

# A survey exploring research perception of homeopathic undergraduate students in West Bengal, India

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## ABSTRACT

**Background:** Prioritizing undergraduate research is emphasized to develop critical analytical skills and thinking, independent writing, future clinical practice, enhanced employability, and improved research productivity. Despite far reaching consequences, research perception of homeopathic undergraduate students has barely been investigated to date. Poor participation of homeopathic undergraduates in research is reflected by a single MEDLINE indexed publication with adequate students' contribution in the last decade. We aimed to assess their knowledge and attitude towards research and to identify barriers towards successful conduct of research. **Methods:** Institutional cross-sectional survey was carried out during August-September, 2013 in the four Government undergraduate homeopathic schools in West Bengal, India involving 902 participants. A semi-structured questionnaire was developed for the purpose depending on earlier studies on medical undergraduates. 364 completed responses were analyzed in the end. **Results:** Study sample mostly spanned 18-25 years of age group (94%), belonged to urban families (44.8%), with no gender differences (almost 1:1) and no physicians in family (73.1%). Maximum complete responses were obtained from 3rd year students (61.5%) and students of Calcutta Homeopathic Medical College and Hospital (51.2%). In spite of willingness to participate and keeping a positive attitude towards research, current involvement, training, knowledge and awareness remained quite unsatisfactory. Lack of infrastructure was identified as the chief barrier towards research. **Conclusion:** Undergraduates had a positive attitude towards homeopathic research, but need a realistic understanding of the research process. Opportunities for research skill development are underdeveloped.

**Keywords:** Undergraduate homeopathic students, India, research perception

## **Introduction**

In recent years, a paradigm shift has been noticed from experience-based to evidence-based practice in medicine and education. Research is the cornerstone of evidence-based medical practice, which translates new knowledge and technological capability into powerful tools for prevention and treatment of disease [1]. The last few decades have witnessed a tremendous upsurge in clinical and biomedical research [2] which is vital to ensure continuing advances in health care and develop new initiatives. Research evidence is a prerequisite to ensuring the best possible care is provided to patients in the most effective and efficient manner [3]. Students and practitioners need continually updating them to keep abreast of relevant exponentially expanding knowledge of research. Research experience has been recognized to help foster scientific thoughts and nurture evidence-based practice in clinical settings [4]. Exposing students at an earlier stage in their careers to the basics of research not only improves their knowledge and attitude towards research, but also provides lessons in teamwork, helps to develop critical analytical skills, thinking and also enhance their skills in searching and evaluating literature, independent writing, future clinical practice, enhanced employability, and improved research productivity [5-8]. Engaging in research projects can also influence students' choice of clinical specialty or interest in research [9,10]. Clinician-scientists have already been identified as an 'endangered species' [11-13], a 'vulnerable population' [12]. Non-prioritization of medical research in undergraduate curriculum [7,8,14-19] has caused a further serious decline in medical graduates choosing clinician-scientist careers in the last two decades [17,20-23]. Many medical practitioners have either limited or no formal education in research and are inadequately prepared to critically analyze the quality of research they are reading [24-26].

South Asia has a quarter of the world's population, but a weak public sector health care, and a staggering disease burden, and thus research is particularly important. In all disciplines of science and technology, India and Pakistan combined had 208 researchers per million citizens, as compared to 4,526 researchers per million citizens in the United States [27]. The published research output from South Asia was small – South Asian health researchers accounted for only 1.2% of all papers within the Institute for Scientific Information database from 1992-2001 [28]. Although investment has increased in infrastructure for health research over the past decade, gaps remain in evidence to guide reduction of important health burdens/challenges. Furthermore, even when technical knowledge is available, political commitment, managerial competencies, and incentives for changing behavior within health systems are often lacking [28]. Senior administrators have to decide whether and how much to invest their limited resources in research or in support of the educational goals of the institutions [29]. However, emphasis has been made to integrate research within the medical community [30,31] Research is gradually being inducted into the curriculum, but unfortunately only to be manipulated by untrained mentors with no formal research training or even informal experience [32].

Homeopathic research in India like most developing countries is clearly still in its infancy. This country faces obstacles in research which are similar to other developing countries. With a few exceptions, there is little quality research in India and a large majority of work is compromised due to flawed methodology and poor research training and background of researchers. In the last decade, from 2004 to September, 2013, a total of 312 peer-reviewed homeopathic research papers have been published from India, out of which 46 (14.7%) were indexed with MEDLINE (PubMed). 65 (20.8%) were published in journals with impact factor, a number almost double than the previous decade [33]. Still, the number of peer-reviewed papers with sufficient contribution from undergraduate (UG) students is limited to only three (0.9%) [34-36], out of which only a single was indexed with MEDLINE and published with journal having impact factor [36]. Some efforts are being made to improve training in research at post graduate level only, yet research output still remains almost non-existent. Most of the research being produced is through required papers generated by postgraduate trainees; which is a mandatory requirement for completion of their training. Inclusion of epidemiology and biostatistics even in the UG curriculum is getting minimal attention. It is therefore important to understand and highlight the attitudes and problems in conducting quality research. This may

help identify barriers and further encourage research by young professionals so that future research is more in number, better in quality and greater in impact.

An autonomous body, namely Central Council for Research in Homeopathy (CCRH) has been functioning since March, 1978 in India, currently under the Department of Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH), Ministry of Health & Family Welfare, Government of India. As on September 2013, it has 93 Research Officers (Scientists) conducting research all over India and through Drug Proving Extension Units in different institutions [37]. CCRH conducts Continued Medical Education (CME) programs from time to time involving internees, house-staffs and post graduate trainees of different academic institutions. CCRH has also been trying to promote research among junior homeopathic professionals by running Senior/Junior Research Fellows scheme since 1987-88. Still, motivation to participate in homeopathic research remains seriously low among the UGs in India. Despite far reaching consequences, research perception of homeopathic undergraduate students has barely been investigated to date. Our evaluation aimed to gauge students' awareness of research activities and perception of their research-specific skills and competencies, to determine their motivation for research, and to identify personal views about obstacles towards conduct of research. Another purpose of our study was to collect reliable data that would be helpful for drafting recommendations concerning development and improvement of their research perception.

## **Methods**

**Setting and design:** An institutional survey was carried out during August-September, 2013 in the four Government homeopathic medical colleges of West Bengal, India, namely Calcutta Homeopathic Medical College and Hospital (CHMC&H), Midnapore Homeopathic Medical College and Hospital (MHMC&H), D N De Homeopathic Medical College and Hospital (DNDHMC&H) and Mahesh Bhattacharyya Homeopathic Medical College and Hospital (MBHMC&H). Permission was taken from the institutional ethics committees of the respective institutions prior conduct of the study.

**Participants:** Out of total 902 students enrolled in the (4<sup>1/2</sup>+1) years Bachelor in Homeopathic Medicine and Surgery (BHMS) courses running in the four colleges under approval of West Bengal University of Health Sciences (WBUHS), Government of West Bengal and under affiliation to Central Council of Homeopathy, Government of India, 511 (56.7%) participated and answered the questionnaire. For analytical purposes, students were divided into five academic years and internees.

**Sample size:** Considering margin of error as 5%, confidence level 95%, response distribution unknown, taken as 50%, and population size of 902 (enrolled number of students in the undergraduate courses in the four Government homeopathic schools in West Bengal), target sample size became 270. However, as we obtained 364 complete and analyzable responses, the confidence level was increased to almost 99%.

**Questionnaire and data analysis plan:** No universally accepted standardized questionnaire was available to evaluate homeopathic undergraduate students' perception towards research. We developed a questionnaire extracting items from earlier studies by Ahmed F, et al. 2009 [38] and Ejaz K, et al. 2011 [32] on medical undergraduate students. The directions to fill up the questionnaire were explained verbally to all the students in detail by the research assistants. The questionnaire consisted of three sections. The first open section sought information regarding students' institutions, academic standings, age, gender, residence and presence of physicians in family. Section two comprised of eighteen close-ended questions focusing on students' knowledge and attitude towards homeopathic research. The last section was also close-ended and aimed to identify barriers towards research as perceived by the students.

To evaluate the feasibility of application of the questionnaire in a large population, a pilot testing was done on twenty students involving five from each institution before conducting the study. It took only five minutes

time to complete and all the data were collected from them by the research assistants. Instructions on the questionnaire promised anonymity. No participant identifiable information was required to ensure protection of privacy. Also the filled in questionnaires were concealed by putting those inside opaque envelopes which were sealed at the survey site by the students themselves. All these were collected by the research assistants and were sent for data analysis. All the responses were individually extracted in a specially designed excel sheets and subjected to statistical analysis using online statistical calculators.

Statistical analysis plan: Descriptive statistics has been represented in the form of absolute values and percentages.

## Results

Variables: Though poor, maximum (51.2%) numbers of complete responses were obtained from CHMC&H and the lowest (26.9%) from MHMC&H. The third year students contributed the highest (61.5%) responses and the first year the lowest (29%). Respondents spanned two groups of ages – 18-25 years (94%) and 26-30 years (6%). Gender distribution was almost the same among the sample analyzed. Students chiefly (44.8%) belonged to urban families and 26.9% had physician in family (Table 1).

Table 1: Variables of the responses obtained

Variables	N	%
Institutional complete responses		
▪ CHMC&H	103	51.2
▪ MHMC&H	101	26.9
▪ DNDHMC&H	93	40.6
▪ MBHMC&H	67	28.2
Complete responses as per academic standings		
▪ 1 <sup>st</sup> year	58	29
▪ 2 <sup>nd</sup> year	63	31.0
▪ 3 <sup>rd</sup> year	88	61.5
▪ 4 <sup>th</sup> year	55	36.9
▪ 5 <sup>th</sup> year	66	57.9
▪ Internee	34	36.6
Age (years)		
▪ 18 – 25	342	94
▪ 26 – 30	22	6
Gender		
▪ Male	191	52.5
▪ Female	173	47.5
Residence		
▪ Urban	163	44.8
▪ Semi-urban	109	29.9
▪ Rural	92	25.3
Physician in family		
▪ Yes	98	26.9
▪ No	266	73.1

Knowledge and attitude towards research: 55.2% students had already conducted first literature search at undergraduate level. Medical research journal reading habit was found to be modest (41.8%). 65.7% students read first medical research journal already, but reading frequency remained poor. Interestingly, majority (70.6%) felt the need for reading journals as part of curriculum only. Overall information regarding Medline indexed homeopathic research journals was very poor – 70.3% did not know any. Still, encouraging was the fact that 81.3% students were willing to contribute to any research project. Obviously, a large section (51.6%) did not know the role specifications of research workers. Only 7.7% students were currently part of any ongoing research project and only 2.5% had any manuscript published or anticipated under name at the time of conduct of the survey. 73.9% students felt that they had inadequate exposure to homeopathic research. 68.7% students desired research as part of basic homeopathic education, probably because 96.7% students had not received any kind of research training previously. The scenario remained almost similar among institutions and different academic years. Majority felt the usefulness of descriptive epidemiology (87.4%), analytical epidemiology (86.5%), basic biostatistics (88.5%), inferential biostatistics (86.3%) and knowledge of survey methodology (92.9%) in medical education. (Table 2)

Table 2: Frequency and percentage of responses from study participants

Variables	N	%
Academic standing at conducting first literature search		
▪ At undergraduate level	201	55.2
▪ Not as yet	163	44.8
Medical research journal reading habit		
▪ Yes	152	41.8
▪ No	212	58.2
Academic standing at reading first medical research journal		
▪ At undergraduate level	239	65.7
▪ Not as yet	125	34.3
Frequency of reading medical research journals		
▪ Once a month	64	17.6
▪ Once every 3 months	46	12.6
▪ Even less frequently	100	27.5
▪ Never	154	42.3
Need for reading medical research journals		
▪ Out of interest	69	19
▪ Part of curriculum	257	70.6
▪ No need	38	10.4
Information regarding Medline indexed homeopathic research journals		
▪ More than five	11	3
▪ Four	5	1.4
▪ Three	21	5.8
▪ Two	27	7.4
▪ One	44	12.1
▪ Do not know any	256	70.3
Would like to contribute to any research project		
▪ Yes	296	81.3
▪ No	68	18.7

Willingness to contribute to research projects as		
▪ Investigator or co-investigator	25	7
▪ Both investigator and data collector	101	27.7
▪ Data collector	50	13.7
▪ Do not know	188	51.6
Is currently part of a research project		
▪ Yes	28	7.7
▪ No	336	92.3
Have had a manuscript published (or anticipated) under name		
▪ Yes	9	2.5
▪ No	355	97.5
Opinion on current exposure to homeopathic research		
▪ Adequate	62	17
▪ Inadequate	269	73.9
▪ Do not care / makes no difference	33	9.1
Would like to have research as part of basic homeopathic education		
▪ Yes	250	68.7
▪ No	114	31.3
Received research training previously		
▪ Yes	12	3.3
▪ No	352	96.7
Descriptive epidemiology useful in medical education		
▪ Yes	318	87.4
▪ No	46	12.6
Analytical epidemiology useful in medical education		
▪ Yes	315	86.5
▪ No	49	13.5
Basic biostatistics useful in medical education		
▪ Yes	322	88.5
▪ No	42	11.5
Inferential biostatistics useful in medical education		
▪ Yes	314	86.3
▪ No	50	13.7
Knowledge of survey methodology useful in medical education		
▪ Yes	338	92.9
▪ No	26	7.1

Barriers towards homeopathic research: Students identified lack of infrastructure as the principal (22.1%) hindrance towards homeopathic research, followed by lack of research training (19.6%), statistical support (12.4%), financial incentives (12.2%), and mentorship (10.2%). The students found it difficult to devote sufficient time for research and also perceived the inadequacy of research training, statistical support, mentorship, financial incentives, infrastructure, funding, uncertainty of future benefit, and others. (Table 3)

Table 3: Perceived barriers towards homeopathic research

Barriers	N	%
Overall		
▪ Lack of research allotted time	73	6.7
▪ Lack of research training	214	19.6
▪ Lack of statistical support	135	12.4
▪ Lack of mentorship	111	10.2
▪ Lack of financial incentives	133	12.2
▪ Lack of infrastructure	240	22.1
▪ Lack of funding	104	9.5
▪ Uncertainty about future benefit	56	5.1
▪ Others	24	2.2

## Discussion

The validity and reliability of the developed questionnaire has not been addressed. Instead, most enticing is the fact that homeopathic undergraduate students from four homeopathic schools in West Bengal, India have positive attitudes towards homeopathic research despite poor knowledge and awareness of research methods and scientific communication. They recognized the benefits of acquiring research skills, but identified practical difficulties of participating. The most important covariates of skill levels were lack of infrastructure, current time commitment to research, and lack of formal training and mentors, as were identified by Perneger TV, et al. in 2004 [39]. Increase in knowledge of scientific methods and critical thinking may reinforce attitudes towards science and help to embrace evidence based medicine (EBM) [39]. But overall, in contrast with the global [40-47] and even Indian mainstream population-based medical research scenario [48], undergraduate homeopathic research in India is almost non-existent. Majority of students expressed unawareness about research, even in their host institution, a figure similar to that provided by Burgoyne LN et al in 2010 [49], but much poorer than Harsha KH, et al. in 2009 [50] as 70% and by Chaturvedi S, et al. in 2001 [48] as 91%. Students are not necessarily clear about what research actually constitutes. Only a minority of students are submitting articles for publication which agrees with other studies that quote 8-17.6% of medical students either had anticipated or published articles [51]. Working in research projects require in-depth understanding of research methodology, epidemiology, and biostatistics [52,53], which are usually not acquired during undergraduate medical training [54]. Other potential deterrents identified were constraints in research funding and devoted time, work overload, poor pay, lack of motivation, rewards, recognition and guidance, minimal awareness, lack of facilities, inadequate faculty-student interaction, conflicts between the role of clinicians and scientists, and sometimes a scientifically uninteresting research question; findings similar to a recently concluded study [55].

The main cause of our dismal performance in the field of research and innovation has been a medieval curriculum that focuses on didactic learning instead of a scientific and an experimental approach [35]. This lecture-based curriculum does not stimulate students' interests in research during medical school and therefore they are less likely to seek a research experience. Majority of the faculty lacks experience in research. Thus students are not exposed to dedicated role models and hence a vicious cycle of a non-experimental approach towards science is set up. Economic factors also need to be considered. Student's in developing countries make career decisions within a framework that includes income potential. Also counselling about research opportunities and research careers is non-existent at almost every homeopathic school in West Bengal. These factors combined with the uncertainty of research funding make a career in research less attractive economically.

Thus, there is an urgent need to emphasize the importance of research and to undertake professional programs preparing students as well as supervisors for this task [49]. Courses in research methodology have already been proved a helpful tool toward successful conduct of research [20,56-59], that can substantially increase research knowledge, skill, competence and productivity [60-63]. Evolving medical science necessitates research training to be considered as an essential and fundamental component, 'an underlying principle', in an innovative undergraduate medical curriculum [49,55,64-70]. Undergraduate research is being seen as a fundamental element of general higher education in the UK, US and elsewhere [67,71]. A recent study showed that most medical students can generate scholarly work during medical school and sustain a high level of interest in research as a career option [72]. Despite the existence of courses in medical informatics, guides and thesis regulations, many students do not understand the process of scientific writing [73]. Some medical schools have developed student-oriented courses and program to overcome the perceived difficulties and improve the quality of theses and promote their publication [74-76]. It is important to teach undergraduate students the full scientific publishing process, including the peer review process, the format for scientific articles and the necessary skills in word processing. Requiring students to write their theses according to the guidelines of a few selected journals, improving the supervisor's engagement in the reporting and improving students' understanding of the peer review process would add a new dimension to the thesis process and provide additional opportunities for publication. The full digital text of the completed and reviewed thesis should be made visible and accessible in the institutions self-archive [77]. Appreciation of research work should be made a part of institutional mindset [2]. In health care sciences, understanding biostatistics have important implications in modulating clinical practice as it possesses a large effect on evidence-based diagnostic and treatment applications. Similarly, in academics, sufficient knowledge of epidemiological principles is required to successfully conduct a study and correctly analyze data derived from clinical investigations. Case discussion teaching [78] and problem-based learning (PBL) [79] can be employed successfully rather than traditional lecture-based courses. Finally, encouraging research culture and fostering the development of inquiry and research-based learning among students is a high priority in order to develop more and better patient-oriented clinician-researchers [1,80-83] and strengthening integrity in the academic environment and society as a whole [38]. Medical students' research may help instill a culture of EBM in clinical medicine [84]. The 'teaching-research nexus' should be central to medical education [85]; however, the dilemma of education versus research-oriented publication seems to continue to exist [86]. The model proposed by Healey and Jerkins may be of use [87,88]. Also, the Continuous Research Education and Training Exercises (CREATE) program has been proposed as a peer- and group based, interactive, analytical, customized, and accrediting program with didactic, training, mentoring, administrative, and professional support to enhance clinical research knowledge and skills among healthcare professionals, promote the generation of original research projects, increase the chances of their successful completion, and optimize the potential for their meaningful impact [89].

One long-term and effective strategy for promoting health research is to target medical students early in their careers. Student research can contribute to the published output of an institution. Nothing can be more motivating for a student than to get published [42]. Currently there is very little literature that presents innovative ways of teaching public health research methods to undergraduate medical students. Above all, students need to be "sensitized" to research – that is, they should be made aware of why research is so crucial to health care. Then only it may be quite feasible to integrate medical student teaching with real-world research. This approach to integrated teaching and research should be considered further in health sciences training and continue to be evaluated and refined. Many medical graduates feel they have insufficient knowledge when it comes to basic research skills. This deficit could be due to the fact that students are often not taught these skills and do not value them in their under-graduate curriculum. A low importance attached to public health, along with little understanding of research skills is not a promising combination, especially given the growing importance of evidence-based approaches to making health sector activities more effective and cost-effective [90]. Accessible resources, appropriate rewards, financial incentives, sufficient time

allocation, promotion and tenure have already been identified as stimulators in promoting research and scholarly activity [91-93]. All opportunities to bring research-active staff and research enthusiastic undergraduates together must be explored and the value of undergraduate research must be recognized by funding authorities. Many studies have addressed the benefits of financial investment in research; likewise, many benefits have been provided from researches for the welfare of community. These studies have encouraged policy makers to invest in research and innovation [94]. Health research should be organized from a systems perspective with an emphasis on ethics and equity. An enabling environment for research requires vision, institutional support, adequate funds, appropriate training, and attractive career pathways. Collaboration across the region needs to be strengthened. Use of health research to inform health policy, professional practices, and public behaviour needs to be increased [29]. There also need to be effective international agreements to halt the “brain drain” of academic clinicians from low-income to high-income countries, since this migration robs medical students of role models [95]. Several medical schools are developing ‘Student Research Offices’ in order to facilitate participation in extracurricular research. Despite significant motivation for curriculum vitae, many are enthusiastic regarding extracurricular research opportunities, but frustrated by the obstacles faced [96]. Bangash MA, 2002 [97] suggested different recommendations for promoting undergraduate medical research which are equally applicable for homeopathic schools in India.

Our preliminary evaluation is limited by the paucity of existing evaluation model for assessing research perception of undergraduate homeopathic students. Another limitation of this study was that we did not look at the type of research done by the extremely limited number of study participants. Even though not a study objective, information of the quantity and quality of research would have given more information of research output and reflected on adequacy of research. Thirdly, a larger sample size would have allowed for a stronger analysis than the one performed in this study. Despite these limitations, this study was able to capture a wide sample across four academic institutions allowing for a fair representation. The study was undertaken in India-based homeopathic schools making the generalizability of the results unclear. Future studies investigating such attitudes and participation in research would be welcome from other homeopathic schools in both India and abroad. In addition, it would be of interest to assess the effectiveness of potential educational interventions such as establishing a student research group within homeopathic schools to act as a way of coordinating and promoting extracurricular research.

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## Pesquisa sobre a percepção sobre pesquisa de estudantes de graduação em homeopatia em Bengala Ocidental, Índia

### RESUMO

**Introdução:** Estimular a pesquisa no nível de graduação é considerado um recurso importante para o desenvolvimento da capacidade de análise e pensamento críticos, redação independente, prática clínica futura, melhorar as possibilidades de inserção no mercado de trabalho e a produtividade em pesquisa. Apesar dessas consequências de amplo alcance, a percepção sobre pesquisa de estudantes de graduação em homeopatia tem sido raramente investigada. A escassa participação em pesquisas de estudantes de graduação em homeopatia é evidenciado pelo achado de um único trabalho indexado em MedLine com expressiva participação de estudantes nos últimos 10 anos. O nosso objetivo consistiu em avaliar o conhecimento e atitude em relação à pesquisa e identificar as barreiras que impedem o sucesso na realização de pesquisas. **Métodos:** Um estudo transversal foi realizado entre agosto e setembro de 2013 nas quatro faculdades públicas de homeopatia na Bengala Ocidental, Índia, com um total de 902 participantes. Um questionário semiestruturado foi desenvolvido especificamente para este estudo baseado nos resultados de estudos anteriores realizados com estudantes de medicina. Um total de 364 questionários completos foi incluído na análise. **Resultados:** A maioria dos participantes tinha entre 18 e 25 anos de idade (94%), residia em áreas urbanas (44.8%) e não incluía médicos na família (73,1%). A amostra apresentou homogeneidade em relação ao sexo (quase 1:1). O maior número de questionários completos correspondeu a estudantes do 3º ano (61,5%) e da Faculdade e Hospital Homeopático de Calcutá (51,2%). Apesar do interesse em participar e de manifestar atitude positiva em relação à pesquisa, os níveis de engajamento, formação, conhecimento e percepção foram insatisfatórios. A principal barreira identificada foi a falta de infraestrutura. **Conclusão:** Os estudantes manifestaram atitude positiva em relação à pesquisa em homeopatia, porém precisam adquirir uma compreensão mais realista do processo de pesquisa. As oportunidades para desenvolvimento de competências de pesquisa são muito escassas.

**Palavras-chave:** estudantes de graduação em homeopatia, Índia, percepção sobre pesquisa.

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## Encuesta sobre la percepción sobre investigación de estudiantes de grado en homeopatía en Bengala Occidental, India

### RESUMEN

**Introducción:** Se considera el estímulo a la investigación en estudiantes de grado como un recurso importante para el desarrollo de la capacidad de análisis y pensamiento críticos, redacción independiente, futura práctica clínica, mejorar las posibilidades de inserción laboral y la productividad en investigación. A pesar de esas consecuencias de amplio alcance, la percepción

sobre la investigación de los estudiantes de grado de homeopatía fue muy poco abordada. El hecho de que la participación de esos estudiantes en trabajos es muy pobre es evidenciado por el hecho de que fue publicado un único estudio en MedLine en la última década con significativa participación de estudiantes. Nuestro objetivo consistió en evaluar el conocimiento y actitud en relación a la investigación e identificar las barreras que se oponen a ella. **Métodos:** se trata de un estudio transversal realizado en agosto y septiembre del 2013 en las cuatro facultades públicas de homeopatía de Bengala Occidental, India, contando con un total de 902 participantes. Un cuestionario semi-estructurado fue específicamente diseñado para este estudio, con base en resultados de estudios previos realizados con estudiantes de medicina. Un total de 364 cuestionarios fueron respondidos íntegramente e incluidos en el análisis. **Resultados:** La mayoría de los participantes tenía de 18 a 25 años de edad (94%), residía en áreas urbanas (44,8%) y no tenía ningún familiar médico (73,1%); la muestra fue homogénea en relación al sexo (casi 1:1). El mayor número de cuestionarios íntegramente respondidos correspondió a los alumnos de 3<sup>er</sup> año (81,5%) y de la Facultad y Hospital Homeopático de Calcuta (51,2%). A pesar del interés en participar y actitud positiva en relación a la investigación, el nivel de compromiso, capacitación, conocimiento y percepción fue insatisfactorio. La principal barrera identificada fue falta de infraestructura. **Conclusión:** Los estudiantes manifestaron actitud positiva en relación a la investigación, sin embargo, necesitan desarrollar una comprensión más realista del proceso de investigación. Las oportunidades para el desarrollo de competencias de investigación son escasas.

**Palabras-clave:** estudiantes de grado en homeopatía, India, percepción sobre investigación



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