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# Knowledge level Regarding Public Health Issues among Homoeopathic practitioners

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ABSTRACT

Context: Looking at the current scenario of shortage of public health professionals on one hand and intense demand of community health services on the other the contribution of Homoeopathic practitioners in the field of Public Health becomes imperative. However, the knowledge on Public Health issues and concepts will ultimately decide whether they can be successfully integrated into the community health arena or not. On this background this study was conducted to assess the Knowledge Level of Homoeopathic practitioners about Public Health issues. Aim: To assess the knowledge level of Homoeopathic practitioners about Public Health. Settings and Design: Cross sectional study conducted in the union territory of Chandigarh, Delhi and one district of Punjab. Methods and Material: Public Health Knowledge assessment tool (PHKAT) comprising a questionnaire was used to collect information from Homoeopathic doctors and interns identified as respondents. Statistical analysis used: The data was analyzed with the help of SPSS. Results: The respondents scored between 5 to 16 points out of a total of 19 points and majority (81%) of the respondents fell in the category of "having average knowledge". The mean score was 8.17 ± 2. Conclusions: Curriculum and training related to Homoeopathic education need to have more public health related inputs so that Homoeopathic practitioners are well versed with the public health concepts and could contribute in the public health field meaningfully.

**Keywords**: Homoeopathic practitioners, Public Health, Public Health professionals, Public Health skills

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## Introduction

In the developing India, a parallel policy model of health system exists, wherein modern and traditional systems function separately within the national health system. In the past decade along with the healthcare delivery system, the vitality of Public health has also been recognized [1]. A shift has been seen on this front in the past years. This has been evident with the eleventh five year plan focusing to harness the knowledge and skills of modern public health at all levels [2]. Thus, a shift from curative to preventive aspect of disease that the country's health system has experienced signifies its outcome too. The indicators of health suggest that improvement has been remarkable with the IMR and MMR declining. However, with the progress made, more challenges have to be faced for which more and more Public Health professionals' surfaces as the need of the hour. This would require personnel from wide range of occupational backgrounds [3, 4, 5, 6, 7, 8].

Moreover, in the current scenario the gaps reflected in the form of shortage and misdistribution of mainstream health workforce have been documented in several health policies which have also recommended the integration of AYUSH personnel in healthcare delivery system [9, 10, 11, 12]. The usage of AYUSH medicines to tackle community health problems resulting from nutritional deficiencies, epidemics and vector-borne diseases has also been well established [13]. Moreover, it has been argued on the count that if ANMs can administer National Health Programmes; then why AYUSH doctors can't be utilized for the same activity [14, 15].

On realization of this fact, the Government of India has taken initiatives for strengthening AYUSH services under NRHM with the strategy of Mainstreaming of AYUSH & Revitalizing Local Health Traditions. Due to this many states have not only co located AYUSH doctors in rural primary and secondary level facilities but have also planned other activities to fortify service delivery. [15].

It is therefore clear that the Homoeopathy, an essential component of AYUSH, with a fairly large

infrastructure of registered practitioners and health care facilities [13] can play a significant role in tackling the Public Health challenges. However, the present trend showcases an entire different scenario, wherein Homoeopathic graduates are barred from admission to Public Health courses as well as jobs in the Public Health realm. Thus, this presumption of ineptness of AYUSH practitioners in public health related tasks, paves way to find out the knowledge level of Homoeopathic practitioners regarding Public Health. Based on this background, this study was conducted with the objective to find out the knowledge level of Homoeopathic practitioners about Public Health.

**Subjects and Methods:**

Tool Development and Validation- For assessment of level of knowledge of Homoeopathic practitioners regarding Public Health, a Public Health knowledge assessment tool (PHKAT) comprising a questionnaire of 19 multiple choice questions related to different aspects of Public Health was designed (Annexure-1). Multiple choice questions were selected from various text books of post-graduation level in the area of social and community medicine. Apart from these questions the respondents were also asked to furnish some demographical details such as age, gender, institutional affiliation etc. Each correct answer was awarded with one mark and there was no negative mark for giving a wrong answer. Maximum score a respondent could get was 19. Depending on their scores the respondents were categorized into four categories- having excellent knowledge (score-16-19), having good knowledge (score-10-15), having average knowledge (score-6-10) and less than that as having poor knowledge (score-0-5). The tool was validated and pilot tested in Chandigarh by taking a sample of 15 respondents. Depending upon the feedback received from respondents, some corrections were done in the language and pattern of questionnaire.

Respondents- This was a cross sectional study conducted in union territory of Chandigarh, Delhi and one district of Punjab. District Patiala was chosen from Punjab by using lottery method. Provisionally registered Homoeopathic (BHMS) intern doctors and registered Homoeopathic doctors were the respondents. 30 respondents were chosen for the study from each state/ UT adding to a total sample size of 90. The total sample comprises 42 Homoeopathic interns and 48 Homoeopathic doctors. The participants were selected on the basis of availability (convenient approach).

Data Collection- The questionnaires were filled by the respondents in the presence of the first author of this paper. Each respondent had to answer all the questions. The study was conducted during February 2010 to April 2010.

Data Analysis and Interpretation- The data was analy sed with the help of SPSS version 15 and Microsoft E xcel 2007. Frequencies, percentages, mean and standard deviation were used to draw inferences.

Ethical Consideration- The ethical consents were taken from the respondents by stating the purpose of study and assuring strict confidentiality of the respondents.

**Results:**

On analysis of the data, category-wise composition of total sample was found to be 46.7% (42/90) Homoeopathic interns and 53.3% (48/90) Homoeopathic doctors. The representation of male and female was found 53.3% (48/90) and 46.7% (42/90) respectively. The mean age for Homoeopathic intern and Homoeopathic doctor was found 23 and 41 respectively. The mean age of the total sample was 32. The ages of respondents ranged between 22 to 49 years [Table 1].

Table: 1. Demographic Distribution of Respondents

| | Homoeopathic Intern | Homoeopathic Doctor | Total |
|---|---|---|---|
| **Gender** | | | |
| Male | 21 | 27 | 48 |
| Female | 21 | 21 | 42 |
| Total | 42 | 48 | 90 |
| **State** | | | |
| Delhi | 17 | 13 | 30 |
| Punjab | 13 | 17 | 30 |
| Chandigarh | 12 | 18 | 30 |
| Total | 42 | 48 | 90 |

Analysis of responses showed that majority of respondents (81%) had average knowledge of Public Health discipline while 11.1% had good knowledge; 2.2% had excellent knowledge while only 5.5% of the respondents had poor knowledge [Figure 1]

The minimum score obtained by respondents was 5 and the maximum was 16. The mean score was 8.17 with standard deviation of 2.19. A comparison was done between Homoeopathic interns and practicing Homoeopathic doctors who had completed their BHMS degree with regards to their knowledge level related to public health. It was found that the mean score of interns was more than that of the doctors [Table 2].

Independent sample t-test was applied to test the difference between the knowledge of Homoeopathic

Table: 2. Comparison of the score in relation to Area and Category

| Characteristics | Number (N) | % of Total N | Mean Score | Std. Deviation | Minimum Score | Maximum Score |
|---|---|---|---|---|---|---|
| **Score *State** | | | | | | |
| Delhi | 30 | 33.3% | 8.33 | 2.233 | 5 | 14 |
| Punjab | 30 | 33.3% | 8.17 | 2.260 | 5 | 16 |
| Chandigarh | 30 | 33.3% | 8.00 | 2.166 | 6 | 16 |
| Total | 90 | 100.0% | 8.17 | 2.199 | 5 | 16 |
| **Score *Category** | | | | | | |
| Homoeopathic Intern | 42 | 46.7% | 9.40 | 2.359 | 6 | 16 |
| Homoeopathic Doctor | 48 | 53.3% | 7.08 | 1.318 | 5 | 10 |
| Total | 90 | 100.0% | 8.17 | 2.199 | 5 | 16 |

Table: 3. Difference in the knowledge of Homoeopathic interns and Homoeopathic doctors on Public Health Issues

| score | levene's test for equality of variances | | t-test for equality of means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | F | sig. | t | df | sig. (2-tailed) | mean difference | std. error difference | 95% confidence interval of the difference | |
| | | | | | | | | lower | upper |
| equal variances assumed | 9.772 | .002 | 5.856 | 88 | .00 | 2.321 | .396 | 1.534 | 3.109 |

Table: 4. Difference between the knowledge of public health issues of male and female Homoeopathic practitioner

| score | levene's test for equality of variances | | t-test for equality of means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | F | sig. | t | df | sig. (2-tailed) | mean difference | std. error difference | 95% confidence interval of the difference | |
| | | | | | | | | lower | upper |
| equal variances assumed | .399 | .529 | .478 | 88 | .634 | .223 | .467 | -.704 | 1.151 |

interns and Homoeopathic doctors about Public Health Issues. The result of analysis is shown in Table 3 ($t = 5.856$ and $p < .05$, where $p < 0.0001$). It shows that there was significance difference in the knowledge of Homoeopathic interns and Homoeopathic doctors regarding public health concepts.

Table: 5. Result of One-way ANOVA test for the determination of difference in the knowledge of public health issues of Homoeopathic practitioner from different areas

| score | df | F | sig. |
|---|---|---|---|
| between groups | 2 | .169 | .845 |
| within groups | 87 | - | - |
| total | 89 | - | - |

Table: 6. Relationship between the Knowledge score and Age of the respondents

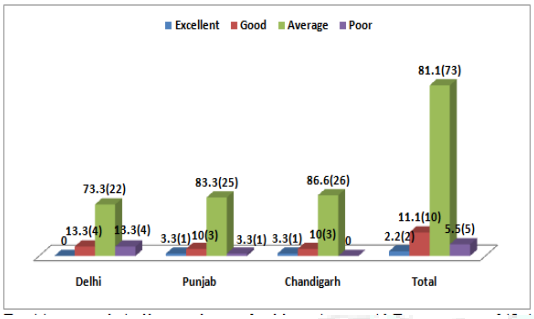
| | | score | age |
|---|---|---|---|
| score | Pearson Correlation | 1 | -.512** |
| | Sig. (2-tailed) | | .000 |
| | N | 90 | 90 |
| age | Pearson Correlation | -.512** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 90 | 90 |

**. Correlation is significant at the 0.01 level (2-tailed).

The difference between the knowledge level of public health issues of male and female Homoeopathic practitioners were subjected to t-test analysis which showed $t = 0.478$ and $p > .05$, where $p = .634$ [Table 4]. Therefore, significant difference has not been found

in the knowledge of public health issues of male and female Homoeopathic practitioners regarding public health issues.

**Figure 1: Public Health Knowledge Scorecard of Homoeopathic Practitioners**




The mean score of knowledge of respondents from different areas was subjected to one way ANOVA analysis. The results of ANOVA analysis show that there was no significant difference in the knowledge of public health issues of Homoeopathic practitioners from different areas. Since F (2, 87) =.169 and P>0.05, therefore the location of one's residence does not influence the level of knowledge of Homoeopathic practitioners.

To determine the relationship between knowledge and age of respondents Pearson Product Moment Correlation was used. Results in table 6 show r= -.513 and p=.0001. As p value is less than 0.05, a significant negative correlation has been found with reference to the age of the respondent signifying that younger respondents have better knowledge in comparison to their older counterparts.

**Discussion**

With the increasing community healthcare requirements more proficient human resource contemplates to be the need of the hour in this realm of public health [4,5,6,7,8]. To address this issue, government has devised innovative ways like initiating a three and half years rural medical graduate course or providing special incentives to doctors for working in inaccessible areas so as to absorb and retain more human resource into the healthcare delivery system. Thus, it is expected that the role of professionals with Homoeopathic background will also be augmented for catering to the public health needs of the community.

Since, Homoeopathic philosophy focuses on the preventive aspects of medicine and the BHMS curriculum consists of PSM as one of the core subjects, it was expected that Homoeopathic practitioners would perform well on the public health knowledge score. However, in our study, it surfaced that majority of the Homoeopathic graduate possessed average knowledge regarding public health issues. Less than 15% were 'good' on the knowledge level score. Rangan & Uplekar (1993) in their study on awareness of community health in medical graduates have found that there was a lack of basic health information among recent Allopathic medical graduates and apathy towards matters of public health importance [16] .Whereas in our study it was found that the respondents had a fair knowledge about public health aspects which needs to be enhanced. One of the main reasons for the lack of good knowledge is the mindset towards curative aspect of the system of medicine. Moreover, it seems that the teaching curriculum in Homoeopathic Medical Colleges should highlight the preventive aspects and the significance of public health.

The comparison between Homoeopathic interns and practicing doctors revealed interns being more knowledgeable about public health. The difference in the knowledge level was also established by a significant negative co- relation found between age and knowledge level. Moreover, practicing doctors into their clinical realm for a fairly long period of time could have been one of the reasons for their lack of knowledge on Public Health issues compared to their intern counterparts. This indicates the need of sensitization training on Public Health issues for doctors already into clinical practice.

**Conclusion and Recommendations**

With all the initiatives to enhance the knowledge of Homoeopathic graduates on Public Health aspects, this fraternity would help in contributing better service delivery. Various types of workshops, CME on Public Health issues will help in enhancing the knowledge level. Furthermore, the knowledge level of interns could be increased by adding the practical aspect of public health education to the BHMS curriculum but also there is a need to assess whether these changes lead to the making of doctors more suited to work in our villages. All this would help in nurturing Homoeopathic graduates as efficient and knowledgeable Public Health professionals.

**Limitations**

The sample size was small. Some other factors like queries about the rural internship of Homoeopathic practitioner and the demarcation between the urban and rural residential status were not considered in this study.

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