essential in an industrial area.

[J Indian Med Assoc 2020; 118(10): 39-42]

Key words : Family Planning, Fertility, Industrial worker, Sterilization, Contraception.

Access to healthcare sexual and reproductive is the key for sustainable development. Research suggests that maternal and child health outcomes can be averted by use of adequate contraception methods. This is turn can prevent 22% of maternal death and stillbirths¹.

But the major problem in our country lies in the fact that contraception is restricted to only married couples compared to unmarried because it is largely seen as a taboo in our country. Even if it is used in whatever amounts usually modern methods of family planning were not used².

Various International organizations have committed to Family Planning 2020. Sustainable Development Goals components also stress on family planning globally³.

¹MD, FRCOG, PHD, FICOG, Senior Consultant, Department of OBG, GICE Nursing Home, Kalyani, West Bengal 741201

²MBBS, MS, FIAOG, Associate Professor, Department of OBG, IQ City Medical College, Durgapur, West Bengal 713206 and Corresponding Author

Received on : 20/05/2020

Accepted on : 10/06/2020

Editor's Comment :

- Early marriage leads to early pregnancies, Early marriage has to be deferred to atleast 20 years of age.
- In poor socioeconomic conditions or religious bindings, if early marriage is unavoidable, proper contraception advice can defer pregnancies for some time.
- If family is complete contraception in form of male or female sterilization operations need to be popularized.
- Success of family planning programme in an industrial area depends particularly on socio economic status of the family. Therefore vigorous promotion of family planning problem is essential in an industrial area.

AIM

The socio-economic factors, which were possibly correlated with increasing fertility rate in industrial area, were studied to understand how these factors exert their influence on the increase in population in industrial sectors especially in developing countries like India.

MATERIALS AND METHODS

This survey was undertaken at Industrial area in and around Kalyani, India from January 2012 to January 2014. During this period 1000 families of Industrial

workers were interviewed and analyzed to find out various socio-economic factors responsible for high fertility rate & failure of family planning programme. A complete history regarding types of workers, age of women at marriage, parity, literacy rate, economic status, nutritional status, pregnancy wastage, family planning operation and lastly reason for failure of sterilization operation was evaluated in details. These findings were tabulated and correlated with one another.

OBSERVATION

Out of 1000 families 80% had husband as worker where as 20% had female as worker (Table 1).

Out of the women 85% were married before 20 years of age (Table 2).

Most of the workers had four or more children (82%). A lower fertility rate was found in employed women as compared to unemployed women (Table 3).

Neonatal death within 7 days (12%) and neonatal death from 7 days to 28 days (8%) were found to be higher than stillbirth (5%) and infant death 12 days to 1 year (6%).

Most of the neonatal and infant death was found to be due to prematurity & infection because of unhygienic condition and poor sanitization which are easily preventable.

On further evaluation it was revealed that (Table 4) 91% did not have any basic education as compared to 9% primary school level. None of them had any knowledge as regards to fertility control, importance of ante, intra & post natal care & family planning programme.

From Table 5 it was found that economic status of 90% were found to be poor. They include 80% male worker and 10% female worker. Only 9% female worker were enjoying average economic status because of more earning member of the family. On further analysis 80% of women were consuming poor diet.

Most of the women had lost either one or two or more foetus or child because of various factor (Table 6). Perinatal mortality were found to be 170/1000 total births.

From the Table 7, it appeared that 80% of family was reluctant to undergo any family planning operation. Only 11% had tubectomy and 9% had vasectomy operation.

On further analysis from 800 non-acceptances of sterilization operation cases, it was found (Table 8) that desire for more children (50%) which leads to more employed hands in family, opposition from husband (10%), fear of operation (7.5%), against religion (12%), alien to traditional culture (8.5%), interference with natural method of stopping childbirth (5%) and no

reason (4.5%).

DISCUSSION

This study has shown that the acceptance of sterilization operation is low in industrial workers inspite of the high fertility rate. The reasons for high fertility rate in Industrial workers have been seen in the present study. There is a great desire to marry early because of customs, taboos and early sexual desire. 85% of women were

married before 20 years of age, had 4 or more children.

These young married women

showed lack of contraceptive knowledge as

compared to older married women

and were reluctant to discuss family planning with interviewers.

Hence raising the age of marriage of women above 20

years could have a significant effect in curtailing the

effective reproductive span of women and

thereby, reduction in fertility could be

achieved because of better

understanding of family planning measures by older women.

Another factor which has a profound influence in reducing fertility, is the

	Number	Percentage
Male worker	800	80
Female worker	200	20

	Number	Percentage
10 - 15 Years	350	35
15 - 20 Years	500	50
21 - 25 Years	100	10
26 - 30 Years	30	3
31 - 35 Years	20	2
35 and above	-	-

Parity	Number	Percentage
1 - 2	30	3
2 - 3	50	5
3 - 4	100	10
4 - 5	250	25
5 - 6	270	27
6 and above	300	30

	Number	Percentage
Illiterate	910	91
Primary School Level	90	9
High School level	—	—
College Level	—	—

	Number	Percentage
Poor	900	90
Average	90	9
Good	10	1

	Number (310)	Per 100 total Births
Still Birth	50	50/1000(5%)
Neonatal Death (within 7 days)	120	120/1000(12%)
Neonatal Death (7 days to 28 days)	80	80/1000(8%)
Infant Death (28 days to 1 year)	60	60/1000(6%)

literacy rate of couple, particularly that of the wife. In 1981 census only 24.88% of female and 46.74% of male were literate in India. In the present study 91% female were literate. Only 9% had attended the Primary school level. This signified that only when, the women's educational level reaches matriculation & above, then only it begins to have any noticeable influence on fertility. As it is seen that the better educated a woman is the more likely she is to use contraceptive^{2,7-9,11}.

	Number	Percentage
Non Acceptance	800	80
Tubectomy	110	11
Vasectomy	90	9

There is a significant correlation between female employment and fertility. In India the percentage of female employment had slightly decreased from 32% to 28% in the period from 1901 to 1961. In the present series 20% of women were employed in Industrial area. And their fertility pattern was found to be lower (below 4 children) than the unemployed female worker (above 4 children), therefore fertility rate can be lowered if there is more employment opportunity for women in industrial area. Employed women are more likely to use contraceptive than women who have never worked^{7,11}.

Economic status is another factor which has an influence on fertility in an Industrial worker. High fertility rates were observed in families of Industrial workers with poor economic status (90%), as compared to low fertility rates in cases of families having average (9%), and high (1%) economic status respectively. All these socio Economic factors were very much correlated with increasing perinatal mortality rate (170/1000 per live births) and neonatal death (80/1000 per live births).

Family planning programme in industrial area were found to be very poor. 80% of family was reluctant to undergo any family planning operation.

Main reasons that have been found by the present study for non-acceptability of sterilization operation in industrial area were a great desire for more children 50% which leads to more employed hand in the family which indirectly increases the fertility rate.

Sterilization in whatever form is an operation. The general surgery phobia is a big problem in industrial area. 7.5% cases in the present series were afraid of Sterilization operation because of health risks after operation which can be properly predicted before operation⁴ with proper & adequate counseling. However the risk following sterilization was found to be minimal as compared to pregnancy. Pregnancy has higher risk

	Operation Number	Percentage
Desire more children	400	50
Opposition from husband	80	10
Fear of Operation	60	7.5
Too permanent	22	2.5
Against religion	96	12
Alien to Traditional culture	68	8.5
Interference with natural method of supplying childbirth	40	5
No reason	34	4.5

factors whether from induced abortion³ or from childbirth^{5,10}.

Opposition from husband (10%), against religion (12%), and alien to traditional culture (8.5%) in the present series is a real problem that have to be overcome with proper education & counseling. In counseling for Sterilization, the husband should be taken into confidence from the initial stage.

CONCLUSIONS

One thousand families of Industrial workers were interviewed between January 2012 to January 2014 in and around Kalyani, West Bengal, India to find out various socio-economic factors responsible for high fertility rate & failure of family planning programme in industrial area.

Eighty five percent of women are married before 20 years of age and 82 percent have 4 or more children. 91% did not have any basic education. Economic status of 90% was found to be very poor. Perinatal mortality rate was found to be 170/1000 total births in their reproductive period.

80% were reluctant to undergo any family planning operation. Only 11% tubectomy & 9% vasectomy operation cases were reported. The reason for non acceptance of sterilization operation were found to be desire for more children(50%), opposition from husband (10%), fear of operation(7.5%), religious prejudices (12%) alien to traditional culture(8.5%), interference with natural method of stopping childbirth (5%) and no reason (4.5%). It appeared from the study that success of family planning programme in an industrial area depends particularly on socio economic status of the family. Therefore vigorous promotion of family planning problem is essential in an industrial area.

More stress is laid on barrier IUCD oral contraceptive methods particularly to those women or couple who were reluctant to undergo sterilization operation. It is hoped that in near future we can also perform a good number of Sterilization operations.

Funding : None

Conflict of Interest : None

REFERENCES

- 1 Black RE, Levin C, Walker N, *et al* — Reproductive, maternal, newborn, and child health: key messages from Disease Control Priorities 3rd Edition. *Lancet* 2016; **388**: 2811-24.
- 2 Ewerling F, Victora CG, Raj A, *et al* — Demand for family planning satisfied with modern methods among sexually active women in low- and middle-income countries: who is lagging behind?. *Reprod Health* **15**, 42 (2018). <https://doi.org/10.1186/s12978-018-0483-x>
- 3 Investing in Family Planning — Key to Achieving the Sustainable Development Goals Ellen Starbird, Maureen Norton, Rachel Marcus, *Global Health: Science and Practice* Jun 2016, **4** (2) 191-210; DOI: 10.9745/GHSP-D-15-00374
- 4 Chidambaram VC, Medonald JW, Bracher MD — Infant and child mortality in the developing world : Information from the world fertility survey. *International Family Planning perspective* 1985; **11(1)**: 17-25.
- 5 Kent MM, Larson A — Family size preferences: evidence from world fertility Surveys. Washington D.C. Population Reference Bureau, April 1982 (Report on world fertility survey 4)
- 6 OMU AE, Oronsaye AU, Faal MKB, Asquo EE — Adolescent induced abortion in Benin City. *Int J Gynae & Obstet* 1981; **19**: 495-9.
- 7 Rosenberg MJ, Rochat RW, Akbar J, Gold P, Khan AR, *et al* — Sterilization in Bangladesh: mortality morbidity and risk factors. *Int J Gynaecol Obstet* 1982; 283-90.
- 8 Rioux JE — Sterilization of women: Benefits vs Risks. *Int J Gynaecol & Obstet* 1979; **16**: 488-92.
- 9 Stycos JM — Putting back the K and A in KAP a study of the implementation of knowledge and attitudes for fertility in Costa Rica. Voorburg, Netherlands International Statistical Institute, January 1984 (WFS Scientific Reports No. 48) 45P.
- 10 Sathar AA, Chidambaram VC — Differential in contraceptive use. Voorburg, Netherlands, Internationals Statistical Institute, September 1984. (World Fertility Survey Comparative Studies cross National Summaries No. 36) 106P
- 11 United National (UN) — Department of International Economic & Social affairs Population Division. Recent level & trends of contraceptive use as assessed in 1983. New York, UN, 1984, 119P
- 12 United National (UN) — Department of International Economic & Social Affairs. Variations in the incidence of knowledge & use of contraception a comparative analysis of world fertility survey results for 20 developing countries, New York, UN, 1981, 161P.
- 13 Unuigbo JA, Oronsays AU — Maternal Mortality at the University of Benin Teaching Hospital, Nigeria. *Nig Med J* 1982.
- 14 Way AA, Wardlaw T — Changing patterns in the use of family planning, evidence from worldwide programme of contraceptive prevalence surveys. In American Statistical Association. Proceedings of the social statistics section, Washington D.C. *American Statistical Association* 1981; 482-7.

If you want to send your queries and receive the response on any subject from JIMA, please use the E-mail or Mobile facility.

Know Your JIMA

Website : <https://onlinejima.com>
For Reception : **Mobile** : +919477493033
For Editorial : jima1930@rediffmail.com
Mobile : +919477493027
For Circulation : jimacir@gmail.com
Mobile : +919477493037
For Marketing : jimamkt@gmail.com
Mobile : +919477493036
For Accounts : journalaccts@gmail.com
Mobile : +919432211112
For Guideline : <https://onlinejima.com>

Disclaimer

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publisher. Publication does not constitute endorsement by the journal.

JIMA assumes no responsibility for the authenticity or reliability of any product, equipment, gadget or any claim by medical establishments/institutions/manufacturers or any training programme in the form of advertisements appearing in JIMA and also does not endorse or give any guarantee to such products or training programme or promote any such thing or claims made so after.

— **Hony Editor**