

# Determinants of Knowledge of Emergency Contraception in a Socially and Economically Developed states of India: A study of Kerala and Punjab

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**Abstract:** *In general contraceptive use has been accepted by the couples in developing countries. However, the major contraceptive adopted was sterilization due to fears about temporary contraceptives like acceptability and knowledge about side effects. However, certain well developed states like Kerala and Punjab were not only using temporary contraception as well as sterilization. Knowledge about Emergency contraception was very high in these two states with two different backgrounds. It is found that social development and economic development has promoted awareness about emergency contraception in these two states respectively. Further, couples who use temporary contraceptives have better awareness about emergency contraception than users of sterilization. Promotion of temporary contraceptives is highly desirable among couples.*

**Keywords:** Caste, religion, use of contraception, unmet need for contraception, education

## 1. Introduction

Emergency contraception is slowly gathering importance for use as a last resort for spacing between births. However, temporary contraceptives and sterilizations are favoured. Unprotected unions among married and unmarried couples happen frequently. Hence there is need for emergency contraception.

Emergency contraception is safe and most effective post coital contraceptive method. Emergency contraception (EC) is the post coital method of pregnancy prevention. The effectiveness rates ranges from 72% to 87% (Rodrigues, Grou, and Joly, 2001; Ellertson et al 2003) when used within 120 h after unprotected sexual intercourse, with. EC reduces the risk of pregnancy by 60-94%. It may operate by inhibiting ovulation or preventing the implantation of a fertilized egg, however, it does not interfere with an established pregnancy (Glassier, 1997). The efficacy of protecting pregnancy was around 73 per cent (Trussel et al. 2014) in studies conducted in USA .

Studies show knowledge about EC is very scanty among women attending induced abortion at Chandigarh hospitals (Mehra et al 2006). Awareness about ECP was very low among female college students of Chandigarh, especially regarding correct timing of its use and its side effects (Bhatia et al., 2007). Despite 65% literacy among females, only 2% were aware of EC. Hence, EC is an area which needs to be publicized (Nigam et al 2010). In Chandigarh, of women seeking abortion, only 1% knew of EC (Mehra et al 2006) and in a New Delhi study, none was aware of EC. (Tripathi et al 2003). A number of hormonal methods and Copper T were tried as emergency contraceptives.

According to NFHS-III, knowledge about various temporary and permanent methods among men and women ranges from 45% to 97% with the knowledge ranging from 73% to

87% about various methods. According to NFHS III, the knowledge about EC is 20% in men and 11% in women. Uttar Pradesh men and men had very less knowledge (2 per cent) about EC (Nigam, Neha and Anupam (2010).

Some northern states like Punjab, Delhi, and state of Kerala has highest knowledge about emergency contraception. However, Kerala and Punjab have been taken as they are culturally distinct. Kerala has population belonging to Hindus (53.5 per cent), Muslims (22.7 per cent) and Christians (22.99 per cent) in good numbers (2001 census) whereas Punjab has predominant Hindu population belonging to Sikhs and Hindus (97.6 per cent) and negligible population of Muslims and Christians. Punjab has one-third (28.9 per cent) population belonging to Scheduled castes. Both the states have higher levels of population living outside the country. Both the states have high social and economic development respectively and high knowledge of emergency contraception. Hence the study focuses on the determinants of emergency contraception.

## 2. Results and Discussion

The following table shows level of knowledge and practice of emergency contraception. Around three-fourths of population (70 per cent) were aware of emergency contraception in Kerala whereas it was half (52.9 per cent) in Punjab. However, both the states have little usage of emergency contraception.

**Table 1:** Knowledge and ever use of contraception in Kerala and Punjab states of India

| State  | Knowledge of Emergency contraception |                 |                | Ever Use of Emergency contraception |                 |                |
|--------|--------------------------------------|-----------------|----------------|-------------------------------------|-----------------|----------------|
|        | Yes                                  | No              | Total          | Yes                                 | No              | Total          |
| Punjab | 11063<br>(52.9)                      | 9835<br>(47.1)  | 20898<br>(100) | 167<br>(1.5)                        | 10893<br>(98.5) | 11060<br>(100) |
| Kerala | 8653<br>(70.01)                      | 3707<br>(29.99) | 12360<br>(100) | 46<br>(0.53)                        | 8606<br>(99.47) | 8652<br>(100)  |

**Socioeconomic Characteristics and knowledge of emergency contraception**

Several social and economic and demographic variables have been considered. Husband ever attended school showed that husbands who have attended school in both the states had better knowledge of emergency contraception.

Same is the case with women attending school. All caste populations in Kerala have better knowledge about emergency contraception than people of Punjab. Similarly all religious denominations in Kerala too had better awareness than Punjab. Wealth index reveals similar profile in Kerala and Punjab.

**Table 2:** Per cent distribution of Knowledge about emergency contraception according to states and important socioeconomic characteristics of Kerala and Punjab

| Knowledge about Emergency Contraception |              |              |             |               |              |       |
|---|--------------|--------------|-------------|---------------|--------------|-------|
|   | Kerala       |              |             | Punjab        |              |       |
|   | Yes          | No           | Total       | Yes           | No           | Total |
| Husband ever attended school            |              |              |             |               |              |       |
| Yes                                     | 8489 (70.91) | 3482 (29.09) | 11971 (100) | 9473 (85.6)   | 7344 (14.4)  | 16817 |
| No                                      | 122 (39.48)  | 187 (60.52)  | 309 (100)   | 1588 (38.96)  | 2488 (61.04) | 4076  |
| DK                                      | 42 (52.5)    | 38 (47.5)    | 80 (100)    | 2             | 3            | 5     |
| Total                                   | 8653 (70.01) | 3707 (29.99) | 12360 (100) | 11063 (52.94) | 9835 (47.06) | 20898 |
| Respondent ever attended school         |              |              |             |               |              |       |
| Yes                                     | 8491 (71.08) | 3455 (28.92) | 11946 (100) | 8664 (59.4)   | 5932 (40.6)  | 14596 |
| No                                      | 162 (39.13)  | 252 (60.87)  | 414 (100)   | 2399 (38.1)   | 3903 (61.9)  | 6302  |
| Total                                   | 8653 (70.01) | 3707 (29.99) | 12360 (100) | 11063 (52.94) | 9835 (47.06) | 20898 |
| Caste group                             |              |              |             |               |              |       |
| SC                                      | 737 (62.25)  | 447 (37.75)  | 1184 (100)  | 3415 (46.35)  | 3953 (53.65) | 7368  |
| ST                                      | 134 (51.34)  | 127 (48.66)  | 261 (100)   | 24 (36.9)     | 41 (63.1)    | 65    |
| No caste/tribe                          | 5316 (68.14) | 2486 (31.86) | 7802 (100)  | 1789 (52)     | 1654 (48)    | 3443  |
| None of the above                       | 2449 (79.49) | 632 (20.51)  | 3081 (100)  | 5832 (58.23)  | 4184 (41.77) | 10016 |
| Total                                   | 8636 (70.05) | 3692 (29.95) | 12328 (100) | 11060 (52.94) | 9832 (47.06) | 20892 |
| Religion                                |              |              |             |               |              |       |
| Hindu                                   | 4677 (70.85) | 1924 (29.15) | 6601 (100)  | 3848 (58.8)   | 2699 (41.2)  | 6547  |
| Muslim                                  | 2339 (61.68) | 1453 (38.32) | 3792 (100)  | 152 (42.9)    | 202 (57.1)   | 354   |
| Christian                               | 1633 (83.23) | 329 (16.77)  | 1962 (100)  | 96 (52.2)     | 88 (47.8)    | 184   |
| Total                                   | 8649 (70)    | 3706 (30)    | 12355 (100) | 4096 (57.81)  | 2989 (42.19) | 7085  |
| Wealth Index                            |              |              |             |               |              |       |
| Poor                                    | 125 (43.25)  | 164 (56.75)  | 289 (100)   | 96 (26.3)     | 269 (73.7)   | 365   |
| Moderate                                | 661 (58.29)  | 473 (41.71)  | 1134 (100)  | 680 (33.6)    | 1346 (66.4)  | 2026  |
| Rich                                    | 7867 (71.93) | 3070 (28.07) | 10937 (100) | 10287 (55.6)  | 8220 (44.4)  | 18507 |
| Total                                   | 8653 (70.01) | 3707 (29.99) | 12360 (100) | 11063 (52.94) | 9835 (47.06) | 20898 |

**Knowledge about emergency contraception and use of other methods of contraception:**

It was found that in a highly practicing contraceptive population of Punjab and Kerala, use of temporary methods

of contraception has been related to better awareness of emergency contraception than couples practicing permanent methods of contraception.

**Table 4:** Per cent distribution of Knowledge about Emergency contraception in relation to current use of different contraceptives

| Method used          | Knowledge about emergency contraception |             |            |             |             |             |
|----------------------|---|-------------|------------|-------------|-------------|-------------|
|                      | Kerala                                  |             |            | Punjab      |             |             |
|                      | Yes                                     | No          | Total      | Yes         | No          | Total       |
| Female sterilization | 4002 (69.8)                             | 1734 (30.2) | 5736 (100) | 3320 (47.2) | 3714 (52.8) | 7034 (100)  |
| Male sterilization   | 61 (66.3)                               | 31 (33.7)   | 92 (100)   | 72 (51.1)   | 69 (48.9)   | 141 (100)   |
| Temporary methods    | 1297 (76.9)                             | 390 (23.1)  | 1687 (100) | 3955 (59.9) | 2648 (40.1) | 6603 (100)  |
| Total                | 5360 (71.3)                             | 2155 (28.7) | 7515 (100) | 7347 (53.3) | 6431 (46.7) | 13778 (100) |

**Unmet need for contraception and awareness about emergency contraception**

Unmet need for family planning is very low in both the states; it may be due to better adoption of family planning in these two states than other states.

**Table 5:** Per cent distribution of unmet need for spacing and limiting methods of contraception versus knowledge about emergency contraception in Kerala and Punjab

| EC  | Kerala                         |            |            |                         |             |            |
|-----|--------------------------------|------------|------------|-------------------------|-------------|------------|
|     | Unmet Need for Spacing methods |            |            | Unmet Need for Limiting |             |            |
|     | Yes                            | No         | Total      | Yes                     | No          | Total      |
| Yes | 7.0 (607)                      | 93 (8046)  | 100 (8653) | 8.0 (691)               | 92 (7962)   | 100 (8653) |
| No  | 6.0 (224)                      | 94 (11529) | 100 (3707) | 8.9 (330)               | 91.1 (3377) | 100 (3707) |

|               |                                |              |             |                         |             |            |
|---------------|--------------------------------|--------------|-------------|-------------------------|-------------|------------|
| Total         | 6.7 (831)                      | 93.3 (11529) | 100 (12360) | 8.3 (1021)              | 91.7 (1139) | 100(12360) |
| <b>Punjab</b> |                                |              |             |                         |             |            |
| EC            | Unmet Need for Spacing methods |              |             | Unmet Need for Limiting |             |            |
|               | Yes                            | No           | Total       | Yes                     | No          | Total      |
| Yes           | 324                            | 10739        | 11063       | 924                     | 10139       | 11063      |
| No            | 280                            | 9555         | 9835        | 773                     | 9062        | 9835       |
| Total         | 604                            | 20294        | 20898       | 1697                    | 19201       | 20898      |

### 3. District Wise Profile

Five districts of Punjab had less than 50 per cent of knowledge of emergency contraception. One district had one-fifth (Mansa: 20.4 per cent) awareness. Palakkad (39.9 per cent) is the only district has less awareness of emergency contraception in the state of Kerala.

#### Kerala:

Districts like Kasargod, Waynad, Kozhikode has almost equal population of Muslims and Hindus. Malappuram has more Muslim population. Kottayam, Allapuzha, Pathanamthitta, Ernakulam, and Idduki has sizeable Christian population. Remaining districts have more population of Hindus than other districts of Kerala. All the religious denominations have good knowledge of emergency contraception (Table not given)

#### Punjab:

Punjab has good population of Scheduled castes and other castes of Hindu population. Muslim population is very less in Punjab. Kapurtala, Jalandhar, Hoshiarpur, Nawanshahar, Rupanagar, Fatehgarh, Moga, Firozpur, Muktasar, Faridkot, Bathinda, Mansa, Patiala, Tarn Tarn, Sasnagar Mohali, and Barnala districts has sizeable population of Scheduled castes. These Scheduled castes have good knowledge of emergency contraception (table not given).

### 4. Conclusion

Social and economic development seems to promote family planning as witnessed in Kerala and Punjab respectively. Literacy rates in Kerala propelled to have better social development indicators than other states of India. Agriculture and industrial development has paved the way for development in Punjab

### 5. Acknowledgement

The author acknowledges the financial support given by University Grants Commission, New Delhi under Emeritus fellowship (2013-2014).

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