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# CORRELATION BETWEEN KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING CONTRACEPTIVE SERVICES AMONG HEALTH WORKERS TO SLUM DWELLERS IN KARAD, MAHARASHTRA

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**ABSTRACT**

**Background:** Community health workers like ANM, ASHA, and ANGANWADI workers as they are being close to the local community, can act as a bridge between the community and their health facilities to an eligible couple which can help in giving awareness and acceptance regarding contraceptives. Aim of this study to assess the knowledge, attitude and practices regarding family planning services provided by health workers to the slum dwellers.

**Methodology:** This was a community based, cross -sectional study conducted on ASHA, ANGANWADI, ANM health workers. Total 80 health workers were included in the study with simple random sampling technique. Clearance from the institutional ethical committee and concerned authorities of the college had been taken for the study. Data was also collected from health workers from using predesigned, and pretested questionnaire till desired sample size was obtained.

**Results:** Of the 80 study subjects, mean scores for knowledge, attitude and practices regarding contraceptive services were respectively 6.6, 6 and 8.1. Designation was linked to practice. When compared to ANGANWADI (25%) workers, a higher percentage of ANM (100%) and ASHA (96.6%) had superior practice regarding contraceptive services, which shows statistically significant (p=0.00). Higher percentages of education had showed better contraceptive practice which showed statistically significant (p=0.013). Health workers who had >7years experiences showed better knowledge and attitude. Only knowledge, showed significant correlation with practice (r = 0.444).

**Conclusion:** Although the health workers fared well in knowledge, attitude, and practices regarding contraceptive services, there is room for further improvement.

**Keywords:** Community Health Worker; Contraceptives; Public Health Nursing; Community Health Center; India.

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## INTRODUCTION

According to WHO, around 73 million induced abortions take place worldwide each year.[1] Six out of 10 (61%) of all unintended pregnancies, and 3 out of 10 (29%) of all pregnancies, end in induced abortion.[2] Whereas in India, unsafe abortions are the third leading cause of maternal mortality, and close to 8 women die from causes related to unsafe abortions each day, according to the United Nations Population Fund (UNFPA)'s State of the World Population Report 2022.

Community health workers act as a bridge between the community and their health facilities and plays a important role in creating awareness on various contraceptive methods that can help reduce unintended pregnancies.

This study is an effort to identify the quality of health workers evaluating their knowledge, attitude and contraceptive services from Karad district of Western Maharashtra.

## METHODOLOGY

❖**Study Design:** This was Community based, cross -sectional study.

❖**Study Subjects:** ASHA, ANGANWADI, ANM of Government Health workers from randomly selected Primary Health Centers, subcenters were involved**.**

❖**Study area:** Study was conducted in Karad city and Agashvinagar slum dwellers, which is a part of field practice area of urban health training centre, adopted under the department of community medicine of Krishna institute of medical sciences**,** Karad.

❖ **Sample Size: N=4(pq)/L2**

According to previous study conducted by Chavan GM et al study[3], Among ANM and ASHA
workers of sangli district in 2014, prevalence for knowledge of ASHA about contraceptives was 71%. Here the prevalence, P=93, q=7 (100-p), Allowable error(L) =7

Hence, the sample size was calculated

N =4(93x7)/7X7

The sample size was caluculated as 53 for this study.

Hence a total of 80 health workers were included in the study.

❖ **Inclusion Criteria**

1). ASHA, ANGANWADI, ANM health workers who are working under karad city and Agashvinagar slum dwellers.

❖ **Exclusion Criteria**

1). Health workers who are not willing to participate.

❖ **Ethical considerations**

Ethical consideration involved ethical review, informed consent and confidentiality

➢ **Ethical clearance:** Research protocol was submitted to Institutional Review Committee (IRC) of Krishna Institute of Medical Science, Karad and got clearance. Research proposal was approved by the Institution Ethical Review Committee of Krishna Institute of Medical Science Deemed University, Karad for the ethical Justification.

➢ **Consent:** Permission for the study was obtained from study participants of both slum dwellers. A written consent and patient information sheet in local language Marathi was obtained from study participants.

➢ **Privacy and confidentiality:** Efforts were made to identify place for interviews which ensured privacy, participant convenience and no interruption. Confidentiality was assured to the participants and was maintained in the data collection process.

❖ **Data Collection:**

Data was collected from health workers from cottage hospital, Kale phc, subcenters: Kolla, Ving, Tharuk, Kusuru, Koyina, nandlapur, Attka, Naryanvadi and anganwadi centers using predesigned, and pretested questionnaire till desired sample size was obtained.

❖ **Study Period:** - May2021 - Oct2021

❖ **Data Analysis and Interpretation:**

Data will be entered using Microsoft Excel spread sheet. Summarization and analysis of data will be carried out by using SPSS Software version 20 (licensed).

Descriptive Statistics: Frequency, Percentage, Mean and standard deviation.

Inferential Statistics: Chi square test, Correlation coefficient.

**RESULTS**

Table 1: showing descriptive statistics regarding scores of Knowledge, Attitude and practice regarding contraceptive services of Female health workers.

| | Knowledge | Attitude | Practice |
|---|---|---|---|
| Total score | 10 | 8 | 13 |
| Mean | 6.6 | 6 | 8.1 |
| Std. Error of mean | 0.17 | 0.17 | 0.26 |
| Median | 7 | 5.5 | 9 |
| Mode | 7 | 5 | 10 |
| Std Deviation | 1.5 | 1.5 | 2.3 |
| Maximum | 9 | 8 | 12 |
| Minimum | 2 | 2 | 2 |
| Range | 7 | 6 | 10 |
| Percentile | | | |
| 25 (poor) | 6 | 5 | 7 |
| 50 (Average) | 7 | 5 | 9 |
| 75 (Good) | 8 | 7 | 10 |

The mean knowledge score was 6.6 out of 10. The median and mode were also seven. 1.5 was the standard deviation. The mean score out of 8 and 13 for both attitude and practice was 6 and 8.1 respectively.

Table 2: The association of Designation of Health Workers with Knowledge, Attitude and Practices regarding Contraceptive services

| Designation | Knowledge <50% >50% | Attitude <50% >50% | Practice <50% >50% |
|---|---|---|---|
| ANM | 0 2(100) | 0 2(100) | 0 2(100) |
| ASHA | 4(6.9) 54(93.1) | 2(3.4) 56(96.6) | 2(3.4) 56(96.6) |
| ANGANWADI | 4(20) 16(80) | 2(10) 18(90) | 15(75) 5(25) |
| TOTAL | 8(10) 72(90) | 4(5) 76(95) | 17(21.2) 63(78.8 |
| | Chi-Square = 3.065<br>P-Value = 0.216<br>df = 2 | Chi-Square = 1.452<br>P-Value = 0.484<br>df = 2 | Chi-Square = 46.05<br>P-Value = 0.001<br>df = 2 |

Designation was linked to practice. When compared to ANGANWADI (25%) workers, a higher percentage of ANM (100%) and ASHA (96.6%) had superior practice regarding contraceptive services. Which shows statistically significant (p=0.00*). There was no discernible difference in knowledge or attitude with regard to designation

Table 3: The association of Age of Health Workers with Knowledge, Attitude and Practices regarding Contraceptive services

| Designation | Knowledge <50% >50% | Attitude <50% >50% | Practice <50% >50% |
|---|---|---|---|
| Below 35Years | 1(7.7) 12(92.3) | 0 13(100) | 1(7.7) 12(92.3) |
| 36years and above | 7(10.4) 60(89.6) | 4(6) 63(94) | 16(23.9) 51(76.1) |
| Total | 8(10) 66(90) | 7(8.75) 76(95) | 17(21.2) 63(78.8) |
| | Chi-Square = 0.92<br>P-Value = 0.762<br>df = 1 | Chi-Square = 0.817<br>P-Value = 0.366<br>df = 1 | Chi-Square = 1.705<br>P-Value = 0.192<br>df = 1 |

Knowledge was independent of age group. Health workers 35 years of age and under had a higher percentage of knowledge, attitude, and practice on contraceptive services than those over 36 years of age.
However, no significant association was found between age of health workers and regarding contraceptive services.

Table 4: The association of Education of Health Workers with Knowledge, Attitude and Practices regarding Contraceptive services

| Designation | Knowledge <50% >50% | Attitude <50% >50% | Practice <50% >50% |
|---|---|---|---|
| Higher school | 5(21.7) 18(78.3) | 2(8.7) 21(91.3) | 6(26.1) 17(73.9) |

| | | | |
|---|---|---|---|
| Intermediate | 2(6.1) 31(93.9) | 1(3) 32(97) | 2(6.1) 31(93.9) |
| Graduation | 1(4.2) 23(95.8) | 1(4.2) 23(95.8) | 9(37.5) 15(62.5) |
| TOTAL | 8(10) 72(90) | 5(6.25) 76(95) | 17(21.2) 63(78.8) |
| | Chi-Square = 4.998<br>P-Value = 0.082<br>df = 2 | Chi-Square = 0.966<br>P-Value = 0.617<br>df = 2 | Chi-Square = 8.65<br>P-Value = 0.013<br>df = 2 |

Higher percentages of health workers with intermediate had better contraceptive practice followed by higher school education, which is statistically significant (p=0.013*).There was no secular trend seen in between health personnel' knowledge and attitudes and their educational degree.

Table 5: The association of Experience of Health Workers with Knowledge, Attitude and Practices Contraceptive services

| Designation | Knowledge<br><50% >50% | Attitude<br><50% >50% | Practice<br><50% >50% |
|---|---|---|---|
| <6 years | 4 (25) 8(75) | 2(16.7) 10(83.3) | 2(16.7) 10(83.3) |
| >7 years | 5 (7.4) 63(92.6) | 2(2.9) 66(97.1) | 15(22.1) 53(77.9) |
| TOTAL | 9(11.25) 71(88.75) | 4(5) 76(95) | 17(21.2) 63(78.8) |
| | Chi-Square = 3.529<br>P-Value = 0.0331<br>df = 1 | Chi-Square = 4.405<br>P-Value = 0.044<br>df = 1 | Chi-Square = 0.177<br>P-Value = 0.674<br>df = 1 |

The Knowledge and attitude were associated to previous experiences. In comparison to health workers with less than 6 years of experience, those with more than 7 years of experience have superior understanding and attitudes concerning contraceptive techniques. Which is showing statistically significant ($p<0.05$). There was no difference between practice and experience.

Table 6: Correlation between knowledge, attitude, and practice scores

| Variable | Correlation coefficient |
|---|---|
| Knowledge-attitude | 0.201 |
| Knowledge-practice | 0.444 |
| Attitude-practice | 0.177 |

Only knowledge, showed significant correlation with practice. As knowledge increased, practice score found to be increased this was positive correlation ($r = 0.444$, $p = 0.303$).
No significant relation found between knowledge–attitude ($r = 0.201$, $P = 0.074$), and attitude– practice ($r = 0.117$, $P = 0.303$).

**DISSCUSSION**

In present study, Total 80 health workers were participated in this study, some are working under urban slum community and some from rural villages of karad. All of the health workers belonged to the local community.

In a study done by H Suhaimi et al[4] in Malaysia the percentage of well informed nurses was about 50% and among midwives it was 33%. In present study involved, ANM 2(2.5%), ASHA 28(72.5%) and ANGANWADI workers 20(25%). Out of this, maximum i.e. 31(38.75%) were in between age group of 36-40 years.

The mean age of study subjects was 41.51+ 6.6. None of the health workers were below 30 years of age. According to Government of India (GOI)[5] guidelines, ASHA should be preferably in the age group of 25 to 45 years. Thus majority of the ASHAs are not young, this may be the weaker point for the programme as they are not energetic and enthusiastic at this age and may not deliver better services but may have good knowledge and experience. A study conducted on ASHA workers in Kerala reported that majority of them belonged to the age group of 42 to 45 years, and none below 30 years.[6]

Mean score for knowledge was nearly 6.6 out of 10. Whereas, similar study done Girish M Chavan et al, Mean score for knowledge was nearly 12 out of 20. Therefore, the health workers have average knowledge regarding the contraception.[3]

According to their skill and education, ANM had more knowledge than ASHA and ANGANWADI may be due to superiority in training. Similarly ANM and ASHA had resulted in good practices regarding contraceptive services as compared to ANGANWADI workers. May be because of role and responsibilities given to AWWs in ICD scheme to only motivate married women to adopt family planning/birth control measures as being close to the local community this could be the possible reason. Whereas, same finding seen in, Girish M Chavan et al[3] study that ANM had good

skill & knowledge and better practice regarding contraceptives services than ASHA workers

Education did not seem to have any particular effect on knowledge and attitude. However it has revealed that health workers who educated more were bad in field work which reflected in contraceptive services. Similar finding seen in Girish M Chavan et al study.

But considering experience, Health workers who had experience for more than 7 years had better knowledge and attitude towards family planning services. None of the health workers (0%) were aware about entities like cafeteria method. Hence it is essential to ensure that they are getting proper training from qualified personnel at regular interval.

In our study Correlation was assessed between knowledge, attitude, and practice scores. Significant correlation was found between knowledge - practice i.e. r = 0.444 (p = 0.001). In Rabbanie Tariq Wani et al study, conducted among healthcare workers in Kashmir, Knowledge) attitude showed significant correlation r = 0.252 (p = 0.252).[7]

## CONCLUSION

Regarding knowledge, attitude, and practice about contraceptive services, the health workers had done fairly well. However, in order to attain more achievement, training and awareness health workers must be strengthened even more.

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