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REVIEW ARTICLE

STUDENT-DRIVEN RESEARCH ACUMEN IN HEALTHCARE MANAGEMENT EDUCATION FROM CLASSROOM TO CONTRIBUTION: NARRATIVE REVIEW OF CROSS-SECTIONAL STUDY

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ABSTRACT

BACKGROUND

Research holds paramount importance in healthcare management within academic settings, playing a pivotal role in enhancing patient outcomes, innovating treatments and technologies, as well as advancing medical understanding.

OBJECTIVE

The objective of the study includes an overall understanding of research acumen among healthcare management students and the importance of research knowledge translation for practical applications.

METHODOLOGY

The study employed a cross-sectional design, comprising a comprehensive review of the literature, data extraction, and synthesis of 17 published papers on research literacy, healthcare management, and the integration of research in academic settings. Additionally, Primary Data was collected from 120 postgraduate students on their research acumen, interest, barriers, and facilitators of conducting research in the academic.

RESULTS

During postgraduate studies, 70.2% did not receive any formal training or coursework related to research methods and techniques. Skill development training was viewed as a preferred facilitator, while the lack of knowledge on how to get started was identified as the primary obstacle, among all other barriers.

CONCLUSION

This study contributes to the discourse surrounding the critical role of research in shaping the future of healthcare management.

KEYWORDS

research, healthcare management, research literacy, academic settings, evidence-based practices, postgraduate students.

INTRODUCTION

Health research holds significant value for society. It furnishes crucial insights into disease trends, risk factors, treatment outcomes, public health interventions, functional capacities, care patterns, and the utilization and costs of healthcare. Research has been instrumental in yielding substantial discoveries, the creation of novel therapies, and a remarkable enhancement in healthcare and public health standards [1]. Researchers and academia bear a critical responsibility in advancing and advocating for the utmost quality of healthcare. Research outcomes across various domains notably contribute to pinpointing and implementing vital solutions pivotal in attaining future goals. Numerous healthcare service providers struggle with substantial challenges that can be effectively addressed through research and innovation. Researchers are in the prime position to present authentic and pioneering solutions that actively play a part in resolving both national and global issues [2].

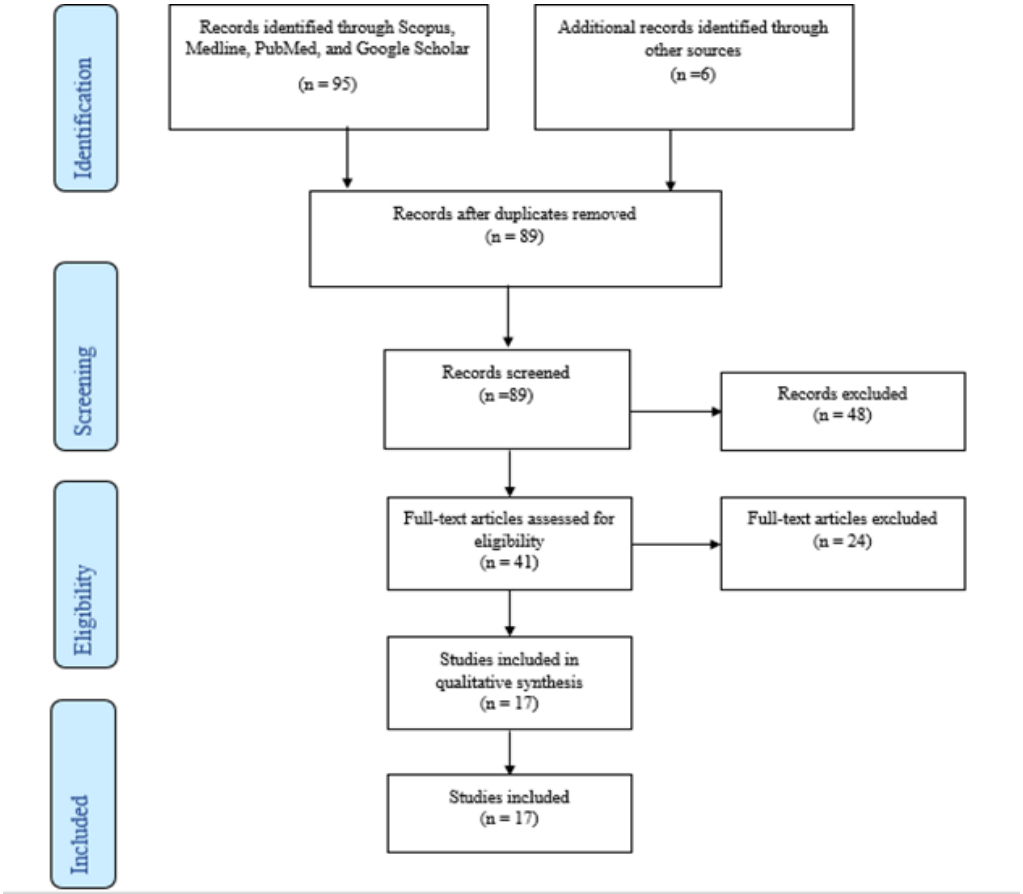
A critical challenge lies in the shift from researcher-driven methodologies, primarily focused on summarizing research outcomes, towards co-production processes. These processes entail the active engagement of managers, policymakers, and researchers in the collective interpretation of implications for the healthcare system [3]. Insufficient familiarity with research can impede the effective application of recommended healthcare services for prevention, treatment, and management. Obstacles to knowledge utilization encompass challenges in accessing resources, indifference towards research-derived knowledge, and potential misidentification of hindrances [4]. A persistent discovery in clinical and health services research is the recurring challenge of translating research findings into practical applications and policies. This shortfall can be attributed to a deficiency in research understanding, ultimately leading to suboptimal patient benefits from healthcare advancements and unnecessary expenditures for healthcare systems [5]. This study gives an overall understanding of research acumen among healthcare management students and the importance of research knowledge translation for practical applications.

METHODOLOGY

SYSTEMATIC REVIEW DETAILS

The primary methodology included a thorough evaluation of healthcare management, a review of literature based on research acumen, and an integration of research into academics. A comprehensive electronic search yielded a total of 101 articles, with the PRISMA flowchart delineating the systematic procedure for article selection shown in Figure 1. The search was conducted for publications from 2013 to 2023 over databases including PubMed, Web of Science, Google Scholar, Scopus, and relevant healthcare management publications. The search words used were Research, Healthcare Management, Academic Settings, and Postgraduate Students. Inclusion criteria were applied to select studies directly addressing research knowledge in healthcare management education, while those outside this scope were excluded. Initial screening involved the examination of 89 records, leading to the exclusion of 48 articles. However, 24 articles were subsequently disqualified due to errors, duplications, and other irregularities. Ultimately, the study incorporated a total of 17 qualifying articles. The extracted data was synthesized and analysed to identify prevalent themes, challenges, and effective strategies pertaining to research literacy in healthcare management education.

FIGURE 1. PRISMA FLOWCHART SHOWING THE DATA SELECTION PROCESS



SURVEY DETAILS

Study Population - A descriptive cross-sectional study was carried out in the university campus for a period of three months. A total of 120 students were interviewed who were selected using convenience sampling and met the inclusion criteria of students enrolled in healthcare and related fields while those from non-healthcare disciplines were excluded from the study. Data analysis was performed using the IBM SPSS (Version 27) statistical software. The questionnaire used in the study consisted of 25 structured questions. These questions were developed by the authors, drawing on a review of relevant literature and consultation with subject matter experts in healthcare research and education. To ensure validity, the questionnaire underwent a rigorous review process. Initially, it was shared with a panel of three academic researchers and two postgraduate students for feedback on clarity, relevance, and comprehensiveness. Based on their suggestions, revisions were made to improve the content and wording of questions. Following this, a pilot test was conducted with 15 postgraduate students from healthcare disciplines, who were not part of the final sample. The pilot responses were analysed to assess the reliability and internal consistency of the questionnaire.

The questionnaire was divided into sections, including demographics, prior research experience, research acumen and interests, perceived facilitators and barriers to conducting research, and opinions on research training in academic programs. Demographics comprising of six questions. We used six questions to assess their research acumen and interest. This section assessed participants' familiarity with research methodologies, formal training, confidence in literature reviews, and engagement in activities like publishing and presenting research. It also gathered their views on the importance of research, evaluating their skills, experiences, and attitudes. In the study, we used five questions to find out perceived facilitators and barriers for conducting research in the university.

Data Collection and Analysis - A Google Form was circulated among 300 students, containing questions about their research acumen, interests, as well as the barriers and facilitators they encounter in conducting academic research. Out

of which 120 students responded and filled the questionnaire and participated in the survey. The categorical variables were summarized using frequency and percentage. The response to open-ended questions were coded (in vivo coding), categorized, and represented in the form of themes, and presented as frequency and percentages.

This study was conducted in accordance with the ethical standards of the responsible committee on human experimentation and adhered to the principles outlined in the Declaration of Helsinki (1964) and its subsequent revisions in 1975, 2000, and 2008. Informed consent was secured from all participants before data collection, ensuring voluntary participation, confidentiality, and the right to withdraw at any stage. The study maintained strict anonymity of participants, and all data were handled with the highest standards of confidentiality and integrity.

RESULTS

After conducting the systematic review, the results revealed four specific areas that both academics and students should prioritize to enhance their research acumen.

1.Learning from Peers, Teachers, and Mentors:

A student's research abilities can be improved by gaining new knowledge from peers and professors. In addition, getting advice from mentors, looking through relevant publications, and reading papers are crucial for improvement. Ultimately, seeking superior guidance and assistance is essential to improving research abilities.

2. Engaging in Collaboration and Networking:

Collaborating with others who have past research experience is an excellent way to learn. Students can participate in the process by attempting to get their articles published. Attending conferences and research programs promotes the development of interest.

3. Reading and Absorbing Knowledge:

A student can read more publications, journals, and acquire knowledge from studies, and it also helps a student understand various study approaches. Also doing in-depth reviews of the literature and having discussions with colleagues will add to the benefit.

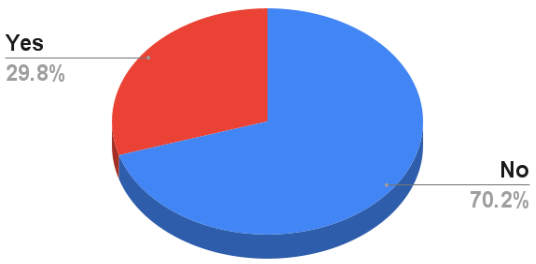
4. Utilizing Advanced Technologies and Tools:

Improving research abilities necessitates the use of new technology and research tools. There are a lot of instruments and technological advancements that make conducting research easier. Academics must take several courses to improve their research skills.

SURVEY RESULT

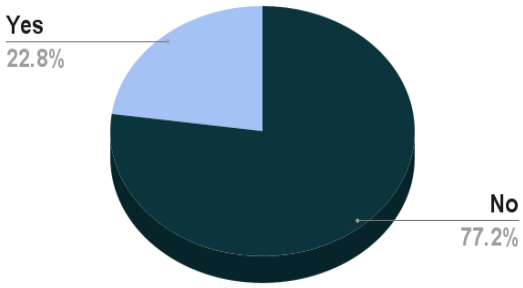
The survey focused on individuals aged 20 to 30 pursuing postgraduate studies. Notably, 70.2% of postgraduate students did not receive any formal training in research methods during their studies. Figure 2 shows the distribution of formal training received during studies.

FIGURE 2 – DISTRIBUTION OF PARTICIPANTS WITH FORMAL RESEARCH TRAINING



Out of 120 individuals, approximately 22.8% have either authored or co-authored a research publication. However, a significant proportion of individuals have not been engaged in the publication of any research papers. Figure 3 shows the research publication engagement of the participants.

FIGURE 3 - RESEARCH PUBLICATION ENGAGEMENT DURING POSTGRADUATE STUDIES



The survey results indicate that, when enquired about the primary facilitators for research training, respondents identified "Training and Skill Development" as the foremost factor. This was closely followed by recognition of the importance of a "Supportive Research Environment" and ample "Collaboration Opportunities." Additionally, respondents acknowledged the significance of "Government and Institutional Support" as well as the availability of "Publication Opportunities" as facilitators in fostering a conducive research environment. On the contrary, when participants were asked about the primary barriers hindering research, the predominant obstacle was identified as the "Lack of knowledge on how to start." Subsequently, respondents highlighted challenges associated with the "Lack of information on scientific work" and the "Lack of funding/grants for research" as significant barriers. Other noted obstacles included "Lack of time" and the absence of a defined "research idea or team." The study findings revealed a consensus among respondents regarding the importance of research in healthcare management. A significant majority agreed with the statement that "Every student should take part in scientific research during their studies." Furthermore, respondents were aligned in their opinion that "The methodology of conducting scientific research should be taught at university." This indicates a collective recognition of the significance of formal instruction in research methodologies as a crucial aspect of academic training. The potential biases in the study include response bias, observer's bias, recall bias, and selection bias, which may affect the validity of the results.

ACADEMIC SIGNIFICANCE OF RESEARCH IN HEALTHCARE MANAGEMENT

The observation, comparison and evaluation of individuals in different settings is how healthcare research attempts to solve social problems as well as medical issues. This domain involves intellectual and scientific endeavours, encompassing the examination of samples and patient records, the analysis of data gathered from health and lifestyle surveys, and the exploration of the merits, drawbacks, acceptability, and broader impacts of different treatments. It may also involve the use of new types of tools or technology [6]. While research is important in healthcare management, students may vary greatly with regard to their ability for research. That poses a big problem indeed. Addressing this problem, healthcare management courses have integrated research training into their curricula. The training consists of knowledge in research methodology, data analysis and the evaluation of results [7].

Internships and other such opportunities give students taking healthcare management programs a window into the world of research, as do roles in capstone projects. In addition, such programs encourage students to participate in research conferences and workshops. Additionally, these programs can motivate students to participate in research conferences and workshops, offering valuable exposure to the latest developments in their field and facilitating networking with professionals and peers. Participating in real-life activities allows students to put their research capabilities into actual practice, which helps them come at a fuller understanding concerning the field of healthcare management. Besides keeping students in touch with the latest research, it also gives them a chance to develop contacts with researchers and practitioners. [8,9]. In the field of academic healthcare management, however, research is crucial to the development of new therapies and equipment that can improve patient outcomes while also expanding medical knowledge for future

generations. Utilizing research findings can enhance the accessibility and affordability of treatments, but it can also improve the quality and efficiency of care. As a student, one should acknowledge the importance of research and actively participate in research. This is an important step that can make significant contributions to health care management and lay an excellent foundation for the future [4,8].

ENHANCING HEALTHCARE MANAGEMENT THROUGH RESEARCH

Research is vital to developing a better way of healthcare management, in that it allows the identification of problems and the assessment of possible solutions to them. The method of diagnosing problems and evaluating solutions can help healthcare management to enhance the quality as well as efficiency of care, which in turn causes cost-effective treatment and accessibility [10]. To improve health outcomes, healthcare professionals must accept new strategies warranted by solid evidence. The incorporation of research findings into health system management and policy making, however, remains a notable challenge. The key to using the research in this way is effective knowledge translation and exchange between relevant stakeholders. However, a large proportion of research evidence is often not adequately presented or communicated. Furthermore, many health managers and policymakers may not have the required ability or capacity to identify applicable research findings [3,5]. Creating an organized framework within the healthcare system is considered essential for easy and pragmatic access to research findings, as well as insights from colleagues and pertinent information. Additionally, it is critical to provide managers whether they are insiders or outsiders in the healthcare system with the training they need to carry out their responsibilities as organizational facilitators [4].

Managers of healthcare can learn about the most advanced developments in medical education research and innovations through electronic tools such as Twitter, recommendations from various managers, automatic database/journal alerts and medical education listservs/blogs. These are the ones that filter information, and ensure that managers receive news which is both timely and relevant to their needs [11]. Research furnishes healthcare managers with reliable insights drawn from the latest evidence and best practices. These insights empower healthcare managers to make well-informed decisions, ensuring the delivery of top-tier care to their patients. The careful focus on the education and training of healthcare managers provides a significant competitive advantage for hospitals and healthcare systems, and this training should be consistently updated with the most recent data and resources. The observable positive impact of training initiatives on the expertise, knowledge, and capabilities of health managers underscores the necessity for ongoing investment in the research field. Training requirements should undergo continuous updates, tailored to evolving contexts and identified gaps, and be subject to evaluation to assess effectiveness for optimal outcomes [10–12].

REFINING RESEARCH SKILLS FOR HEALTHCARE MANAGEMENT STUDENTS

Research positions within healthcare settings give students an opportunity to hone their research skills and get hands-on experience. In playing these roles, they are able to apply their research talents in actual settings and understand the practical side of healthcare research [13]. By undertaking studies in healthcare facilities, students may hone their research skills and gain hands-on experience. By assuming such roles, students may learn the nature and practice of healthcare research. They can put their own research skills into action [14]. It requires the use of suitable keywords and a good search strategy to enable students to learn how to find locate relevant research articles. This approach is invaluable for getting at the latest and most applicable research findings. In addition, students are able to learn how to prepare grants and cash flow projections so as better ensure that they have funding available for their research work. Not only does this give them experience of how the research process works, it helps develop their own capabilities as researchers [15]. Besides taking their interests into account, students could choose a research topic according to the specialization or focus of study they have chosen. It is an intentional decision which keeps interest alive and encourages active involvement on the part of learners in studying, such that a better understanding emerges. Also, students themselves can actively practice honing their critical assessment skills so that they are more capable of judging the value and applicability of research resources. This skill helps them judge the merits and achievements of research projects, which makes it easy to turn their conclusions into practical applications in daily life [16]. In the field of healthcare management, it can be a great boon to participate in collaboration with veteran researchers or academics who provide guidance and encouragement throughout research. An open mind and a continuous motivation for learning new aspects of healthcare management is also very beneficial [17].

The study tried to address the felt need of the research acumen among the students and areas to increase the technical competencies in research. The study also appreciates the significance of research during the academic journey of the student. It also fosters embedding of research in the academic curriculum to stimulate academic growth and professional growth.

This study had a few limitations. The sample size utilized was not enough to generalize the findings. The cross-sectional nature of the survey which is used may also hinder the cause-and-effect relationship. This restricted scope may not fully capture the diversity of experiences and perspectives from students in other regions or disciplines, potentially limiting the applicability of the results to a broader population. Future studies using a very large sample size are recommended for generalizing the findings.

CONCLUSION

Research is an essential tool for improving healthcare management; it is not only an academic pursuit. This research asserts the necessity of cultivating research acumen within postgraduate students specializing in healthcare management. The study addressed the felt need for enhancing research acumen among students and identified areas to increase their technical competencies in research. Furthermore, it highlighted the significance of research, adequate mentorship and institutional culture during students' academic journeys, emphasizing its role in fostering both academic and professional growth. The key strength of this research lies in its advocacy for embedding research into the academic curriculum, which could stimulate greater academic development and prepare students for evidence-based professional practices. Integrating research assignments across subjects is advised to build foundational research skills among university students.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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