Knowledge, Attitude, Practice and Preferences of Contraceptive Methods in Udupi District, Karnataka

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Abstract
Objective: To assess the knowledge, attitude, practice and preferences on contraceptive methods among the female population, to determine the association between knowledge and attitude on contraceptive methods with the variables.

Materials and methods: A Descriptive survey of 136 females between 18-45 year of age were done using a structured knowledge questionnaire, structured attitude scale and opinionnaire on practice and preference during the month of January 2012 to February 2012 at Moodu Alevoor village, Udupi district, Karnataka. Simple random sampling was used to select the village and purposive sampling technique was used to select the sample.

Results: It was shown that 48.5% were of 26-35 years of age, 92% were Hindus, 45.6% had higher secondary education, 41.2% were housewives, 55.9% had family monthly income below 5000 rupees, 49.3% were from nuclear family, 64% were married between 19-25 years, 43.3% had 2-3 years of married life and 52.2% had one pregnancy. Majority (55.9%) had one living child and 98.5% got information through health personnel. Majority (67.60%) had moderate knowledge on contraceptive methods and 17.60% had high knowledge. Majority (87.50%) had favourable attitude and 12.50% had unfavourable attitude towards contraceptive methods. From the group of studied women 38.23% did not use any contraceptive methods, 19.85% used OCPs and minimum 1.47% used injection as contraceptive method. In this study 37.5% preferred OCPs as Rank 1, male condom (22.1%) as Rank 2 and injection (16.3%) as Rank 3. There was association between knowledge with educational status ($\chi^2 = 47.14$, p=0.001), occupation ($\chi^2 = 15.81$, p=0.044), family monthly income ($\chi^2 = 6.473$, p=0.039) and duration of marriage ($\chi^2 = 6.721$, p=0.035). There was no association between attitude and the studied variables.

Conclusion: The study showed that majority of the females had moderate knowledge and favourable attitude.

Keywords: Knowledge, Attitude, Practice, Preferences, Contraceptive Methods

Introduction
The world population will likely increase by 2.5 billion over the next 43 years, passing from the current 6.7 billion to 9.2 billion in 2050 (1). A rapid population growth is a burden on the resources of many developing countries. Unregulated fertility, which contributes to such situations compromise the economic development and political stability. Therefore, many countries consider limiting...

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population growth as an important component of their overall developmental goal to improve living standards and the quality of life of the people. This strategy is now enhanced by the availability of effective contraceptive methods since the 1960s (2).

Even though there is wide availability of various types of contraceptives, the rate of population growth and unplanned pregnancies is still high. Use of contraceptives can prevent at least 25% of all maternal deaths by allowing women to prevent unintended pregnancies and unsafe abortions, and protect themselves from sexually transmitting diseases including HIV(3). One fifth of the maternal death in the world occur in India, which is estimated as 4 per 1000 live births, and about 15% of the maternal deaths are due to unsafe abortions (4).

Materials and methods
A descriptive survey was undertaken covering the entire 104 houses of Moodu Alevoor village of Udupi district, Karnataka. Purposive sampling technique was used to select 136 married females between the age group of 18-45 years using some methods of contraception excluding the permanent method. Data was collected from 2nd January to 31st February 2012 with the help of an ANM. The respondents were interviewed using a translated Kannada tool consisting of a demographic Performa, structured knowledge questionnaire, structured attitude scale and opinionnaire on practice and preferences of contraceptive methods. Permission for the study was obtained from Dean, Manipal College of Nursing and HOD of Community Medicine, Kasturba Medical College. The dependent variables were knowledge, attitude, practice and preferences of contraceptive methods. Frequency, percentage and chi-square was used for analysing the data.

Results
Among the 136 females in the study group, 66(48.5%) belong to the age group of 26-35 years. Majority of 125 (92%) were Hindus. Majority of 61 (44.9%) had Higher Secondary Education. About 76 (56.2%) were house wives. Among the participants, 88 (64.7%) had a family income of less than Rs 5,000 per month. Majority of 67 (49.3%) belong to nuclear family. About 87 (64%) got married at the age of 19-25 years and 59 (43.4%) had 2-3 years of married life among which 71 (52.2%) had one pregnancy. About 76 (55.9%) had one living child. Among the participants 134 (98.5%) got the information through health personnel (Table 1).

Knowledge on contraceptive methods
Majority of 92 (67.60%) had moderate knowledge, 20 (14.70%) had high knowledge and 24 (17.60%) had low knowledge on contraceptive methods (Figure 1).

Attitude on contraceptive methods
Majority of 119 (87.5%) had favourable attitude and 17 (12.5%) had unfavourable attitude towards contraceptive methods (Figure 2).

Practice on contraceptive methods
Majority of 52 (38.23%) did not use any contraceptive methods. About 27 (19.85%) used OCPs and minimum 2 (1.47%) of the females used Injection as contraceptive methods (Figure 3).

Preferences
Majority of the females 80 (95.23%) were satisfied with the use of current contraceptive method and about 4 (4.77%) were not satisfied. Majority of 126 (92.64%) were not using any other contraceptive method in the past and 10 (7.35%) were using other contraceptive method. The reason for discontinuation was bleeding 1 (10%), husband being away 2 (20%), changed to Cu-T 1 (10%) and wanted to have a baby 5 (50%).

Association between knowledge with the variables
There was a significant association between educational status ($\chi^2 = 47.14, p = 0.001$), occupation ($\chi^2 = 15.81, p = 0.044$), family monthly income ($\chi^2 = 6.473, p = 0.039$) and duration of marriage ($\chi^2 = 6.721, p = 0.035$) with the knowledge scores (Table 3).

Hence, it is inferred that the knowledge is independent of age, religion, type of family, age at marriage, number of pregnancies, number of living children and source of information.

Association between attitude with the variables
There was no significant association between attitude
### Table 1: Frequency and percentage distribution of sample characteristics

| Sample Characteristics         | n | %  |
|-------------------------------|---|-----|
| Age in years                  |   |     |
| 18-25                         | 32| 23.5|
| 26-35                         | 66| 48.5|
| 36-45                         | 38| 28.0|
| Religion                      |   |     |
| Hindu                         | 125| 92.0|
| Christians                    | 07| 05.0|
| Muslims                       | 04| 03.0|
| Buddhist                      | 00| 00.0|
| Jains                         | 00| 00.0|
| Educational status            |   |     |
| Illiterate                    | 07| 05.1|
| Primary(1st-4th)              | 06| 04.4|
| Secondary(6th-7th)            | 26| 19.1|
| Higher secondary(8th-10th)    | 62| 45.6|
| PUC                           | 24| 17.6|
| Graduate                      | 10| 07.4|
| Post graduate                 | 01| 00.7|
| Occupation                    |   |     |
| Government employee           | 06| 04.4|
| Private employee              | 28| 20.6|
| Self employee                 | 20| 14.7|
| Daily wage                    | 26| 19.1|
| Housewife                     | 56| 41.2|
| Family monthly income(in Rs)  |   |     |
| Below 5000                    | 76| 55.9|
| 5,001 to 10,000               | 40| 29.4|
| 10,001 to 15,000              | 16| 11.8|
| 15,001 and above              | 04| 02.9|
| Type of family                |   |     |
| Nuclear                       | 67| 49.3|
| Joint                         | 61| 44.9|
| Extended                      | 08| 05.9|
| Age at marriage in years      |   |     |
| Below 18                      | 18| 13.2|
| 19-25                         | 87| 64.0|
| 26 and above                  | 31| 22.8|
| Duration of marriage in years |   |     |
| <1                            | 15| 11.0|
| 2-3                           | 59| 43.4|
| 4-5                           | 22| 16.2|
| >5                            | 40| 29.4|
| Number of pregnancy           |   |     |
| One                           | 71| 52.2|
| Two                           | 49| 36.0|
| Three                         | 12| 08.8|
| Above                         | 01| 00.7|
| Nil                           | 03| 02.2|
| Number of living children     |   |     |
| One                           | 76| 55.9|
| Two                           | 48| 35.3|
| Three                         | 02| 01.5|
| >/4                           | 01| 00.7|
| Nil                           | 00| 02.2|
| Source of information         |   |     |
| Health personnel              | 134| 98.5|
| Friends                       | 23| 16.9|
| Neighbors                     | 02| 01.5|
| Relatives                     | 01| 00.7|
| Mass medias                   | 10| 07.4|

**Figure 1:** Frequency of knowledge on contraceptive methods

**Figure 2:** Frequency of attitude scores on contraceptive methods

**Figure 3:** Frequency of practice on contraceptive methods
Table 2: Number and percentage distribution of preferences on contraceptive methods of the females

| Methods   | Contraceptive | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|           |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| OCPs      |               | 51 | 18 | 17 | 16 | 11 | 12 | 07 | 07 | 04 | 07 | 05 | 04 | 10 | 12 | 18 | 24 | 22 | 17 | 15 | 13 | 10 |
|           |               | 37 | 13 | 12 | 11 | 08 | 08 | 08 | 08 | 05 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 |
| Injections|               | 09 | 28 | 22 | 27 | 21 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| Condoms   |               | 18 | 30 | 20 | 24 | 11 | 05 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 |
| Implants  |               | 04 | 06 | 14 | 05 | 12 | 17 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| IUD       |               | 20 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Diaphragms|               | 03 | 13 | 12 | 08 | 10 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| ECPs      |               | 04 | 16 | 15 | 17 | 32 | 24 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Natural   |               | 28 | 13 | 17 | 22 | 13 | 21 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |

Discussion

1. Knowledge, attitude, practices and preferences on contraceptive methods among the female population

In the present study, majority of 92 (67.60%) had moderate knowledge, 20 (14.70%) had high knowledge and 24 (17.60%) had low knowledge on contraceptive methods. The findings are contradicting with the study conducted in 2011 at Bhopal, MP by Mahawar on Contraceptive knowledge, attitude and practice, where results showed poor contraceptive knowledge among females (5). Another study conducted in 2009 on knowledge and use of contraception among Racha Koyas of Andhra Pradesh revealed that among the 252 Racha Koya women, 81% had a high level of knowledge on different contraceptive methods (6). Another study conducted in 2009 on knowledge and use of contraception among Racha Koyas of Andhra Pradesh revealed that among the 252 Racha Koya women, 81% had a high level of knowledge on different contraceptive methods (6).

In the present study, a majority of 119 (87.5%) had favourable attitude and 17 (12.5%) had unfavourable attitude towards contraceptive methods which was supported by a study conducted on knowledge, attitude and practice of family planning in Tezu Village, Manipur, India in 2007 where majority 60% had favourable attitude on family planning.

In the present study, a majority of 52 (38.23%) had never used contraceptive methods whereas 44.6% had never used any contraceptive methods in Khati Binita study conducted at Sikkim in 2005, compared to 55% in a study conducted by Srivastava et al. on Contraceptive Knowledge, Attitude and Practice (KAP) India in 2005 and 8% in Young et al. study done in New Zealand (7).

In this study, a majority of 51 (37.5%) preferred OCP, around 30 (22.1%) preferred condoms and around 22 (16.2%) preferred Injections. Whereas Joan Walsh in 1996, in contraceptive choices stating effective use of methods stated that OCP, male condoms and IUDs were the methods most preferred (by 49%, 28% and 12% of women respectively).

2. Association between knowledge scores on contraceptive methods with the variables.

In the present study, there was a significant association between educational status ($\chi^2$=6.277, p=0.043), family monthly income ($\chi^2$=6.473, p=0.039) and duration of marriage in years ($\chi^2$=6.721, p=0.035) with the knowledge scores, whereas according to a study by Rao on knowledge and use of contraception among Racha Koyas of Andhra Pradesh in 2005, literacy and monthly income did not make any influence in the increase of knowledge. The findings are supported by a study
Table 3: Chi Square values computed between the knowledge scores on contraceptive methods and the variables

| Variables                        | Low knowledge | Moderate knowledge | High knowledge | df | $\chi^2$ | p-value |
|----------------------------------|---------------|--------------------|----------------|----|---------|---------|
| Age in years                     |               |                    |                |    |         |         |
| 18-25                            | 06            | 21                 | 05             | 4  | 3.193   | 0.531   |
| 26-35                            | 09            | 45                 | 12             |    |         |         |
| 36-45                            | 09            | 26                 | 03             |    |         |         |
| Religion                         |               |                    |                |    |         |         |
| Hindu                            | 22            | 83                 | 20             |    |         |         |
| Christian                        | 01            | 06                 | 00             |    |         |         |
| Muslim                           | 01            | 03                 | 00             |    |         |         |
| Educational status               |               |                    |                |    |         |         |
| Illiterate                       | 07            | 00                 | 00             |    |         |         |
| Primary(1st-4th)                 | 01            | 05                 | 00             |    |         |         |
| Secondary(6th-7th)               | 04            | 20                 | 02             |    |         |         |
| High secondary(8th-10th)         | 12            | 40                 | 10             |    |         |         |
| PUC                              | 00            | 20                 | 04             |    |         |         |
| Graduate                         | 00            | 06                 | 04             |    | 47.17   | 0.001   |
| Post graduate                    | 00            | 01                 | 00             |    |         |         |
| Occupation                       |               |                    |                |    |         |         |
| Government employee              | 00            | 04                 | 02             |    |         |         |
| Private employee                 | 03            | 17                 | 08             |    |         |         |
| Self employee                    | 02            | 13                 | 05             |    |         |         |
| Daily wage                       | 06            | 17                 | 03             |    | 15.81   | 0.044   |
| House wife                       | 13            | 41                 | 02             |    |         |         |
| Family monthly income in Rs      |               |                    |                |    |         |         |
| Below 5000                       | 19            | 48                 | 09             |    | 6.473   | 0.039   |
| Above 500                        | 05            | 44                 | 11             |    |         |         |
| Type of family                   |               |                    |                |    |         |         |
| Nuclear                          | 12            | 44                 | 11             |    | 0.345   | 0.872   |
| Joint                            | 12            | 48                 | 09             |    |         |         |
| Age at marriage in years         |               |                    |                |    |         |         |
| Below 18                         | 05            | 11                 | 02             |    |         |         |
| 19-25                            | 15            | 57                 | 15             |    |         |         |
| 26 and above                     | 04            | 24                 | 03             |    | 2.122   | 0.713   |
| Duration of marriage in years    |               |                    |                |    |         |         |
| less than 3                      | 10            | 57                 | 07             |    | 6.721   | 0.035   |
| more than 4                      | 14            | 35                 | 13             |    |         |         |
| Number of pregnancy              |               |                    |                |    |         |         |
| Less than 1                      | 10            | 53                 | 11             |    | 1.953   | 0.416   |
| More than 2                      | 14            | 39                 | 09             |    |         |         |
| Number of living children        |               |                    |                |    |         |         |
| 0-1                              | 11            | 56                 | 2              |    | 1.803   | 0.406   |
| More than 2                      | 13            | 36                 | 08             |    |         |         |
| Source of information Health personnel |       |                    |                |    |         |         |
| No                               | 01            | 01                 | 00             |    | 1.596   | 0.544   |
| Yes                              | 23            | 91                 | 20             |    |         |         |
| Friends                          |               |                    |                |    |         |         |
| No                               | 20            | 79                 | 14             |    | 2.946   | 0.269   |
| Yes                              | 04            | 13                 | 06             |    |         |         |
| Neighbors                        |               |                    |                |    |         |         |
| No                               | 23            | 91                 | 20             |    | 1.596   | 0.54    |
| Yes                              | 01            | 01                 | 00             |    |         |         |
| Relatives                        |               |                    |                |    |         |         |
| No                               | 24            | 91                 | 20             |    | 0.482   | 1       |
| Yes                              | 00            | 01                 | 00             |    |         |         |
| Mass Medias                      |               |                    |                |    |         |         |
| No                               | 20            | 87                 | 19             |    | 3.716   | 0.147   |
| Yes                              | 04            | 05                 | 01             |    |         |         |
conducted by Julie on ‘A comparative study to determine the knowledge, attitude and practice of married women regarding family welfare in selected urban and rural areas of Udupi district’, Karnataka in 2000 where education was found to be significantly associated with knowledge scores ($\chi^2 = 6.37, p<0.05$) in rural areas and ($\chi^2 = 4.98, p<0.05$) in urban areas (4).

3. **Association between attitude scores on contraceptive methods with the variables.**

In the present study, there was no association between attitude scores with the variables which is supported by a study conducted by Julie on ‘A comparative study to determine the knowledge, attitude and practice of married women regarding family welfare in selected urban and rural areas of Udupi district’, Karnataka in 2000 where there was no association between attitude scores with the variables (4).

**Conclusion**

The present study aimed to assess the knowledge, attitude, practice and preferences on contraceptive methods among the females of Alevoor village, Udupi district, Karnataka.

The following conclusions were made based on the findings of the study:

- The findings show that most of the females have moderate knowledge and favorable attitude on contraceptive methods.
- Contraceptive method was practiced by the females, among which oral contraceptive pills were mostly used and preferred by them. Most of the females were satisfied with the contraceptive method in use.
- There was a significant association between educational status, family monthly income and duration of marriage in years with the knowledge scores. This emphasizes the importance of education in improving the knowledge of the females on contraceptive methods.
- There was no association between attitude and the variables.

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